WORK BASED LEARNING RESEARCH CENTRE

Literature Review Of Work Based Learning

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Work Based Learning
at Middlesex University

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Foreword

by The Higher Education Academy team

The Higher Education **Academy**

This literature review of work based learning was led by Carol Costley of Middlesex University for the Higher Education Academy. This is a significant piece of work which provides a commentary and identifies key gaps in our knowledge and understanding of the pedagogical issues relating to work based learning. This is a key resource for the Employability and Work Based Learning team at Academy York and the HE community developing work based learning, and forms the foundations for the Employee Learning provision on "EvidenceNet.

Please see the report on our website at www.heacademy.ac.uk/resources/detail/Literature_review

Biographies

Dr Abdulai Abukari presently works as a learning development tutor (lecturer) at the Institute for Work Based Learning at Middlesex University. His research interests cover a wide range of areas including work-based learning pedagogy and practice; service roles of contemporary higher education institutions and how institutions respond to the emerging knowledge society and knowledge economy especially through work-based learning and distance education; comparative and international education in developed and developing contexts, teacher training and development.

Prof. *Carol Costley* is a Professor in Work Based Learning and Associate Dean Research at the Institute for Work Based Learning, Middlesex University. Her principal research interests and publications include examining methodologies and epistemologies in work based learning. She has looked particularly at work based learning as a field of study and how it relates to transdisciplinarity, equity, and access. She has a research interest in the ethical issues involved in practitioner-led research and development projects.

Dr. Brenda Little is a senior researcher at CHERI (Centre for Higher Education Research and Information) at Open University. She is co-director of a national study of the impact of foundation degrees on students and the workplace and an interim evaluation of lifelong learning networks. She recently directed the national study on student engagement (commissioned by HEFCE).

Literature review of work based learning
Carol Costley, Abdulai Abukari and Brenda Little

Executive summary

This work is the foundation for a process which will be elaborated and expanded as our knowledge and understanding of work based learning (WBL) develops. The main aim and purpose of the review is to help practitioners, policy makers and researchers to focus more effectively on relevant questions, issues or sources of evidence to inform their own research or practice in WBL in higher education. This is so that they may be able to improve the quality of the learning opportunities and processes for people already undertaking work.

It scopes existing literature with a view to dissemination and reflection. The main concern of this review is work based learning where the learning outcomes are recognised through higher education awards and academic credit. The focus is on pedagogic issues relating to the provision of work-based modules and programmes, and other courses aligned to higher education awards. The review is in three parts:

- **Part one** provides an introduction to the review, the research methodology, findings and recommendations

- **Part two** summarises the literature found

- **Part three** contains the full bibliography.

WBL can be blended with other approaches to learning and is intended to mean the learning process by which those in work or wanting to re-enter work can undertake higher education qualifications.

The review provides a contextual explanation of WBL that draws its academic focus from high-level practical knowledge and learning in a work-based context. The recognition of knowledge that emanates from work as a source of learning (Eraut et al, 1998; Boud and Garrick, 1999) positions WBL students in their particular situated context rather than in disciplinary knowledge (though they may also draw on disciplinary knowledge).

An analysis of the literature includes conceptual perspectives and findings in relation to key underpinning pedagogic issues. The conceptual perspectives are based on analysis of the literature and researchers' understanding of the views and needs of the relevant communities, that is, the stakeholders who will benefit from the review

The review comprised both published research and grey literature. The latter was taken to mean information that was not easily accessible, that is, not formally published:

- websites of relevant research centres and universities that specialise in WBL

- conference series in the field

- conference proceedings

- information from some of the Centres of Excellence in Teaching and Learning (CETLs) that are focusing on professional learning and practice-based learning to inform their own activities.

The findings identify two distinct approaches to recent WBL activities, and this was mirrored in the sets of texts identified.

Research concerning WBL usually undertaken by researchers specialising in researching work and learning. These tend to be statistical, social scientific, micro-econometric or microeconomic analyses, using time series or panel data, of training interventions including some WBL activity Research and evaluation that refers specifically to the learning undertaken through university-led programmes or modules of WBL usually undertaken by tutors of WBL. Interest in such studies has arguably increased with current HE policy emphasis on employer engagement. The studies tend to be research initiatives intended to identify the benefits, pay-offs, difficulties and hindrances to WBL based on survey data, questionnaire administration or other survey tools.

If this review had been based exclusively on empirical evidence it could say very little about the higher education pedagogical issues surrounding WBL. There are no large studies and a dearth of empirical research literature. The 17 categories used were selected for their relevance to the field of WBL mainly from the perspective of learners and tutors. Some categories were found to have less literature providing insights into the particular category than others. Of the categories more directly linked to learning and teaching strategies (categories 1 to 6), it was particularly notable that there are very few textbooks or other generic materials that were used by work-based learners and theoretical texts that could be used by tutors on award programmes and courses.

There is a great deal of research an scholarly work in the broad area of work and learning that has relevance to modules and programmes of study in WBL, but it is not focused directly on enhancing university WBL.

WBL is a field of study that cuts across subject disciplines, and there is a wide range of generic literature about WBL as well as some subject discipline-related literature, especially in the field of health and social care. The literature published in subject discipline areas has a synergy with the generic concepts that epitomise the field of WBL, for example, experiential learning, learning contracts, work-based projects and reflective practice. Much of the literature in WBL is published in education journals and outlets; a smaller amount is published in the business and management literature.

There are broad differences as well as similarities between understandings of researchers in the field of WBL especially noticeable between the practice-based understanding of WBL tutor-researchers and the researchers of work and learning, who are usually attached to research centres.

Academics and managers in universities do not always have a clear understanding of WBL and its different strategies and models. This may be because WBL is not a subject discipline, and the discourse and protocols it has developed are unfamiliar. They are sometimes concerned about issues of quality assurance and perceived financial risks that can act as a barrier to

developing courses, but much of the evidence for this is in the grey literature. WBL pedagogy is a contested field, but only some areas of concern appear in the published literature.

Where universities have embraced WBL there are still problems in managing internal systems, which can act as a barrier to the continuation and development of existing courses, accreditation activities, consultancy services and other related WBL initiatives.

There is a distinctive UK universities approach to pedagogic practice in WBL that uses particular learning strategies and can be found at every level of university education from certificate level to doctorate.

There is a significant gap in literature that would be of direct use to work-based learners and tutors designing programmes and supporting WBL students: tutor support, skills and attributes. However, there is some literature that had relevance, for example, generic research books drawn from a wider literature on research. Also, the use of reflection in professional practice is drawn from a wider literature and is of particular relevance to work-based learners, although little literature links reflection to the learning strategies used in WBL.

There is a lack of literature on employer and employee perceptions and impact of WBL.

There was little written that directly links WBL pedagogy (as it has been identified in the review) with CPD and short courses.

There are distinct literatures on, for example, 'intellectual capital' in organisational learning, university accreditation systems, company training schemes and so on, but little that links these concepts to WBL pedagogy and how universities can work with organisations towards employee development through WBL.

A review of each category provides a summary of some of the most pertinent literature principally relating to pedagogical issues for WBL in university courses.

Part one

Introduction, review, methods, findings and recommendations

Aims and objectives of the review

The literature review of work based learning (WBL) is in three parts:

- **Part one** explains the context and methodological approach taken, identifies major gaps in the literature, and assesses the implications of these for policy, practice and research, making recommendations for further work

- **Part two** reviews and summarises the most pertinent literature relating to pedagogical issues for WBL in university courses

- **Part three** contains the full bibliography.

The main aim and purpose of the review is to help practitioners, policy makers and researchers to focus more effectively on relevant questions, issues or sources of evidence to inform their own research or practice in WBL in higher education. This is so that they may be able to improve the quality of the learning opportunities and processes for people already in the workplace. The intention is to lay down a foundation of existing literature with a view to dissemination and then reflecting on it further with colleagues and other stakeholders. If the Higher Education Academy then wish to return to the project in due course, it will be possible to extend and elaborate where required.

The main focus of this review is WBL where the learning outcomes are recognised in higher education terms (through higher education awards and academic credit). There is a great deal of literature related to, but not central to, the field of WBL; for example, human resource development, lifelong learning, adult education, knowledge management, vocational education, theoretical work on practice-based learning, theories of practice, and many other areas that tend to have some relevance. It is important, therefore, to define the limits of this review.

In essence, it is intended to focus upon literature where the main concerns are pedagogic issues relating to the provision of WBL modules and programmes, and other courses aligned to higher education awards. An underpinning rationale for this review is the contribution that higher education WBL can make to work based learners and also to organisational learning development.   It does not include literature on foundation degrees, which is the subject of a separate review.

This report includes usage and relationships corresponding to the review, themed references and implications for policy and practice.

Defining the review topic

In reviewing the varying conceptualisations and usages of the terms 'work based learning' in relation to higher education and related pedagogies, the review draws on a range of stakeholder views including UK policy bodies, employers and learners as well as institutions of higher education. The term 'work based learning' can be applied to a range of formal and less formal learning opportunities available to people already in paid employment and also those undertaking unpaid work in voluntary and community sectors and domestic areas of work.

Many people in paid and unpaid work situations engage with higher education programmes through part-time study for reasons of career advancement and professional development where such programmes do not explicitly draw on learning derived from the workplace. However, the focus of this review of work based learning in higher education is on those programmes based around the individual's workplace where work based learning is at the heart of the programme.

WBL 'can be blended with other approaches to learning (for example, more traditional, didactic models). Work based learning is therefore intended to mean the kind of learning process by which those in work or wanting to re-enter work can undertake higher education qualifications to develop themselves and to develop their professional, community or other high-level work contexts. Suffice to say that in this field there are a broad range of terminologies that do not have shared or common meanings, and it has become important especially to define terms clearly.

The actual literatures that are selected for this review are those looking at pedagogy associated with HE level of delivery of learning where a learner's HE 'programme' draws on (and/or is based mainly upon) learning through/from the workplace, rather than traditional/didactic pedagogic models.

Background to the review topic

Ever since the (then) Employment Department-funded initiatives in the late 1980s and early 1990s that enabled many universities across Britain to set up work-based modules and programmes, WBL has been a burgeoning area for research and curriculum development (Brennan and Little, 1996). The 'roots' of work based learning go back further than this (Portwood, 2000). The learning and teaching approaches used by WBL practitioners in HEIs broke away from conventional models used in HE to educate and hence develop people in the workplace.

Some authors have described work based learning as a new paradigm in higher education. Boud and Solomon (2001, 2003), for example, draw upon evidence from Australia and the United Kingdom to argue that work based learning can be seen as:

> "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, p1

Many authors draw on wider debates about the nature and creation of knowledge and frequently refer to Gibbons et al's (1994) notions of non-disciplinary and transdisciplinary knowledge, which are posed as being legitimate and recognisable by universities, whereas the more

codified knowledge of the disciplines has traditionally informed thinking and held sway for many generations (Armsby et al, 2006).

A conception of employee or work based learning predicated upon a form of transdisciplinarity that can be applied to any subject area has been developed as a curriculum area as well as being the subject of considerable research. The broad area of WBL in higher education draws its academic focus from high-level practical knowledge and learning in a work-based context. In this formulation, the context of the learning lies outside the university and this is a key feature of the field. The recognition of knowledge that emanates from work as a source of learning (Eraut et al, 1998; Boud and Garrick, 1999) positions WBL students in their particular situated context rather than in disciplinary knowledge (though they may also draw on disciplinary knowledge). Students often have insider knowledge and are primarily concerned with professional practice, and a deliberate focus on student autonomy and capability (Stephenson and Yorke, 1998) gives WBL a particular learner-centeredness (Osborne et al, 1998).

Outline of approach to the review

Methodology used
The search and selection stages for this review was divided with regard to the sources outlined below, with distinctions made between literatures pertaining to policy statements and critiques of policy, theoretical positions, and those pertaining to 'theories in practice', or 'usage'.

The review was conducted in five stages:

1 Confirming the scope of the review and identification of literature

2 Searching the literature using a wide range of resources such as online bibliographic databases, journal issues, publication indexes and grey literature sources

3 Selecting the literature and creating the database of grey and published literature

4 Creating themes for the literature, producing a range of categories and identifying concepts, contexts, relationships between concepts and contexts, and issues

5 Producing the narrative summary of the review outcomes and implications for policy and practice.

These are detailed further below.

Stage 1 Scope of the review: identification and selection of the literature

Method of selection for inclusion
The primary focus is on HE-accredited professional development learning, concentrating on the learning (and teaching-related areas) of people who are already in work and whose learning outcomes (derived primarily from the workplace) are recognised within an academic framework. It highlights students on university courses who are sited in the workplace and who are usually studying on a part-time basis.

The scope of the review is primarily on the pedagogy of higher level provision geared to WBL for people already in the workplace. This review focuses on pedagogies and theories that have been closely connected with WBL pedagogy in HE modules and programmes. These are work-based courses that have been constructed such that learning strategies and assessment criteria

are developed to evidence and recognise learning through or from work. The courses do not draw principally on more didactic pedagogic models such as lecturing and classroom teaching and learning (although these can form part of a flexible provision).

The prime focus is on literature based on empirical studies concerning WBL pedagogy. In addition broader research literatures are included, as are policy documents relating to WBL and policy critiques, and UK reports such as those available from relevant centres of excellence in teaching and learning (CETLs). Further, material relating to research into wider aspects of WBL (for example, considering issues of impact on organisations per se) is included. The review also refers to evidence about the direct impact of WBL on organisations and communities of practice, and issues relating to successes/challenges about the impact of WBL on individuals as learners/mentors.

The focus on pedagogy also required some limited reference to what research can tell us about 'conditions' for WBL. Research that investigates learning at work not necessarily tied to programmes or modules and short courses leading to academic awards was found to be relevant in that it often inspired or provided a theoretical backdrop for the discussion of the pedagogical issues concerned.

It is recognised that some pedagogic models for WBL are not considered to be HE provision, but are associated with professional learning at higher levels; some of this literature is included.

Other HE and organisational information drawing on the outcomes of reviews and evaluations of pedagogic practice has been collected, mainly from UK universities and other areas where the information is already in the public domain.

Mostly UK literature has been used to produce an annotated and themed bibliography. International literatures that are related to UK purposes and knowledge interests have also been selected, especially those from Australia, North America and northern Europe where pedagogical studies and theories about WBL have developed significantly.

Method of analysis
An analysis of the literature includes conceptual perspectives and findings in relation to key underpinning pedagogic issues. The conceptual perspectives are based on analysis of the literature and of researchers' understanding of the views and needs of the relevant communities, namely the stakeholders who will benefit from the review.

Stage 2 Search strategy

The review comprised:

- **published research** journals; books; reports from UK policy bodies, such as the Department for Innovation, Universities and Skills, the research funding councils, The Higher Education Academy, the Quality Assurance Agency for Higher Education, the Sector Skills Development Agency, CIHE, UVAC and professional bodies

- **grey literature** (this was taken to mean information that was not easily accessible or not formally published) websites of relevant research centres and universities that specialise in WBL; conference series in the field; conference proceedings and information from some of the CETLs that focus on professional learning and practice-based learning to inform their own activities.

Published literature was identified through desk research using online and manual searches for relevant journal articles, abstracts, books and reports. A few online bibliographic databases were searched, such as:

- Current Educational Research in the UK (CERUK)

- the British Education Index and Education Resources Information Centre (ERIC)

- HEER database (currently maintained by CHERI)

- websites of institutional specialist research centres and other policy bodies

- citation searching.

Other resources were also used (JSTOR, Swetswise and other search engines) to draw out the literature. Certain publications in the field of HE and learning/education now have more sources, such as the *Journal of Workplace Learning*. However, pinning down the relevant literature has been made rather problematic by the wide range of books, periodicals and conference papers, and as a result the intention has been to err on the side of inclusion.

The literature found through the searches was initially grouped as follows (although the groups were not mutually exclusive):

- **conceptual studies** texts that offer ways of thinking about WBL

- **academic critiques** texts that critique concepts underpinning developments/initiatives

- **research reports**

- **external policy documents** documents originating from government and non-governmental departments and agencies.

At the outset it was agreed that the literature review would cover the period from 1998 (following the Dearing Report) to the present day. However, a few guiding documents are included where material of importance and relevance is found before that date (for example, the Department for Education and Employment (DfEE)-funded review of work based learning in higher education published in 1996).

In searching the bibliographic databases, several keywords were used in combination with higher education:

- work based learning

- WBL

- work-related learning

- workplace learning

- practice-based learning

- continuing professional development.

Abstracts were included where available and used to assess the relevance of the items found (and hence help the process of identifying those relevant items for which full documents were subsequently sought). These abstracts have been included in the searchable database.

Stage 3 Identifying the criteria for selecting the key literature, selecting the literature and producing the database

Identifying and selecting the key literature drew on experience of systematic review processes, the criteria provided by the HEA and in consultation with the HEA. The criteria include:

- comprehensiveness of the research materials with regard to overlap with the scope of this review

- methodological soundness

- relevance to the current HE context in the United Kingdom.

Given the timescales for the review and the resources available, the team first undertook a limited overview of the field and then selected the relevant literature to create the database of grey and published literature.

Stages 4 and 5 Categories and narrative summary

Justification of method and other methods considered

A key element of the approach related to the limited time available to undertake the review. The intention from the outset was to create a database and report that could be used as a discussion tool among a range of colleagues before being refined at a later date.

Further, some issues arose concerning the most appropriate software to use to create the searchable database, which also led to some delays. In the event references were initially stored in a Word document and later transferred to an Excel database, which it was thought could be easily searched and transferred to another database if necessary. Later, the references were also placed in an Access database.

Reflections on the methodology in terms of effectiveness, strengths and limitations of the methodology

It is acknowledged that the review could have been broader but it had a particular audience, and the particular focus used (viz the pedagogy of WBL as a form of employee learning) generated the kind of literature that appears appropriate. The scope of the search is considered to have been well-thought through.

The databases produced are searchable and useful for the target audience. In hindsight everything could have been placed into the Excel database in the first instance which would have enabled the placing of data into the Access database at a later stage.

The strategy of thinking about how the user of the review and database could benefit most out of the final product was the most valuable way of deciding what literature to include.

The outcomes of the review include:

- a range of categories that contain the concepts, contexts, issues and implications for policy and pedagogic practice relating to WBL

- a narrative summary of the review outcomes

- two searchable databases in Excel and Access.

Bearing in mind that the final outcome was intended to be helpful to practitioners, researchers and policy makers with an interest in employee learning, the team drew on its own extensive experience of running WBL programmes to identify relevant categories.

Categories identified as direct learning strategies used in WBL programmes and modules were:

- reflection/reflexivity

- research methodology

- planning: learning agreements/contracts

- practitioner-led projects

- accreditation for individual APEL claims.

Other contextual and more general categories were also identified as shown in Figure 1.

Figure 1 Overview of literature by category and references
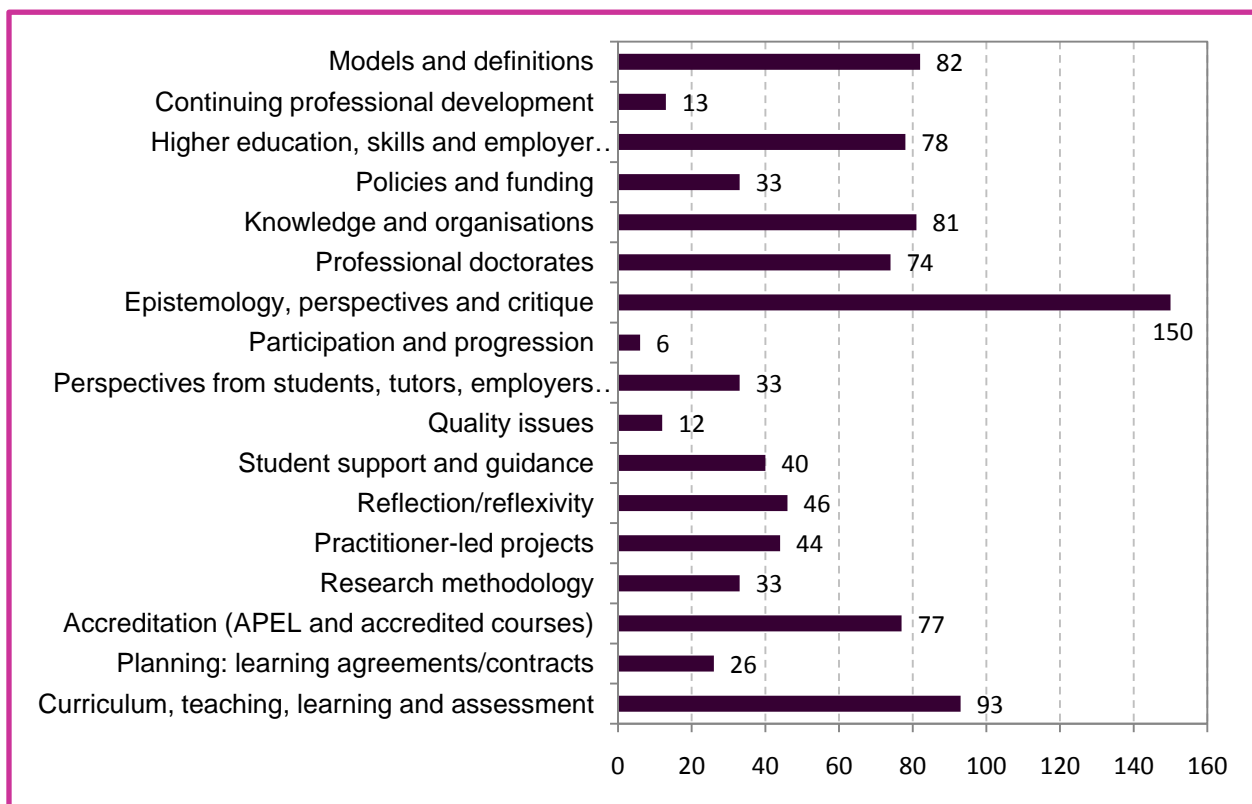
Explanation for excluded literature

Working within the scope of the review, the following categories were excluded (except in exceptional circumstances such as very particular relevance or often quoted work):

- work experience or work placements

- over 10 years old

- non-UK

- non-HE level

- foundation degrees (Fds) – not within the scope of this review; however, there is some cross-referencing to relevant research literature relating to Fds where these concern relevant pedagogic issues

- primarily subject discipline-specific WBL literature

- not related to issues of pedagogy

- professional body awards (not within the scope of this review; however, it is recognised that HE programmes may well be designed to meet, at least in part, requirements of certain professional bodies).

Findings

An overview of the research evidence

This section is inevitably influenced by the search methodology and the way it has been scoped and analysed.

The review of published literature and reported field projects has engaged in preliminary analysis of recent WBL initiatives in the field of employee learning. This has identified two different sorts of approach to the development of such activities and two distinct sets of texts were identified:

- research concerning employee learning usually undertaken by researchers specialising in researching work and learning. These tend to be statistical, social scientific, micro-econometric or microeconomic analyses, using time series or panel data, of training interventions including some WBL activity

- research and evaluation that refers specifically to the learning undertaken through university-led programmes or modules of WBL usually undertaken by tutors of WBL. Interest in such studies has arguably increased with the emphasis of current HE policy on employer engagement. The studies tend to be research initiatives intended to identify the benefits, pay-offs, difficulties and hindrances to WBL based on survey data, questionnaire administration or other survey tools. There are reports of action-learning activities, pilots and some reflective practice summaries of experience with employer-engagement projects, usually through the evaluation of a programme of work or a time-limited, freestanding project.

The first set of texts rarely acknowledges the HE curriculum or research of the more pedagogically focused tutor/researchers in the field of WBL. These texts tend to be policy oriented and relate to broad themes (for example, the future of work, the learning society, work and organisational performance). They represent a specialist form of analysis, and it seems there are no studies that focus specifically upon the benefit to university-supported WBL modules and programmes.

The most frequently reported research in the second category (with regard to publication count) tend to focus on a narrow range of specific examples rather than attempting to synthesise research findings from a range of empirical work. The second category of writers cite the texts of the former as a means of verifying through their research the pertinent learning theories that support the practice of HE award-bearing work based learning. For example, 'reflecting on learning at work' can be recorded in a portfolio to be submitted for assessment. The more pedagogically oriented researchers in the second category may be writing about the merits and processes of compiling and learning through reflection in portfolio work, and call upon researchers such as Boud et al (2006) to endorse and explain the practice of reflection and expand on how it works as a component of an HE programme. The underpinning theory provided by the first set of researchers therefore supports the learning and teaching in the field of WBL in universities.

All these represent approaches to understanding the role of university-negotiated WBL programmes in employee learning. However, there is little evidence that the reviews explicitly set out to integrate the benefit of research understanding about what works to build sufficiently the evidence base with practice-based work on pilots or close HEI-employer working on specific examples.

There are clear schools of research in the broad field of work and learning emanating from particular research centres and clusters of researchers from centres that specialise in researching work and learning: for example, the work undertaken from the University of Leeds where the first international conference, *Researching work and learning,* was initiated in 1999.

There is a broad approach to WBL pedagogy arising from UK universities that have significant numbers of students taking WBL modules and programmes and a distinctive UK approach to WBL pedagogy that uses particular learning strategies and assessment protocols through peer external examining. The tutors from these institutions, who are also researchers in the sense of category 2 above, frequently put papers into particular conference series where they share their practice with other tutor/researchers in the field. Less often, they publish these materials in journals and occasionally books. However, over the decade covered by this review, published work from these researchers is increasing thus adding important pedagogical dimensions to the growing body of literature in this field.

There is a variation between the practice-based understanding of the tutor-researchers and the policy/generic understanding of researchers who investigate 'learning at work' in its general sense, that is, not through particular university work-based programmes and modules. Although these more 'generic' approaches have informed the programmes and modules set up within the last 10 to 15 years, which are focused on people learning at or through work, they have not addressed WBL pedagogy directly. The work-based courses leading to HE awards have a particular pedagogical focus where students (rarely referred to as 'students' – usually 'participants', 'candidates' or 'learners') can be considered to have 'expert' understanding in the sense that they have understanding and familiarity with a work-based context and work-based knowledge. Much of the knowledge being addressed in their studies derives from the work situation and not from the university (see, for example, Table A1, appendix A).

The need for WBL to be a fully functioning part of universities' systems and to be recognised and supported fully at policy level has taken some time to develop. The transdisciplinary nature of much of the curriculum work, whether it is within a subject discipline programme or whether it stands alone (such as 'professional studies', 'professional practice' or 'work-based studies') has

been a major factor in the success and relevance of work-based programmes and modules because it is concerned with relevant knowledge in work situations.

Research projects sponsored by the research councils do not seem to have had a direct influence on WBL in universities. The research projects that have been undertaken through the main research funding bodies have been useful and apposite in many ways, but do not have direct relevance to WBL courses.

WBL has now been taken very successfully to doctorate level with many work-based doctorates emerging in UK universities. The diversity of professional doctorates in the United Kingdom is a current topic of debate and category 12 in this review records these developments. Much of the literature comes from Australia where professional doctorates became popular before they did in the United Kingdom. Currently, in the United Kingdom, Ireland, the United States, Canada and elsewhere there is an expansion of doctorate degrees, many of which are informed in some way by the pedagogies identified in WBL. The debate has developed further since the Australian experience and new generations of doctorates are being developed.

Gaps in the literature on WBL pedagogy

If this review had been based exclusively on empirical evidence it could say very little about the HE pedagogical issues surrounding work based learning. There are no large studies and a dearth of empirical research literature. We have therefore included literature that illuminates the issues where there is no or only small amounts of directly related literature. The 17 categories were selected for their relevance to the field of WBL mainly from the perspective of learners and tutors. Some categories were found to have less literature providing insights into the particular category than others (see appendix B). Of the categories more directly linked to learning and teaching strategies (categories 1 to 6), it was particularly notable that there were very few textbooks or other generic materials used by work-based learners and very few theoretical texts that could be used by tutors on award programmes and courses.

In the 'learning strategies' categories (1 to 6), there was surprisingly little written about:

- the various learning strategies used in WBL by work-based employees to make a claim for credit and gaining accreditation of prior and experiential learning (APEL)

- reflective/reflexive practice

- research approaches to undertaking research and development at work

- learning agreements or contracts

- work-based projects.

The learning through work (LTW) initiative is an exception that provides online information about all these learning strategies, which are continuously being developed.

There is a wide and growing literature about APEL as a concept but little about making individual claims for credit or accrediting courses outside universities, such as in-company training schemes. There is also little about the practice of putting together a learning contract or agreement as part of a negotiated WBL programme.

Reflective practice for professional people has been a key concept and learning strategy in more vocationally related HE pedagogies and especially in CPD, for several years (Schön, 1983, 1987). Although there exists a great deal of literature on reflection there was less on reflection in practice, and literature that directly relates to reflection while undertaking a WBL programme or

module was very sparse indeed. Texts that take a generic view of work-based activities tied to university learning would be a valuable contribution to the field because they would relate more directly to the scholarly work of work-based learners. Currently, universities draw from a range of related texts for their reading lists. There are some notable exceptions: for example, Boud et al (2006), Moon (2004) and Bolton's (2001, 2006) work on reflection.

General literature and textbooks on research methodology and research methods is another area where a broad base of fairly closely related literature is found, but there is little literature that is precisely relevant. Universities that run WBL modules and programmes that involve the work-based learner in undertaking a research and development project at work usually recommend general texts on research methodology, especially texts that refer to practitioner-led research. In particular, texts on 'action research' are often recommended as this research approach is often but not exclusively used in work-based projects. It would be appropriate and useful if more literature concerning methodological approaches and research methods appropriate to work-based practitioner-led projects was undertaken as part of a work-based university course. It would also be useful to have textbooks accessible to students registered on WBL programmes leading to different levels of awards. Considerations about methodologies for work-based projects are currently drawn from existing, mostly social science-based literature. While much of this is helpful and relevant, the way it is presented is not from the perspective of a work-based learner. Work-based projects themselves are similarly not well represented in the literature, and although there is literature on practitioner-led projects the projects are not necessarily understood as real-time, work-based projects or reflective projects undertaken as part of a university course.

In categories not directly related to learning strategies, there were gaps in the literature on, for example, CPD as it relates to WBL from the perspective of universities. Some of this information is embedded in the wider literature, for example, in human resources and organisational/occupational psychology and in the grey literature. The reason for the lack of particular literature in this area seems to be that universities tend not to provide short accredited courses that have quick but meaningful usefulness to businesses and enterprises (Eraut and Hirsch, 2007). Indeed the whole question about HE development for professional people drawing upon the best practices of universities is seldom directly addressed. Bids made by institutions to HEFCE for strategic development funding for employer engagement may be starting to address this question.

Another related area with limited publications is 'knowledge and organisations' and the particular relevance and connections between writing on intellectual capital and WBL. Given that HE policy makers now have a wider vision for supporting the knowledge economy and part of this is through WBL, more WBL research focusing on the categories 'CPD' and 'knowledge and organisations' may develop in the future.

There are also gaps in the literature on the impact of WBL courses on individuals as employees, on employers and on other stakeholders. Literature in this area is now emerging mainly because of:

- work by CETLs that are related to the field
- HEFCE's initiatives on employer engagement (funded through strategic development funds)
- work by The Higher Education Academy in selecting employer engagement as an area of priority for its work with universities
- empirical studies on foundation degrees (not the subject of this review).

