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Learning as Work: Teaching and Learning Processes in the Contemporary Work Organisation

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Learning as Work Research Paper, No. 4 July 2005

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ABSTRACT

This paper explores the different ways in which people engage in teaching and learning in the workplace. There is now much more awareness of the symbiotic relationship between workplace learning, the organisation of work, level of employee involvement, and organisational performance, and the broader economic, regulatory, and social context, within which organisations have to operate. The paper argues that we have to identify and take serious account of the contextual factors (external and internal) which affect all organisations as these are central to developing our understanding of the nature of pedagogical practice within any workplace setting. By closely examining the nature and impact of these contextual factors, we can gain greater insight into the mystery of why organisations adopt different practices and why they create such different learning environments. The paper draws on our tentative initial findings from the Learning as Work project and includes vignettes from both the public and private sectors to highlight the issues raised.

WORLDS WITHIN WORLDS: THE RELATIONSHIP BETWEEN CONTEXT AND PEDAGOGY IN THE WORKPLACE

INTRODUCTION

Our project is concerned with the interactive relationship between learning at work, the organisation of work, and organisational performance, three fields of study which, until relatively recently, have operated in different disciplinary and methodological spheres. Elsewhere, we have argued that organisations differ in the way they create and manage themselves as learning environments, with some conceptualised as 'expansive' in the sense that their employees experience diverse forms of participation and, hence, are more likely to foster learning at work (see Fuller and Unwin, 2004). This was seen to benefit both the organisation and the individual. In this new project, we take those ideas further by bringing together the literatures on workplace learning, the organisation of work, and performance, to try and make better sense of the Russian doll like composition of workplaces. That is not to say that we see the tiny baby at the core as the answer to our questions, but rather we seek to understand the role and function of the various layers, which, only when brought back together result in a meaningful whole.

The paper draws on tentative initial findings and analysis from our project¹. The use of the word 'tentative' is important because the ideas presented here are still being debated by the project team and are subject to the fresh insights gained from on-going fieldwork activity. The project is employing a range of qualitative and quantitative methods in case study sites which span both the public and private sectors. Fieldwork is currently underway in organisations of different types and sizes in 14 sectors: retail; higher education; food processing; distribution; component manufacturing; construction; social care; hospitality; hairdressing; health and fitness; utilities; information and communication technology; audio-visual; and contact centres. We are interested in all

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grades of employee, though the focus in terms of grade differs from sector to sector. In line with our perspective that context is highly significant, we are developing profiles of the wider economic, political and social landscape in which our case studies are located. For the purposes of this paper, illustrations will be provided from hairdressing, social care, hospitality, and construction.

It is now accepted that workplaces are sites for learning, indeed, so much so, that the nature of that learning and the role of teaching in the learning process are the subjects of substantial enquiry across a range of disciplinary fields. At the same time, it is also accepted that workplaces are dynamic sites of enquiry, subject to different external and internal pressures, and extremely variable in terms of their performance (variously defined), their organisational history and culture, their organisation of the labour process, their treatment of employees, and their sense of identity (see, inter alia, Koike and Inoki, 1990; Darrah, 1996; Huys and Hootegem, 2002; Koike, 2002; Rainbird et al, 2004; Fuller and Unwin, 2003). In this paper, we explore the implications of those differences and the nature of their interaction for the study and conceptualisation of teaching and learning in workplaces.

As the project progresses, we will also seek to give greater prominence to questions about what actually is being 'learned' in the workplace, and the extent to which learning can be said to be beneficial or problematic, innovative or part of the everyday development of job competence (for employees, the organisation, the sector/industry, perhaps even society as a whole). In this regard, the contribution of Boreham et al (2002) in taking a holistic approach to the field of work process knowledge is particularly helpful.