Critiques of WBL courses in universities were not evident in much of the published literature even though tutor/researchers in the field are aware that reservations exist about the substance of WBL programmes and modules from some parties. From insider sources, these issues are raised by managers (concerned about viability) and academics (concerned about legitimacy):

- labour-intensive support required from university academics

- too complicated and demanding for university systems

- uncertainties about the academic benefit

- not cost-effective

- over-reliance on support from non-academic advisers and mentors such as employers

- overemphasis on process rather than academic content

- lack of subject discipline-specific content

- knowledge arising from experiential learning difficult to codify (although because of EU initiatives a percentage of experiential learning is now becoming more acceptable and being recognised by universities)

- assessment not by written exams.

These issues mainly appear in the grey literature and are often the topic of validation events in universities; some of them are discussed in the literature concerning issues of academic value. Some of the issues arise because of a concern that the economic value of developing the workforce is being prioritised over the academic value of developing individual people. Other issues arise because of the paradigmatic shift involved in such programmes, where much of the learning is not based on disciplinary knowledge but broader and practice-based knowledge (this has been cited in the literature as an internal obstacle). As we note in the review, staff development issues relating to supporting and assessing WBL may be linked to prevailing reward and promotion criteria within institutions.

There is not enough clear and thorough literature that addresses all of the issues of concern and relates it through curriculum policy and theoretical understanding to actual practice. Many academics and policy makers may not be writing about their concerns because they lack the appropriate conceptual tools or empirical research base from which to evaluate their practice or understand how WBL works. This has left an undercurrent ranging from genuine concern and interest in understanding the issues relating to work based learning, to unwillingness to change practice after years embedded in alternative practices. Some may also have understood the field but consider it not to be a valuable venture or project for a range of reasons, including the values previously mentioned and prevalent academic orthodoxies about subject-based knowledge. Relatively few writers have addressed any of these issues in any depth or scope.

Some literature addresses these concerns. For example, Gustavs and Clegg (2003) discuss the reasons for the closure of a WBL programme in Australia where part of the rationale involves the issues identified above. Usher and Solomon (1999) problematise university education that aims to develop highly productive and efficient workforces as the means of maintaining competitive advantage. WBL tutors/researchers have not engaged very much in a critique of the area, leaving a gap in the literature that needs to be addressed from the perspectives of all the different stakeholders.

Conclusions and implications: for policy, practice and research

A great deal of research and scholarly work in the broad area of work and learning has relevance to modules and programmes of study in WBL, but is not focused directly on enhancing university WBL.

Work based learning is a field of study that cuts across subject disciplines. There is a wide range of generic literature about WBL as well as some subject discipline-related literature, especially in the field of health and social care. The literature published in subject discipline areas has a synergy with the generic concepts that epitomise the field of WBL, such as experiential learning, learning contracts, work-based projects and reflective practice. Much of the literature in WBL is published in education journals and outlets; a smaller amount is published in the business and management literature.

Broad differences as well as similarities between understandings of researchers in the field of WBL are especially noticeable between the practice-based understanding of WBL tutor-researchers and the researchers of work and learning who are usually attached to research centres.

Academics and managers in universities do not always have a clear understanding of WBL and its different strategies and models. This may be because WBL is not a subject discipline and the discourse and protocols it has developed are unfamiliar. They are sometimes concerned about issues of quality assurance and perceived financial risks that can act as a barrier to developing courses, but much of the evidence for this is in the grey literature. WBL pedagogy is a contested field, but only some areas of concern appear in the published literature.

Where universities have embraced WBL, problems remain in managing internal systems which can act as a barrier to the continuation and development of existing courses, accreditation activities, consultancy services and other related WBL initiatives.

There is a distinctive approach by UK universities to pedagogic practice in WBL that uses particular learning strategies and can be found at every level of university education from certificate to doctorate.

There is a significant gap in literature that would be of direct use to work-based learners and tutors designing programmes and supporting WBL students – tutor support, skills and attributes. However, there was literature such as generic research books drawn from a wider literature on research that had some relevance. Also, the use of reflection in professional practice is drawn from a wider literature and is of particular relevance to work-based learners, although little literature links reflection to the learning strategies used in WBL.

There is a lack of literature on employer and employee perceptions and impact of WBL.

Little has been written that directly links WBL pedagogy (as it has been identified in the review) with CPD and short courses.

There are distinct literatures on, for example, 'intellectual capital' in organisational learning, university accreditation systems, company training schemes and so on, but little that links these concepts to WBL pedagogy and how universities can work with organisations towards employee development.

Recommendations

It is clear from the review of the research literature that many different kinds of research are needed. There are also various opportunities to make connections and draw from differing paradigms and different sources where WBL is conceptualised differently, but where there are strong similarities and room to draw on key and salient points made by the range of researchers and academics in this field.

Areas of further enquiry

Work based learning and organisational development require strong evidence that WBL modules and programmes in universities make a difference to work situations. For example, studies that show:

- the usefulness and developmental potential of learning strategies that are used

- how learning agreements work for an organisation and whether it is effective for the way learners review their work and plan future development

- the potential of accreditation of short courses

- the impacts for WBL.

There is scope for more research that examines the area of WBL where knowledge content and knowledge-making arises from the workplace and where the course uses generic work-based criteria either exclusively or in conjunction with subject discipline-based criteria.

WBL pedagogy is a contested field but only some areas of concern appear in the published literature – although it is likely that with more emphasis on CPD in practice-based settings and continuing growth in foundation degrees more empirically based research will emerge.

Higher education conventionally focuses on individual learners rather than group learning and new pedagogies are emerging that claim to enhance employer engagement, productivity and innovation. These approaches are less known and could be the subject of research.

How university-level learning is able to enhance the workplace through recognition of in-house courses, employer-led activities and investigation of effective employer engagement strategies that use WBL as a key pedagogical strategy are all topics for research and evaluation.

There is a need for studies that differentiate between types of learner, learning and employer.

There is a need for research and development strategies to support tutors of WBL.

Scope for synergies/ways of more collaborative working

Much of the literature in WBL is published in education journals and outlets; a smaller amount is published in the business and management literature. There is scope for greater interactions and synergies between researchers in these areas of education and business and management. University WBL units and initiatives are usually housed in departments or schools of education, business or enterprise; some are pan-university. This may or may not be significant but it implies a possible area of enquiry to see if such different locations imply academics drawing on different underlying theories.

There could be more sharing of best practice by making reference to different studies especially on following up graduates on WBL programmes that reveal the impact and influence, if any, that the WBL programmes may have had on employees and their organisations or professional fields.

The practice-based understanding of WBL tutor-researchers and the researchers of 'learning at work' would seem to indicate some scope for greater interactions and synergies between the distinct sets of researchers and their literature. This work could be funded through the research councils.[1]

A final point concerns funding for research in the area. The generic field of WBL does not have a specific or several specific subject disciplines so is not eligible to seek funding from the research councils where there could be more reception to research that is transdisciplinary. Currently only multi-disciplinary research is funded, and the focus is on the subject discipline instead of the generic knowledge and abilities of WBL.

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[1] ESRC and other public funding on the subject from research teams at, for example, SKOPE (Cardiff and Oxford), Essex and CEPR-affiliated researchers, have produced relevant and interesting results but few are specifically related to WBL. This approach, while beneficial to the sector's understanding of the benefits of WBL work, deserves separate treatment.

Part two

Literature summary

Category review

This review of each category provides a summary of some of the most pertinent literature principally relating to pedagogical issues for WBL in university courses. Accompanying this report are listings of all materials found in each category including cited material: an Excel database with listings by category and an Access database that has searchable material and is now in the EvidenceNet repository. Each bibliographical listing by category relates to the reviews below.

Curriculum, teaching, learning and assessment

According to Boud (2001) the idea of 'curriculum' is less current in higher education than in other sectors of education, possibly because there is more focus on course and programme design than on the wider process and pedagogic questions represented by a 'curriculum'. Boud argues that the idea of curriculum is appropriate to work based learning not in the sense of defining a syllabus or programme but to capture the overall set of learning and pedagogic processes that make up work based learning.

Several points of agreement are beginning to emerge on the shape of the WBL curriculum. Boud (1998, 1999), Costley (2000) and Lee et al (2004), among others, emphasise the importance of the learner's context and previous experience as the starting-point for the curriculum. Boud (2001) notes that for individual learners the curriculum is essentially defined by the nature and context of their work. Several authors including Stephenson and Yorke (1998), Anderson et al (1998) and Garnett (1998) describe the use of learning contracts as a central part of the WBL curriculum, normally negotiated in conjunction with the learner's employer. The importance of reflection also features widely in the literature (for example Boud et al, 2006; Brown and McCartney, 1999; Graham et al, 2006); again there is agreement that university-level WBL needs to involve reflection that moves the learner beyond performative competence into understanding and judgement. Epistemologically, the principle that work based learning is concerned primarily with what Gibbons et al (1994) term 'mode 2' knowledge is widely although not universally held – knowledge that is both generated and used in the workplace.

There is generally also a consensus that to be valid in HE terms, learners need to develop understanding that goes beyond the 'present and particular' (Boud, 2001; Brennan and Little, 2006). Related to this is the now widespread use of generic level-based descriptors or criteria that are designed to accredit transdisciplinary or field-independent learning into qualification frameworks (Paulucy, 2000; Costley, 2000; Ufi Ltd, 2001).

Finally there is fairly widespread acceptance that the work-based curriculum draws in and builds on prior learning, with more sophisticated approaches moving beyond a simple APEL process to using learners' experience as a basis for reflection and further development (Armsby et al, 2006; Walsh, 2006; Doncaster, 2000).

Several authors give a more complete description of what can be termed a WBL curriculum. Boud (2001) uses the learner's work as a starting-point and emphasises the real-time, contested and transdisciplinary nature of work-based knowledge. He lists seven key elements of a WBL curriculum:

1 A learning enterprise that is undertaken mainly at work while not being identical to work

2 Acknowledging the diverse range of knowledge and skills brought to the programme by learners

3 Locating learning outcomes in a framework of standards and levels of achievement

4 A negotiated programme of activities

5 Supporting ongoing learning in situ

6 Encouraging critical reflection throughout

7 Documenting learning in an assessable form relative to item **3**.

Adding to this, Nixon et al (2006) emphasise an experiential, learner-centred pedagogy where the curriculum is derived from the workplace context and the learners' knowledge and experience, and where learners agree outcomes through a learning contract that generally help them develop and broaden their understanding and ability to apply and develop theories and constructs in complex situations.

Much in these descriptions of work-based curricula concur with what Costley and Armsby (2007) regard as work based learning conceptualised as a **field** of study rather than as a mode of learning within an existing disciplinary or occupational framework. This conception sees WBL as having its own set of principles and methodologies within which learners focus on their own contexts and priorities rather than working within existing academic disciplines: it allows them to work within the paradigms of Gibbon et al's 'mode 2' knowledge or Schön's reflective spiral (Schön, 1987). While Chisholm et al (2007), among others, argue that WBL can be used purely as a mode of study within a disciplinary framework, this potentially leads to tensions between the experience-based knowledge of learners and the propositional knowledge of academics (Breier, 2006). The most developed form of the 'field of study' WBL curriculum is potentially to be found in work-based doctorates, as described for example by Costley and Stephenson (2008) and Graham and Smith (2002).

The importance of the workplace in the WBL curriculum raises questions about how learning takes place at work. Chisholm et al (2007) caution against taking the workplace at face value as a learning environment and it is clear that workplaces vary widely in their propensity to promote learning (Sung and Ashton, 2005; Brennan and Little, 2006). While this does not necessarily mean that learners from workplaces with limited learning potential are excluded from work-based programmes, it suggests that HE needs to be involved in providing good-quality learner support (Billet, 1999), developing approaches such as reflective practice (Boud, 1999; Graham et al, 2006) and action learning (Miller, 2003), and looking beyond the formal aspects of the organisation to opportunities offered by 'parallel' organisational activity (Cunningham, 2001).

Introducing genuine WBL curricula has some significant implications for higher education. Harvey (2007) describes how the power-balance between the university and the learner is changing more to one of partnership and Lester (2002) comments on the need for universities to work through partnership or 'realisation' systems rather than through expert 'delivery systems'. Bellamy (2008) describes the tensions worker-researchers often perceive between workplace and university expectations and/or cultures. Boud and Solomon (2001) and Boud et al (2001) describe work based learning as a 'disturbing practice' that challenges the disciplinary structure of the university. Garnett (2007) states that it can sit uncomfortably with structures and procedures designed primarily to meet the needs of full-time undergraduates. Lester (2004) suggests that WBL can provide a platform for a university to develop expertise outside the traditional areas of teaching and research.

Issues of assessment

Other than where work based learning is treated purely as a vehicle to attain discipline-based knowledge, its assessment poses challenges to traditional modes of assessment in higher education that are concerned with the acquisition, understanding and use of propositional knowledge (Yorke, 1998; Williams, 2008). Equally the use of assessment based purely on workplace skills or occupational competence is not generally accepted as sufficient in HE (Atkins et al, 1993; Tarrant, 2000; Walsh, 2006), even when the level of skill or competence is relatively high. Walsh comments that for recognition in HE terms, achievement needs to be related to an aspirational framework and must to an extent be transformational. As Bryan and Clegg (2006) note, assessment needs to be relevant and appropriate while maintaining standards and meeting wider concerns such as those of plagiarism. Yorke (1998), in discussing the assessment of capability comments that a better focus is needed on assessment methodologies and that assessment might be expected to take up more 'curriculum space' than is typically allowed in higher education. Yorke's more recent overview of issues in the assessment of practice-based professional learning notes assessment is a complex matter involving formidable challenges:

> "… in respect of conception, practice and reporting … the combination of achievements form the different milieux of the higher education institution and the workplace merely compounds the complexity".

Yorke, 2005, p43

Where work based learning "departs substantially from the disciplinary framework of university study" and develops "new pedagogies for learning" (Boud, 2001) it needs to be supported by appropriate methodologies for assessment; both Lester (1999) and Williams (2008) comment that new developments in learning are often held back by slow progress in assessment. Costley and Armsby (2007) describe how inappropriate integration and assessment can undermine learning. This occurs both where WBL is used as a mode of learning but the type of knowledge that is generated from work goes unacknowledged, and where it is a field of learning in its own right but it is assessed through methods that are too closely tied to routine performance or 'appropriate' disciplinary knowledge. They conclude that WBL needs to be assessed against generic criteria based in a philosophy of reflective practice, arguing that WBL in higher education should be assessed in terms that are "more to do with reasoning and making judgements than it is to do with routine performance" (p29).

Brodie and Irving (2007) broadly concur that assessment needs to reflect the interrelationships between understanding learning, critical reflection and the development of capability in the practice context. Harvey and Norman (2007) comment on the need to use assessment practices

that are more reflective of the kinds of social, cultural and contextual knowledge that are used by practitioners in the workplace.

Several authors discuss different approaches to assessing WBL in accordance with the above principles. Costley (2007) describes:

- the use of level-based statements and criteria that reflect generic aspects of work based learning
- learning outcomes and assessment criteria that are negotiated through learning agreements
- learner self-assessment
- the use of work projects and products, backed by critical commentary, as evidence of learning.

This broadly reflects and builds on the approach advocated in the LTW initiative (Ufi Ltd, 2001). Poikela (2004) describes the use of practice-derived assessment criteria that reflect contextual, social and reflective aspects of practitioner knowledge. Klenowski et al (2006) discuss the use of portfolios not only for summative assessment purposes but also to stimulate reflection, learning and changes to professional practice.

Work based learning that has as its goal the attainment of proficiency in an occupation or profession might be expected to be more prescribed in its assessment. However, in a study of qualifying requirements Lester (2008) identified clear trends towards greater flexibility in the assessment of both cognitive knowledge and professional practice. Knowledge-based assessment was tending to move away from relatively basic assessment of propositional knowledge to incorporate more realistic evaluation of the ability to use knowledge in cases and simulations with a wider range of assessment methods being employed or, as a minimum, more creative and realistic approaches to examinations. In assessing practice, professions were generally moving away from both tightly specified competence specifications and vague requirements for length and breadth of experience, towards more generic specifications that allow for interpretation into context and lend themselves to more than one means of evidencing. This rarely moves as far as the approach described by Costley (2007) but compared with the practices reported by Eraut and Cole (1993) it reflects a distinct move in this direction and away from the type of occupational competence assessment advocated for example by the Qualifications and Curriculum Authority (QCA, 1998).

A further issue explored by some authors concerns tensions between assessment for qualification purposes and assessment for learning. Klenowski et al (2006) comment on the use of portfolios for assessment detracting from their value as vehicles for learning, while Lester (1999) and Boud (2000) both discuss the propensity of formal assessment to undermine the practitioners' abilities to self-assess adequately. Boud points to assessment needing to do "double duty" and introduces the idea of sustainable assessment which should meet the formal requirements for academic accreditation, and also provide learners with a grounding for making their own judgements.

There are parallels here with literature that look at the significance of workplace learning for individuals, groups and organisations (see, for example, Eraut and Hirsch, 2007). Eraut and Hirsch note that individuals judged on their performance need to know what needs improvement, but they should also be offered ideas about how that performance might be achieved; in this way, the process shifts the focus from judgement to development (ibid).

Planning a work based learning curriculum:
learning agreements/learning contracts

Learning agreements and learning contracts are not a recent phenomenon in HE. They have been used in UK higher education since the 1970s, originally as a means of agreeing individually negotiated programme components such as independent study modules and work experience modules. Even in these earlier times a range of approaches was used including the structuring of entire programmes in the pioneering School of Independent Study at the University of East London.

Drawing on Knowles (1975), Anderson et al (1998) describes a 'learning contract' as typically:

> "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

They describe a learning contract as needing to contain clear learning objectives and assessment criteria that meet the expected standard for the programme, a process that is appropriate to the level of programme and agreement about the types of evidence to be produced. Lyons and Bement (2001) add the need to show that the programme is coherent from an individual perspective and has integrity and balance. They comment that the learning contract plays a central role in meeting quality criteria and quality assurance requirements within higher education.

In WBL contexts, learning contracts may be employed to support work towards predetermined outcomes such as the requirements of a syllabus or competence specification. Osborne et al (1998) describe this type of WBL programme as being particularly valuable in more open curricula where the programme (or a significant part of it) is built around the experience, context and work focus or aspirations of the learner. Doncaster (2000), Nixon et al (2006) and Stephenson and Saxton (2005), among others, also describe how learning contracts are used for this type of application.

Learning contracts for WBL programmes can take various forms. Foster (1996), for example, describes how learners on a University of Leeds WBL project move from a statement of intent through to initial and final learning contracts for their entire programme, the final contract being validated as a formal course document. In the UK learning through work (LtW) framework, an overall framework contract can be developed at programme level with specific detail being added for individual components as the programme progresses (Ufi Ltd, 2001). The LtW model broadly follows Stephenson's notion of a 'capability envelope' (Stephenson, 2001; Stephenson and Yorke, 1998) where a learning contract is drawn up at the outset of a programme and supported by ongoing review and tutor support, enabling changes and renegotiation to be incorporated as needed within the overall coherence of the contract.

In the workplace, learning contracts provide a means of formalising what is otherwise often an informal and sometimes ad-hoc process of learning (see, for example, Lee et al, 2004). Many organisations are already using personal development plans or the equivalent as part of their employee and organisational development processes. Cunningham et al (2004), Megginson (1994) and others develop the idea of learning contracts as formalising self-managed workplace learning and focusing employees on learning objectives that can be reported and reflected upon.

These often do not have any links to formally accredited activity although they do offer a common language and structure to bring together organisational, professional (including CPD), personal and academic objectives and requirements. Garnett (2000) discusses organisational involvement in learning agreements for university-accredited WBL programmes and indicates that for the agreement to work properly the employer needs to be an active partner in the agreement. He also comments that the culture of the work organisation will have a significant effect on the learning agreement and the resulting programme, and this needs to be understood and managed by university staff.

Three kinds of development in learning contracts for negotiated WBL programmes are worth noting. First, the transdisciplinary approach to work based learning (Osborne et al, 1998) is beginning to produce an approach where prior as well as planned learning are contained in the contract, facilitating a programme that is more coherent and developmental for the individual and potentially for the work organisation (Garnett, 1998; Doncaster, 2000; Lyons, 2007).

Second, the extension of negotiated WBL to doctoral level (Costley and Stephenson, 2008) has resulted in a different focus to the learning contract, which while retaining the essential aspects described above also becomes a research-and-development proposal often based around the learner's professional activity (Stephenson et al, 2006). Third, there has been increasing use of technology to help learners put together learning contracts, most notably in the LtW system (Stephenson and Saxton, 2005).

The literature on learning contracts is uneven as are the definitions. The early convention used the term 'contract' more assertively in the form of learning contract or contracted learning as methodological manifestation of the contestable[2] notion of andragogy (Knowles, 1986). More recently the term 'agreement' has become a substitute and carries a less legalistic overtone but maintains the same formal framework. For example, Stephenson and Laycock (1993), Anderson, Boud and Sampson (1996), Boud and Solomon (2001), Rhodes and Shiel (2007) and Lester (2007) use both terms interchangeably.

As originally conceived the learning contract was surely intended to reflect obligations to enable the student to flourish, but, as Doncaster argues, they are also used in "forwarding the interests of their organisation" (2000). Nikolou-Walker and Garnett (2004) also support this view arguing that the distinctive feature of work based learning is the relationship between an external organisation and an educational institution based on:

> "satisfying the need of the external organization in return for revenue to the educational institution … **in which** learners have some contractual relationship with the external organization"

2004, p292, bold added for emphasis

These observations might suggest that the recipient of the outcomes enjoys a disproportionate benefit from it and risks exploiting students. Moreover, in the educational context the issue of academic honesty can be compromised when presentations of outcomes to employers are made.

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[2] See, for example, Rachal's 2002 critique where he argues that the theory of andragogy has yet to be established and that the "best-known theoretical construct of the field should be more than a beloved article of faith" (2002, 225).

Thorne and Wright suggest:

> "[H]onesty and openness is not always realistic in such programmes"

2005, p398

and as such determines the relations between the parties and the outcomes.

Learning contract/agreements may need to be better incorporated into wider processes.
As Nixon et al state that quality assurance procedures and codes of practice:

> "will need to better reflect the breadth of approaches to flexible learning being adopted by HEIs so as not to stifle innovation in the future".

2006, p51

Accreditation

Accreditation of (prior experiential) learning

The use of non-certificated prior learning for entry and advanced standing in higher education has been well-established since the 1980s (for example, Learning from Experience Trust, 1993; Evans, 2006). The inclusion of experiential learning was virtually mandated by the Council for National Academic Awards in 1991 (CNAA, 1991), and has since become a widespread, if still relatively marginal, practice in higher education (Wailey, 2002; Merrifield et al, 2000; Garnett et al, 2004). The terms 'accreditation of prior experiential learning' (APEL) and 'recognition of prior (informal) learning' (RPL) are sometimes used interchangeably particularly in relation to international practice, but a useful distinction can be made between RPL as the general recognition of previous learning for entry to a programme in lieu of formal academic requirements, and APEL as referring to formal accreditation of learning that counts (or has potential to count) towards the programme itself (Barkatoolah, 2000). Both APEL and RPL provide a facility for allowing work based learning to be recognised within higher education.

Following CNAA practice, a distinction is often made between 'general' (or potential) credit, that is, the level and volume of learning that an APEL claim is deemed to represent, and 'specific' credit, the amount of that learning that can be accepted against a specific programme. In discipline-based taught courses specific credit usually represents exemption or advanced standing given when there is an acceptable match between an applicant's prior learning and the course requirement.

In more flexible programmes such as learner-negotiated credit-based awards, a more relaxed rule can be applied where credit can be granted provided that learning is relevant to the proposed award and provides a basis on which the individual learner's programme builds. For example, Harvey and Slaughter (2007) describe an innovative approach to accrediting prior learning where learning outcomes are mapped from level-3 qualifications to level 4, and learners enabled to gain 30 credits via a short assessment process. In WBL programmes, these approaches to credit may be appropriate if the programme primarily uses work based learning as a mode of study leading to a discipline- or occupationally based award (Portwood, 2000; Costley and Armsby, 2007; Yorke, 2007; Rounce and Workman, 2005; Graham, Helyer and Workman, 2007). Where work based learning is conceptualised as a field of study in its own right, such as programmes of work-based studies or professional studies or WBL modules that have generic assessment criteria, Garnett (1998) argues that the idea of specific credit should be replaced by one of focused credit, where prior learning becomes both the starting point and an integral part of the individual WBL programme. This approach to prior learning is more appropriate to the negotiated or transdisciplinary model of work based learning (Boud, 2001), more apt to recognise the value of learning gained in one field as being applicable to another (Bailie, 2000) and, incidentally, is also likely to facilitate better recognition of learning from outside paid work (Butler, 1991).

Although assessment and quality assurance processes for APEL are now becoming well established (for example, Johnson, 2002; QAA, 2004; Johnson and Walsh, 2005), its use and value is still a subject of debate in higher education. Evidence from the recent past (Paulucy, 2000) suggests that understanding of APEL processes may be inconsistently applied by tutors. Saxton (2000) comments on the potential for prior learning to be assessed less rigorously than learning within a programme and, therefore, for the need for assessment and quality assurance measures that are equivalent to those in other parts of the university.

From a more conceptual perspective there are concerns that the use of APEL privileges practitioners' knowledge and potentially undermines the disciplinary knowledge of the university. Harris (2006) advocates setting RPL (or APEL) in the context of the approach taken to the overall curriculum, and drawing on Bernstein's curriculum model suggests that there is more scope to use a version of APEL in programmes based on an 'integrated' curriculum code that blurs the boundaries between disciplines. Breier (2006) makes a related point in respect of legal education and highlights tensions between the formal knowledge of law lecturers and the contextually based knowledge of experienced but less academically qualified practitioners. To an extent this reflects the different approaches to APEL that have emerged in work based learning depending on whether it operates within a discipline as a 'mode of study' (Costley and Armsby, 2007) or in a transdisciplinary 'field of study' sense. Armsby et al (2006) comment that APEL challenges universities' monopoly of knowledge but argue that this is a positive outcome both for the university and for WBL, and there is a need for universities to become more accepting of the value of what Gibbons et al (1994) term 'mode 2' or workplace-based knowledge.

The process of submitting an APEL claim is conventionally described as a three-stage process:

- reflection on experience

- identification of learning achieved

- demonstration of learning outcomes through evidence or argument (for example, Brennan, 2005).

Brennan comments that this process can appear "bureaucratic and unimaginative" and in exemption-based approaches to APEL this may be the case as the main objective is simply to establish that previous learning is equivalent to a course unit or module. In this type of APEL a clear line is drawn between previous learning and the ongoing programme on which the learner has enrolled. In describing the purposes of the APEL process, Doncaster (2000) lists only one aim, evaluation against academic standards and levels, that is essentially bureaucratic; she includes helping learners to engage in critical reflection and become aware of power relationships.

As noted above, in transdisciplinary WBL practice there is a trend to move beyond this and use the APEL claim as part of the development process itself (Armsby et al, 2006; Walsh, 2006; Lester, 2006). The APEL process can enable work-based learners to become 'mapmakers' rather than 'map-readers' (Lester, 1999), evaluating past learning in relation to future goals and bringing about an element of self-discovery and self-evaluation, particularly in relation to organising ideas and planning future learning.

As APEL practice continues to advance within WBL the distinction between prior and planned learning begins to blur. Chisholm and Davis (2007) challenge the standard practice in most universities that APEL should contribute no more than a proportion of an accredited programme, suggesting a model closer to the idea of the PhD by published work. Middlesex University has implemented this approach at postgraduate level through the MProf/DProf by Public Works, where existing work for which there is significant evidence available can be submitted, along with an evaluative narrative, for a full award. Lester (2007) explores how a similar approach could be used for pre-existing WBL projects; depending on the suitability of the project for accreditation in its 'raw' form, learners might be involved in adding explanation, narrative and, if needed, evidence of further learning.

Supporting and assessing APEL claims is sometimes thought of as a relatively costly activity (JM Consulting, 2003) for the HEI, and as APEL becomes more widely used, universities are seeking to improve the process and make it more efficient. Haldane et al (2007) describe an ICT-based platform that is being developed to provide guidance and initial assessment for potential students, building on the guidance provided by Ufi Ltd through its LtW platform. The need for tutor-learner dialogue is recognised particularly if the aims espoused by Doncaster (2000) and Garnett et al (2004) are to be realised, but the platform is seen as likely to save considerable time in advising pre-registration learners.

Accreditation of in-house training

The accreditation of in-company training and learning by HEIs is now an established feature of the higher education landscape having emerged particularly since the introduction of credit accumulation and transfer (CAT) systems in the 1980s, and given renewed impetus in recent government policy pushes towards increased employer engagement with HE (see, for example, DIUS, 2008). Initially the majority of this activity focused on in-house training courses and to a smaller extent on full qualifications delivered in companies often with significant input from university staff. Subsequently accreditation has developed to include a much wider range of options that include customised or company-negotiated programmes and accreditation for individual experiential learning in-company (Prince, 2004).

For the company or organisation, accreditation can provide external credibility in so far that credentialling may be valued by customers or clients. It enhances:

- the possibilities of progression routes

- individual motivation to learn

- scope for continuing professional development

- access to university expertise

- the development of a reflective, researching and enquiring orientation among the workforce.

Mumford, 2006; Coombs and Denning, 2006; Harvey and Norman, 2007

University accreditation normally requires that learning demonstrates reflection, understanding and informed judgement and goes beyond performative notions of competence (Graham et al, 2006), and that it has wider applicability than within the host organisation alone (Brennan and Little, 2006). Several authors indicate that there is increasingly common ground between the interests of the university and the workplace in this respect, with a trend for employers to see worthwhile benefits in developing among their workforces the kinds of high-level ability sought in higher education (Teare and Neil, 2002; Mumford, 2006; Nikolou-Walker, 2007). In comparison, the use of higher level national vocational qualifications (NVQs) in the workplace is declining (Burgoyne et al, 2004; Lester, 2008).

While the overall volume of accreditation work is growing, there is a trend towards accrediting learning based on a wider range of individual and group-based activities than traditional in-company training. This reflects a tendency for companies to place greater value on bespoke programmes, experiential learning and approaches such as action learning rather than training courses when considering higher level and longer term development needs (Mabey, 2005; Burgoyne et al, 2004); this is particularly marked in small and medium-sized firms (ibid; PACEC, 2006). Universities variously work with employers to develop methods of accrediting individual workplace learning (Teare and Neil, 2002), to develop broader frameworks within which a wider range of accredited activity can take place (Barlow et al, 1998), and to develop partnerships for

the design and delivery of negotiated programmes (Smith and Betts, 2000; Lyons, 2003) or the accreditation of CPD (Coombs and Denning, 2006). Garnett et al (2004) take this further and advocate a learning recognition and development perspective that is forward-looking, builds learning capacity and generates knowledge within workplaces, and adds to organisations' intellectual capital. These models may vary widely in the way that they partition responsibilities and activities between university and employer.

For universities, these newer or partnership-based forms of accreditation point to changes in the way that universities engage with employers, in the way that they organise employer-facing provision, and in their epistemologies of practice. Wedgwood (2004) suggests that a "new tradition" of higher education is emerging with the characteristics of "accessibility, flexibility, adaptability, integration and responsiveness". A discussion of the partnership approach is provided by Shipley (2001), and implications for quality assurance measures are discussed by Brown (1999) and Coombs and Denning (2006). Many researchers (for example, Boud and Solomon, 2001; Lester, 2002; Garnett, 2007; Harvey, 2007; Boud, 2001; and Costley, 2000) explore cultural issues for HE and discuss the need for the institution to accept the validity of knowledge generated in the workplace.

For employers there can be equivalent changes in culture and ways of working that occur as a result of partnership activity, particularly when this extends beyond the straightforward accreditation of in-house courses. Hase (1998) comments that adopting more learner-managed approaches to development inevitably leads to a change in culture, and Nikolou-Walker (2007) illustrates how this is starting to happen in a police organisation. What types of partnership or accredited activity are appropriate is likely to depend on organisational culture (Garnett, 2000) and on the type of learning opportunities available within the workplace (Ashton and Sung, 2002; Brennan and Little, 2006).

Research methodology

Work based learning at university level generally includes some form of workplace or practitioner research, which may take the form of a distinct project or investigation, or be an expansion of an activity that an established practitioner is undertaking in the normal course of their work (Costley, 2007). From the university's viewpoint this activity is normally conceptualised as 'research' whereas from the practitioner's perspective it may be regarded also as research or principally as development, or again as practice activity wherein the research dimension is secondary (Lester, 2004; Doncaster and Lester, 2002). Armsby (2000) suggests that research within work based learning provides an academically valid approach to the study of issues arising in the workplace as well as being "the engine of developmental activity in organisations". As the field of WBL has developed in universities, improved understanding has emerged of how research works in practice-based contexts where the research is usually geared to affecting practice and where it is frequently transdisciplinary or interdisciplinary in nature. At the highest levels the idea of the 'researching professional' (Bourner et al, 2000), or 'executive scholar' (Morley and Priest, 2001) has been used to distinguish between the practitioner-researcher who is involved in researching within their work situation, and the professional academic researcher who is 'outside' or at least a more transient member of the community being researched.

The methodologies used in work-based or practitioner research are not specifically different to those that might be used in conventional academic research in similar contexts, although there is an understandable tendency to use action-based methods as well as multiple methodologies (Jarvis, 1999). Costley and Armsby (2007) list soft systems methodology, case-study method, ethnography, action research, action learning, and co-operative and appreciative enquiry as widely used approaches. They comment that undergraduate learners may tend to experience more difficulty with understanding and applying methodologies in context than with understanding either the context itself or the subject-based knowledge. Bellamy (2008) discusses the way in which undergraduate 'worker-researchers' negotiate their research approach and their research positionality, both in relation to their own place in the workplace hierarchy and in relation to their alignment with the research 'stakeholders'; so, for example, a worker-researcher may be aligned with management in achieving organisational objectives and assume a managerial positionality, or may be aligned with a disenfranchised group (pupils in a school/patients in a hospital) and assume a positionality of empowerment. Bellamy argues that it is through this negotiation of a research positionality to inform the project and taking up the question of the power dynamics that inform the process, that the worker-researcher may best achieve reflexivity. Among more experienced or established practitioners, the choice of methodologies tends to depend on learners' professional and disciplinary backgrounds and on the practicalities of getting effective research done within timescales imposed by practical considerations. Both studies suggested that while there is often good support within the university for learners to develop methodological knowledge, there is less that helps them to apply methodologies as practitioner-researchers or "become research-minded" (Armsby and Costley, 2000) in the sense of fine-tuning existing professional abilities (Mason, 2002, discusses one aspect of this – 'noticing' – in further depth) and adding to them relevant research methodologies.

Characteristics that recur in discussions of practitioner research principally focus on the embeddedness of the researcher in the research context. These are related to general issues of insider research discussed in ethnographic literature (for example, Atkinson and Hammersley, 1998), but they can go beyond them particularly where the practitioner-researcher is a formal member of the practice/research context. Costley and Armsby (2007) comment on recognising

the central importance of the context and the situatedness of the practitioner-researcher within it. They also discuss issues of the practitioner researching in their workplace, the advantages for access and potential problems of subjectivity and bias; however, the work-based research literature is not particularly well developed with regard to solutions such as making the researcher visible in the 'frame' of the research, as described for example by Harding (1987). Nevertheless, as Armsby (2000) comments there is a high level of 'ecological validity' in practitioner research in that the research is based in a naturally occurring situation where there is unlikely to be manipulation by the researcher in the way that the investigation is constructed, and in many cases there is also a test of value as the research findings are applied to practice.

Ethical issues and tensions in practitioner research are explored by several authors including Moore (2007), Zemblyas (2006) and Costley and Gibbs (2006). The last point to the need for practitioner-researchers to:

- have ethical awareness both in relation to confidentiality and researching with co-workers

- manage tensions between themselves as researchers and practitioners, the needs and values of their organisation and those of the university.

Moore discusses ethical and organisational tensions for work-based learners more broadly, drawing on healthcare settings; as well as what might be termed 'static tensions' and 'value-differences' in the workplace, she comments on the need to manage tensions through periods of change, particularly as dominant paradigms shift and boundaries become unclear. Zemblyas focuses on issues of power relations and politics within WBL from a Foucauldian perspective, and comments on the need for learners to question taken-for-granted assumptions about their practice context.

Practitioner research as a whole can be said to operate from a phenomenological or at least interpretive perspective, while having room within it for more positivistic approaches where appropriate to context. According to Jarvis (1999) it follows the principle that theories of practice evolve from practice itself and are essentially unique to each practitioner. Armsby (2000) describes practitioner research as leading to praxis, that is, the "meshing of practical and intellectual capabilities". In discussing epistemological aspects of practitioner research, Costley (2000) distinguishes generic process-based knowledge concerned with research, development and practice, and knowledge relating to the context of the practitioner's community of practice that may be drawn partly from existing knowledge and partly generated from within the context.

The academic value of practitioner research (as opposed to its utility in the workplace) is debated, and there can be scepticism from some formal research communities (Murray and Lawrence, 2000). Pragmatically, Walsh (2007) notes that learners who have carried out practitioner research are often better prepared to undertake research at doctoral level than are graduates from full-time courses. Portwood (2007) makes a case for bringing work-based research into the stock of research held within the university both through direct recognition and in particular through developing collaborative research activity in workplaces, an area that has to date been underdeveloped because of the perceived difficulties of linking collaborative projects to credit and qualifications.

Practitioner-led projects

Work-based projects are a central feature of WBL programmes at university level (Garnett, 2005; Boud and Tennant, 2006; Walsh, 2006; Boud and Costley, 2007; Rhodes and Shiel, 2007). Unlike the majority of projects within taught programmes, WBL projects tend to be practitioner-led and typically emerge out of real workplace issues with which the learner is involved; they may be projects that learners are already undertaking or have decided to undertake (Armsby and Costley, 2000; Graham and Smith, 2002), or in some cases activities that are already complete but can be used as the basis for reflection and further learning (Lester, 2007; Chisholm and Davis, 2007). The scale of projects involved range from small investigations that can be accommodated in a single module, to major pieces of work that form the basis of doctorates and result in significant organisational or professional change.

The majority of work-based projects have a research element (Armsby and Costley, 2000) and involve learners in becoming practitioner-researchers or insider-researchers (Costley and Armsby, 2007), even if to practitioners themselves it is often the practice-based and development value of their activities that are most immediately significant, the research being seen as in the background (Doncaster and Lester, 2002). They are not, however, traditional research projects as most will have a practical impact and involve methodologies such as soft systems, action research or action learning that are geared to taking action at the same time as reporting it, or they will effectively be case studies or ethnographic accounts of developments in or relating to the workplace (Costley and Armsby, 2007; Jarvis, 1999).

In WBL programmes, projects are frequently negotiated between tutor, learner and employer using a learning agreement format (Nixon et al, 2006; Stephenson and Saxton, 2005). Armsby and Costley (2000) comment that there is often a need to develop learners' "critical awareness of research issues and practical competence in applying them" which can involve both fine-tuning existing abilities learned as a practitioner (such as co-operation, critique, reflexivity, pragmatism and flexibility) as well as developing new methodologically related capability. Rhodes and Shiel (2007) add to this that not all work-based learners will have skills of academic enquiry, and beyond a need to develop these there is also the issue of enabling practitioners to use them as vehicles to create change and impact on practice. The ongoing relationship between learner and tutor is typically more advisory than supervisory (Boud and Costley, 2007), while Moore (2007) adds that this may include providing opportunities to:

- construct meaning and new knowledge from practice
- inspire and support learners to cope with change and ethical dilemmas
- encourage them to make best use of workplace resources and networking opportunities.

Undertaking project work that satisfies different goals (personal, work and university programme) can raise various issues for the learner including confidentiality, research ethics, managing tensions and value-conflicts, and coping with changing priorities and structures at work (Moore, 2007; Workman, 2007); added to these are the normal issues associated with insider research (for example, Atkinson and Hammersley, 1998). Rhodes and Shiel (2007) also comment on complexities that can occur when WBL is undertaken by groups within organisations who may have very different starting points. Nevertheless, Costley and Armsby (2007) suggest that it is through developing in real work contexts with their attendant challenges and dilemmas that learners become effective as practitioner-researchers.

There is general agreement that well thought-out practitioner projects are effective both as vehicles for learning and professional development and as regards their benefit to the learner's organisation. Costley and Armsby (2007) note that most projects even at undergraduate level result in changes or at least recommendations for change to practice. Garnett (2005) comments that projects provide a robust vehicle for knowledge creation that often adds to the structural capital of the learner's organisation. In taking work-based projects to doctorate level there is normally an expectation that doctoral projects will result in significant organisational or professional change, with support from the available evidence (for example, Costley and Stephenson, 2007; Thorne and Francis, 2001; Zuber-Skerritt, 2006).

Reflection and reflexivity

Ideas of knowledge being derived from practitioners reflecting on practice have been developed by Schön. The literature that has grown around Schön's formulations argues that what is embodied as knowledge is revealed through reflection and deliberation either in action or after action. As practitioners come together by being involved with one another in action, they may become a 'community of practice' wherein they learn to construct shared understandings amid confusing and conflicting conceptions and interpretations of work and context (Lave and Wenger, 1994). Hence, a community of practice returns knowledge back to its context in that such groups learn to observe and experiment with their own collective tacit understandings and established processes-in-action. Action is called upon to bring the often untested and unexamined mental models of individuals and groups into consciousness. It is a form of 'reflection-in-action' that attempts to discover how and what one did contributed to an unexpected or expected outcome, taking into account the interplay between theory and practice.

Within the WBL literature, two major strands are discernable, viz critiques of the concept of reflective practice in work and the professions, and practical guides to reflective activities within academic courses.

The work of Boud specifically focuses on the relevance of reflection to learning that occurs in the workplace. Boud has written previously on reflection and the formal WBL of professional courses (1998). There he pointed out that if the challenging nature of reflection is poorly understood by teachers and just equated with thinking, it may become "domesticated" and fail to lead to real questioning of experience by students. He also argued that course developers need to recognise that reflective activities must be used flexibly, since the social and cultural context in which they occur will influence the kinds of reflection that are possible.

In their more recent volume, *Productive reflection at work* (2006), Boud and colleagues focus on reflection and informal learning at work and develop earlier ideas about the importance of social context. They suggest a new role for reflection in the context of organisational productivity. Opportunities for informal and collective reflection are created by the current trends towards organisational de-layering and devolving of management responsibilities to teams in the effort to remain sustainable. Conditions for effective collaborative reflection are discussed, such as the need for the workplace to be structurally designed to support reflective learning and also, in contrast, that undesigned, informal spaces are also made available where group reflection through spontaneous dialogue can occur. An ethical dimension to reflection is also stressed, with discussion of the development of capacity for reflection as a means for the workforce to make sense of work and, by giving it meaning, contribute to organisational sustainability and excellence.

In contrast to Boud, Moon (2004) builds on her earlier work in this area to provide a 'handbook' of reflective activities that can be incorporated into formal educational programmes. This practical focus is preceded by a discussion of reflection as an aspect of experiential learning which is what makes the book relevant to work based learning. She argues that both reflection and experiential learning are relatively unmediated by teachers (in the sense that they do not rely on a formal taught curriculum), and thus their value extends beyond formal learning into the kinds of self-managed CPD that may occur in the workplace. Other writers such as Bolton (2006) base theories of reflection in discussion around reflexivity.

However, there seems to be a lack of consensus on the concept of reflection. This was illustrated by the sometimes interchangeable use of 'reflection' and 'critical reflection'; Moon (2004), for example, was at pains also to distinguish between:

- reflective learning
- reflective writing
- reflective practice.

Different conceptualisations underlie different perspectives on reflection. For example, Moon characterises reflection in academic contexts as a process of reorganising knowledge with the purpose of achieving further insights about it, often with the view to then representing it in writing for assessment (which might change the nature of the reflection). In contrast, Fook (2006) offers a definition of reflection that highlights its relation to social context:

> "the ability to understand the social dimensions and political functions of experience and meaning making and the ability to apply this understanding in working in social contexts".

This position clearly aligns with Boud's work (noted above) and confirms there is now a new focus on reflection as a collective activity.

As Fook (ibid) points out, divergent conceptions of reflection make it difficult to research and develop the concept systematically, and this in turn can reduce the contribution that studies of reflection can make to WBL theories. The literature did reveal a repeated use of certain key approaches to reflection. Bearing in mind the lack of consensus noted above, this could be understood as an effort to consolidate understanding about the concept of reflection. Kolb's experiential learning cycle (1984) with its 'reflective observation' stage and Schön's notion of the reflective practitioner (1987) were the most frequently drawn-on texts. However, several authors noted a lack of more sophisticated theorising about reflection. They sought to remedy this in order to provide firmer arguments for its importance to and practical use in work-based educational contexts. For example, Chisholm et al (2007) evaluate a range of theories of experiential learning and from this conclude that reflection is key to transforming a passive experience of work into active learning from work.

In addition to Chisholm et al's (ibid) conclusion about the transformative potential of reflection mentioned above, Murray and Lawrence (2000) discuss how practitioners, when acting as insider-researchers, need to interrogate their own institutional practices effectively. They argue that reflection is not an add-on to enhance learning by helping practitioners make meaning out of experience, but key to structuring continuous professional development – practitioners must: "recurrently hold as problematic the routine conditions of their occupational lives" (ibid, p10) and take issue with some of the conceptions of the term that Schön (1987) and others proposed. In discussing the development of learner-managed learning in a pilot foundation degree, Doyle (2005) points out, as does Moon (2004), that a lack of understanding about what reflection is can lead to it being required of learners too early in their learning. He argues it is not sufficient for learners to be told about the value of reflection if they are unable to turn this knowledge into practice. Practitioners and course developers need to support the growth of learners' capabilities to reflect.

At a practical level, several papers now provide examples of how reflection can be embedded in WBL programmes using group rather than individual activities. In addition to case studies described in Boud et al (2006), other practitioners also provide examples of collective work-

based reflection. Collier (2006) describes how she engaged students in visualisation exercises on a postgraduate professional programme. Students developed imaginary scenarios of work situations that had been experienced. This was followed by peer interrogation of case studies developed from these imaginative speculations about real WBL situations, and this in turn enabled students to reflect more deeply on their professional practice. Fook (2006) on a similar programme also conducted a process of reflection within a group culture in which the context was able to provide a balance of both safety and challenge so that learning could be enhanced. Activities were designed to unearth assumptions, particularly about power dynamics in students' organisations which were then evaluated in the group setting. This allowed them to be reframed in the light of new information from the group into a theory of practice which could then be tried out. Such a process clearly has parallels with Kolb's experiential learning cycle (noted above).

It is clear that posing questions about the use of reflection as a pedagogic tool is a current preoccupation (for example, *Work based learning futures* conference, 2007). Papers that explore this by describing the embedding of reflective activities in WBL programmes of study also illustrated the range of discipline areas in which it is deployed. Graham et al (2006) along with Doncaster and Thorne (2000) and Nikolou-Walker and Garnett (2004) provide details of the use of reflection in generic work-based programmes, while Allin and Turncock (2007) note the value of reflection for supervisors of clinical placements for trainee nurses. Cox (2005) describes how she used reflective diaries with adults in a mentoring project to engage them in guided reflection, and Ferguson (2001), in her masters dissertation, described an example of applying Schön's notion of interacting with a work situation through a "reflective conversation" in order to review her own teaching practice in a classroom for children with severe and profound learning disabilities.

From the foregoing, it is clear that there has been a recent development of thinking about the social context of reflection – both its relevance to organisational learning (for example, Boud et al, 2006) and its practical educational use in group settings (for example, Fook, 2006). However, there is a lack of consensus about reflection and of theorising about it, which is likely to affect the effectiveness of its application. Since reflection is now applied widely in educational contexts, including work based learning ones, these are both important considerations for future work in the area.

Support and guidance for work-based learners

In work-based programmes there is normally an emphasis on learner-managed learning (Stephenson, 2001). For many learners this can present challenges with regard to planning and organising activities, making best use of the learning opportunities offered by the workplace, and reflecting on and maximising the benefits of experience. Such challenges point to a need for an adequate level of support and guidance to enable work-based learners to gain the most from their programmes (Billett, 1999).

The type of learner support needed on work-based programmes generally differs from that needed for both taught courses (Stephenson, 1998; Boud and Costley, 2007) and conventional research degrees (Stephenson et al, 2006). This calls on a different, if overlapping, set of skills from those needed to teach courses or supervise research students, wherein an ability for advisers (teachers) to act in a more facilitative capacity is called upon (Boud and Costley, 2006). The relationship between tutor (and therefore institution) ideally moves from one of expert 'delivery' to partnership 'realisation' (Lester, 2002), something that may not sit easily within the dominant culture of the university (Garnett, 2007).

Stephenson (1998) indicates that independent learners need supportive and enabling structures, along with tutor support for learner responsibility and autonomy. He views the role of the tutor as:

> "a fellow learner, an educational counsellor, a constructive critic, a process consultant and as one that can provide positive support in the case of fails, as well as offering a specialist's expertise. For projects and practitioner research the relationship becomes more one of advising than supervising".

Boud and Costley, 2007

According to Graham et al (2006), support needs to focus on helping people to become active, motivated learners who are able to take responsibility for identifying their learning needs and aspirations and manage the learning process. They also comment on the need to develop learners' abilities for critical reflection and enquiry. Building on this Graham and Rhodes (2007) comment that some learners find reflection an unsettling experience, and emphasise the need for adaptable support for reflective learning that also explains the rules of engagement and sets out boundaries for issues of ethics, trust, confidentiality and so on. Moore (2007) adds there is a need to:

- help work-based learners cope with change and ethical dilemmas
- inspire learning
- encourage networking
- support them to make best use of the resources available in the workplace.

Rhodes and Shiel (2007) state that some learners will be unfamiliar with academic modes of learning and reporting, and will need to be inducted into appropriate ways of working and supported in their use of academic literacies and application of academic skills towards implementing change in the workplace.

Stephenson and Saxton (2005) and Stephenson et al (2006) identify several practical factors that make for good tutor support, whether provided online or personally. These include:

- advice at the time it is needed, mainly in response to queries
- responsiveness to learner initiative and suggestions

- support with generic issues relevant to programme procedures and success criteria

- help in thinking things through

- help to adjust to the (unfamiliar) culture of higher education

- advice that helps learners to formulate, articulate and justify their achievements and intentions

- constructive, confidence-building feedback

- a focus on helping learners take themselves forward

- sensitivity to changes in the learner's workplace.

Several authors comment on the need to provide relevant structures and support in the workplace. Beyond more general discussions of learner guidance, this commentary tends to focus on the value of taking account of, and building on, the communities of practice already present in the workplace (Collin and Valleala, 2005; Viskovic, 2005). The effectiveness of action-learning approaches is noted by some writers (Miller, 2003; Graves, 2006; Zuber-Skerritt, 2006), but their limitations as regards needing a suitable colleague group and favouring some individuals' learning preferences are also recognised.

An emerging issue is that of staff development. Brennan and Little's report to HEFCE on workplace learning strategies (Brennan and Little, 2006) noted that across the spectrum of HE provision many staff now had some experience of engaging with employers and their employees in negotiating (WBL) programmes leading to HE awards. However, they also noted that the distributed nature of workplace learning implied that different aspects of the learning process will need to be shared between different actors, and that a changing division of labour in supporting such learning:

> "will have implication for the roles of academic staff based in higher education and of 'workplace' based staff".

ibid, p83

Further, they noted the delivery of negotiated programmes required changes "to the traditional role of academic staff (which might require new skills sets)" (ibid, p83).

More recent research within the Open University highlights these issues particularly in relation to practice-based professional learning, regarding the educator's role in supporting "student brokerage between different communities of practice" (Adams, 2008, p1), and mediating between employer and academic learning perspectives. Adams draws on notions of boundary spaces and boundary crossing to question whether tutors should be supporting work-based learners to:

> "cross boundaries and learn within different community spaces or to meet and learn **in** those boundary spaces?"

ibid, p6

She does not provide clear-cut answers at this stage – rather she notes the key importance for tutors to recognise the complexity in supporting practice-based learning within different contexts.

Use of virtual and online support

Online and resource-based methods of support are discussed by several writers. Reeve et al (1998) view information and communications technology (ICT) as offering opportunities to improve dialogue and support for work-based learners. Subsequently online support has become a major feature of many WBL programmes, particularly since the introduction of the learndirect LtW system (Stephenson and Saxton, 2005) where initial programme planning and, in many instances, ongoing support are provided via web-based tools and learning environments. A wide range of approaches to online support are discussed, ranging from simple learner-tutor interaction through sophisticated learning environments to simple provision of resources (ibid; Coomey and Stephenson, 2000; Costley and Armsby, 2007). The effectiveness of appropriately used resource materials is noted (Haldane et al, 2007), as is the quality and effectiveness of well-managed online learner-tutor interaction (Bosley and Young, 2006). Young and Stephenson (2007) found that learners are often very responsive to sustaining academic discourse online, and this mode of support for WBL is highly effective provided that tutors adopt a facilitative rather than directive approach while maintaining a focus on the academic parameters of the learning. As practitioner Anthony Basiel points out, however, the technology should be used so that it is pedagogy leading technology and not the other way around; his innovative work in e-learning and the supportive role it plays in WBL is the subject of his doctorate and other publications, details of which can be found at

www.elearning.mdx.ac.uk

Quality issues

An essential need for clarity of definition is central to effective measurement and control of the quality in any sphere of activity. This has proven problematic for innovations that have marked the emergence of higher education within the workplace. As Williams proposed at a recent UVAC conference, WBL:

> "frees higher education from the concept of physical borders and methods of delivery are without limit and the landscape is rich in opportunity".

2006, p191

However, he continued "these factors pose various challenges for effective quality assurance" (2006, p191). He echoes the issues made more forcefully in the QAA code of practice relating to work-based and placement learning (2007), which highlights concerns over the responsibilities of partners, the communication roles and the management of students, employers and universities. The specific aspect of awarding credit for work based learning is noted by Nixon et al (2006). They claim that those practitioners engaged in delivering WBL in various guises find:

> "anomalies exist in the functioning of institutionally or regionally driven credit-based systems. For instance, the maximum amount of credit a student can achieve through APEL varies by institution and as such a rather arbitrary system seems to have emerged".

2006, p51

This challenge is particularly well covered by Brennan (2005) and Connor (2005).

The development of WBL programmes, furthermore, requires close co-operation between the parties who agree to the learning outcomes leading to the academic award. Clearly a stakeholder relationship exists, and through this the relations have a basis both in moral and procedural terms upon which a system of controls can be put into place to give assurance of the quality of the awards. This is clearly an educational institution responsibility (QAA, 2007, p7), but the very idea of combining learning derived from formal education and that derived from the workplace is problematic. Tasker and Peckham (1994), Barnett (2000) and West (2006) claim that academic and industrial values are incommensurable, and that it is only by mutual respect that constructive collaboration can be fruitful.

As Evans et al describe it:

> "the workplace is a site in which antagonistic relationships are expressed".

2006, p6

One approach to resolving this antagonism is the development of learning agreements or contracts. Such agreements are a real attempt to bring the two worlds together to integrate and facilitate the learning experience. Yet despite its advantages, the 'learning contract/agreement' may not offer the credibility required to give parity of esteem with traditional disciplined-based awards. There are continuing debates (in both the worlds of work and education) of **what** higher education is and **how** it should be evaluated.

Pointing out such debates, Nixon et al claim that quality assurance procedures and codes of practice:

> "will need to better reflect the breadth of approaches to flexible learning being adopted by HEIs so as not to stifle innovation in the future".

2006, p51

This point is critical, for without a broad and not simply an instrumental, approach to quality assurance, the development of the transdisciplinary, borderless and practical knowledge creation-oriented nature of WBL will continue to be constrained by an approach to 'knowing' and 'knowledge creation' that is academically subject-based and rigidly self-interested. Arguably such a conservative approach will remain closed to the further democratisation of education through embracing learning in and through the workplace. The quality assurance issues relate both to the **process** and to the **worth** of the knowledge being codified within work-based higher qualifications. The point here is not to seek comparisons or equivalences with propositional knowledge, but to give parity of esteem to practical knowledge and, in doing so, recognise the learning that is **within** and **through** individuals (often realised through workplace endeavours) in a manner that leads to greater openness and fairness.

This may be facilitated by the learning outcome and assessment regimes adopted by the HEI as a way of measuring and evaluating achievement beyond discipline-defined contexts. Work based learning requires an appreciation of:

> "forms of understanding that are sensitive to context, time, change, events, beliefs and desires and power".

Tsoukas, 2005, p4

Thus while subject benchmarks are inevitably concerned with generalisation from constituted bodies of (subject) knowledge, 'canon' and learning, much of work based learning is concerned with the complexity and depth of understanding of specific contexts (Garrick and Rhodes, 2000).

Furthermore, the implementation of learning outcomes enables the widening and deepening of knowledge to be assessed critically and in its full complexity, rather than in the often artificial form structured in discipline knowledge. As Garnett states:

> "The high level of customisation, not only to meet the needs of individual students but also their organizations, is prized within the discourse of modernism which pervades quality assurance in higher education … In this respect work based learning and quality assurance in higher education can be seen as part of the same modernising discourse".

Garnett, 2008

Perspectives from students, tutors, employers and other stakeholders

The experiences and perspectives of the major stakeholders, such as WBL students, tutors and employers, are fundamental elements for the successful delivery and outcome of any WBL programme. However, in one sense, the experiences and perspectives of these stakeholders are the most underdeveloped in the literature of employee learning if it is to be considered as a major strand to inform the development, practice and outcome of work based learning. In another sense, if considered as an integrated component of employee learning that cuts across all domains, especially WBL pedagogy, then its proliferation in the literature cannot be overemphasised. For example, literature by WBL tutors is mostly based on their own experiences and perspectives and/or those of their students and partner organisations or employers in the form of case studies and reflective academic papers (for example, on assessment or professional doctorates).

Despite this, most of the literature that is directly related to this domain has highlighted the usefulness of the experiences of stakeholders in increasing the positive impact of WBL on employee learning. Most stakeholders underscore the benefits and impact of their experiences, while outlining the key challenges and suggesting ways through which greater successes and positive outcomes could be achieved. According to Sutherland (2002), an essential element to increase the impact of work based learning on stakeholders is to ensure that learning opportunities are strongly linked to the learning needs of individuals and organisations within the framework of and context of "future economic and technological changes". This view is complemented elsewhere by Garnett (2003) when reporting a case study on a university-employer partnership; this view suggests that the experience from this partnership illustrates the potential of a well-planned and implemented university-employer partnership WBL programmes to challenge the deficit model of higher education that monopolises the supply of high-level and privileged knowledge to a model that recognises and extends the intellectual knowledge of employers and partners produced in the work context.

A recent impact study of WBL commissioned by The Higher Education Academy, (HEA, forthcoming) involved interviews with WBL graduates from a variety of work-based programmes and their employers. This study suggests that employees and employers generally benefit from WBL programmes with regard to developing practice, building self-confidence and the appropriate skills to take on more challenging roles. However, one important lesson emerging from this study is the need for universities providing WBL to acknowledge the uniqueness of the process in its delivery, and to restructure in order to meet this uniqueness. Reeve and Gallacher (2005) pick on this "structural fitness dilemma" to question the overemphasis of partnership in the development of WBL and work-related learning in HE. They propose that there is limited evidence to suggest that employers are interested in the type of partnership promoted in WBL programmes, partly due to the learning cultures embedded in different organisations and the quality assurance agenda of higher education.

An important message from this review is that there is limited literature available about the impact of WBL programmes generally on employees and employers, including the experiences and perspectives of employees and employers. However, it should be acknowledged that there is an increase in research literature focusing on foundation degrees, which are a particular type of work-related HE.

Participation and progression

Work based learning is widely regarded as increasing participation and progression in higher education, particularly for adult learners, but gaining reliable statistics on this is difficult because of differences in what are recorded in official statistics as work-based programmes (particularly where they are partially work-based) and the effect of substitution for other HE programmes. Although there are some data on work-based learners accessing and progressing through part-time HE programmes, there is less on the effects of participation in WBL programmes of the backgrounds of work-based learners. While in principle work-based HE should provide opportunities for progression from apprenticeships and other level-3 work-based programmes (and there is some anecdotal evidence that this occurs to an extent), there is little formal evidence of how progression is operating; there is also a lack of continuity and dialogue between 'post-16' versions of WBL and those used in HE (Connor and Little, 2005). With the advent of work-related foundation degrees (and renewed emphasis by government on apprenticeships in general) this situation may change in the future.

Nevertheless, universities provide clear evidence that work-based programmes are attracting learners who would otherwise not have engaged with HE or would have taken longer to do so. Accredited programmes in the workplace are reported as engaging people who, while they may have taken part in work-based training or other workplace learning activities, would not otherwise have become involved in HE (O'Doherty, 2006; Hughes et al, 2006; Bellamy, 2008). This occurs at all levels, although at postgraduate level the reasons may emphasise time issues and perceived relevance rather than confidence and issues about going 'to' university; for example, in research by Stephenson et al (2006) a majority of the candidates interviewed had explicitly rejected undertaking a PhD before enrolling on a work-based doctorate.

Several factors appear to support access and participation. The recognition of previous WBL and other experiential learning in place of formal qualifications can open up access to people who may otherwise not consider themselves candidates for university awards; this can include people not currently in work or with little or no work experience, through drawing on learning from other purposeful activity (Bailie, 2000). The use of an APEL process is also described as encouraging and confidence-building; as the starting point in negotiated programmes, it can help learners become 'keyed in' to a potentially unfamiliar process (Costley, 2000), and recognising learning from unpaid sources can be motivating for some learners (Lyons, 2007). Bailie (2000) also comments that the ability to build credit over time is enabling for learners who would not be confident or have the time to commit to a full qualification initially. For busy learners – including the self-employed, business owners and employees in small firms, all traditionally low-participation groups – the ability to build a directly relevant programme around their work and have easy (often online) access to tutor support can be a major selling point (Stephenson and Saxton, 2005).