The primary function of any workplace is not learning but the production of goods and services and the achievement of organisational goals determined internally and/or shaped by others such as head offices, parent companies, and government departments. Furthermore, organisations in both the public and private sector exist within the boundaries of a political economy and "face a set of coordinating institutions whose character is not fully under their control" (Hall and Soskice, 2001, p.15). Thus, at the

level of national governments, Hall and Soskice (ibid) argue that the extent to which they can be said to operate a liberal market economy (LME) (e.g. USA, UK, Australia) or a coordinated market economy (CME) (e.g. Germany, the Nordic states, Netherlands) pushes organisations towards particular forms of corporate strategies:

To put the point in the most general terms...firms and other actors in coordinated market economies should be more willing to invest in specific and co-specific assets (i.e. assets that cannot readily be turned to another purpose and assets whose returns depend heavily on the active co-operation of others), while those in liberal market economies should invest more extensively in switchable assets (i.e. assets whose value can be realised if diverted to other purposes). This follows from the fact that CMEs provide more institutional support for the strategic interactions required to realise the value of co-specific assets, whether in the form of industry-specific training, collaborative research and development, or the like, while the more fluid markets of LMEs provide economic actors with greater opportunities to move their resources around in search of higher returns, encouraging them to acquire switchable assets such as general skills or multi-purpose technologies. (ibid, p.17)

Hall and Soskice (ibid, p.21) regard a third set of countries, including France, Italy and Spain, as occupying a more ambiguous position, "marked by a large agrarian sector and recent histories of extensive state intervention that have left them with specific kinds of capacities for non-market coordination in the sphere of corporate finance but more liberal arrangements in the sphere of labour relations". For our project, we need to be very conscious of this wider canvas of political economy in order to try and capture the heavily nuanced character of the organisations and sectors we are researching. As will be discussed in the third section of this paper, the organisation of work in and the performance of most of our case study sites (in the private and, increasingly in the UK, public sectors) are affected on a daily basis by the nature of the role that learning plays in the workplace and articulating the nature of that learning require, therefore, examination of a range of phenomena stretching beyond the day-to-day generation,

acquisition and sharing of skills and knowledge, and, hence, pose considerable challenges for researchers.

The paper continues in three sections. The first section discusses the influence of context on learning (and vice versa), the second provides illustrations from some of our case studies, and the third offers some further questions for discussion.

LEARNING (IN CONTEXT) AT WORK

There is still a strong tendency on the part of UK policymakers, employers and agencies/providers, which support workforce development, to conceptualise work-related or work-based learning as a linear, fixed-time activity, and to use qualifications as a proxy for job competence and skills (see Felstead et al, 2004). This is understandable for a number of reasons. Firstly, learning a particular task or the theoretical knowledge underpinning it can easily be confined to a 'lesson' in the formal education sense. Whether in the workplace or in an off-the-job setting, such lessons typically involve a 'teacher' and an individual trainee or group of trainees. Aside from these specific learning episodes, most employees engage in some form of induction process where they are 'taught' the basic skills and knowledge required to begin operating as productive workers. Whilst induction for some workers might last no more than a few hours, for others, and particular in technical and professional jobs, it might involve a considerable period of time in some form of training school (perhaps a university). Beckett and Hager (2002, p.99) refer to this as the 'front-end model of occupational preparation', a model which relies on what Schon (1983) termed 'technical rationality' whereby it is assumed that people can and will apply this learning to everyday problems and situations in the workplace. Secondly, for policymakers, conceptualising vocational learning in ways which mirror formal education, enables them to set standards for the design of vocational qualifications, allocate funding, measure outputs, and compile data on the volume of skills in the economy (see Felstead and Unwin, 2001). Thirdly, given that for employers, learning in the workplace is not a first order concern, it is to be expected that they might prefer the acquisition of specific skills and knowledge to be organised in such a way so as not to interfere too much with the business of producing goods and services. Finally, it is much more efficient and cost-effective for those organisations which have a responsibility for organising and providing services to support workforce development to package their product into courses (or products of some variety) in the same way as say a college or university.

The problems associated with the separation of the process of learning work-related skills and knowledge from the workplace context, as described above, and the advocacy of a more 'situated' approach, have been debated over many years (see, *inter alia*, Lave and Wenger, 1991, Engestrom, 2001). This has led to a dramatic foregrounding of the socalled informal nature of learning in the workplace, what Eraut (2004, p. 247) refers to as, "the learning that takes place in the spaces surrounding activities and events with a more overt formal purpose". As with all revelatory shifts in thinking, this realisation that the learning that takes place as part of everyday workplace activity might be equal to or even more important than learning which is formally structured (on or off-the-job) is sometimes interpreted and re-presented through a lens which obscures the contextual imperatives facilitating and/or impeding learning.

A recent example of this lens distortion can be found in a recent report from the Learning and Skills Development Agency entitled, *Learning without lessons – supporting learning in small businesses* (Doyle and Hughes, 2004). The report argues that, because workers learn best on-the-job, organisations (and training providers) should concentrate on developing coaching and mentoring skills rather than providing formal learning opportunities (defined as 'lessons'). Research over a long period has shown coaching and mentoring to be necessary processes in the facilitation and maintenance of a learning culture in the workplace, and that the closer the synergy between what is needed to be learned and real work activity, the more likely it is that individuals will be motivated to respond. The LSDA report, however, implies that learning (and teaching) at work is solely a matter of human interaction and agency, a phenomenon which floats free of context. Problematically, it also presents learning at work as an entirely positive enterprise; beneficial to both employee and workplace. This ignores the considerable literature from the sociology of work which discusses the ways in which employees will sometimes actively acquire a very different set of knowledge and skills to that desired by the employer in order to subvert the labour process. Such learning arises out of employee antipathy to the ways in which work is organised, perhaps also to the organisation's view of what counts as acceptable performance, and also to the workplace conditions (from the physical through to pay, holidays and so on). Such learning also certainly relies on well-developed skills in coaching and mentoring.

Early on in our own project, we were invited to include a module of questions on workplace learning as part of the National Institute of Adult Continuing Education's (NIACE) 2004 Adult Participation in Learning Survey. Data gathered from a household survey of 1,943 employees revealed that they placed significant importance on the contribution that everyday workplace activity, including interaction with and mutual support from colleagues, makes to the enhancement of work performance. They cited activities such as doing the job, being shown different approaches, engaging in self-reflection, and keeping one's eyes and ears open. To that extent, our findings would appear to sit happily with those of the LSDA, but they also revealed a range of factors which show that learning and teaching processes are not free floating but strongly anchored and manipulated by the nature of the context from which they emanate and in which they are allowed to exist. For example, our findings showed that employees in jobs classed as 'elementary' and 'machine operatives' felt much less likely to be able to improve their work performance through day-to-day interactions with colleagues, clients and the job itself because their tasks are tightly bounded and heavily prescribed.

The findings from our work with NIACE emphasise the need for research that has concentrated on the relationship between individual dispositions and biographies with regard to learning at work (see, inter alia, Hodkinson and Hodkinson, 2004; Billett, 2001) to be brought together with research on the organisation of work. Ashton (2004, p. 45), building on the work of researchers such as Darrah (1996), Koike (2002), Scarborough et al (1999) and Lawler et al (2001) has argued that whilst the individual employee's

"motivation to engage in the process of learning is seen as determined by their previous experiences...these interact with organisational constraints in four main areas: in the extent to which the organisation facilitates access to knowledge and information; in the opportunity it provides to practice and develop new skills; in the provision of effective support for the learning process; and in the extent to which it rewards learning".

The connection between the individual employee's attitude to and participation in learning and the wider context of their employment is a key (though still largely rhetorical) feature of the concept of employee involvement (EI), which, as Handel and Levine (2004, p.1) remind us, has been advocated in the management literature since "at least the 1930s". The advocates of EI argue that it will improve organisational performance, job satisfaction, and job quality. By the 1990s, EI could be said to have been 'sexed up', and began appearing under such titles as high involvement working and high performance working. Essentially, EI had evolved into a set of management practices, which, it was argued, should be applied in 'bundles', including: team working and briefing; measures for continuous (e.g. quality circles); job flexibility; information disclosure; profit sharing/employee share ownership; better promotion prospects; and better job security. On their own, any of these practices would have far less chance of increasing EI. Whilst the jury is definitely still out on the effectiveness of EI practices (see Butler et al, 2004; Lloyd and Payne, 2004), there is increasing international evidence that they are now being widely applied across sectors (albeit in varying ways and degrees) and that they can contribute to organisational performance (see Fuller et al, 2003).

We emphasise that the connection between workplace learning and EI is largely rhetorical because, as yet, much of the EI research has only paid minimal attention to employee learning. Rather, the research has assumed that enhanced learning (usually categorised as increased skill levels) is a by-product of EI. This is a key area for our project in that we are seeking to correlate managers' claims on EI use with employees' experiences, and with organisational performance. It should be noted, however, that EI practices arise out of the landscape of manufacturing and, consequentially, large enterprises: the vocabulary and assumptions of EI do not, necessarily, map easily onto other types of employment, and, hence, we will need to carefully re-tune our research antennae to capture the different ways in which 'involvement' is conceptualised across our case studies.