Several authors comment on issues and barriers relating to WBL. The nature of the workplace heads this list, with some workplaces providing limited opportunities for learning (Brennan and Little, 2006) and little or no employer support (Stephenson and Saxton, 2005); in these circumstances WBL may effectively become independent study. The latter authors also comment in passing that not all learners have ready access to technology at work, and this might be explored further as a potential barrier as expectations of online working increase. Boud and Solomon (2003) discuss the use of the term 'learner' in workplaces, which can carry a connotation of not yet proficient. Finally, Walsh (2006) discusses the effect of employment patterns on equal opportunities, commenting that women may be less able to take advantage of accredited WBL because the factors that affect women's participation and progression in work are likely to limit their opportunity to take up work-based HE programmes.

Broader issues relating to epistemology of, and research in, work based learning and work-based doctorates

Epistemology – perspectives and critique

Discussions on the status of the concept of 'knowledge' in WBL reveal important links between epistemology and the ontology of learning with regard to the constitution of knowledge. Traditionally production of theory has been seen as the preserve of the university and practice as being located in the workplace. However, such conceptions of the site of 'knowledge' construction have increasingly been privileging the role of practice in the workplace (Boud and Solomon, 2001). The consequence has been that WBL has become strategically significant (Brennan and Little, 2006) as part of a new paradigm that challenges the traditional positioning of theory over practice. In this sense it can be seen as a reformulation of 'hierarchies of knowledge'. Moreover, there is a growing focus in the burgeoning field of WBL research on the relationship between 'knowing', 'understanding' and 'judging' these as regards the agency of the worker within organisational and professional work contexts. As Bauer et al have observed it is "unclear to which extent epistemological beliefs contribute to decentralised, informal workplace learning" (2004, p284), and refer to the work of Applebaum and Gallagher (2000), Billet (2001), Boud and Garrick (1999) and Eraut (2000). Generally, the literature related to knowledge derived from the workplace is persistent in showing the hegemony of assumptions of propositional knowledge as the foundational form of knowledge. However, the arguments being put with increasing frequency challenge this assumption of priority and suggest that the knowledge contained in the more codified propositional knowledge is not the sole or even necessarily the main source of knowledge with which workers need to engage. This is now a key area that is acknowledged by many researchers and is reflected in the way that the current expansion in WBL modules and programmes are increasingly structured.

For the most part, the literature relating to work based learning deals with the application of knowledge in the sense of workplace activity and the adoption of workforce norms and identities (Garrick and Rhodes, 2000; Blaka and Filstad, 2007). The literature also acknowledges the concept of 'tacit knowledge' or what Nikolou-Walker (2007) describes as 'unconscious knowledge' embodied in the learner but mainly as skills, specific or generic, in relation to the workplace, and this leads to the perspective that knowledge is necessary to economic development. Here it is conceived in relation to human capital, intellectual capital or structural capital and a knowledge-based economy (Jessop, 2006). These ideas are developed in discussions concerning learning organisations (Nikolou-Walker, 2007).

The increasing adoption of transdisciplinary knowledge or other broader conceptualisations of knowledge and conceptions of 'mode 2' knowledge that emanate from Gibbons et al (1994) is evident in several studies. Briefly, Gibbons et al term 'mode 1' knowledge as the more conventional research-dominated forms of knowledge shared by closed groups of 'scientific communities' who dominate the fields of research, reproducing patterns of higher educational elite determination of 'knowledge'. By way of contrast, 'mode 2' represents a socially distributed, knowledge-production system generated by different research contexts, drawing together disparate disciplines and a wider range of practitioners from outside the academy. By way of cutting across disciplines, raising the importance of context and introducing open boundaries, proponents of 'mode 2' argue the latter form of knowledge production meets the needs of the new knowledge economy more adequately, as well as expanding and further democratising the boundaries of higher education.

The works of the philosopher Gilbert Ryle are often quoted in relation to his specific epistemological understanding of what it is to 'know', in that we should know both in the mode of 'how' and 'what'. Moreover, the insights of Polanyi (1974) in relation to tacit as well as explicit knowledge recognition, have to some extent legitimised these forms. From these central premises other authors have developed an array of ways through which we come to 'know' in the workplace and how we might manifest that knowledge. Furthermore, having acquired knowledge either consciously as coded, or experientially through practice, growing attention has been given to how judgements are made, utilising what is known to direct practice in new, innovative workspaces.

There has been a conscious effort by researchers and academics in the field of work and learning to theorise the concern with work-based knowledge with the appropriate philosophical underpinnings. For example, following the distinctions originating in Aristotle in relation to 'practical philosophy', these forms of knowledge have been traced in the more recent philosophies of Dewey (Beckett and Hager, 2002), Heidegger (Gibbs, 2007), Gilbert Ryle (Lillejord and Dysthe, 2008), Polanyi (Paré and Le Maistre, 2006), Bourdieu (Gibbs and Garnett, 2007) and the approaches to learning and to knowledge of post-structuralist thinkers such as Derrida (1986), Lyotard (1984) and Foucault (Zemblyas, 2006; Seibert and Mills, 2007).

In the context of a developing discourse on work based learning, the category 'work' has conjoint interdependence with both the social 'structure' and also individual 'agency' (Billett et al, 2005). An understanding of how workers base their decision-making processes on acts of judgement owes much to the philosophical insight of Dewey (1933), as quoted in Beckett and Hager (2002). Beckett and Hager also embrace the notion of **phronesis**, yet want to produce an:

> "improvement on this analysis whereby we can acknowledge that workplace learning is a phenomenon deep within practical 'doing' towards certain localised values".

2002, p184

However, WBL literature generally fails to discuss coherently the questions concerning what exactly is meant by knowledge. Are we talking about some form of consensual or community acceptance of 'what it is to know' or about some form of absolute knowledge? This can be linked to Foucault's (1970) notion of a **non-personal structure**, a "grammar of knowledge production" that is revealed by the practice of science, philosophy, art and literature. The products of these are what are regarded as valid knowledge and provide frameworks in which positive knowledge can be gained. The WBL literature, however, tends to conflate the issue of knowledge with thinking, learning, understanding, action and skills (Strati, 2007). Indeed in the field of practice, knowledge is manifest not just in a notion of 'truth' whose claim is supported through method but in various forms of practice and skills. To this extent, knowledge is evidence in action whether this is in relation to intellectual or physical skills and competencies. The creation of knowledge is not restricted to deliberation or reflection prior to action, but it is contextual and as such open to the issues of political, social and economic influence (Gibbs, 2004).

The approach to the study of the creation and acquisition of knowledge necessarily involves discussing learning – both in its transferability and its situation – in relation to personal agency and organisational effectiveness. In most cases such approaches involve phenomenological research and as such an orientation towards what can be taken as knowledge that is not propositional and codified. In this sense the work of Gibbons et al is very influential. It is the accumulation of *experience* that shapes the phenomenon of being, the embodiment of Dreyfus and Dreyfus' (1986) 'expert' or Bourdieu's (2006) 'virtuoso' are manifested in actions of 'mastery'

and situation. This mastery does not simply follow guiding rules or a necessarily conscious rationalising within action, but is about knowing upon reflection. This idea of knowledge derived from practice through reflective practice has been developed by Schön.

Literature in this field arises from what might be classified as geographical coalescences of like-minded scholars. From Australia key research in this area comes from Boud (2001; with Solomon, 2001), Solomon as well as Billett (2002, 2004), Beckett (2000, 2004, 2008), Beckett and Hager (2000, 2002), Hager (2001, 2006; and with Halliday, 2006) and Kemmis (2006). These and others all shine light appropriately on knowledge in the context of work as does the contribution from Northern European (mostly UK) intellectual endeavours of Antonacopoulou (2006), Barnett (1999, 2000, 2002) Eraut (2000, 2004, 2007), Guile (2003; and with Griffith, 2001), Young, (2004, 2006), Hodgkinson (2005), Flyvbjerg (2001), Fuller et al (2007), Fuller and Unwin (2002), Evans (2002, p81) and Engestrom (2001) to name but a few. The third group of geographically concentrated scholarly activity that has contributed to the notion of knowledge in action and agency is that of the North American scholars lead by Dreyfus and Dreyfus (1986), Lave and Wenger (1991), Wenger (1998), Schön (1991) and Raelin (2008).

Finally, there is a growing literature on the practice of WBL researchers, which the next section explores. In emphasising the complexities of 'insider-research' or 'worker-researcher positionalities', the complexities of the workplace may influence epistemological choices or practices. McLaughlin (2004) has suggested insider research creates specific "issues of identity, power, status, language and communication" (2004, p133) which have to be made transparent and considered reflexively.

In the main, the literature comments upon and relates to the concept of knowledge as a workplace phenomena revealed and realised in the workplace through practice. This has an increasing value as a better understanding of the workplace as an environment to learn is accentuated. However, the approach adopted by studies in WBL where the workplace is the location wherein truths are revealed, offers a distinct and undertheorised approach to the notion of 'workplace knowledge'. Portwood (2007) goes so far as to claim the status of a distinct pragmatic paradigm for such an epistemology. Walsh (2007), Costley and Armsby (2007) and Harvey and Linn (2007) have all begun the exploration of how epistemological issues are realised in the workplace, both in the sense of the WBL researcher and in the sense of the nature of the place of the study.

Doctorates in and through work based learning

The purpose and market of the work-based doctorate is generally distinct from that of the conventional PhD; it is fairly widely accepted that (perceived) dissatisfaction with the PhD, both with regard to its format and difficulty in applying it to developing professional practitioners, was one of the main driving forces behind the emergence of professional doctorates in the United States, United Kingdom and Australia (Bourner et al, 2001; Park, 2007; Boud and Tennant, 2006; Laing and Brabazon, 2007). Bourner et al (2000) comment that their objective is generally the development of 'researching professionals' rather than professional researchers, and discussions of professional doctorates frequently refer to the 'knowledge economy' as one of the primary drivers for their emergence (Usher, 2002; Graham and Smith, 2002; Laing and Brabazon, 2007).

Work-based doctorates can have a distinct if overlapping purpose, in that they already require significant immersion in professional activity and are typically taken by mid- and even late-career practitioners motivated by a variety of aims: these include professional extension; developing expertise in practitioner research; drawing together and validating a level of practice and achievement; enhancing the value of a major project or undertaking; developing into a new or transdisciplinary field; and personal satisfaction.
Doncaster and Lester, 2002; Boud and Tennant, 2006; Costley and Stephenson, 2008

In their review of candidates' ambitions in undertaking the Middlesex University DProf, Doncaster and Lester identified two main themes: one was associated with consolidating and giving structure to experience and achievements and formalising theory and ideas, sometimes associated with rounding off a stage of a career or preparing for a new one, and the other was to take forward an application in a disciplined and researching way with the aim of enhancing practice and moving it forward.

Four kinds of doctorate can be regarded as work-based:

Group one This group has evolved among discipline-specific professional doctorates such as the EdD and DBA. These 'second-generation' professional doctorates (Lee et al, 2000; Maxwell, 2003) have moved away from some of the assumptions about academic research traditionally associated with the PhD, and become more accepting of what Gibbons et al (1994) term 'mode 2' knowledge, that is, knowledge created and used in the workplace, and of Schön's constructionist notion of knowledge (Schön, 1987).

Group two The second group, normally entitled DProf or ProfD (although not all doctorates with this title are of this type) has emerged out of the transdisciplinary, negotiated approach to work based learning developed in several universities in the 1990s. This type of doctorate sits in the paradigm of WBL as a distinct field of learning within the university with its own approaches and methodologies (Portwood, 2000); Lester (2004) regards it as a research-and-development or 'practitioner' doctorate that moves beyond the second-generation model, and Stephenson et al (2006) describe it as a 'third-generation' doctorate.

Group three A third group consists of practitioner-oriented PhDs, particularly in the field of business and management that use an action-learning or work-project approach and embody many of the same principles as the DProf (Usher, 2002; Zuber-Skerritt, 2006).

Group four In the visual and performing arts, 'practice-based' PhDs and professional doctorates are becoming common, where an artistic work is typically accompanied by a detailed narrative; these doctorates can test the boundaries of 'doctoral-ness' both in relation to the type

of evidence that can be accepted and in the interpretation of practice as research (Burgess, 2007), with the latter being a particular source of debate given that the practice-based doctorate's main reference point is still normally science and humanities PhDs (Macleod and Holdridge, 2004; Elkins, 2004).

The positioning of work-based doctorates vis-à-vis traditional PhDs and other established forms of doctorate is still the subject of some debate. Boud and Tennant (2006) comment that the PhD is enduringly robust and until other conceptions of 'doctoral-ness' become widely accepted, the PhD model will be the one with which work-based doctorates are compared. In the United States, professional doctorates are not always accepted as being on a par with the PhD, although in the United Kingdom and Australia the level and extent of 'challenge' posed by professional doctorates is generally accepted as equivalent (National Qualifications Authority of Ireland, 2006). Some kinds of professional doctorate are more akin to the 'senior' or 'higher' doctorates awarded in some institutions (Powell and Long, 2005); the expectation in both is of a practitioner who has made a sustained contribution to their field rather than an early career practitioner developing towards a senior level, a description that fits candidates for many work-based doctorates (Doncaster and Lester, 2000; Usher, 2002). At the same time several authors, including Boud and Tennant (2006) and Powell and Long (2005), comment that there has been a convergence between some PhDs and professional (and by extension work-based) doctorates, which indicates that distinctions based on title or programme structure are unreliable.

Much of the debate about the value of different doctoral models centres on the value of the knowledge produced and in particular the function of the PhD as licensing its graduates as researchers (Seddon, 2001). Although there is far from a common epistemology underpinning the conventional PhD, there tends to be an assumption of producing 'mode 1' discipline-based knowledge (Gibbons et al, 1994) that becomes part of the research stock of the university. The acceptance of 'mode 2' knowledge (ibid) as of equivalent value in the university is far from established, and the use of practitioner research to contribute to the academic knowledge-base is highly variable. Scott et al (2004) comment on the tendency of the university to 'colonise' the workplace as regards the knowledge that is considered acceptable, while in a few cases the opposite has occurred and work-based modes of understanding have been accepted into the university. Ways forward are offered by Portwood (2000) and Costley and Armsby (2007), who advocate the acceptance of work based learning as a field of study in its own right, and Lester (2004), who argues that the practitioner doctorate needs to be adequate for engagement with complex 'real-world' issues, generating insights that have academic value. A secondary debate exists in relation to so-called 'taught' doctorates where there is a substantial modular element (Park, 2007; Lunt, 2002), although work-based doctorates tend to focus on single or linked work-based projects or sets of activities rather than being modular in the conventional sense, and in any case many PhDs now contain significant course-based elements.

Several common elements are emerging in work-based doctorates (Boud and Tennant, 2006; Stephenson et al, 2006; Zuber-Skerritt, 2006; Laing and Brabazon, 2007). A transdisciplinary philosophy as articulated by Scott et al (2004) is strongly suggested within which candidates can work within a specific professional area, work across disciplinary and occupational boundaries, or effectively create a relatively unique area of practice. Closely allied to this is the focus on the individual practitioner and their experience as the starting point which leads on to the use of a learning agreement to define the doctoral project. The nature of support also changes from a supervisory one to an advisory one (Boud and Tennant, 2006) as the doctoral candidate becomes regarded as a 'practitioner-learner' (Lester, 2004) or 'autonomous self' (Tennant, 2004) rather than a part-time student. Programmes may or may not provide formal recognition of prior learning, but if they do not they generally allow existing work to be used as

a basis for development of the individual programme. More recently there has been a move to allow existing works to form the basis of the full doctorate (Chisholm and Davis, 2007), in the same way to the PhD or DLitt by publication.

The relative newness of work-based doctorates means that there are few full evaluations of their impact. The Middlesex University DProf has been evaluated by Stephenson et al (2006) and Costley and Stephenson (2007, 2008), indicating that for mature professionals the self-managed approach embodied in the programme design has significant benefits in relation to both process and professional growth, and candidates tend to emphasise generic and sometimes intangible developments in their capability as primary benefits rather than the acquisition of additional specialist knowledge, as it is these aspects that generally have the greatest value in the longer term.

Knowledge and organisations; some broader aspects

The rise of an information age and a post-industrial knowledge economy is widely acknowledged (for example, Castells, 2000; Hislop, 2005) and the linkage of knowledge, learning and work with economic success has led to discussion of the "learning economy" (Nyhan et al, 2003, p15). The policy implications of this linkage for HE in the United Kingdom are discussed by Roodhouse and Swailes (2007).

Stewart (1997, 2004) argues that in the new knowledge economy intellectual capital is the true measure of the wealth of an organisation. The importance attached to the concept of intellectual capital is indicative of a revolutionary shift from the company as a place of production to being a 'place for thinking'. At one level this could be thinking to improve what is already being done or at a deeper level a fundamental change in what is being done. The economic importance attached to knowledge and learning has impacted upon and challenged the role of the university (Barnett, 2000) and the rise of the "corporate university" is a potent symbol of the extent to which HEIs are losing influence (Jarvis, 2001). The role of university courses in the 'knowledge age' is still typically seen as developing the individual for employment or continuing employment rather than developing the intellectual capital of organisations. Garnett (2001) has highlighted that university WBL has the potential directly to contribute to the intellectual capital of organisations. Stewart (1997, pp108–9) outlines the significance of structural capital, which he describes as including not only technologies and inventions but also strategy and culture, structures and systems, and organisational routines and procedures. Central to the value of structural capital to the organisation is that it can help individuals develop their personal knowledge, store and transmit the information derived from it and access information provided by others. Garnett (2005) argues that work-based programmes offer the employer the opportunity not only to develop an individual member of staff but also, through the work-based project, to focus university critical thinking upon project work that has the potential to contribute to the intellectual capital of the organisation by both developing the individual learner and contributing to the development of the structural capital of the organisation.

At the heart of the distinctive nature of university work-based programmes is the role of the external organisation as a partner with the university and the individual learner in the planning of learning activities that are responsive to the needs of a specific workplace. This contests the supremacy of the role of the university in curriculum design, delivery and validation of knowledge (Jarvis, 2001), and while such partnerships can be highly creative (Light, 2006; Garnett, 2007) they are far from being unproblematic and employers and universities bring differing aspirations, practices and even language to the partnership (for example, Reeve and Gallacher, 2005; Rounce et al, 2007).

Mayo (2000, p523) argues that "all intellectual assets are maintained and governed by people". Individual knowledge forms the basis for communication of information to others who will then make sense of it in the light of their own personal knowledge. It follows that a key concern for organisations must be the facilitation of the recognition of knowledge, for example, through reflexive practice and the reduction, as appropriate, of barriers to the socialisation of knowledge. The significance of reflection is widely acknowledged in the work-based literature (for example, Gray et al, 2004; Boud et al, 2006), but the potential of work-based programmes to contribute to the organisation through making tacit knowledge explicit appears relatively underdeveloped.

Current literature suggests that work based learning has the potential to focus upon facilitating knowledge creation, recognition and use at, through and for work rather than just knowledge transfer from the university to the individual student.

Continuing professional development

As a recent report by the Professional Associations Research Network (PARN) notes:

> "continuing professional development embraces a multitude of activities and dimensions … as CPD becomes more widely required and more clearly specified by professional bodies, so too the number of suppliers of the more formal CPD learning opportunities is growing …".

Friedman and Williams, with Hopkins and Jackson, 2008, p13

CPD is now emerging as an important dimension of higher education as professionals are seen as a new market. This has been due to the widening of professionalisation in British workforces (noted above) as well as national HE policies urging closer links between academia and the private sector and other external bodies (including the voluntary and public sectors) with regard to educational partnerships whereby universities have increasingly been involved in accreditation, as well as the assisting and delivery of in-company educational and training programmes in a growing trend of employer engagement in developing the workforce. Carried out in 2006, a PARN survey of UK professional bodies found the vast majority (85%) had CPD policies. The same survey identified changes likely to affect the demand for services relating to CPD that could give HEIs an advantage as potential suppliers. These were the:

- shift towards compulsory CPD

- shift from professional bodies measuring CPD participation by inputs to measuring by outputs

- move towards online provision of CPD

- potential moves towards a more structured programme of CPD using a lifelong learning approach (ibid, p14).

In the more recent period, interest has grown in the design and delivery of a range of coaching and mentoring-related programmes targeted at particular cohorts of professionals that have tended to inflect CPD provision.

In most such cases, the evaluation and accreditation of learning generated in the workplace through APEL has increasingly been deployed in both WBL degree programmes and WBL schemes as part of this rising trend in employer engagement in education and training.

Bierema and Eraut (2004) have pointed out that an increased focus on learning will assist human resource departments and other stakeholders within organisations to develop resources for the promotion of the role of CPD in the workplace. Additionally, in academia and policy-making circles there is the critical recognition of the workplace as a place for lifelong learning for the individual, which along with learner-centred WBL pedagogies underlines the importance of this relationship in developing individuals in the workplace. Some commentators, such as Coffield (2000), have warned that learning in the workplace can be used as a means of social control through selective rewards, which may result in some employees being excluded from the programmes offered. Others writing from the university perspective have warned against the instrumentalism of CPD, which may reduce knowledge to training by not providing in-depth learning but only 'bite-size' opportunities of learning as opposed to the more conventional timescales involved in academic provision.

Eraut and Hirsch note that the Chartered Institute for Personnel and Development (CIPD) – the professional body for both trainers and human resource managers – has highlighted a need to shift from training to learning in the workplace (Eraut and Hirsch, 2007). The CIPD views

learning as supporting people in adjusting to change in the workplace: such support being helped by a range of methods, including more on-the-job training, an increase in the coaching capacity of managers and a concomitant shift away from off-the-job training (ibid, p64).

O'Sullivan (2003) has pointed out that the role of managers in CPD will be important for learners in the future, given the above-mentioned process of accelerated professionalisation on account of the emergence of new technology-driven occupations and exponential growth in the services sector. CPD may benefit from a body of research that goes beyond disciplinary boundaries but also from the recognition that disciplinary literature can inform new syntheses on the nature and functions of CPD.

Models and definitions

The literature on how work based learning and employee learning is developed and structured reflects two main trends: one that focuses on WBL associated with professional learning within the workplace and one that is associated with higher education and accredited learning.

Pedagogic models from the workplace explore processes that try to identify and understand what types of learning can be found and the subsequent codification of these typographies to enable better practice and inform policy. Billett advocates the reappraisal and reconceptualisation of the workplace as a site for learning, and emphases that learning is not exclusively 'situated' but is interdependent on the social practice and individual agency (2001). Evans, Hodkinson and Unwin (2002) gather together research about learning and skills related to individuals and jobs. Fuller, Munro and Rainbird (2004) describe case studies that contextualise workplace pedagogies. Eraut (2004) has written about informal learning at work, learning from experience, tacit knowledge, transfer of learning and intuitive practice, codifying initial professional training to determine how professionals learn in the workplace.

Defining WBL and employee learning can be problematic, as both cover a range of individual and organisation processes. The issue of whether the pedagogic models and the definitions of WBL match-up is an interesting one, and there seems to be variance depending on context. In *A review of work based learning in higher education*, Brennan and Little concluded that WBL could be defined as linking learning to the work role, but not necessarily preparing for a specific job.

Three strands of WBL were identified:

> "learning for work, learning at work, and learning through work".

1996, Introduction

Related to this is Brennan's assertion that WBL suggests that the emphasis is on

> "identifying and demonstrating learning that has occurred through work-based activity, wherever and however this may be achieved".

Brennan, 2005, p4

The other main trend for literature relates to how WBL is practised and integrated within the curriculum of HEIs. In the 'higher education-accredited' literature strand, sources come from research projects, practitioner research and case studies of practice. In most cases, the examples widen the range of pedagogic modelling within the university setting. In a groundbreaking text, *Work based learning: a new higher education?*, Boud, Solomon and Symes present WBL as a distinct pedagogy and describe WBL as:

> "a class of university programmes that bring together universities and work organisations to create new learning opportunities in workplaces. Such programmes meet the needs of learners, contribute to the longer-term development of the organization and are formally accredited as university courses."

Boud et al, 2001, p14

Garnett points out that:

> "WBL is a learning process which focuses university-level critical thinking upon work (paid or unpaid) in order to facilitate the recognition, acquisition and application of individual and collective knowledge, skills and abilities, to achieve specific outcomes of significance to the learner, their work and the university".

Garnett, 2006

Pedagogy is based on the 'field of study' notion, although sometimes not expressed in these terms, that views WBL as examining transdisciplinary 'mode 2' (Gibbons, 1991) knowledge that is learner-centred and yet beneficial to the organisation. WBL pedagogy is realised through project work or through structuring reflection on personal performance in the workplace. However, there seems to be some confusion in the literature between the subject-related strands that model and define WBL and those that are associated with the 'field of study' models (Costley, 2007) that use the workplace as content versus more discipline-related outcomes that use WBL as a way of teaching disciplinary knowledge (Gray, 2001). Gallacher and Reeve (2000) suggested four discourses as being of importance in structuring the process of change for WBL within HE:

- partnership with employers

- flexibility with respect to HE policy and labour-market responsiveness

- relevance to the needs of employers and the economy

- accreditation of experiential learning equal to that of academic learning.

In a sense, all these elements come into play within the different models of WBL in higher education described by Nixon et al (2006). Their study[3] (*Work-based learning impact study, HEA, July 2008* commissioned by the HEA) exploring 'what we know' and 'what we don't know' about WBL in higher education. Drawing on case studies in UK higher education, the authors identified four main types of work based learning, which derived from the motivations of the individual and/or the organisation to invest in learning:

Type 1 investing in learning to improve personal performance in securing new work

Type 2 investing in learning to bring knowledge and skills into the organisation

Type 3 investing in learning to improve personal and professional performance in existing work/organisation

Type 4 investing in learning to improve the organisation's performance and competitiveness.

Such models are useful devices for exploring further perceptions about WBL and the pedagogical approaches of institutions. While types 3 and 4 can be seen as more closely aligned to upskilling/reskilling the existing workforce, Nixon et al's study notes that regardless of 'type', institutions' pedagogical approaches are distinctive in that

> "they emphasise a process – rather than content-driven curriculum which is strongly student-centred and less derived from pre-set curricula".

ibid, p38

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[3] *Work-based learning impact study*, The Higher Education Academy, July 2008. Available at www.heacademy.ac.uk/resources/detail/ourwork/employability/EmployerEngagement/work_based_learning_impact_study

However, such approaches may pose challenges. For example, Sobiechowska and Maisch explore the development of work-based competency-led curricula for the CPD of social workers (2007). They describe experiences of 'delivering' the work based learning and the

> "core struggle in developing and delivering work-based competency-led curricula while also trying to address the pragmatic issues that arise for learners pursuing professional and academic development while in full-time employment".

ibid, pp190–1

Such experiences led to some shifts in the curriculum model and a move away from one based on notions of autonomous, self-directed and self-motivated learners, towards a model where the tutor "mediates the learning in the classroom based on workplace knowledge and experience" (ibid, p191).

A further example of challenges is that explored in relation to the continuing development of healthcare staff. Brown, Harte and Warnes (2007) look at two alternative models. One focuses on the development of knowledge and skills to meet the "base-line expectations and requirements" of employers, which in the healthcare sector implied that staff would be able to maintain safe levels of practice in care settings (what they term the 'affirmative model').

The other, what they term the 'transformative model' is concerned with:

> "liberating creativity and enterprise … the underlying ethos … concerned with promoting change in the workplace, enhancing healthcare delivery and patient care experience, as well as the personal and professional development of care professionals and their leadership skills".

ibid, pp197–8

Brown et al are not advocating one model or the other; rather they suggest they can be seen as two extremes along a continuum. The challenge for institutions developing WBL curricula is to be explicit at which point on the continuum any particular development lies and:

> "… ensuring this [position] is communicated to, and agreed by, all stakeholders is fundamental in developing a successful model of WBL".

ibid, p199

Policy and funding

Government policies encouraging greater linkages between HE and the workplace are not new. Various terms are used to denote the development of people already in the workplace, including:

- professional development

- personal development

- continuing education and training

- employee learning.

In some senses, the first-mentioned terms can be seen as implying an emphasis on the individual taking prime responsibility for the activity, whereas the later might imply the employer takes responsibility for ensuring the continuing development of the workforce.

In the early 1990s, the Employment Department launched, with the support of both the Trade Union Congress and the Confederation of British Industry, the Investors in People (IIP) initiative. This initiative urged employers to invest in effective action to ensure that people at all levels of the workforce had the necessary skills to operate effectively, and that the workforce was continually developing and possessed sufficient high-level skills, enterprise and initiative to compete internationally. At the same time, there were calls for the expanding and more diverse HE system to be based on "true partnerships between employers and higher education" (Ball, cited in Brennan and Little, 1996). Such exhortations were not without their critics. For example, Hughes and Tight (1995, cited in Brennan and Little) suggested these calls hid underlying issues of empowerment and exploitation of individuals.

The Dearing Report (NCIHE, 1997) called for more investment in training of employees to ensure a more highly educated workforce, and noted that:

> "in the future competitive advantage for advanced economies will lie in the quality, effectiveness and relevance of their provision of education and training and the extent of their **shared** commitment to learning for life".

NCIHE, para 24, bold added for emphasis

Notwithstanding the use of the word 'shared', the onus seemed to be placed on individuals who:

> "… will increasingly need to develop new capabilities and to manage their own development and training throughout life …".

ibid, para 19

The report seemed to view employers' responsibility in the more limited, though important, aspect of contributing to the cost of employees' education and training.

Alongside its response to the Dearing Report, the Government's green paper, *The learning age*, (DfEE, 1998) contained key proposals for making it easier for employers and individuals to learn, and in particular envisaged employers, individuals and their trade unions working together to support and develop skills. Coffield, who at the time had been directing the ESRC's major research programme on the Learning Society criticised many of the ideas within the green paper, observing that government proposals lacked any underlying theories of learning; a major omission being the lack of reference to emergent social theories of learning which were shifting attention away from (solely) cognitive processes towards structures, relationships and opportunities within workplaces (Coffield, 2000). Further, Coffield considered such policies for

lifelong learning were inherently based on individualism, embracing naive notions of self-esteem and individual motivation but precious little about society (Coffield, 2000). More particularly, research on workplace learning noted that the workplace itself was a crucially important site for learning and access to learning (Evans, Hodkinson and Unwin, 2002). Evans et al called for better understandings of the social nature of workplace learning and the economic and political frameworks that shape, regulate and drive policy in the area.

More generally, employer demand for employee learning has often been criticised. As Nixon et al noted in 2006:

> "… in the last two decades, government has attempted, through policy interventions and greater levels of public subsidy, to redress the UK's underinvestment in skills and the perceived market failure of employers …".

Nixon, Smith, Strafford and Camm, 2006, p48

They note that the issue of a "low skills equilibrium", wherein low-value goods and services demand low levels of skills, is believed to be partly down to a lack of employer demand for higher level skills rather than a deficit model created by a lack of provision.

With the establishment of a National Skills Task Force in 1998, the Government aimed to develop a national skills agenda; this agenda (which unsurprisingly still has resonance some ten years on) set out longer-term measures to meet skill needs, including a renewed focus on how to improve the extent and quality of the learning in the workplace. Initially, the Government was looking at actions that would improve the status of apprenticeship training and widening participation in such training. Though not the focus of this literature review, it is interesting to note that a decade later, the Government is still trying to reinvigorate and broaden the scope of the apprenticeship system (see, for example, DIUS and DWP, 2008).

While the National Skills Task Force may have focused on knowledge and skill needs below HE level, the white paper *The future of higher education* (2003) put HE centre stage, setting out plans for radical reform and investment in universities and HE colleges (DfES, 2003). The main context for the white paper was the growth in international competition and the Government's desire to avoid the risk of decline by making the system more internationally competitive and market responsive. It envisaged a differentiated HE sector and emphasised the role of education as a force for opportunity and social justice. The Government also signalled its desire for higher education to play a greater role in supporting business, noting that less than one in five businesses tapped into the skills and knowledge of universities. As part of this 'push' towards greater support for business, the Government justified further expansion of higher education on economic grounds and saw the bulk of the expansion coming through new types of qualification, in particular the foundation degree. Critics at the time noted that employer demand would be the key to the success of foundation degrees, but this aspect had not been convincingly addressed. Further, there seemed to be an assumption that poor students would be attracted to do foundation degrees "which may become a ghetto for the poor, with those who can afford it taking 'real degrees'" (Bekhradnia, 2003).

The major focus of the Lambert review of universities' collaboration with business (2003) was knowledge transfer (in the form of research and development) rather than developing people already in the workplace, with the challenge being how to raise overall **demand by business** for research from all sources. Such a challenge seemed to have strong parallels "…with comparable studies about UK firms' sub-optimal demand for properly trained personnel" (Brown, 2004). The continuing view of policy makers that workforce qualifications and skills are

central to economic success is often criticised by those who have undertaken substantial studies of organisational performance (for example, those involved in the ESRC-funded Future of Work programme at the University of Leeds). They argue that research evidence suggests that investment in human capital is not the sole source of competitive success, and although levels of workforce qualifications may have been increasing, corresponding changes in the use of these qualifications have not taken place in the workplace (see, for example, Rainbird, Fuller and Munro, 2004). Rainbird et al acknowledge that it is difficult for governments to intervene in workplace decisions about jobs and the organisation of production, which together might increase employer demand for, and use of, more highly skilled employees.

Alongside the Government's vision for higher education, its National Skills Strategy set out to ensure that employers had the right skills to support their businesses and that individuals had the skills needed to be both employable, adaptable and personally fulfilled (DfES, DTI, HM Treasury, DWP, 2003). The Skills Strategy white paper was primarily about England, reflecting the devolution of responsibilities for education and training to Scotland, Wales and Northern Ireland. Its prime focus was on skills at levels below higher education and on raising the effectiveness of FE colleges and training providers to meet employer needs. However, it also looked to the HE sector to address employer needs and in particular for HEFCE to address the barriers to workplace learning and **secure wider employer buy-in** to higher education. The latter could be seen as a further call for greater employer demand (and incidentally signalling early intentions about radical changes to funding). The term 'workplace learning' was not elaborated but a major study undertaken to inform HEFCE's workplace learning strategy adopted an approach that encompassed learning through work that was embedded and accredited in an HE programme, and took into account learners who were already in employment as well as HE students yet to enter the labour market 'proper' (Brennan and Little et al, 2006).

A review of the academic literature undertaken to support that study noted many contradictions in the literature in respect of key issues of knowledge, learning and their contexts (Harris, 2006). The review noted that much of the literature tended to overemphasise the extent of changed patterns of work organisation in the United Kingdom, and referred to some critics noting (yet again) an emphasis on individual training (and the individual's responsibility to maintain their employability) but little regard for corresponding structural measures that might increase employer demand for training and development for their workforces. Drawing on the findings from a number of ESRC-funded studies (and in particular the work of Fuller and Unwin, 2004; Ashton and Sung, 2002; Evans, Hodkinson and Unwin, 2002), Brennan and Little summarised some of the challenges posed as follows:

> "workplaces differ considerably in their potential as learning settings; differ in terms of the equality of access to learning that they offer; many UK workplaces must be considered as being 'low skill' and offering poor opportunity for learning".

Brennan and Little, 2006, pp21–2

The white paper (2005) *Skills: getting on in business, getting on at work* set out the Government's plan for its next major phase of reform in improving the UK's skills performance (DfES, DTI, HM Treasury, DWP, 2005). Like the 2003 Skills Strategy, much of this white paper was concerned with meeting the skill needs of employers at lower levels. However, there was also some recognition that as jobs become more complex and demanding, the need for HE-level skills and qualifications will become more common in a wide range of employment sectors. New ways of supporting higher education in the workplace were to be developed (based on an examination of how employer-delivered HE training could be better supported) and HEFCE was

charged with the task of investigating how it could stimulate more **joint financing** of foundation degree programmes with employers.

Those representing employers have called for a more centrally driven push towards upgrading the skills of the existing workforce at higher levels and helping organisations (in particular small organisations) to identify their needs and find appropriate provision (CIHE, 2005). In its report on workforce development, the Council for Industry and Higher Education argued that an overall strategy was needed to pull together various government policies that, in different ways, were encouraging higher education to develop more links with employers. It recommended (among other things) better articulation of the benefits of workforce development to employees and employers. However, alongside calls for centrally driven strategies, Nixon et al remind us that (within England) drives to improve higher level skills are increasingly being addressed through regional strategic planning arrangements. Moreover, regional development agencies are playing a more significant role in relation to the distribution of earmarked HE funding (Nixon et al, 2006).

Funding aspects of workforce development were also considered in the CIHE report, which recommended the encouragement of co-sponsorship of learning between the state, employer and individual through the consideration of the costs and benefits to all parties. Earlier studies (for example, York Consulting, 2003) had shown that WBL leading to HE qualifications could be more resource-intensive than conventional models of teaching and learning; for Nixon et al, providing cost-effective solutions would continue to challenge institutions looking to expand provision in this area.

The study to inform HEFCE's workplace learning strategy also considered funding aspects (see Jossleyn and Ratcliffe, 2006, for further details). Concepts of entitlements for learners, employers and providers were discussed, and Jossleyn and Ratcliffe concluded that given the complexity of different delivery models for workplace learning, any system for funding such provision would need to balance fairness, complexity and efficiency. Since 2006, successive grant letters to HEFCE from the (then) Department for Education and Skills have sought radical changes in HE provision by incentivising and funding provision partly or wholly designed, funded or provided by employers. Pilot funding partnerships between employers, learners and providers have been the focus of three regional Higher Level Skills Pathfinders (funded by HEFCE), which are currently being evaluated. In the meantime, the Government's most recent consultation paper on high-level skills (DIUS, 2008) reiterates its intention to develop a new model for HE funding that is:

> "co-financed with employers, achieves sustained growth in employer based student places, and introduces the principle of employer demand-led funding".

DIUS, 2008, p31

The Leitch Review of Skills was set up at the end of 2004 (by the Chancellor of the Exchequer and the Secretary of State for Education and Skills) with a remit to examine the optimum skills mix in the United Kingdom to maximise economic growth and productivity and consider different trajectories of skill levels that might be pursued; it reported in 2006 (Leitch Review of Skills, 2006). Its main focus was on adult skills, and the review noted that by international standards the skills base in the United Kingdom was weak and held back productivity, growth and social justice.

Keep's critique of the Leitch Review, which draws on a wealth of research (much undertaken under the auspices of the ESRC-funded Centre on Skills, Knowledge and Organisational Performance), notes that Leitch's analysis centres on a:

> "relatively crude international benchmarking of qualification stocks and hence a policy based on simple targets for the accumulation of human capital [but] … as a great deal of research demonstrate, on its own this is unlikely to be sufficient to generate major general improvement in national economic performance".

Keep, 2007, p1

Keep suggests that a focus on amassing a more qualified workforce distracts from the task of:

> "developing skills interventions that are much better integrated with wider economic development and business improvement policies".

Keep, 2007, p2

In a similar vein, Scotland's discussion paper on public policies on skills, enterprise and economic development reiterates the importance of skills in personal, social and economic terms (Futureskills Scotland, 2007). However, while accepting that government strategies on skills need to ensure that any supply of skills can adapt and respond to demand, it also highlights the importance of creating conditions that encourage employers to demand more highly skilled workers, focusing on economic levers that:

> "raise employer self-interest in pursuing high value added, high skill strategies while ensuring sufficient incentives and regulatory alignment for supply to adapt and respond to this demonstrable demand"

Futureskills Scotland, 2007, p28

The Scottish Government's own report on skills notes that other countries, notably Scandinavia, have well-established programmes aimed at workplace and work organisation development; although even there it is a lengthy and complex process (the Scottish Government, 2007). It also notes that:

> "… simply adding more skills to the workforce will not secure the full benefit … unless employers and individuals maximise the benefits that they can derive from these skills … how skills interact with other drivers of productivity, such as capital investment and innovation, is crucial".

ibid, p13

In setting targets for improving skills levels (in response to the Leitch review), the UK Government recently published a consultation paper setting out its strategy for high-level skills (DIUS, 2008). In addition to seeking more and more employable graduates, the strategy aims to raise the skills and capacity for innovation and enterprise of those already in the workforce. The high-level skills strategy paper focuses (again) primarily on supply-side questions, but also makes explicit reference to encouraging employer demand for high-level skills.

Further, the high-level skills consultation paper is one of a raft of strategy documents aimed at ensuring the future economic prosperity of the United Kingdom and its quality of life. For example, it complements the Government's Enterprise Strategy (HM Treasury, BERR, 2008) and the Innovation white paper (DIUS, 2008). The latter seeks, among other things, to drive increased demand for innovation products and services and (through the new Commission for Employment and Skills) to pursue work on high-performance working practices to increase value added in business. Only time will tell whether, taken together, these complementary strategies will:

> "help position Britain as a key knowledge economy at the forefront of 21st century innovation and enterprise".

DIUS, 2008a, p5

Appendix A

**Table A1 Advisory role in WBL projects and non-WBL projects:
some frequently found differences**

WBL advising	Non-WBL advising
Three-way relationship: often mediated between student, adviser, work supervisor	Direct two-way relationship: Student, adviser
Commonly involves parties other than the student, adviser and work supervisor	Less common to involve parties other than the student and adviser
Multi-mode contact	Typically face-to-face
Negotiation of topic and process	May be unilateral
Plan negotiated at start	Plan is more often emergent
Formalised three-way learning agreement	Learning agreement not common
May be assessed by practitioner	Sometimes assessed by practitioners (depends on context of project in course)
Products highly varied, but typically include reflective component	Conventional academic output, such as reports, may not include reflective component
Learner is an insider and expert in subject area/context	'Supervisor' expert in subject area/topic
Adviser expert in frameworks/levels of achievement	Framework/level of achievement pre-defined for student
Adviser expert in epistemology of practice (including linking knowledge)	'Supervisor' expert in epistemology of discipline
Adviser and learner have distinct areas of expertise	'Supervisor' and learner often in relationship of authoritative power

Taken from Boud and Costley, 2006, p172

Appendix B

Table 1 Overview of literature by category and references

Item	Categories	No. of references
1	Curriculum, teaching, learning and assessment	93
2	Planning: learning agreements/contracts	26
3	Accreditation (APEL and accredited courses)	77
4	Research methodology	33
5	Practitioner-led projects	44
6	Reflection/reflexivity	46
7	Student support and guidance	40
8	Quality issues	12
9	Perspectives from students, tutors, employers and other stakeholders	33
10	Participation and progression	6
11	Epistemology, perspectives and critique	150
12	Professional doctorates	74
13	Knowledge and organisations	81
14	Policies and funding	33
15	Higher education, skills and employer engagement	78
16	Continuing professional development	13
17	Models and definitions	82

Part three

Bibliography

Abukari, A, 2007, *Work based learning: old wine In a new bottle?*, Universities Association for Lifelong Learning (UK) Work Based Learning Network conference, Middlesex University.

Adams, A, Brewer, M, Marshall, I, Tolley, G and Whelan, T, 1994, *And it must count: work based learning for academic credit in higher education,* London: Learning from Experience Trust.

Alderman, B and Milne, P, 1998 'Partners in learning — educators, practitioners and students collaborate on work based learning — a case study', *Higher Education Research and Development*, 17, **2,** 229–238.

Allin, L and Turncock, C, 2007, *Reflection on and in the workplace for work based supervisors.* Available at: www.practicebasedlearning.org/resources/materials/docs/Reflection%20Work%20Based %20Supervisors/page_01.htm [accessed 20 November, 2007].

Alvesson, M and Deetz, S, 2000, *Doing critical management research*. London: SAGE.

Anderson, G, Boud, D and Sampson, J, 1998, 'Qualities of learning contracts' in J Stephenson, and M Yorke (eds), *Capability and quality in higher education*, London: Kogan Page.

Anglia Polytechnic University and National Extension College, 2001, *Work based learning, making it happen*, conference papers, March. Available at: www.uvac.ac.uk/downloads/ 0401_publications/UVAC%20Conference%20Proceedings%202006.pdf [accessed 29 April, 2010].

Antonacopoulou, E, P, 2006, 'Working life learning: learning-in-practice' in E P Antonacopoulou, P Jarvis, V Andersen, B Elkjaer and S Hoeyrup (eds), *Learning, working and living: mapping the terrain of working life learning*, 234–54, London: Palgrave.

Appelbaum, S, H and Gallagher, J, 2000, 'The competitive advantage of organizational learning', *Journal of Workplace Learning*, 12, **2**.

Argyris, C, 1999, *On organizational learning* (2nd ed), Oxford: Blackwell Science.

Armsby, P and Costley, C, 2000, 'Research driven projects' In D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices,* Birmingham, Staff and Educational Development Association (SEDA paper 109).

Armsby, P and Workman, B, 2007, *Mapping work based learning*, Middlesex University.

Armsby, P, 2000, 'Methodologies of work based learning' in D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices,* Birmingham, Staff and Educational Development Association (SEDA paper 109).

Armsby, P and Costley, C, 2000, 'Research driven projects' in D Portwood and C Costley (eds), *Developing work based learning in a university,* Nottingham: SEDA.

Armsby, P, Costley, C and Garnett, J, 2006, 'The legitimisation of knowledge: a work based learning perspective of APEL', *International Journal of Lifelong Learning and Education*, 25, **4**, 369–383.

Ashton, D and Sung, J, 2002 *Supporting workplace learning for high performance working,* Geneva: International Labour Office.

Ashton, D, Brown, P and Lauder, H, 2003, *International best practice on workforce development* (final report), Wales: Education and Learning.

Atkinson, P and Hammersley, M, 1998 'Ethnography and participant observation' in N Denzin and Y Lincoln (eds) *Strategies of qualitative inquiry*, London: SAGE.

Bailey, T, R, Hughes, K, L and Moore, D, T, 2004, *Working knowledge: work based learning and education reform,* London: Routledge Falmer.

Bailie, S, 2000, 'Systems of APEL: a six point typology' in S Bailie and C O'Hagan (eds), *APEL and lifelong learning,* Newtownabbey: Forum for the Advancement for Continuing Education and the University of Ulster.

Bailie, S and O'Hagan, C, 2000, *APEL and lifelong learning,* Newtownabbey: Forum for the Advancement for Continuing Education and the University of Ulster.

Barber, B, 2006, *Becoming a practitioner researcher: a Gestalt approach to holistic inquiry,* London: Middlesex University Press.

Barkatoolah, A, 2000, 'From competence audit to APL: the French experience of APL in higher education' in S Bailie and C O'Hagan, *APEL and lifelong learning,* Newtownabbey: Forum for the Advancement for Continuing Education and the University of Ulster.

Barlow, N, Lyons, A and Margham, P, 1998, 'Learning at work within the Ford Motor Company', *Global Journal of Engineering Education,* 2, **2,** 195–7.

Barnett, R, 1999, *Learning to work and working to learn* in D Boud and J Garrick (eds) *Understanding learning at work*, London: Routledge.

Barnett, R, 2000, 'Working knowledge', *Research and knowledge at work,* 11,15–31.

Barnett, R, 1997, *Higher education: a critical business,* Buckingham, Open University Press.

Barnett, R, 2000, *Realising the university in an age of supercomplexity*, Buckingham: SRHE and OU Press.

Bauer, J and Gruber, H, 2007, 'Workplace changes and workplace learning: advantages of an educational micro perspective', *International Journal of Lifelong Education,* 26, **6**, 675–88.

Beard, C and Wilson, J, 2002, *The power of experiential learning,* London: Kogan Page.

Beattie, R, 2006, 'Line managers and workplace learning: learning from the voluntary sector', *Human Resource Development International,* 9, **1**, 99–119.

Beckett, D, 1992, 'Straining training: the epistemology of workplace', *Learning Studies in Continuing Education,* 14, **2**, 130–42.

Beckett, D, 2000, 'Making workplace learning explicit: towards an epistemology of practice for the whole person', *Westminster Studies in Education,* **23**, 41–54.

Beckett, D, 2004, 'Embodied competence and generic skill: the emergence of inferential understanding', *Educational Philosophy and Theory,* 36, **5**, 497–508.

Beckett, D, 2008, 'Holistic competence: putting judgements first', *Asia Pacific Educational Review*, 9, **1,** 21–30.

Beckett, D and Hager, P, 2002, *Life, work and learning practice in postmodernity*, Abingdon: Routledge Taylor & Francis Group.

Beckett, D and Morris, G, 2001, 'Ontological performance: bodies, identities and learning', *Studies in the Education of Adults*, 33, **1,** Leicester: NIACE (England and Wales).

Beckett, D and Hager, P, 2000, 'Making judgements as the basis for workplace learning; towards an epistemology of practice', *International Journal of Lifelong Education*, 19, **4**, 300–11.

Beckett, D, Agashae, Z, Oliver, V, 2002, 'Just-in-time training: techne meets phronesis', *Journal of Workplace Learning,* 14, **8**, 332–39.

Bekhradnia, B, 2003, 'Higher education white paper – initial commentary', in *CHERI Digest Supplement*, **45**, Spring.

Bellamy, M, 2008, 'Work based learning and the undergraduate curriculum' in J Garnett, C Costley and B Workman (eds), *Work based learning: journeys to the core of higher education*, London: Middlesex University Press.

Bennett, N, Dunne, E and Carre, C, 2000, *Skills development in higher education and employment,* Buckingham: SRHE.

Bierema, L and Eraut, M, 2004, 'Workplace-focused learning: perspective on continuing professional education and human resource development', *Advances in developing human resources,* 6, **1**, 52–68.

Billet, S, 1999, 'Guided learning' in D Boud and J Garrick, *Understanding learning at work,* London: Routledge.

Billett, S, 1998, 'Understanding workplace learning: cognitive and sociocultural perspectives' in D Boud (ed), *Current issues and new agendas in workplace learning*, Adelaide, Australia: National Centre for Vocational Educational Research.

Billett, S, 2001, *Workplace affordance and training authority*, Brisbane Australian Vocational Education and Training Research Association (AVETRA) Conference 4th, Adelaide Australia, March 28–30 2001.

Billett, S, 2001, 'Participation and continuity at work: a critique of current workplace learning discourses', in *Context, power and perspective: confronting the challenges to improving attainment in learning at work*, Joint Network/SKOPE/TLRP international workshop November 8–10, 2001, Sunley Management Centre, University College of Northampton. Available in the informal education archives: www.infed.org/archives/e-texts/billett_workplace_learning.htm [accessed 29 April, 2010].

Billett, S, 2002, 'Critiquing workplace learning discourses: participation and continuity at work', *Studies in the Education of Adults*, 34, **1,** 56–66.

Billett, S, 2002, *Workplace learning as co-participation*, Annual meeting of the American Educational Research Association New Orleans, LA April 1–5, 2002) Available from: www.eric.ed.gov/ERICDocs/data/ericdocs2/content_storage_01/0000000b/80/27/8b/f9.pdf [Accessed 25 November, 2002]

Billett, S, 2002, 'Workplace pedagogic practices: co-participation and learning', *British Journal of Educational Studies,* 50, **4**, 457–81, Oxford: Blackwell Publishing on behalf of the Society for Educational Studies.

Billett, S, 2003, 'Workplace mentors: demands and benefits', *Journal of Workplace Learning*, 15, **3**, 105–13.

Billett, S, 2004, 'Learning in the workplace: reappraisals and reconceptions balancing the skills equation', in G Hayward and S James (eds), *Key policy issues and challenges for policy and practice*, 149–70, Bristol: The Policy Press UK.

Billett, S, 2004, 'Workplace participatory practices: conceptualising workplaces as learning environments', *Journal of Work Place Learning,* 16, **6**, 312–24.

Billett, S, 2006, 'Constituting the workplace curriculum', *Journal of Curriculum Studies,* 38, **1**, 31–48.

Billett, S, 2006, 'Relational interdependence between social and individual agency in working life'*, Mind, Culture and Activity,* 13, **1**, 53–69.

Billett, S, Fenwick, T, Somerville, M (eds), 2007, *Work, subjectivity and learning,* London: SpringerLink.

Billett, S, McCann, A and Scott, K, 1998, *Workplace mentoring: organising and managing effective practice*, Centre for Learning and Work Research, Brisbane: Griffith University.

Billett, S,R, Smith, R, Barker, M, 2005, 'Understanding work, learning and the remaking of cultural practices', *Studies in Continuing Education*, 27, 219–237

Bishop, D, Felstead, A, Fuller, A, Jewson, N, Lee, T and Unwin, L, 2006, Connecting culture and learning in organisations: a review of current themes, in *Learning as work,* research paper No.5, 2006, Cardiff University: School of Social Sciences.

Bjerlov, M and Docherty, P, 2006, 'Collective reflection under ambiguity' in D Boud, P Cressey, and P Docherty (eds) *Productive reflection at work: learning for changing organisations,* London: Routledge.

Blaka, G and Filstad, C, 2007, 'How does a newcomer construct identity? A socio-cultural approach to workplace learning', *International Journal of LL Education,* 26, **1**, 59–73.

Bolton, G, 2006, *Reflective practice* (2nd ed), London: SAGE.

Bond, C and Wilson, V, 2000, 'Bridging the academic and vocational divide – a case study on work based learning in the UK NHS', *Innovations in Education and Training International,* 37, **2**, 134–44.

Bosley, S and Young, D, 2006, 'On-line learning dialogues in learning through work', *Journal of Workplace Learning*, 18, **6,** 355–66.

Boud, D and Costley, C, 2006, 'From project supervision to advising: new conceptions of practice,' *Innovations in Education and Teaching International*, 44, **2**, 119–30.

Boud, D and Solomon, N, 2001, 'Future directions for work based learning: reconfiguring higher education' in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Buckingham: Society for Research into Higher Education/Open University Press.

Boud, D and Middleton, H, 2003, 'Learning from others at work: communities of practice and informal learning', *Journal of Workplace Learning*, 15, **5,** 194–202.

Boud, D, Solomon, N and Symes, C, 2001, 'New practices for new times' in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Buckingham: Society for Research into Higher Education/Open University Press.

Boud, D, 1998, 'How can university work-based courses contribute to lifelong learning?' in J Holford, P Jarvis and C Griffin (eds), *International perspectives on lifelong learning.* London: Kogan Page.

Boud, D, 1998, 'Promoting reflection in professional courses: the challenge of context', *Studies in Higher Education*, 23, **2,** 191–206.

Boud, D, 1999, 'Avoiding the traps: seeking good practice in the use of self assessment and reflection in professional courses', *Social Work Education*, 18, **2,** 121–32.

Boud, D, 2000, 'Sustainable assessment: rethinking assessment for the learning society', *Studies in Continuing Education*, 22, 2, 151–167.

Boud, D, 2001, 'Creating a work-based curriculum', in D Boud and N Solomon (eds) *Work based learning: A new higher education?*, Buckingham: Society for Research into Higher Education/Open University Press.

Boud, D, 2001, 'Knowledge at work: issues of learning' in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Buckingham, Society for Research into Higher Education/Open University Press.

Boud, D, 2006, 'Combining work and learning: the disturbing challenge of practice', in R Edwards, J Gallaghar and S Whittaker, *Learning outside the academy: international research perspectives in lifelong learning,* Oxon: Routledge.

Boud, D, Cohen, R and Walker D (eds), 1993, *Using experience for learning*, Buckingham and Bristol: Society for Research in Higher Education and Open University Press.

Boud, D and Costley, C, 2007, 'From project supervision to advising: new conceptions of the practice', *Innovations in Education and Teaching International*, 44, **2,** 119–130.

Boud, D and Garrick, J, 1999, 'Understandings of workplace learning', in D Boud and J Garrick (eds), *Understanding learning at work,* London: Routledge.

Boud, D and Garrick, J (eds), 1999, *Understanding learning at work*, London: Routledge. Includes: Bamett, R, 1999, 'Learning to work and working to learn' and Billett, Stephen, 1999, 'Guided learning in the workplace'.

Boud, D and Middleton, H, 2003, 'Learning from others at work: communities of practice and informal learning', *Journal of Workplace Learning,* 15, **5**, 194–202.

Boud, D and Solomon, N, 2001, 'Repositioning universities and work', in D Boud and N Solomon (eds), *Work based learning: a new higher education?* Buckingham: Society for Research in Higher Education and Open University Press.

Boud, D and Solomon, N, 2001, 'Future directions for work based learning: reconfiguring HE', in D E Boud and N E Solomon (eds), 2001, *Work based learning: a new higher education*, Buckingham: Society for Research in Higher Education and Open University Press.

Boud, D and Solomon, N, 2003, 'I don't think I am a learner: acts of naming learners at work', *Journal of Workplace Learning*, 15, **7/8,** 326–31.

Boud, D and Solomon, N (eds), 2001, *Work based learning: a new higher education,* Buckingham: SRHE and OU Press.

Boud, D and Tennant, M, 2006, 'Putting doctoral education to work: challenges to academic practice', *Higher Education Research and Development,* 25, **3**, 293–306.

Boud, D and Walker, D, 1991, *Experience and learning: reflection at work*, Faculty of Education, Geelong, Victoria Australia: Deakin University.

Boud, D, Cressey, P and Docherty, P (eds), 2006, *Productive reflection at work: learning for changing organisations,* London: Routledge.

Boud, D, Solomon, N and Symes, C, 2001, 'New practices for new times', D E Boud and N E Solomon (eds), 2001, *Work based learning: a new higher education?,* Buckingham: Society for Research in Higher Education and Open University Press*.*

Bourdieu, P, 2006, *Outline of a theory of practice,* Cambridge: Cambridge University Press.

Bourner, B and Laing, S, 2001, 'The adoption of professional doctorates in English universities: Why here? Why now?' in B Green, T W Maxwell and P Shanahan (eds), *Doctoral education and professional practice: the next generation,* 39–68, Armidale, NSW: Kardoorair Press.

Bourner, T, Bowden, R and Laing, S, 2001, 'The adoption of professional doctorates in English universities: Why here? Why now? in B Green, T W Maxwell and P Shanahan (eds) *Doctoral education and professional practice: the next generation?,* Armidale, NSW: Kardoorair Press.

Bourner, T, R, Bowden and Laing, S, 2000, 'Professional doctorates: the development of researching professionals' in T Bourner, T Katz and D Watson (eds), *New directions in professional education,* Buckingham: Society for Research in Higher Education/Open University Press.

Bourner, T. Bowden, R and Laing, S, 2001, 'Professional doctorates in England', *Studies in Higher Education,* 26, **1**, 65–83.

Bradley, C and Oliver, M, 2002, *The evolution of pedagogic models for work based learning within a virtual university*, Oxford: Elsevier Science Ltd.

Bratlien, M, J, 1992, 'The professional studies doctorate; leaders for learning', *Journal of School Leadership*, 2, **1,** 75–89.

Breidensjo, M and Huzzard, T, 2006, 'Reflecting on workplace change' in D Boud, P Cressey, and P Docherty (eds) *Productive reflection at work*, Abingdon: Routledge.

Breier, M, 2006, 'A disciplinary-specific approach to the recognition of prior informal experience in adult pedagogy: rpl as opposed to RPL' in P Andersson and J Harris (eds) *Re-theorising the recognition of prior learning,* Leicester: National Institute of Adult Continuing Education.

Brennan, J and Little, B, 1996, *A review of work based learning in higher education*, London: CHERI Centre for Higher Education Research and Information and Open University Press.

Brennan, J and Little, B, 2006, 'Shifting boundaries between higher education and work: the role of workplace learning', *Higher Education Digest,* 55, 1–8.

Brennan, J and Little, B, 2006, *Towards a strategy for workplace learning.* Milton Keynes: CHERI and KPMG (Report for Higher Education Academy).

Brennan, J and Little, B, with Connor, H, de Weert, E, Delve, S, Harris, J, Josselyn, B, Ratcliffe, N and Scesa, A, 2006, *Towards a strategy for workplace learning,* Bristol: Higher Education Funding Council for England. Available at: www.hefce.ac.uk/pubs/rdreports/2006/rd09_06/report.htm [accessed 27 April, 2010].

Brennan, L, 2005, *Integrating work based learning into higher education: a guide to good practice*, Bolton: University Vocational Awards Council.

Brennan, L, 2005, *Integrating work based learning into higher education: a guide to good practice*, University Vocational Awards Council, 2005. Sponsored by the LCCI Commercial Education Trust. Available at: www.uvac.ac.uk/downloads/0401_publications/int_wbl.pdf [accessed 27 April, 2010].

Brennan, L and Hemsworth, D, 2007, *Incorporating into higher education programmes the learning people do for, in and through work: a guide for higher education managers and practitioners,* 124, Bolton: University Vocational Awards Council. Available at: www.uvac.ac.uk/downloads/0401_publications/LCCI%20guide%202%20%20FINAL.pdf [accessed 21 June, 2008].

Brink, B, Munro, J and Osborne, M, 2002, 'Online learning technology in an SME work based setting' *Educational Technology and Society,* 5, **2**, 81–6.

Brodie, P and Irving, K, 2007, 'Assessment in work based learning: investigating a pedagogical approach to enhance student learning', *Assessment and Evaluation in Higher Education,* 32, **1**, 11–19.

Brown, P, 1999, Client-based management qualifications: a case of win-win?, *Journal of Management Development,* 18, **4**, 350–63.

Brown, B and Harte, J, 2006, 'Work based learning – a comparison of two models' in S Roodhouse, M Bowley and C McKevitt (eds), *Putting work based learning into practice,* York: University Vocational Awards Council.

Brown, R, 2004, 'The Lambert review of business-university collaboration: a fresh start?' in *CHERI Digest Supplement*, 48, Spring 2004.

Brown, R, B and McCartney, S, 1999, 'Multiple mirrors: reflecting on reflections' in D O'Reilly, L Cunningham and S Lester (eds), *Developing the capable practitioner,* London: Kogan Page.

Bryan, C and Clegg, K (eds), 2006, *Innovative assessment in higher education,* London: Routledge.

Buck, A, Sobiechowska, P and Winter, R, 1999, *Professional experience and investigative imagination: the art of reflective writing,* London: Routledge.

Burgess, R, 2007, *Universities UK beyond the honours classification*, Burgess Group Final Report, October 2007. Available at: www.universitiesuk.ac.uk/Publications/Documents/Burgess_credit_report.pdf [accessed 27 April, 2010].

Burgess, T, F, 2007, 'The changing landscape of UK doctoral education' in P Richards (ed) *Global issues in higher education*, New York: Nova Publishers.

Burgoyne, J, Hirsh, W and 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).

Burns, G, R and Holifield, D, 2001, *Work based learning – an equivalent experience,* International Conference on Engineering Education, Oslo.

Butcher, J and Sieminski, S, 2006, 'The challenge of a distance learning professional doctorate in education, *Open Learning,* 21, **1**, 59–69.

Butler, L, 1993, 'Unpaid work in the home and accreditation, in M Thorpe, R Edwards and A Hanson (eds) *Culture and process of adult learning,* London: Routledge.

Carter, K, Edwards, J, Mohammad, I, Rees, Jand Sullivan, M, 2005, 'Evaluate work based learning', *Education for Primary Care,* 16, 726–28.

Casey, C, 2003, 'The learning worker, organizations and democracy, *International Journal of Lifelong Education,* 22, **6**, 620–34.

Castells, M, 2000, *The rise of the network society* (2nd ed), Oxford: Blackwell.

Centre for Outcomes Based Education, 2006, *Work based learning: models and approaches*, Milton Keynes: The Open University SUP908023.

Chappell, C, 2004, *Contemporary vocational learning – changing pedagogy.*
Available at: www.voced.edu.au/td/tnc_76.235 [accessed 20 November, 2007].

Chartered Society of Psychotherapy, 2005, *Workplace learning: evidence through reflection and evaluation,* London: The Chartered Society of Physiotherapy.

Chevaillier, T, Higher education and its clients: institutional responses to changes in demand and in environment, *Higher Education*, 33, 303–8.

Chisholm, C and Davis, M, 2007, 'Analysis and evaluation of factors relating to accrediting 100% of prior experiential learning in UK work-based awards', *Assessment and Evaluation in Higher Education,* 32, **1**, 45–59.

Chisholm, C, U, Blair, M, S, G, Northwood, D, O and Johrendt, J, L, 2007, 'Characterisation of work based learning by consideration of the theories of experiential learning', in conference proceedings, *Work Based learning: a multi-dimensional approach to knowledge,* UALL conference, 2007, Middlesex University.

Chivers, G, 2006, 'Informal learning by professionals in the UK'*,* paper presented at *Professional Lifelong Learning: beyond reflective practice*, one-day conference held at Trinity and All Saints College, Leeds, July 3, 2006.

Choo, C, 1998, *The knowledge organization: how organizations use information to construct meaning, create knowledge and make decisions,* Oxford: Oxford University Press.

Clark, T, 2002, *Non-prescribed higher education, where does it fit?,* Learning and skills development agency.

Clarke, N, 2006, 'Developing emotional intelligence through workplace learning: findings from a case study in healthcare', *Human Resource Development International,* 9, **4**, 447–65.

Clarke, N, 2006, 'Why HR policies fail to support workplace learning: the complexities of policy implementation in healthcare', *International Journal of Human Resource Management,* 17, **1**, 190–206.

Clegg, S and Bradley, S, 2006, 'Models of personal development planning: practice and processes', *British Educational Research Journal,* 32, **1**, 57–76.

Coffield, F (ed), 1998, *Learning at work,* The Learning Society, Bristol: The Policy Press.

Coffield, F, 2004, 'Evidence-based policy or policy-based evidence? The struggle over new policy for workforce development in England', in H Rainbird, A Fuller, A Munro (eds), *Workplace learning in context,* London: Routledge.

Coffield, F (ed), 2000, *Differing visions of a learning society: research findings*, vols 1 and 2, Bristol: The Policy Press, University of Bristol.

Coffield, F (ed), 1998, *Learning at work,* Bristol: The Policy Press and University of Bristol in association with the Economic and Social Research Council.

Coghlan, D, 2003, 'Practitioner research for organisational knowledge', *Management Learning*, 34, **4**, 451–63.

Collier, K, 2006, Re-imagining reflection: creating a theatrical space for the imagination in productive reflection, paper presented at *Professional lifelong learning: beyond reflective practice*, one-day conference held at Trinity and All Saints College, Leeds, July 3, 2006.

Collin, Kand Valleala, U, M, 2005, 'Interaction among employees: how does learning take place in the social communities of the workplace and how might such learning be supervised?', *Journal of Education and Work*, 18, **4,** 401–20.

Collis, B and Margaryan, A, 2005, 'Design criteria for work based learning: Merrill's first principles of instruction expanded', *British Journal of Educational Technology,* 36, 5, 725–38.

Collis, B and Winnips, K, 2002, 'Two scenarios for productive learning environments in the workplace', *British Journal of Educational Technology*, 33, **2,** 133–48.

Collison, C and Parcell, G, 2004, *Learning to fly: practical knowledge management from leading and learning organisations*, Winchester: Capstone Press.

Conner, H, 2007, *Workforce development what works and why*, The Council for Industry and Higher Education (CIHE).

Connor, H, 2005, *Work based learning: a consultation*, London: The Council for Industry and Higher Education.

Connor, H, 2005, *Workforce development and higher education*, London: The Council for Industry and Higher Education.

Connor, H and King, M, 2005, *Workforce development and progression to higher education – The California experience*, London: The Council for Industry and Higher Education.

Connor, H and Little, B, 2005, *Vocational ladders or crazy paving? Making your way to higher levels,* London: Learning and Skills Development Agency.

Coombs, S and Denning, A, S, 2006, *Designing work-based and distance learning policy for university professional learning programmes*, paper presented at the International Professional Development Association annual conference, Stirling Management Centre, University of Stirling, Scotland, December 1–2, 2006.

Coombs, S, Lewis, M and Denning, A, S, 2007*, Designing and evaluating impact evidences for the UK's TDA postgraduate professional development programme*, paper presented at the British Educational Research Association annual conference, Institute of Education, University of London, September 5–8, 2007.

Coomey, M and Stephenson, J, 2000, 'Online learning: it's all about dialogue, involvement, support and control – according to the research', in J Stephenson (ed) *Teaching and learning online,* London: Kogan Page.

Cope, S and Seden, R, 2007, 'Personal pedagogies and professional standards: one story so far' in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Corradi, C, Evans, N and Valk, A (eds), 2006, *Recognising experiential learning: practices in European universities,* Estonia: Tartu University Press.

Costley, C and Armsby, P, 2007, 'Methodologies for undergraduates doing practitioner investigations at work,' *Journal of Workplace Learning,* 19, **3**, 131–45.

Costley, C and Armsby, P, 2000, 'Research driven projects' in D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices*, Birmingham: SEDA paper 109.

Costley, C, 2000, 'The boundaries and frontiers of work based knowledge' in D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices,* Birmingham: SEDA paper 109. Available at www.seda.ac.uk/?p=5_1

Costley, C, 2000, 'Work based learning: an accessible curriculum,' *Widening Participation and Lifelong Learning, 2,* **2**, 33–39.

Costley, C, 2001, 'Employee and organizational perspectives of work based learning', *The Learning Organization,* 8, **2,** 58–63.

Costley, C, 2007, 'Guest editorial', *Journal of Workplace Learning,* 19, **3**, 128–129.

Costley, C, 2007, 'Introduction – Work based learning: assessment and evaluation in higher education', *Assessment and Evaluation in Higher Education*, 32, **1**, 1–9.

Costley, C and Armsby, P, 2007, 'Research influences on a professional doctorate', *Research in Post-Compulsory Education, 12,* **3,** 343–355.

Costley, C and Armsby, P, 2007, 'Work based learning assessed as a field or mode of learning', *Assessment and Evaluation in Higher Education*, 32, **1**, 21–33.

Costley, C and Armsby, P, 2007 'Methodologies for undergraduates doing practitioner investigations at work', *Journal of Workplace Learning,* 19, **3**, 131–45.

Costley, C and Gibbs, P, 2006, 'Researching others: care as an ethic for practitioner', *Researchers' Studies in Higher Education,* 31, **1**, 89–98.

Costley, C and Portwood, D (eds), 2000, *Work based learning and the university: new perspectives and practices*, Birmingham, SEDA paper 109.

Costley, C and Stephenson, J, 2007, 'The impact of a professional doctorate centred on the candidate's work', *Work Based Learning e-journal,* 1–15. Available at www.wblearning-ejournal.com/costleystephensonfullpaper2forjournal.pdf [accessed May 6, 2010].

Costley, C and Stephenson, J, 2008, 'Building doctorates around individual candidates' professional experience' in D Boud and A Lee (eds) *Changing practices of doctoral education,* London: Routledge.

Council for Industry and Higher Education, 2006, *International competitiveness businesses working with UK universities,* London: Council for Industry and Higher Education (CIHE).

Cousin, G and Deepwell, F, 2005, 'Designs for network learning: a communities of practice perspective', *Studies in Higher Education*, 30, **1,** 57–66.

Cox, E, 2005, 'Adult learners learning from experience: using a reflective practice model to support work based learning', *Reflective Practice,* 6, **4**, 459–72.

Croker, D, Ellis, D, Hill, Y, Storan, J and Turner, I, 1998, *APEL: beyond graduateness,* London: SEEC.

Crossan, M. Lane, H and White, R, 1999, 'An organizational learning framework: from intuition to institution', *Academy of Management Review*, 34, **3,** 523–37.

Cunningham, I, 1999, *The wisdom of strategic learning: the self managed learning solution,* Aldershot: Gower.

Cunningham, I, 2008, 'Are "skills" all there is to learning in organizations? The case for a broader framework', *Development and Learning in Organisations*, 22, **3,** 5–8.

Cunningham, I, Dawes, G and Bennett, B, 2004, *The work based learning handbook,* Aldershot: Gower.

Cunningham, J and Doncaster, K, 2002, 'Developing a research culture in the further education sector: a case-study of a work based approach to staff development', *Journal of Further and Higher Education,* 26, **1,** 53–60.

Cunningham, L, 2001, 'Beyond competence through parallel organisational activity: applying Rosabeth Moss Kanter's concept of parallel organisations to learning organisations and the learning society' in J Raven and J Stephenson (eds) *Competence in the learning society*, New York: Peter Lang.

Davenport, T, H and Prusak, L, 2000, *Working knowledge: how organizations manage what they know,* New York: ACM.

Day, C and Hadfield, M, 2004, 'Learning through metworks: trust, partnership and the power of action research', *Educational Action Research*, 12, **4**, 575–86.

Dean, F, Frost, R and Walsh, A, 2007, *Levels of reflective practice: a flexible recognition of workplace professional development,* Birkbeck Institute for Lifelong Learning (BILL) Innovations in Lifelong Learning conference workshop, June 2007.

Department for Education and Employment, 1998, *The learning age – a renaissance for a new Britain,* Cm 3790, Norwich: The Stationery Office.

Department for Education and Skills, Department for Trade and Industry, HM Treasury, Department for Work and Pensions, 2003, *21st century skills – realising our potential – individuals, employers, nation,* Norwich: The Stationery Office.

Department for Education and Skills, 2006, *Further education: raising skills, improving life chances*, Norwich: The Stationery Office.

Department for Education and Skills, Department of Trade and Industry, HM Treasury, Department for Work and Pensions, 2005, *Skills: getting on in business, getting on at work*, Cm 6483-I, Norwich: The Stationery Office.

Department for Innovation, Universities and Skills, 2008, *Higher education at work – high skills: high value*, HLSS 4/08, London: DIUS. Available at: www.bis.gov.uk/assets/biscore/corporate/migratedD/ec_group/HLSS4_08 [accessed 28 April, 2010]

Department for Innovation, Universities and Skills, 2008, *Innovation nation*, Cm 7345, Norwich: The Stationery Office.

Department for Innovation, Universities and Skills and Department for Work and Pensions, 2008, *World-class apprenticeships: unlocking talent, building skills for all. The Government's strategy for the future of apprenticeships in England,* London: DIUS/DWP. Available at: www.bis.gov.uk/assets/biscore/corporate/migratedD/publications/W/ world_class_apprenticeships [accessed 28 April, 2010].

Derrida, J, 1986, *Glas,* Nebraska: University of Nebraska Press.

Dewar, B, J and Walker, E, 1999, 'Experiential learning: issues for supervision', *Journal of Advanced Nursing*, 30, 1459–67.

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

Dillon, C, R and Hodgkinson, L, 2000, 'Programme specification in a flexible, multidisciplinary curriculum environment: an Open University perspective', *Quality Assurance in Education,* 8, **4**, 203–10.

Doncaster, K, 2000, 'Learning agreements: their function in work-based programmes at Middlesex University', *Education and Training,* 42, **6**, 349–55.

Doncaster, K, 2000, 'The Middlesex University professional doctorate: a case study', *Continuing Professional Development*, 3, **1,** 1–6.

Doncaster, K, 2000, 'Accrediting the experience of work-based learners – a case study', *Journal of Access and Credit Studies*, 2, **2,** 269–77.

Doncaster, K and Garnett, J, 2000, 'Effective work based learning partnership: two case studies from Middlesex University', *Education through Partnership*, 14, **1**, 18–24.

Doncaster, K and Lester, S, 2002, 'Capability and its development: experiences from a work-based doctorate', *Studies in Higher Education*, 27, **1**, 91–101.

Doncaster, K and Thorne, T, 2000, 'Reflection and planning: essential elements of professional doctorates, *Reflective Practice*, 1, **3**, 391–9.

Doyle, M, 2005, *A reflexive critique of learner managed learning*, occasional paper, Department of Education Research at Lancaster University.

Dreyfus, H, L and Dreyfus, S, E, 1986, *Mind over machine: the power of human intuition and expertise in the era of the computer*, Oxford: Basil Blackwell.

Edwards R, Raggatt, P, Harrison R, McCollum A and Calder, J, 1998, *Recent thinking in lifelong learning: a review of the literature*, Department for Education and Employment: research report RR80, Sudbury: DfEE Publications.

Edwards, C, 2000, 'Assessing what we value and valuing what we assess?' in *Studies in Continuing Education*, 22, **2,** 201–17.

Eliufoo, H, 2008, 'Knowledge creation in construction organisations: a case approach', *The Learning Organisation*, 15, **4**, 309–25.

Elkins, J, 2004, 'Theoretical remarks on combined creative and scholarly PhD degrees in the visual arts', *Journal of Aesthetic Education*, 38, **4**, 22–31.

Ellstrom, P, 2006, 'The meaning and role of reflection in informal learning at work' in Boud, Cressey and Docherty (eds) *Productive reflection at work,* Routledge: Abingdon.

Elmholdt, C and Brinkmann, S, 2006, 'Discursive practices at work: constituting the reflective learner' in Boud, Cressey and Docherty (eds) *Productive reflection at work,* Routledge: Abingdon.

Engeström, Y, 2001, 'New forms of learning in co-configuration work', *Journal of Education and Work,* 14, **1**, 11–21.

Engeström, Y, 2001, 'Expansive learning at work: toward an activity theoretical reconceptualization', *Journal of Education and Work,* 14, **1**, 133–56.

Eraut, M, 1994, *Professional knowledge and competence*, Brighton, Falmer Press.

Eraut, M, 2000, 'Non-formal learning, implicit learning and tacit knowledge in professional work', in F Coffield (ed) *The necessity of informal learning,* ESRC Learning Society Programme, Bristol: Polity Press.

Eraut, M, 2004, 'Informal learning in the workplace', *Studies in Continuing Education*, 26, **2**, 247–73.

Eraut, M, 2004, 'Transfer of knowledge between education and workplace settings', in H Rainbird, A Fuller and A Munro (eds) *Workplace learning in context*, 201–21, London: Routledge.

Eraut, M, 2007, 'Learning from other people in the workplace', *Oxford Review of Education,* 33, **4**, 403–22.

Eraut, M, 2007, 'The complexity of practical knowledge: implications for learning', at *Work based learning; a multi-dimensional approach to knowledge*, Work Based Learning Network annual conference of the Universities Association for Lifelong Learning (UK).

Eraut, M and Cole, G, 1993, *Assessing competence in the professions*, Research and Development Series Report 14, Methods Strategy Unit, Employment Department, 1, 64; 2, 254.

Eraut, M, Alderston, J, Cole, G and Senker, P, 2000, 'Development of knowledge and skills at work', in F Coffield (ed) *Differing visions of a learning society: research findings,* vol 1, Bristol: Policy Press.

Eraut, M, Alderton, J, Cole, G and Senker, P, 1999, *Learning from other people at work,* Bristol: Policy Press.

Eraut, M, Alderton, J, Cole, G and Senker, P, 2002, 'Learning from other people at work', in R Harrison, F Reeve, A Hanson, J Clarke, (eds), *Supporting lifelong learning, 1: Perspective on learning,* London: Routledge, 127–45.

Eraut, M, Reed, M, Miller, C, Steadman, S, Ali, A, Blackman, C and Furner, J, 2003, 'Learning in the first professional job: the first of year of full time employment after college for accountants, engineers and nurses', Annual Meeting of the American Education Research Association, *Accountability for education quality: shared responsibility*: 84th Chicago, April 21–25, 2003.

Eraut, M, Steadman, S et al, 2004, *Learning in the professional workplace: relationships between learning factors and contextual factors,* AERA Conference, San Diego.

Evans K, Hodkinson, P and Unwin, L (eds), 2002, *Working to learn: transforming learning in the workplace,* London: Kogan Page.

Evans, K, 2002, 'The challenges of "making learning visible": problems and issues in recognizing tacit skills and key competences', in K Evans, P Hodkinson and L Unwin (eds) *Working to learn: transforming learning in the workplace*, 79–94, London: Kogan Page.

Evans, K and Kersh, N, 2006, *Adults learning in, for and through the workplace: the significance of biography and experience*, paper presented at the British Educational Research Association annual conference, University of Warwick.

Evans, K and Rainbird, H, 2002, 'The significance of workplace learning for a "learning society", in K Evans, P Hodkinson and L Unwin (eds), *Working to learn*, 7–28, London: Kogan Page.

Evans, K, Hodkinson, P, Rainbird, H, Unwin, L, 2006, *Improving workplace learning*, Abingdon: Routledge.

Evans, K, Kersh, N and Sakamoto, A, 2004, 'Learner biographies', in H Rainbird, A Fuller and A Munro (eds) *Workplace learning in context*, London: Routledge.

Evans, K, Hodkinson, P, Unwin, L, 2002, *Working to learn: transforming learning in the workplace*, Abingdon: Routledge.

Evans, N, 2006, 'Assessment of prior experiential learning for work based learning' in C Conradi, N Evans and A Valk, *Recognising experiential learning: practices in European universities*, Estonia: Tartu University Press.

Evans, T, 1997, 'Flexible doctoral research: emerging issues in professional doctorate programs', *Studies in Continuing Education*, 19, **2**, 174–82.

Faithorn, Bob, *Learner progression into higher education*, University Vocational Awards Council. Available from: www.uvac.ac.uk/downloads/0401_publications/faithorn_learn_prog.pdf [accessed 28 April, 2010].

Fanghanel, J, 2007, *Investigating university lecturers' pedagogical constructs in the working context,* York: The Higher Education Academy.

Ferguson, L, 2001, 'Communicative practices in a classroom for children with severe and profound learning difficulties', in M Dadds and S Hart *Doing practitioner research differently,* London: Routledge Falmer.

Field, J and Moseley, R, 1998, *Promoting vocational lifelong learning: a guide for good practice in the HE sector*, Bristol: Higher Education Funding Council for England.

Finlay, Ian, Hodgson, Ann, Steer, Richard, 2006, *Flowers in the desert: the impact of policy on basic skills provision in the workplace,* paper presented at the British Educational Research Association annual conference, University of Warwick*,* September 6–9, 2006*.*

Flyvbjerg, B, 2001, *Making social science matter: why social science fails and how it can succeed again*, Cambridge: Cambridge University Press.

Fook, J, 2006, 'Beyond reflective practice: reworking the "critical" in critical reflection', keynote paper presented at *Professional lifelong learning: beyond reflective practice*, one-day conference held at Trinity and All Saints College, Leeds, July 3, 2006.

Forrester, K, 2006, *Whose learning, whose research questions? Labour, learning and work,* paper presented at 36th Annual SCUTREA Conference, Trinity and All Saints College, Leeds, July 4–6, 2006.

Forrester, K, Frost, N and Ward, K, 2000, 'Researching work and learning: a bird's eye view', *International Review of Education*, 46, **6**, 483–89.

Foskett, Rosalind, 2005, 'Collaborative partnership between HE and employers: a study of workforce development', *Journal of Further and Higher Education*, 29 **3**, 251–64.

Foster, E and Stephenson, J, 1998, 'Work based learning and universities in the UK: a review of current practice and trends', *Higher Education Research & Development,* 17, **2**, 155–70.

Foucault, M, 1970, *The order of things: an archaeology of the human sciences,* New York: Pantheon Books.

Freestone, R, Thompson, S and Williams, P, 2006, 'Student experiences of work based learning in planning education'*, Journal of Planning Education and Research*, 26, **2**, 237–49.

Freestone, R, Willians, P, Thompson, S and Trembath, K, 2007, 'A quantitative approach to assessment of work based learning outcomes: an urban planning application', *Higher Education Research and Development*, 26, **4**, 347–61.

Frost, N and Taylor, R, 2001, 'Patterns of change in the university: the impact of "lifelong learning" and the "world of work"', *Studies in the Education of Adults,* 33, **1**, 26.

Fuller, A and Unwin, L, 2002, 'Developing pedagogies for the contemporary workplace', in K Evans, P Hodkinson, L Unwin (eds), *Working to learn: transforming learning in the workplace,* 95–111, London: Kogan Page.

Fuller, A and Unwin, L, 2004, 'Expansive learning environments: integrating organizational and personal development', in H Rainbird, A Fuller and A Munro (eds) *W*orkplace learning in context, 126–44, London: Routledge.

Fuller, A and Unwin, L, 2005, 'Older and wiser? workplace learning from the perspective of experienced employees', *International Journal of Lifelong Education,* 24, **1**, 21–39.

Fuller, A, Ashton, D, Felstead, A, Unwin, L, Walters, S and Quinn, M, 2003, *The impact of informal learning at work on business productivity*, final report to the DTI, Leicester: Centre for Labour Market Studies and University of Leicester.

Fuller, A, Unwin, L, Felstead, A, Jewson, N and Kakavelakis, K, 2007, Creating 'and using knowledge: an analysis of the differentiated nature of workplace learning environments', *British education research journal,* 33, **5,** 743–59.

Fuller, A, Munro, A and Rainbird, H, 2004, 'Introduction and overview' in H Rainbird, A Fuller and A Munro (eds) *Workplace learning in context*, London: Routledge.

Futureskills Scotland, 2007, *Skills in context*, a briefing paper prepared by the Centre for Enterprise, Glasgow: Scottish Enterprise.

Gallacher, J and Feutrie, M, 2003, 'Recognising and accrediting informal and non-formal learning in higher education: an analysis of the issues emerging from a study of France and Scotland', *European Journal of Education,* 38, **1,** 71–84.

Gallacher, J and Reeve, F, 2000, 'Work-based learning: the implications for higher education and for supporting informal learning in the workplace', working papers of the *Global Colloquium on Supporting Lifelong Learning* [online], Milton Keynes: Open University Press.

Garnett, J, 2001, 'Work based learning and the intellectual capital of universities and employers', *The Learning Organization*, vol 8, **2,** 78–81.

Garnett, J, 2005, 'University work based learning and the knowledge driven project', in K Rounce and B Workman (eds) *Work based learning in healthcare*, Rounce, Chichester: Kingsham.

Garnett, J, 2007, 'Employers and university partnerships', in S Roodhouse and S Swailes (eds) *Employers,skills and higher education*, Chichester: Kingsham.

Garnett, J, 1998, 'Using APEL to develop customised work based learning programmes at postgraduate level' in *APEL: beyond graduateness*, SEEC.

Garnett, J, 2000, 'Organisational cultures and the role of learning agreements' in D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices,* Birmingham: Staff & Educational Development Association (SEDA paper 109).

Garnett, J, 2001, 'Work based learning and the intellectual capital of universities and employers', *The Learning Organization,* 8, **2**, 78–82.

Garnett, J, 2007, 'Challenging the structural capital of the university to support work based learning' in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Garnett, J, 1998, 'Using APEL to develop customised work based learning programmes at postgraduate level', in D Croker, D Ellis, Y Hill, J Storan and I Turner (eds) *Beyond graduateness,* London: SEEC.

Garnett, J, 2006, University work based learning and the knowledge driven project, in B Workman and K Rounce (eds) *Work based learning in health: innovations and applications*, 79–86, London: Kingsham.

Garnett, J, 2007, 'Employers and university partnerships', in S Roodhouse and S Swailes (eds), *Employers, skills and higher education*, Chichester: Kingsham.

Garnett, J, 2008, 'Quality assurance or quality control' In J Garnett, C Costley and B Workman (eds), *Work based learning: journeys to the core of higher education*, London: Middlesex University Press.

Garnett, J and Costley, C, 2006, *Enhancing individual and organisational learning using APEL,* conference proceedings of CRLL, University of Sterling.

Garnett, J, Comerford, A and Webb, 2000, 'Working with partners to promote intellectual capital', in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Milton Keynes: OUP.

Garnett, J, Comerford, A and Webb, N, 2003, 'Working with partners to promote intellectual capital, in D Boud and N Solomon (eds) *Work based learning: a new higher education?* (2nd ed), Buckingham: SRHE and Open University Press.

Garnett, J, Portwood, D and Costley, C, 2004, *Bridging rhetoric and reality: accreditation of prior experiential learning (APEL) in the UK*, Bolton: Universities Vocational Awards Council.

Garraway, J, 2006, 'Creating productive interactions between work and the academy', *Higher Education*, 52, **3**, October, 447–64.

Garrick, J and Kirkpatrick, D, 1998, 'Workplace-based learning degrees: a new business venture, or a critical business', *Higher Education Research and Development* 17, **2**, 171–82.

Garrick, J, 1998, *Informal learning in the workplace unmasking human resource development*, London: Routledge.

Garrick, J and Clegg, S, 2001, 'Stressed-out knowledge workers in performative times: a postmodern take on project-based learning', *Management Learning*, 32, **1**, 119–34.

Garrick, J and Kirkpatrick, D, 1998, 'Workplace-based learning degrees: a new business venture, or a new critical business?', *Higher Education Research and Development* 17, **2**, 171–82.

Garrick, J and Rhodes, C, 2000, *Research and knowledge at work: perspectives, case studies and innovative strategies*, London: Routledge, Taylor & Francis Group.

Garrick, J and Usher, R, 2000, 'Flexible learning, contemporary work and enterprising selves'. *Electronic Journal of Sociology,* 5, **1**. Available at www.sociology.org/content/vol005.001/garrick-usher.html [accessed 28 April, 2010].

Garrick, J, 1998, *Informal learning in the workplace unmasking human resource development,* London: Routledge,

Garrick, J and Usher, R, 1999, 'Flexible learning, contemporary work and enterprising selves', in *Researching work and learning: a first international conference,* Leeds: University of Leeds.

Gentleman, S, 2006, *Developing an effective process for securing learning support for participants in work based learning,* London: Learning and Skills Development Agency.

Gibbons, M, Limoges, C, Nowotny, H, Schwartzman, S, Scott, P and Trow, M, 1994, *The new production of knowledge: the dynamics of science and research in contemporary societies,* London: SAGE.

Gibbs, P, 2004, 'The exploitative nature of work-based studies: a sketch of an idea', *Journal of Education and Work,* 17, **4**, 467–77.

Gibbs, P, 2007, Practical wisdom and the worker researcher, *London Review of Education*, 5, **3**, 223–35.

Gibbs, P and Angelides, P, 2004, 'Accreditation of knowledge as being-in-the world', *Journal of Education and Work*, 17, **3**.

Gibbs, P and Costley, C, 2006, 'Work based learning; discipline, field or discursive space or what?', *Researching in Post-Compulsory Education*, 30, **3**, 341–50.

Gibbs, P and Costley, C, 2006, 'An ethics of community and care for practitioner researchers', *International Journal of Research and Method in Education*, 29, **2**, 239–49.

Gibbs, P and Garnett, J, 2007, 'Work based learning as a field of study', *Research in Post-Compulsory Education*, 12, **3**, 409–21.

Gibbs, P and McRoy, I, 2006, 'Dwelling at work: a place where vocation and identity grow?', *Journal of Further and Higher Education*, 30, **3**, 283–93.

Gibbs, P, Costley, C, Armsby, P and Trakakis, A, 2007, 'Developing the ethics of worker-researchers through phronesis', *Teaching in Higher Education*, 12, **3**, 365–75.

Gibbs, P, Costley, C, 2006, 'Work based learning; discipline, field or discursive space or what?', *Research in Post-Compulsory Education,* 11, **3**, 341–50.

Glasgow Caledonian University, 2007, Scottish Centre for Work Based Learning, Doctorate in Professional Practice. Available at: www.caledonian.ac.uk/scwbl/progs/pglf.html [accessed 28 April, 2010].

Gosling, D, 2001, 'Lost opportunity: what a credit framework would have added to the national qualification framework', *Higher Education Quarterly*, 55, **3**, 270–84.

Gosling, D, 2000, 'Using Habermas to evaluate two approaches to negotiated assessment', *Assessment and Evaluation in Higher Education*, 25, **3**, 293–304.

Gosling, D and Moon, J, 2001, *How to use learning outcomes and assessment criteria*, London: SEEC.

Graham, C and Smith, R, 2002, *Transdisciplinarity in practice: the Central Queensland University professional doctorate*, paper presented at the 4th International Professional Doctorates Conference, Brisbane: University of Queensland.

Graham, S and Rhodes, G, 2007, 'Critical reflection in the 21st century workplace: towards an interactive discussion area for practitioners', in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Graham, S, Rhodes, G and Shiel, G, 2006, 'Reflection through work based learning' in S Roodhouse, M Bowley and C McKevitt (eds) *Putting work based learning into practice*, York: University Vocational Awards Council.

Graves, S, 2006, 'Evaluating the use of action learning sets to develop reflection on a foundation degree' in C Costley (ed) *Work-based projects: the worker as researcher,* proceedings of the Work Based Learning Network annual conference, Universities Association for Lifelong Learning, April 24–25.

Gray, D, Cundell, S, Hay, D and O'Neill, J, 2004, *Learning through the workplace,* Cheltenham: Nelson Thornes.

Gray, D, 2001, 'Work based learning, action learning and the virtual paradigm', *Journal of Further and Higher Education*, 25, **3**, 315–24.

Gray, D, 2001, *A briefing on work based learning,* Learning and Teaching Support Network (LTSN) Generic Centre Assessment Series No. 11, York: Learning and Teaching Support Network.

Green, H, 2005, 'Doctoral education in the UK: trends and challenges', review paper for *Forces and Forms of Change in Doctoral Education International Conference*, University of Washington. Available at: http://depts.washington.edu/cirgecon/papers/uk.doc [accessed 28 April, 2010].

Guile, D, 2003, 'Credentialism to the "practice of learning": reconceptualising learning for the knowledge economy', *Policy Futures in Education,* 1, **1**, 83–105.

Guile, D, 2006, 'Learning across contexts', *Educational Philosophy and Theory,* 38, **3**, 251–68.

Guile, D, (no date), *Work-based learning – the concept*, Available at: www.wlecentre.ac.uk/cms/index.php?option=com_content&task=view&id=1&Itemid=3&limit=1&limitstart=5 [accessed 28 April, 2010].

Guile, D, 2005, *A critique of the 'knowledge economy' thesis and its implications for a social theory of pedagogy,* unpublished thesis, London: Institute of Education, University of London.

Gulati, R, 1998, 'Alliances and networks', *Strategic Management Journal*, 19, 293–317.

Gustavs, J and Clegg, S, 2005, 'Working the knowledge game; universities and corporate organisations in partnership', *Management Learning*, vol 36, **1**, 9–30. Available at: http://mlq.sagepub.com/cgi/reprint/36/1/9 [accessed 28 April, 2010].

Hager, P, 1999, 'Finding a good theory of workplace learning', in D Boud and J Garrick (eds) *Understanding learning at work*. London: Routledge, 65–82.

Hager, P, 2000, 'Know-how and workplace practical judgement', *Journal of Philosophy of Education*, 34, **2**, 281–96.

Hager, P, 2001, 'Workplace judgement and conceptions of learning', *Journal of Workplace Learning,* 13, 352–59.

Hager, P, 2004, 'Conceptions of learning and understanding learning at work', *Studies in Continuing Education*, 26, **1**, 3–17.

Hager, P, 2004, 'Front-loading, workplace learning and skill development', *Educational Philosophy and Theory*, 36, **5**, 523–34.

Hager, P, 2004, 'Lifelong learning in the workplace? Challenges and issues', *Journal of Workplace Learning*, 16, **1/2**, 22–32.

Hager, P, 2004, 'The conceptualisation and measurement of learning at work', in H Rainbird, A Fuller and A Munro (eds) *Workplace learning in context,* 242–58, London: Routledge.

Hager, P, 2005, 'Current theories of workplace learning: a critical assessment', in N Bascia, A Cumming, A Datnow, K Leithwood and D Livingstone (eds) *International Handbook of Educational Policy,* part two, 829–46, Dordrecht: Springer.

Hager, P and Halliday, J, 2006, *Recovering informal learning wisdom, judgement and community,* Lifelong Learning Book series, vol 7.

Hager, P and Smith, E, 2004, 'The inescapability of significant contextual learning in work performance', *London Review of Education*, 2, **1,** 33–46.

Hahs-Vaughn, D, L, Zygouris-Coe, V, I and Fiedler, R, 2007, 'A hybrid evaluation model for evaluating online professional development', *Technology, Pedagogy and Education,* 16, **1**, 5–20.

Haldane, A, Meijer, R, Newman, C and Wallace, J, 2007, 'To what extent can the APEL process be facilitated through the use of technology?' in J Garnett and D Young (eds) *Work based learning futures*, Bolton: University Vocational Awards Council.

Halliday, J, 2000, 'Critical thinking and the academic vocational divide', *The Curriculum Journal*, 11, **2**, 159–75.

Halliday, J, 2005, *Case exemplars in informal learning,* Glasgow: University of Strathclyde.

Halliday, J and Hager, P, 2002, 'Context, judgment and learning', *Educational Theory*, 52, **4**, 429–43.

Hardacre, K and Shneider, K, 2007, *Work based learning interim project report overview of literature*, London: PSE Consulting.

Harris, J, 2006, 'Questions of knowledge and curriculum in the recognition of prior learning' in P Andersson and J Harris (eds) *Re-theorising the recognition of prior learning*, Leicester: National Institute of Adult Continuing Education.

Harris, J, 1999, 'Ways of seeing the recognition of prior learning (RPL): what contribution can such practices make to social inclusion?', *Studies in the Education of Adults*, 20, **2**, 124–39.

Harris, J, 2000, *Recognition of prior learning: power, pedagogy and possibility*, Pretoria: HSRC.

Harris, J, 2004, *The hidden curriculum of the recognition of prior learning: a case study*, PhD thesis, Open University.

Harris, J, 2006, 'Annex A: Review of the academic literature on workplace learning', in J Brennan et al *Towards a strategy for workplace learning: report to Higher Education Funding Council for England by Centre for Higher Education Research and Information and KPMG.* Available from: www.hefce.ac.uk/pubs/rdreports/2006/rd09_06/report.htm [accessed 28 April, 2010].

Harrison, R, 2000, 'Learner managed learning: managing to learn or learning to manage?' *International Journal of Lifelong Education*, 19, **4**, 312–21.

Harvey, L, Locke, W and Morey, A, 2002, *Enhancing employability, recognising diversity: making links between higher education and the world of work,* London: Universities UK.

Harvey, M, 2007, 'The changing power balance between learners, universities and work contexts' in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Harvey, M and Norman, L, 2007, 'Beyond competencies: what HE assessment could offer the workplace and the practitioner researcher', *Journal of Post-Compulsory Research*, 12, **3**, 331–42.

Harvey, M and Slaughter, T, 2007, 'Evaluation of an access route to higher education though a work-based assessment strategy', *Assessment and Evaluation in Higher Education,* 32, **1**, 35–44.

Hase, S, 1998, 'Work based learning for learning organisations' in J Stephenson and M Yorke (eds) *Capability and quality in higher education*, London: Kogan Page.

Connor, H, 2005, *Workforce development and higher education*, Council for Industry and Higher Education, summary document. Available at: www.cihe.co.uk/wp-content/themes/cihe/document.php?file=0507WorkforceDevelopmentHE.pdf [accessed 28 April, 2010].

Henry, J, Mitchell, J and Young, S, 2001, *Work based learning in the contemporary Australian VET sector: a re-appraisal*, NSW: Avetra.

Hillage, J and Pollard, E, 1998, *Employability: developing a framework for policy analysis,* London: Department for Education and Employment.

Hislop, D, 2005, *Knowledge management in organizations*, Oxford: OUP.

HM Treasury and Department for Business Enterprise and Regulatory Reform, 2008, *Enterprise: unlocking the UK's talent,* Norwich: The Stationery Office*.*

Hodkinson, P, M, Bloomer, M, 2002, 'Learning careers: conceptualising lifelong work-based learning', in K Evans, P Hodkinson, L Unwin (eds) Working to learn: transforming learning in the workplace, 29–43, London: Kogan Page.

Hodkinson, H, 2006, *Divergent perspectives on learning at, for and through work,* paper presented at the European Vocational Educational and Training and Culture Network's 2006 Conference, Copenhagen, Denmark, August 23–6, 2006. Research funded by the ESRC Teaching and Learning Research Programme.

Hodkinson, P, 2005, 'Reconceptualising the relations between college-based and workplace learning', *Journal of Workplace Learning*, 17, **8**, 521–32.

Hodkinson, P and Hodkinson, H, 2004, 'The complexities of workplace learning: problems and dangers in trying to measure attainment', in H Rainbird, A Fuller and A Munro (eds) Workplace learning in context, *London:* Routledge/Falmer.

Hughes, J, Slack, K, Baker, C, 2006, *Learning journeys research project,* paper presented at the British Educational Research Association annual conference, University of Warwick, September 6–9, 2006.

Huisman, J and Naidoo, R, 2006, 'The professional doctorate: from Anglo-Saxon to European challenges', *Higher Education Management and Policy*, OECD, 18, **2**.

Hunt, L, 2003, 'Getting started with work-based university learning: Crossing the border between university and work', in J Cross, *Proceedings of the EDUCOM 2002 Conference,* Perth: Edith Cowan University.

Hutton, J, 2000, *Working with the concept of the organisation in the mind,* London: Grubb Institute.

Hyland, T and Matlay, H, 1998, 'Lifelong learning and the "new deal" vocationalism: vocational training, qualifications and the small business sector', *British Journal of Educational Studies,* 46, **4**, 399–414, Oxford: Blackwell Publishing on behalf of the Society for Educational Studies Stable.

Illeris, K, 2003, 'Workplace learning and learning theory', *Journal of Workplace Learning,* 15, 167–78.

Inkpen, A and Tsang, E, 2005, 'Social capital, networks and knowledge transfer', *Academy of Management Review*, 30, **1**, 146–65.

Institute of Education, London Chamber of Commerce, Industry Commercial Education Trust, 2006, *Putting knowledge to work: integrating work-based and subject-based knowledge in intermediate-level qualifications.* Available at: www.wlecentre.ac.uk/cms/files/pktw-briefing_paper-phase_1.doc [accessed 28 April, 2010]

Issler, S and Nixon, D, 2007, 'Life history methodologies: an investigation into work based learning experiences of community education workers', *Research in Post-Compulsory Education*, 12, **3**, 391–407.

Itin, C, M, 1999, 'Reasserting the philosophy of experiential education as a vehicle for change in the 21st century', *Journal of Experiential Education*, 22, **2**, 91–8.

J M Consulting, 1999, *Review of the diploma in social work,* Bristol: J M Consulting Ltd.

J M Consulting, 2003, *The costs of alternative modes of delivery,* Bristol: Higher Education Funding Council for England.

Jackson, N, 2002, 'Principles to support the enhancement of teaching and student learning: Implications for educational developers', *Educational Developments,* 3, **1**, 1–6.

Jarvis, P, 2001, *Universities and corporate universities*, London: Kogan Page.

Jarvis, P, 1999, *The practitioner-researcher: developing theory from practice*, San Francisco: Jossey-Bass.

Jefferies, P, Carsten-Stahl, B, McRobb, S, 2007, 'Exploring the relationships between pedagogy, ethics and technology: building a framework for strategy development', *Technology, Pedagogy and Education,* 16, **1**, 111–26.

Jessop, B, 2002, *The future of the capitalist state,* Oxford: Polity Press.

McIntyre, J, *Working knowledge and work-based learning: research implications,* Sydney: UTS Research Centre Vocational Education & Training.

Johns, C, 2004, *Becoming a reflective practitioner (2nd ed),* Oxford: Blackwell Publishing.

Johnson, B, 2002, *Models of APEL and quality assurance,* Brentwood: Southern England Consortium for Credit Accumulation and Transfer.

Johnson, B, 2004, 'Summative assessment of portfolios: an examination of different approaches to agreement over outcomes', *Studies in Higher Education*, 29, **3,** 395–412.

Johnson, B and Walsh, A, 2004, *SEEC companion to the QAA guidelines on the accreditation of prior learning*, London: SEEC.

Johnson, B, Haslehurst, D and Moon, J, 2003, *Credit level description and FE/HE partnership,* London: SEEC.

Johnson, D, 2001, 'The opportunities and barriers to the introduction of work based learning in higher education', *Innovations in Education and Teaching International*, 38, **4**, 364–68.

Johnson, D, 2006, 'Work based learning and workforce development', *Educational Developments,* 7, **2**, 15–17.

Jongbloed, B, 2002, 'Lifelong learning: implications for institutions', *Higher Education,* 44, 413–31.

Josselyn, B and Ratcliffe, N, 2006, 'Annex I: Funding workplace learning', in J Brennan, B Little, H Connor, E de Weert, S Delve, J Harris, B Josselyn, N Ratcliffe and A Scesa *Towards a strategy for workplace learning*: Report to HEFCE by CHERI and KPMG, Bristol: Higher Education Funding Council for England. Available at: www.hefce.ac.uk/pubs/rdreports/2006/rd09_06/ [accessed 28 April, 2010].

Keeling, D, Jones, E, Botterill, D and Gray, C, 1998, 'Work based learning, motivation and employer-employee interaction: implications for lifelong learning', *Innovations in Education and Training International Journal Citation,* 35, **4**, 282–91.

Keep, E, 2007, *Skills and economic and social justice*. SKOPE issues paper 16. Cardiff: ESRC Centre on Skills, Knowledge and Organisational Performance [draws on submission by author to the House of Commons Select Committee on Education and Skills' Inquiry into post-16 skills, and on a submission to the NIACE Commission of Inquiry into Adult Learning].

Keep, E and Payne, J, 2002, 'Policy interventions for a vibrant work-based route – or when policy hits reality's fan (again)', in K Evans, P Hodkinson and L Unwin (eds), *Working to learning: transforming learning in the workplace,* London: Kogan Page.

Kemmis, S, 2006, What is professional practice?, in C Kanes (ed), *Developing professional practice*, New York: Springer. Available at: www.csu.edu.au/.../Kemmis%20Prof%20Practice%20Chapter%20060419_14.pdf [accessed November 6, 2007].

Kennedy, Aileen, 2005, 'Models of continuing professional development: a framework for analysis', *Journal of In-service Education,* 31, **2**, 235–50.

Kerins, J, 2007, *Collaborative initiatives and work based learning opportunities: a case study,* a report for the HEA. Available from www.ics.heacademy.ac.uk/italics/vol6iss1/kerins.pdf [accessed 28 April, 2010].

King, M, 2007, *Workforce development: how much engagement do employers have with higher education?*, report for the Council for Industry and Higher Education (CIHE).

Kinman, R and Kinman, G, 2000, 'What's that got to do with making motor cars? The influence of corporate culture on 'in-company' degree programmes', *Journal of Education and Work,* 13, **1**, 5–24.

Kirkwood, Margaret, Christie, Donald F, M, 2006, 'The role of teacher research in continuing professional development', *British Journal of Educational Studies,* 54, **4**, 429–48.

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

Klenowski, V, Askew, S and Carnell, E, 2006, 'Portfolios for learning, assessment and professional development in higher education', *Assessment and Evaluation in Higher Education*, 31, **3**, 267–86.

Knight, K and Yorke, M, 2004, *Learning, curriculum and employability in higher education*, London: Routledge.

Knight, P, T, 2003, 'Employability and good learning in higher education', *Teaching in Higher Education*, 8, **1**, 3–16.

Knowles, M, 1975, *Self-directed learning: a guide for learners and teachers*, New York: Association Press.

Kolb, D, 1984, *Experiential learning,* London: Prentice Hall.

Kreber, C, 2004, An analysis of two models of reflection and their implications for educational development, *International Journal for Academic Development,* 9, 29–49.

Lahn, L, C, 2004, 'Dilemmas in the development of e-learning at work', *Journal of Workplace Learning*, 16, **8**, 466–78.

Lambert, R, 2003, *Lambert review of business-university collaboration*, London: HM Treasury.

Lave, J, Wenger, E, Pea, R, 1991, *Situated learning legitimate peripheral participation,* Cambridge: Cambridge University Press.

Laycock, M, 2003, *Notes for guidance on work-related learning*, London: Southern England Consortium for Credit Accumulation and Transfer.

Learning from Experience Trust, 1993, *Work based learning for academic credit,* London: LET.

Lee, A, Green, B and Brennan, M, 2000, 'Organisational knowledge, professional practice and the professional doctorate at work', in J Garrick and C Rhodes (eds) *Research and knowledge at work: perspectives, case-studies and innovative strategies,* London: Routledge.

Lee, T, Fuller, A, Ashton, D, Butler, P, Felstead, A, Unwin L and Walters S, 2004, *Learning as work: teaching and learning processes in the contemporary work organisation*, University of Leicester: Centre for Labour Market Studies.

Lee, T, Fuller, A, Ashton, D, Butler, P, Felstead, A, Unwin, S and Walters, S, 2004, *Workplace learning: main themes and perspectives*, Learning as Work research paper, No. 2, University of Leicester: Centre for Labour Market Studies.

Leitch, S, 2006, *Prosperity for all in the global economy – world class skills,* final report, Norwich: The Stationery Office.

Leonard, D, 2001, *A woman's guide to doctoral studies*, Buckingham: Open University Press.

Lester, S, 1999, 'Assessing the self-managing learner: a contradiction in terms' in L Cunningham, D O'Reilly and S Lester *Developing the capable practitioner,* London: Kogan Page.

Lester, S, 1999, 'From map-reader to map-maker: approaches to moving beyond knowledge and competence' in D O'Reilly, L Cunningham and S Lester (eds) *Developing the capable practitioner,* London: Kogan Page.

Lester, S, 2001, 'Assessing professional practice "in the field": experiences from the professional accreditation of conservator-restorers', *Research in Post-Compulsory Education*, 6, **2**, 173–83.

Lester, S, 2002, 'Negotiated work based learning: from delivery systems to realisation systems', *Capability,* vol 5, **1**, 6–9.

Lester, S, 2007, 'Professional practice projects: APEL or development?', *Journal of Workplace Learning*, 19, **3**, 188–202.

Lester, S, 2008, *Routes and requirements for becoming professionally qualified*, Bristol: Professional Associations Research Network.

Lester, S, 2000, *Work based learning perspectives on assessment: a student perspective,* Work Based Learning Network, Universities Association for Continuing Education.

Lester, S, 2003, 'Qualifications in professional development: a discussion in reference to conservators in the United Kingdom and Ireland', *Studies in Continuing Education*, 25, **2**, 269–83.

Lester, S, 2004, 'Conceptualising the practitioner doctorate', *Studies in Higher Education,* 29, **6**, 757–70.

Light, B, 2006, 'Diploma in work based studies: management for SMEs', in R Schmidt (ed), *DEWBLAM report*, Firenze.

Lillejord, S and Dysthe, O, 2008, 'Productive learning practice – a theoretical discussion based on two cases', *Journal of Education and Work,* 21, **1**, 75–89.

Little, B, 2000, 'Undergraduates' work based learning and skills development', *Journal-Tertiary Education and Management,* 6, **2**, 119–35.

Little, B and Brennan, J, 1996, *A review of work based learning in higher education*, Sheffield: Department for education and employment.

Little, B, Connor, H, Lebeau, Y, Pierce, D, Sinclair, E, Thomas, L and Yarrow K, 2003, *Vocational higher education: does it meet employers' needs?* London: Learning and Skills Development Agency.

Little, B and Williams, R, 2008, *Interim evaluation of lifelong learning networks,* London: Centre for Higher Education Research and Information (CHERI).

Little, B, Harvey, L, Moon, S and Pierce, D, 2001, *Research work: the extent and variety of forms of work-related learning*, in Council for Industry and Higher Education (CIHE), Work-Related Learning Report, 23–4, London: CIHE.

Little, B, 2004, *Employability and work based learning,* York: The Higher Education Academy.

Livingstone, D, 2001, 'Expanding notions of work and learning: profile of latent power' in T Fenwick (ed) *Sociocultural perspectives on learning through work: new directions in adult and continuing education,* 92, 19–30.

Gibson, L and Watret, L (presenters), *Tripartite work based learning: a collaborative model for the future?, S*EDA discussion paper 9.

LSC, 2006, *National learner satisfaction survey: work based learning 2004/05*, Coventry: Learning and Skills Council.

Lunt, I, 2002, *Professional doctorates in education*, Escalate. Available at: *www.*escalate.ac.uk/downloads/1713.rtf [accessed on 28 April, 2010].

Lyon, J, 2007, 'Work based learning: a learner's perspective', in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Lyons, F and Bement, M, 2001, 'Setting the standards: judging levels of achievement' in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Buckingham: Society for Research into Higher Education/Open University Press.

Lyons, F, 2003, *Customer-led learning environments: industry-university partnerships*, proceedings of the HERDSA annual conference, Canterbury, NZ.

Lyotard, J F, 1984, *The postmodern condition: a report on knowledge,* Manchester: Manchester University Press.

Mabey, C, 2005, *Management development works: the evidence*, Corby: Chartered Management Institute.

Macdonald, J, 2006, *Blended learning and online tutoring: a good practice guide*, Aldershot: Gower.

MacLaren, P and Marshall, S, 1998, 'Who is the learner? An examination of the learner perspectives in workbased learning', *Journal of Vocational Education and Training*, 50, **3**, 327–37.

MacWilliam, E, P, G, Taylor, et al, 2002, *Research training in doctoral programmes: what can be learned from professional doctorates?,* Sydney: Department of Education, Science and Technology.

Maillardet, F, 2005, *Challenging work,* paper presented at the American Educational Research Association Conference, Montreal, April 15, 2005. Research funded by the ESRC Teaching and Learning Research Programme

Major, D, 2005, 'Learning through work based learning'*,* in P Hartley, A Woods and M Pill (eds), *Enhancing teaching in higher education: new approaches for improving student learning,* 16–25, Abingdon: Routledge.

Major, D, 2002, 'The place and status of knowledge in work based learning', in *Conference proceedings*, Work Based Learning Network of the Universities Association for Continuing Education, Cardiff: University of Wales Institute.

Malfroy, J and Yates, L, 2003, 'Knowledge in action: doctoral programmes forging new identities', *Journal of Higher Education Policy and Management,* 25, **2**, 119–29.

Margaryan, A, 2006, *Work based learning: a blend of pedagogy and technology*, dissertation, Ensheded, The Netherlands: University of Twente.

Margham, 1997, *A green paper on work based learning*, Liverpool: John Moores University.

Marshall, I, S, 1991, 'Student driven learning contracts' in A Adams, M Brewer, I Marshall, G Tolley and T Whelan *And it must count: work based learning for academic credit in higher education,* London: Learning from Experience Trust.

Marshall, J, 2001, 'Self-reflective inquiry practices' in P Reason and H Bradbury (eds), *Handbook of action research,* London: SAGE.

Martin, K, 2003, *Student support in work based learning: interpreting cultural differences*, paper presented at the Scottish Educational Research Association annual conference, Perth, Scotland, November 27–9, 2003. Available at: www.leeds.ac.uk/educol/documents/00003478.htm [accessed 28 April, 2010].

Martin, R, Villeneuve-Smith, Marshall, L and McKenzie, E, 2008, *Employability skills explored,* London: Learning and Skills Network.

Mason, J, 2002, *Researching your own practice*: *the discipline of noticing,* London: Routledge.

Matthews, P, 1999, 'Workplace learning: developing a holistic model', *The Learning Organization*, 6, **1**, 18–29.

Maxwell, T, W, 2003, 'From first generation to second generation professional doctorate', *Studies in Higher Education,* 28, **3**, 79–291.

Maxwell, T, W and Shanahan, P, 2000, 'Professional doctoral education in Australia and New Zealand: reviewing the scene', in B Green, T W Maxwell and P J Shanahan (eds) *Doctoral education and professional practice: the next generation?*, Armidale NSW: Kardoorair Press.

Maxwell, T, W and Shanahan, P, 1998, 'Towards a reconceptualising the doctorate: issues arising from comparative data on the EdD degree in Australia', *Studies in Higher Education,* 22, **2**, 133–50.

Mayo, A, 2000, The role of employee development in the growth of intellectual capital, *Personnel Review*, 29, **4**, 521–33.

McArdle, Karen, Ackland, Aileen, 2007, 'The demands of the double shift: communities of practice in continuing professional development', *Journal of Vocational Education and Training,* 59, **1**, 107–20.

McAuley, A, 2002, *Learning about learners: understanding the student experience,* Stirling: University of Stirling.

McCoshan, A, Costello, M and Souto Otero, M, 2005, *Work based learning providers' views on their links with employers,* Department for Education and Skills.

McIntyre, J and Soloman, N, 1999, 'The policy environment of work based learning: globalisation, institutions and the workplace', in *Researching work and learning: a first international conference,* Leeds: University of Leeds.

McIntyre, J, 2000, *Working knowledge and work-based learning: research implications,* Sydney: UTS Research Centre Vocational Education & Training. Available at: www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/17/24/0c.pdf [accessed 28 April, 2010].

McLaughlin, C, 2004, 'Partners in research: what's in it for you?', *Teacher Development,* 8, **2/3**, 127–36.

McLeod, K and Holdridge, L, 2004, 'The doctorate in fine art: the importance of exemplars to the research culture', *International Journal of Art & Design Education*, vol 23, **2**, 155–68.

McManus, J, 2006, 'Transforming productive reflection in the workplace into productive learning: a practical approach', paper presented at *Professional lifelong learning: beyond reflective practice*, one-day conference held at Trinity and All Saints College, Leeds, July 3, 2006.

Meredith, S and Burkle, M, 2008, 'Building bridges between university and industry: theory and practice', *Education and Training,* 50, **3**, 199–215.

Merrifield, J, McIntyre, D and Osaigbovo, R, 2000, *Mapping APEL: accreditation of prior and experiential learning in English higher education,* London: Learning From Experience Trust.

Miettinen, R, 2000, 'The concept of experiential learning and John Dewey's theory of reflective thought and action', *International Journal of Lifelong Education*, 19, **1**, 54–72.

Miller, L, Hillage, J, Newton, B and Jagger, N, 2005, 'Policies and strategies for workforce development: encouraging a customised approach', *Research in Post-Compulsory Education*, 10, **3**, 287–304.

Miller, P, 2003, 'Workplace learning by action learning: a practical example', *Journal of Workplace Learning*, 15, **1**, 14–23.

Mills, V and Whittaker, S, 2001, 'Work based learning in Scottish higher education: policy and practice, *The Learning Organization,* 8, **2**, 64–9.

Miriam Zukas, 2006, 'Pedagogic learning in the pedagogic workplace: educators' lifelong learning and learning futures', *International Journal of Pedagogies and Learning*, 2, **3**, 71–80.

Mohamud, M, C, Jennings et al, 2006, 'Work based learning in the UK: scenarios for the future', *Education and Training,* 48, **6**, 440–53.

Moon, J, 2004, *A handbook of reflective and experiential learning: theory and practice*, London: Routledge Falmer.

Moon, J, A, 2000, *Reflection in learning and professional development*, London: Kogan Page.

Moon, S, Birchall, D and Williams, S, 2005, 'Developing design principles for an e-learning programme for SME managers to support accelerated learning at the workplace', *Journal of Workplace Learning*, 17, **5/6**, 370–84.

Moore, L, 2005, 'Valuing work based learning: working together, learning together' in B Workman and C Rounce (eds), *Work based learning in the NHS,* London: Kingsham Press.

Moore, L, J, 2006, 'Professional portfolios: a powerful vehicle for reflective exercises and recording work based learning', *Work Based Learning in Primary Care*, 4, **1**, 25–35.

Moore, L,J, 2006, 'Partnerships and work based learning: pioneering new ways to care for the older people in the community', *Journal of Cooperative Education and Internship*, 40,12–25.

Moore, L, J, 2007, 'Ethical and organisational tensions for work-based learners,' *Journal of Workplace Learning,* 18, **3**, 161–72.

Moore, L, 2006, 'Widening participation in HE through workforce development', in S Roodhouse, M Bowley and C McKevitt (eds) *Putting work based learning into practice,* Bolton: University Vocational Awards Council.

Moore, L, J, 2007, 'Partnerships and work based learning: an evaluation of an opportunity to pioneer new ways to care for the older people in the community', *Assessment and evaluation in Higher Education*, 32, **1**, 61–78.

Moore, R and Young, M, 2000, 'Knowledge and the curriculum in the sociology of education: towards a reconceptualisation', *British Journal of Sociology of Education*, 22, **4**, 445–61.

Moreland, N, 2005, *Work-related learning in higher education*, Learning and Employability Series 2, ESECT Enhancing Student Employability Co-ordination Team, York: The Higher Education Academy.

Morley, C and Priest, J, 2001, 'Developing a professional doctorate in business administration: reflection and the "executive scholar", in B Green, T W Maxwell and P Shanahan (eds) *Doctoral education and professional practice: the next generation?*, Armidale, NSW: Kardoorair Press.

Morley, L and Aynsley, S, 2007, 'Employers, quality and standards in higher education: shared values and vocabularies or elitism and inequalities?', *Higher Education Quarterly,* 61, **3**, 229–49.

Muller, J, 2000, *Reclaiming knowledge: social theory, curriculum and education policy*, London: Routledge Falmer.

Mumford, J, 2006, 'Accredited workplace learning' in S Roodhouse, M Bowley and C McKevitt (eds) *Putting work based learning into practice,* Bolton: University Vocational Awards Council.

Murray, L and Lawrence, B, 2000, *Practitioner-based enquiry: principles for postgraduate research,* London: Falmer Press.

National Committee of Inquiry into Higher Education, 1997, *Higher education in the learning society*, summary report, Norwich: The Stationery Office.

National Qualifications Authority, 2006, *Review of professional doctorates,* Dublin: National Qualifications Authority.

Neary, M, 2000, 'Supporting students' learning and professional development through the process of continuous assessment and mentorship', *Nurse Education Today,* 20, 463–74.

Nikolou-Walker, E and Garnett, J, 2004, 'Work based learning. A new imperative?: developing reflective practice in professional life', *Reflective Practice,* 5, **3**, 297–312.

Nikolou-Walker, E, 2007, 'Critical reflections on an evaluative comparative analysis of work based learning through organizational change mechanisms: a study of two public service organizations in Northern Ireland', *Reflective Practice*, 8, **4**, 525–43.

Nikolou-Walker, E, 2007, 'Vocational training in higher education: a case study of work based learning within the police service of Northern Ireland (PSNI), *Research in Post-Compulsory Education*, 12, **3**, 357–76.

Nixon, I, Penn, D and Shewell, J, 2006, *Workplace learning in the North East,* Bristol: Higher Education Funding Council for England.

Nixon, I, Smith, K, Stafford, R and Camm, S, 2006, *Work based learning: illuminating the higher education landscape,* York: Higher Education Academy.

Noble, K, A, 1994, *Changing doctoral degrees,* Buckingham: Society for Research in Higher Education/Open University Press.

Nowotny, H, Scott, P and Gibbons, M, 2001, *Rethinking science: knowledge and the public in an age of uncertainty*, Cambridge: Polity Press.

Nyhan B, Cressey P, Tomassini M and Kelleher M (eds), 2003, *Facing up to the learning organization challenge*, CEDEFOP Reference Series 41–I, Luxembourg: Office for Publications of the European Communities.

Nyhan, B, 2006, 'Collective reflection for excellence in work organizations: an ethical "community of practice' perspective on reflection" in D Boud, P Cressey and P Docherty (eds) *Productive reflection at work*, 133–45, London: Routledge.

O'Reilly, D, 1994, 'Learning contracts for independent study', paper presented at the HEC conference, *Using Independent Study in Higher Education.* Available at: www.heacademy.ac.uk/assets/york/documents/resources/heca/heca_is08.pdf [accessed 28 April, 2010].

O'Sullivan, J, 2003, 'Unlocking the workforce potential: is support for effective continuing professional development the key?', *Research in Post-Compulsory Education*, 8, **1**,107–22.

Oberski, I, Palomar, A, Noya, C, Ruggiero, E, Herrera, F, Korhonen, K, Osborne, M and Davies, P, 2000, 'Evaluating online work-based education for managers in SMEs: some initial observations, *Industry and Higher Education*, 14, **3**, 200–3.

O'Connor, B, N, 2004, 'The workplace learning cycle: a problem-based curriculum model for the preparation of workplace learning professionals', *Journal of Workplace Learning, 1*6, **6**, 341–9.

O'Doherty, Eamon, 2006, 'Foundation degrees and widening participation: public sector employees' work based learning and foundation degrees', *Journal of Access Policy and Practice*, 3, **2**, 142–61.

Ofsted, 2004, *Making a difference: The impact of award-bearing in-service training on school improvement,* HMI 1765.

Olsen, Karl, 2003, *Work based learning for adults: an evaluation of the selection process*, Sheffield: Department for Work and Pensions.

Omerzel, D G, Fister, K and Sirca, N T, 2008, 'The support of employers in the system of workplace learning recognition', *International Journal of Innovation and Learning,* 5, **1**, 38–50.

Onyx, J, 2001, 'Implementing work based learning for the first time', in D Boud and N Solomon (eds) *Work based learning: a new higher education?,* Buckingham: SRHE and OUP.

Osborne, C, Davis, J and Garnett, J, 1998, 'Guiding the learner to the centre of the stakeholder curriculum', in J Stephenson and M Yorke (eds), *Capability and quality in higher education*, 85–101.

O'Sullivan, J, 2003, Unlocking the workforce potential: is support for effective continuing professional development the key?, *Research in Post-Compulsory Education,* 8, **1**, 107–22.

Owens, D and Rutherford, J, 2007, 'The development of work based learning as part of post-qualifying education: a case study from the School of Nursing, University of Salford', *Industry and Higher Education*, 21, **5**, 361–6.

Pachler, N and Evans, K, 2007, Turning workplace learning on its head, *Education Today*, 57 **4**, 2–6.

Paivitynjala, J V and Anneli, S, 2003, 'Pedagogical perspectives on the relationships between higher education and working life', *Higher Education,* 46, 147–66.

Paré, A and Le Maistre, C, 2006, 'Active learning in the workplace: transforming individuals and institutions', *Journal of Education and Work,* 19, **4**, 363–81.

Park, C, 2007, *Redefining the doctorate*, York: The Higher Education Academy.

Park, C, 2005, 'New variant PhD: the changing nature of the doctorate in the UK', *Journal of Higher Education Policy and Management*, 27, **2**, July.

Paulsson, A, M, K and Sundin, L, 2000, 'Learning at work – a combination of experience-based learning and theoretical education', *Behaviour and Information Technology*, 19, **3**, 181–8.

Paulsson, K, Ivergard, T and Hunt, B, 2005, 'Learning at work: competence development or competence-stress', *Applied Ergonomics*, 36, **2**, 135–44.

Paulucy, B, 2000, 'Developing and implementing AP(E)L with reference to work based learning' in S Bailie and C O'Hagan (eds) *APEL and lifelong learning,* Newtownabbey: Forum for the Advancement for Continuing Education and the University of Ulster.

Peters, H, 2005, 'Contested discourses: assessing the outcomes of learning from experience for the award of credit in higher education', *Assessment and Evaluation in Higher Education*, 30, **3**, 273–85.

Pigrum, D, 2007, 'The "ontopology" of the artist's studio as workplace: researching the artist's studio and the art/design classroom", *Research in Post-Compulsory Education*, 12, **3**, 291–307.

Poikela, E, 2004, 'Developing criteria for knowing and learning at work: towards a context-based assessment, *Journal of Workplace Learning*, 16, **5**, 267–74.

Polanyi, M, 1998, *Personal knowledge: towards a post-critical philosophy*, London: Routledge.

Portwood, D, 2007, 'Can work based learning add to the research inventory of higher education? The case of collaborative research', *Research in Post-Compulsory Education*, 12, **3**, 279–90.

Portwood, D, 2000, 'An intellectual case for work based learning as a subject' in D Portwood and C Costley (eds) *Work based learning and the university: new perspectives and practices,* Birmingham, Staff and Educational Development Association, SEDA paper 109.

Portwood, D, 2007, 'Towards an epistemology of work based learning: eliciting clues from work based learning projects' in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Portwood, D and Costley, C (eds), 2000, *Work based learning and the university: new perspectives and practices,* SEDA paper 109.

Portwood, D, 2000, 'An intellectual case for work based learning as a subject', in D Portwood and C Costley, *Work based learning and the university: new perspectives and practices,* Birmingham: SEDA paper 109.

Portwood, D and Thorne, I (eds), 2000, 'Taking work based learning to doctoral level' in D Portwood and C Costley (eds), *Work based learning and the university: new perspectives and practices*, Birmingham, SEDA paper 109.

Pouget, M and Osborne, M, 2004, 'Accreditation or validation of prior experiential learning: knowledge and *savoirs* in France – a different perspective?', *Studies in Continuing Education*, 26, **1**, 45–65.

Powell, S and Long, E, 2005, *Professional doctorate awards in the UK,* Lichfield: UK Council for Graduate Education.

Prince, C, 2004, 'University accreditation and the corporate learning agenda', *Journal of Management Development,* 23, **3**, 256–69.

Probert, B, 1999, Gendered work and gendered working, in D Boud and J Garrick (eds) *Understanding learning at work,* London: Routledge: 90–116.

Raelin, J, A, 1999, 'The design of the action project in work based learning', *Human Resource Planning*, vol 22, **3**, 12–22.

QAA, 2004, *Guidelines on accreditation of prior learning,* Gloucester: Quality Assurance Agency.

Rachal, J, R, 2002, 'Andragogy's detectives: a critique of the present and a proposal for the future', *Adult Education Quarterly*, 52, **3**, 210–27.

Raelin, J, 1999, *Work based learning: the new frontier of management*, London: Prentice Hall.

Raffe, D, Howieson, C, Spours, K and Young, M, 1998, The unification of post-compulsory education: towards a conceptual framework, *British Journal of Educational Studies.* 46, **2**, 169–87.

Rainbird, H, Fuller, A and Munro, A (eds), 2004, *Workplace learning in context.* London: Routledge.

Rainbird, H, Munro, A and Holly, L, 2004, 'The employment relationship and workplace learning', in Rainbird et al*,* (eds) *Workplace learning in context*, London: Routledge.

Rainbird, H, 2002, 'No rights, just responsibilities: individual demand for continuing training' in K Evans, P Hodkinson and L Unwin (eds), *Working to learn: transforming learning in the workplace,* 212–32, London: Kogan Page.

Rainbird, H, (as a member of the 'Working to Learn' Group), 2002, 'Six challenges for the future' in K Evans, P Hodkinson and L Unwin (eds), *Working to learn: transforming learning in the workplace,* 233–40, London: Kogan Page.

Ramage, C, 2003, Key issues on mentoring work based learning, (CHAIN Work Based Learning December 8 and 9). Available at: http://chain.ulcc.ac.uk/chain/event/ramage(additional_info).pdf [accessed 28 April, 2010].

Remedios, R and Boreham, N, 2004, 'Organisational learning and employees' intrinsic motivation', *Journal of Education and Work*, 17, **2**, 219–35.

Ramsey, C, 2003, 'Using virtual learning environments to facilitate new learning relationship', *International Journal of Management Education*, 3, **2**, 31–41.

Ramsey, C, 2005, 'Narrating development: professional practice emerging within stories', *Action research,* 3, **3**, 279–95.

Ramsey, C, 2005, 'Narrative: from learning in reflection to learning in performance', *Management Learning*, 36, (**2**), 219–35.

Ramsey, C, 2007, 'Ethno-experiments: creating robust inquiry and futures', *Research in Post-Compulsory Education*, 12, **3**, 377–90.

Reeders, E, 2000, 'Scholarly practice in work based learning: fitting the glass slipper', *Higher Education Research and Development*, 19, **2**, 205–20.

Reeve, F and Gallacher, J, 2000, *Researching the implementation of work based learning within higher education: questioning collusion and resistance*, presented at the AERC, Canada, Vancouver.

Reeve, F and Gallacher, J, 2005, 'Employer-university "partnerships": a key problem for work based learning programmes?', *Journal of Education and Work,* 18, **2**, 219–33.

Reeve, F, Mayes, T and Gallacher, J, 1998, 'Using new technology to support work based learning', *Open Learning,* 13, **3**, 18–26.

Reeve, F and Gallacher, J, 2000, 'Implementing work based learning in higher education: exploring control and negotiation in the curriculum', aper presented at *Working knowledge* conference, Sydney, Australia, December 10–13, 2000, working paper 45.

Reissner, S, C, 2002, Learning by storytelling? Narratives in the study of work based learning, *Journal of Adult and Continuing Education,* 10, **2**, 99–113.

Rhodes, C, Garrrick, J, 2003, *Project-based learning and the limits of corporate knowledge*, London: SAGE.

Rhodes, G and Shiel, G, 2007, 'Meeting the needs of the workplace and the learner through work based learning', *Journal of Workplace Learning*; 19, **3**, 173–87.

Rhodes, J, Lok, P, Hung, R, Y and Fang, S, 2008, 'An integrative model of organisational learning and social capital on effective knowledge transfer and perceived organisational performance', *Journal of Workplace Learning*, 20, **4**, 245–58.

Rickard, W, 2002, 'Work based learning in health: evaluating the experiences of learners, community agencies and teachers', *Teaching in Higher Education,* 7, **1**, 47–63.

Rittel, H, J, W and Webber, M, M, 1984, 'Planning problems are wicked problems', in N Cross (ed) *Developments in design methodology,* New York: John Wiley.

Roberts, P, 1998, 'Rereading Lyotard: knowledge, commodification and higher education, *Electronic Journal of Sociology*, 3, **3**.

Robson, C, 2002, *Real world research: a resource for social scientists and practitioner-researchers* – 2nd ed), Oxford: Blackwell.

Roodhouse, S and Swailes, S (eds), 2007, *Employers, skills and higher education*, Chichester: Kingsham.

Roodhouse, S, 2003, *Connectivity and responsiveness to vocational higher education to promote workforce development*, *University Vocational Awards Council: the present view,* Available at: www.simonroodhouse.com/docs/JMP_3_art_Roodhouse1.pdf [accessed 28 April, 2010].

Rose, M, 2005, 'Do rising levels of qualification alter work ethic, work orientation and organizational commitment for the worse? Evidence from the UK, 1985–2001', *Journal of Education and Work,* 18, **2**, 131–64.

Rounce, K and Workman, B (eds), 2005, *Work based learning in health: innovations and applications,* Chichester: Kingsham.

Rounce, K, Scarfe, A and Garnett, J, 2007, 'A work based learning approach to developing leadership for senior health and social care professionals: a case study from Middlesex University', *Education and Training,* 49, **3**, 218–26.

Rowley, J, 2003, 'Action research: an approach to student work based learning', *Education and Training*, 45, **1**, 131–8.

Rutter, L, 2006, 'Supporting reflective, practice-based learning and assessment for post-qualifying social work', *Reflective Practice,* 7, **4**, 469–82.

Ryle, G, 1949/1984, *The concept of mind*, Chicago: University of Chicago Press.

Sandholtz, J, H, 2002, 'Inservice training or professional development: contrasting opportunities in a school/university partnership*', Teaching and Teacher Education*, 18, **7**, 815–30.

Sastry, T, 2004, Postgraduate education in the United Kingdom, Higher Education Policy Institute. Available at: www.bl.uk/aboutus/acrossuk/highered/helibs/postgraduate_education.pdf [accessed 28 April, 2010].

Sastry, T and Bekhradnia, B, 2007, *Higher education, skills and employer engagement*, London: Higher Education Policy Unit. Available at: www.hepi.ac.uk/466-1294/Higher-Education,-skills-and-employer-engagement.html [accessed 28, April 2010].

Savin-Baden, M, 1998, 'Understanding problem-based learning contexts from staff and students' perspectives', *Higher Education Close Up* conference; University of Central Lancashire. Available at: www.leeds.ac.uk/educol/documents/000000697.htm [accessed 28 April, 2010].

Saxton, J, 2000, 'Never mind the quality, feel the credit' in S Bailie and C O'Hagan (eds) *APEL and lifelong learning,* Newtownabbey: Forum for the Advancement for Continuing Education and the University of Ulster.

Scesa A, Williams, R, 2007, 'Engagement in course development by employers not traditionally involved in higher education: student and employer perceptions of its impact', technical report in *Research Evidence in Education Library,* London: EPPI-Centre, University of London.

Schon, D, 1987, *Educating the reflective practitioner: towards a new design for teaching and learning in the professions*, San Francisco: Jossey-Bass.

Schön, D, A, 1991, *The reflective turn: case studies in and on educational practice*, New York: Teachers Press, Columbia University.

Schulz, K, 2005, 'Learning in complex organisations as practicing and reflecting: a model development and application from a theory of practice perspective', *Journal of Workplace Learning*, 17, **8**, 493–507.

Scott, D, Brown, A, Lunt, I and Thorne, L, 2004, *Professional doctorates: integrating professional and academic knowledge*, Milton Keynes: Open University Press.

Seddon, T, 2001, 'What is 'doctoral' in doctoral education?' in B Green, T W Maxwell and P Shanahan (eds) *Doctoral education and professional practice: the next generation?*, Armidale NSW: Kardoorair Press.

Senge, P, M, 2006, *The fifth discipline: the art and practice of the learning organisation*, London: Random House.

Sense, A, 2007, 'Learning within project practice: cognitive styles exposed', *International Journal of Project Management*, 25, 33–40.

Shaw, E, 2000, *Towards a definition of work based learning,* Leeds Metropolitan University: UK UTS Research Centre Vocational Education & Training.

Shipley, N, 2001, Smart work: what industry needs from partnerships, in D Boud and N Solomon (eds) *Work based learning: a new higher education,* Buckingham: Society for Research into Higher Education/Open University Press.

Shulz, K, 2005, 'Learning in complex organisations as practicing and reflecting. A model development and application from a theory of practice perspective', *Journal of Workplace Learning*, 17, **8,** 493–507.

Siebert, S and Mills, V, 2007, 'The quest for autonomy: a Foucauldian perspective on work based research', *Journal of Research in Post-Compulsory Education*, 12, **3**, 309–17.

Slotte, V and Herbert, A, 2008, 'Engaging workers in simulation-based e-learning', *Journal of Workplace Learning*, 20, **3**, 165–80.

Slvi Lillejord, A and Olga Dysthe, A, 2008, Productive learning practice – a theoretical discussion based on two cases, *Journal of Education and Work,* 21, **1**, 75–89.

Smith, E, 2006, 'A woman's work is never certificated? How the implementation of nationally recognised training in workplaces helps women get qualifications', *Journal of Vocational Education and Training,* 58, **4**, Dec 2006, 531–49.

Smith, M, K, 2001, 'Action research' in *The encyclopedia of informal education.* Available at: www.infed.org/research/b-actres.htm [accessed 29 April, 2010].

Smith, P, A, C and O'Neill, J, 2003, 'A review of action learning literature 1994–2000: Part 2 – signposts into the literature', *Journal of Workplace Learning*, 15, **4**, 154–66.

Smith, R and Betts, M, 2000, 'Learning as partners: realising the potential of work based learning,' *Journal of Vocational Education and Training,* 52, **4**, 589–604.

Smith, V, 2004, *Pushing the boundaries – working with employers and other partners*, London: Learning & Skills Development Agency.

Sobiechowska, P and Maisch, M, 2006, 'Work based learning; in search of an effective model', *Educational Action Research*, 14, **2**, 267–86.

Solomon, N and McIntyre, J, 2000, 'Deschooling vocational knowledge: work based learning and the politics of the curriculum', in Symes, C and McIntyre, J (eds) *Working knowledge: the new vocationalism and higher education,* Buckingham: Open University Press/SRHE.

Solomon, N, 2005, Identity work and pedagogy: textually producing the learner-worker, *Journal of Vocational Education and Training,* 57, **1**, 95–108.

Solomon, N, Boud, D, Leontios, M and Staron, M, 2001, 'Researchers are learners too: collaboration in research on workplace learning', *Journal of Workplace Learning*, 13, **7/8**, 274–81.

Solomon, N, Boud, D and Rooney, D, 2006, 'The in-between: exposing everyday learning at work' in *International Journal of Lifelong Education,* 25, **1**, 3–13.

SQW and Taylor, Nelson Sofres, 2006, *Demand for flexible and innovative types of higher education,* Bristol: Higher Education Funding Council for England.

Stark, S, 2006, Using action learning for professional development, *Educational Action Research,* 14, **1**, 23–43.

Stasz, C and Brewer, D, J, 1998, 'Work based learning: student perspectives on quality and links to schools', *Educational Evaluation and Policy Analysis*, 20, **1**, 31–46.

Stavenga de Jong, J, Wierstra, R, A and Hermanussen, J, 2006, 'An exploration of the relationship between academic and experiential learning approaches in vocational education', *The Netherlands British Journal of Educational Psychology,* 76, 155–169.

Stephenson, J, 1998, 'Supporting student autonomy in learning' in J Stephenson and M Yorke (eds), *Capability and Quality in Higher Education*, London: Kogan Page.

Stephenson, J, Malloch, M and 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, **1**, 17–32.

Stephenson, J and Laycock, M, 1993, *Using learning contracts in higher education,* London: Routledge.

Stephenson, J and Yorke, M, 1998, 'Creating the conditions for the development of capability' in J Stephenson and M Yorke (eds) *Capability and Quality in Higher Education*, London: Kogan Page.

Stephenson, J, 1998, 'Supporting student autonomy in learning' in J Stephenson and M Yorke, (eds), *Capability and Quality in Higher Education*, London: Kogan Page.

Stephenson, J, 2001, 'Ensuring a holistic approach to work based learning: the capability envelope' in D Boud and N Solomon (eds) *Work based learning: a new higher education*, Buckingham: Society for Research into Higher Education / Open University Press.

Stephenson, J, 1998, 'The concept of capability and its importance in higher education', in J Stephenson and M Yorke (eds) *Capability and Quality in Higher Education,* London: Kogan Page.

Stephenson, J and Yorke, M (eds), 1998, *Capability and Quality in Higher Education,* London: Kogan Page.

Stephenson, J and Saxton, J, 2005, 'Using the Internet to gain personalized degrees from learning through work: some experience from Ufi,' *Industry and Higher Education*, 19, **3**, 249–263.

Stephenson, J and Yorke, M (eds), 1998, *Capability and Quality in Higher Education*, London: Kogan Page.

Stephenson, J, Malloch, M and 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, **1**, 17–32.

Steward, T, A, 1998, *Intellectual capital, the new wealth of organisations,* London: Nicholas Brierley.

Stewart, T, 2004, *The wealth of knowledge*, London: Nicholas Brearley.

Strati, A, 2007, 'Sensible knowledge and practice-based learning', *Management Learning,* 38, **1**, 61–77.

Stroud, D, Fairbrother, P, 2006, 'Workplace learning: dilemmas for the European steel industry', *Journal of Education and Work,* 19, **5**, 455–480.

Sung, J and Ashton, D, 2005, *High performance work practices: linking strategy and skills to performance outcomes*, Department of Trade and Industry (in association with CIPD).

Sutherland, J, 2002, 'An approach to learning at, for and through the workplace: a trade union case', in K Evans, P Hodkinson and L Unwin, *Working to learning: transforming learning in workplace,* London: Kogan Page.

Sutherland, J and Rainbird, H, 2000, 'Unions and workplace learning: conflict or cooperation with the employer?' in H Rainbird (ed) *Training in the workplace*, Basingstoke: Macmillan Press.

Swail, W, S and Kampits, E, 2004, 'Work based learning and higher education: a research perspective', Washington, DC: Educational Policy Institute, Inc. Available at: www.educationalpolicy.org/pdf/WBL.pdf [accessed 29 April, 2010].

Swallow, V, Chambers, H and Miller, J, 2004, *Partnership in work based learning*, Newcastle: Northumbria University Press.

Swift, J, 2006, 'Unionlearn and the role of unions in higher level learning' in S Roodhouse, M Bowley and C McKevitt (eds), *Putting work based learning into practice,* Bolton: University Vocational Awards Council.

Symes, C, 2001, 'Capital degrees: another episode in the history of work and learning', in D Boud and N Solomon (eds) *Work based learning: a new higher education?*, Buckingham: Open University Press/SRHE.

Symes, C and McIntyre, J (eds), 2000, *Working knowledge: the new vocationalism and high education,* Maidenhead: SRHE and Open University Press.

Symes, C, Boud, D, McIntyre, J, Solomon, N and Palmer, M, 2006, 'Working knowledge: Australian universities and "real world" education', *International Review of Education*, 46, **6**, 565–79.

Symon, G and Cassell, C, 1998, *Qualitative methods and analysis in organizational research*, London: SAGE.

La Belle, T, 2004, *Credential inflation and the professional doctorate in California higher education*, Center for Studies in Higher Education, Research and Occasional Paper series: CSHE. 1.04.

Tallantyre, F, 2008, 'Impact of work based learning on employers and employees', keynote presentation at *Work Based Learning Futures* conference at the Institute for Work Based Learning, Middlesex University, London.

Tarrant, J, 2000, 'What is wrong with competence?' *Journal of Further and Higher Education*, 24, **1**, 77–83.

Taylor, A, 2005, 'What employers look for: the skills debate and the fit with youth perceptions', *Journal of Education and Work*, 18, **2**, 201–18.

Taylor, A, 2007, 'Struggles over labour power: the case of Fort McMurray', *Journal of Education and Work*, 20, **5,** 379–96.

Teare, R, 2004, 'The future of learning at work'*, Development and Learning in Organisations,* 18, **3**,10–12.

Teare, R and Neil, J, 2002, 'Fast-forward to accredited corporate learning?', *International Journal of Contemporary Hospitality Management,* 14, **7**, 342–48.

Teichler, U, 1999, 'Research on the relationships between higher education and the world of work: past achievements, problems and new challenges', *Higher Education,* 38, **2**, 169–90.

Tennant, M, 2004, 'Doctoring the knowledge worker', *Studies in Continuing Education*, 26, **3**, 431–41.

Tett, L, 1999, 'Widening provision in higher education – some non-traditional participants' experiences', *Research Papers in Education,* 14, **1**, 107–19.

The Scottish Government, 2007, *Skills for Scotland – a lifelong skills strategy,* Edinburgh: Scottish Government. Available at: http://openscotland.net/Publications/2007/09/06091114/0 [accessed 29 April, 2010].

Thorne, L and Francis, J, 2001, 'PhD and professional doctorate experience: the problematics of the national qualifications framework', *Higher Education Review,* 33, **3**, 13–29.

Thorne, L, E (ed), 2001, 'Doctoral level learning: customization for communities of practice', in B Green, T W Maxwell and P Shanahan (eds), *Doctoral education and professional practice: the next generation,* Armidale: Kardoorair Press.

Trim, P and Lee, Y, 2007, 'Placing organizational learning in the context of strategic management', *Business Strategic Series*, 8, **5**, 335–42.

Tsoukas, H, 2005, *Complex knowledge,* Oxford: Oxford University Press.

Tynjala, P, Valimaa, J and Sarja, A, 2003, Pedagogical perspectives on the relationships between higher education and working life, *Higher Education,* 46, **2**, 147–66.

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

UK Council for Graduate Education, 2005, *Professional doctorate awards in the UK*. Available at: http://www.ukcge.ac.uk/publications/reports [accessed 29 April, 2010].

UK Council for Graduate Education, 2002, *Professional doctorates,* Available at: http://www.ukcge.ac.uk/publications/reports [accessed 29 April, 2010].

Sadlak, J (ed), 2004, *Doctoral studies and qualifications in Europe and the United States: status and prospects,* UNESCO/CEPES. Available at: http://unesdoc.unesco.org/images/0013/001364/136456e.pdf [accessed 29 April, 2010].

Universities UK, 2006, *Skills and employer engagement: policy, progress and emerging issues,* a 'mapping document' prepared by Universities UK for its skills task group. Available at: www.universitiesuk.ac.uk/PolicyAndResearch/PolicyAreas/Documents/Employability/mapping.pdf [accessed 29 April, 2010].

University of Portsmouth, *Partnership programme: work based learning for busy people*, Available at: www.port.ac.uk/courses/coursetypes/postgraduate/PartnershipMastersProgramme/downloadcoursebrochure/filetodownload,110474,en.pdf [accessed 29 April, 2010].

Unwin, L, Felstead, A, Fuller, A, Lee, T, Butler, P and Ashton, D, 2005, *Worlds within worlds: the relationship between context and pedagogy in the workplace*, Learning as work research paper, No. 4, produced as part of the Learning as work: teaching and learning processes in the contemporary work organisation project. Research funded by the ESRC Teaching and Learning Research Programme.

Usher, R, 1993, 'Experiential learning or learning form experience: does it make a difference?', in D Boud, R Cohen and D Walker (eds) *Using experience for learning*, Buckingham: British Society for Research into Higher Education and Open University of Press.

Usher, R, 2002, 'A diversity of doctorates: fitness for the knowledge economy', *Higher Education Research and Development*, 12, **2**, 143–53.

Usher, R and Edwards, R, 2000, 'Virtual research in performative times' in J Garrick and C Rhodes (eds) *Research and Knowledge at Work*, London: Routledge.

Usher, R and Edwards, R, 2005, 'Subjects, networks and positions: thinking educational guidance differently', *British Journal of Guidance and Counselling,* 33, **3**, 397–410.

Usher, R and Solomon, N, 1999, 'Experiential learning and the shaping of objectivity in the workplace,' *Studies in Higher Education* 31, 155–63.

Viskovic, A, 2005, '"Community of practice" as a framework for supporting tertiary teachers informal workplace learning', *Journal of Vocational Education and Training,* 57, **3**, 389–410.

Visser, W, 2007, 'Corporate sustainability and the individual: a literature review, *University of Cambridge Programme for Industry*, Research paper series 1.

Von Krogh, G, Ichijo, K and Nonaka, I, 2000, *Enabling knowledge creation: how to unlock the mystery of tacit knowledge and release the power of innovation,* Oxford: Oxford University Press.

Wagner, R, Childs, M and Houlbrook, M, 2001, 'Work based learning as critical social pedagogy', *Australian Journal of Adult Learning*, 41, **3**, 314–34.

Wailey, T, 2002, *How to do AP(E)L*, London, Southern England Consortium for Credit Accumulation and Transfer (SEEC).

Walsh, A, 2007, 'Engendering debate: credit recognition of project-based workplace research', *Journal of Workplace Learning,* 19, **8**, 497–510.

Walsh, A, 2006, 'Demonstrating equivalence: credit recognition of project-based workplace learning' in C Costley (ed) *Work-based projects: the worker as researcher,* proceedings of the Work Based Learning Network annual conference, Universities Association for Lifelong Learning April 24–25.

Walsh, A, 2007, 'Researching in the workplace: a chance to avoid researchers' reality shock?' *Research in Post-Compulsory Education,* 12, **3**, 319–30.

Walsh, A, 2003, 'Academic recognition of work based learning: a paradigm revolution?', *Work based learning Opportunities for Lifelong Learners*, November 20–22, 2003, UACE Work Based Learning Network annual conference.

Walsh, A, 2006, *Pragmatism or principle? Academic recognition of work based learning*, Birkbeck: University of London, Birkbeck, University of London, SRHE annual conference 2006.

Walsh, A, 2006, 'Will increasing academic recognition of workplace learning in the UK reinforce existing gender divisions in the labour market?', *Journal of Vocational Education and Training,* 58, **4**, 551–62.

Walsh, A, 2007, 'An exploration of Biggs' constructive alignment in the context of work based learning', *Assessment AND Evaluation in Higher Education,* 32, **1**, 79–87.

Walsh, A and Johnson, B, 2001, *Reflections of credit practice,* London: SEEC.

Walters, D, Greenwood, A and Ritchie, R, 2006, 'Work based learning: effectiveness in information systems training and development', *Higher Education Quarterly*, 60, **1**, 91–107.

Walton, G, Thompson, J and Trayhurn, D, 2005, *Effective work based learning across professions and the impact on the roles of library and information services: a case study of UK probation workers*, Germany: IFLA Publications.

Ward, R and Richardson, H, 2007, *Personalised learning plans in lifelong learning networks*, Bristol: Higher Education Funding Council for England.

Watkins, J, 1999, 'Educating professionals: the changing role of UK professional associations', *Journal of Education and Work,* 12, **1**.

Webber, R, 2005, 'Integrating work-based and academic learning in international and cross-cultural settings', *Journal of Education and Work*, 18, **4**, 473–87.

Wedgwood, M. (2004) *Higher education for the workforce: barriers and facilitators to employer engagement,* Manchester: Manchester Metropolitan University (DIUS research Report). Available at: www.dius.gov.uk/assets/biscore/corporate/migratedd/publications/d/dius_rr_08_04.pdf [accessed 29 April, 2010].

Wenger, E, 1998, *Communities of practice: learning, meaning and identity*, Cambridge: Cambridge University Press.

Wesley, A, 2001, 'Some further thoughts about knowledge transfer and understanding', *Knowledge and Process Management,* 4, 195–6.

Whelan, T, 1991, 'Accreditation of in-company training', in A Adams, M Brewer, I Marshall, G Tolley and T Whelan *And it must count: work based learning for academic credit in higher education*, London: Learning from Experience Trust.

White, T, Wallace, J, with Michael Myciunka, presenters at SEDA workshop 30, *Exploring the tensions and challenges of responding to student expectations on a work based learning programme.* Available at: http://seda.ac.uk/confs/lon08/abstracts/30_WhiteWallaceMyciunka.pdf [accessed 29 April, 2010].

Williams, P, 2007, 'Valid knowledge: the economy and the academy', *Higher Education*, 54, **4**, 511–23.

Williams, P, 2008, 'Assessing context based learning: not only rigorous but also relevant', *Assessment and Evaluation in Higher Education*, 33, **5**.

Wilson, G, Walsh, T and Kirby, M, 2007, 'Reflective practice and workplace learning: the experience of MSW students', *Reflective Practice*, 8, **1**, 1–15.

Winter, R, 2001, 'A challenge to assessment and quality assurance in higher education', in D Boud and N Solomon (eds) *Work based learning: a new higher education?* Buckingham: Open University Press and SRHE.

Wiredu, G, O, 2007, 'Distance and contradictory motives in distributed workplace learning for a new profession', *Journal of Education and Work,* 20, **4**, 357–77.

Wolf, A, Jenkins, A and Vignoles, A, F, 2006, 'Certifying the workforce: economic imperative or failed social policy?', *Journal of Education Policy,* 21, **5**, 535–65.

Workman, B, 2007, 'Casing the joint: explorations by the insider researcher preparing for work-based projects', *Journal of Workplace Learning,* 18, **3**, 146–60.

Workman, B, 2007, 'Using work based learning and accreditation to recognise continuous professional development', *Educational Developments*, 8, **4**, 19–23.

Yorke, M, 1998, 'Assessing capability' in J Stephenson and M Yorke (eds), *Capability and Quality in Higher Education*, London: Kogan Page.

Yorke, M, 2005, *Issues in the assessment of practice-based professional learning*. Available at: www.open.ac.uk/cetl-workspace/cetlcontent/documents/464428ed4aa20.pdf [accessed 29 April, 2010].

Yorke, M, 2006, *Good practice; better practice:* a *review of practice-based professional learning in four central academic units in the Open University*, Open University. Available at: www.open.ac.uk/cetl-workspace/cetlcontent/documents/460cff8656fa2.pdf [accessed 29 April, 2010].

Young, D and Stephenson, J, 2007, 'The use of an interactive learning environment to support learning through work', in J Garnett and D Young (eds) *Work based learning futures,* Bolton: University Vocational Awards Council.

Young, D and Garnett, J (eds), 2007, 'Work based learning futures', conference proceedings from *Work based learning futures*, Buxton, April 2007, University of Derby/Middlesex University. Available at: www.uvac.ac.uk/downloads/0401_publications/ Work-based%20Learning%20Futures%20FINAL.pdf [accessed 29 April, 2010].

Young, M, 2004, 'Conceptualizing vocational knowledge: some theoretical considerations', in Rainbird et al (eds) *Workplace learning in context*, London: Routledge.

Young, M, 2006, 'Endword', in P Andersson and J Harris (eds) *Re-theorising the recognition of prior learning*, Leicester: NIACE.

Young, M and Guile, D, 1998, 'Reflexivity, knowledge and learning: the challenge for specialist learning organisations (SLOs) and non-specialist learning organisations (NSLOs)', in M Easterby (ed) *Learning around organisations,* London: SAGE.

Zemblyas, M, 2006, 'Work based learning, power and subjectivity: creating space for a Foucauldian research ethic', *Journal of Education and Work*, 19, **3**, 291–303.

Zuber-Skerritt, O, 2006, 'An executive action learning program (SEAL) for professional development and higher degrees', in H Welte, M Auer and C Meister-Scheytt (eds) *Management von universitäten: zwischen tradition und (post-)modern,* Munich: Rainer Hampp Verlag.

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