In addition, and importantly given the focus of this paper, both the discourse of EI and the nature of its implementation can look very different according to context. For example, giving employees increased task discretion does not, necessarily mean the abandonment of managerial control, rather, a subtle shift to 'controlled participation' rather than true empowerment:

In instances where employees have been entrusted with increased discretion it has not been accompanied with a relaxation in management control. Control remains as pervasive as ever, albeit organised in a different and sometimes more distant and immediate manner. To this extent work has been re-organized, but within a context where the various elements of worker empowerment and management control have been reconfigured and recomposed. It has not been the case that empowerment has displaced management controls: it is not a story of either/or, but both/and (Edwards et al, 2002, p. 21).

In the same vein, the advance of the concept of knowledge management reflects an awareness by organisations that they might benefit from capturing the tacit knowledge of their employees and re-presenting it in a controlled manner: what Elmholdt (2004, p. 328) has described as, "to the right people at the right time".

Given our argument that contextual factors shape the nature of learning at work, we are interested in the extent to which they shape the nature of formality and informality. This leads us to the role of teaching and what might be described as pedagogical and curricula artefacts and devices. The requirement for employees to acquire specific job-related knowledge and skills may be driven as much by external imperatives as internal ones and, hence, decisions about the balance between formal and informal approaches to learning have more complex roots than may first be apparent if the researcher's lens is focused on only certain parts of the workplace. Previous research by project team members (see Fuller and Unwin, 2004) revealed that employees, including apprentices, were engaged in forms of instruction in the workplace covering a range of matters from disciplinary knowledge (e.g. mathematical problem solving) through to adjustment of manual performance (e.g. more effective use of a machine). In addition, some organisations had codified workplace knowledge and skills into a curriculum (typically for the training of apprentices). Other research by project team members (see Fuller et al, 2003) showed that some organisations (for example an accountancy practice) use specific artefacts such as legal documents as vehicles for bringing workers together to generate new working practices. In contrast, some organisations (for example, car dealerships) might use codified knowledge as a device for controlling the level of autonomy deemed appropriate for their employees. The extent to which workplaces exhibit the formal trappings of the traditional educational institution can certainly be surprising.

ILLUSTRATIONS FROM A BROAD CANVAS

In this section, we draw from on-going fieldwork in four sectors: hairdressing; social care; hospitality; and construction. For each sector, we pick out some of the features which characterise the impact of context on the three key themes of our project: organisation of work; learning at work; and performance.

1. Hairdressing

The hairdressing sector is characterised by small, single owner establishments who operate in a market which stretches from the quick and cheap haircut supplied by the men's barber shop (average £5) to the lengthy and very costly (minimum £100) service supplied by salons in major cities where the selling of products increases the client's bill way beyond the cost of the initial haircut. Our initial fieldwork has concentrated on salons, which operate on a franchise basis, an expanding organisational form in the sector. A franchise operation might comprise, for example, a head office, which supplies central services such as marketing, information technology and accounting, and up to 30 individual salons. In terms of the organisation of work, franchise chains differ as to the amount of latitude they give to salon managers. Most operate a very 'top-down' culture

and exert considerable control over the amount of inter/intra salon knowledge sharing and transfer. The use of the metaphor of the 'family' is common, with salons expected to conform to head office defined quality standards, extending to such factors as the design of the salon.

In terms of performance, one of our case study organisations employs a "batting averages" approach for comparing individual salons. This involves measuring stylists' performance in terms of the number of clients they retain (a stylist with a transient client base will be viewed with concern), the amount of products they sell over and above the cost of the hair procedure, and the complexity of the hair procedure (colouring is a key way to earn higher returns). In terms of workplace learning, the franchises share a considerable commitment to both on and off-the-job learning, ranging from juniors learning in the traditional 'sitting by Nellie' approach through to stylists attending regional and national conventions to see the top stylists in action. There is a strong emphasis on continuous teaching and learning in this sector where new products are constantly being introduced, new procedures invented as fashions evolve, and where the customer base is notoriously fickle. Learning to read customer behaviour, retain their loyalty, and persuade them to spend beyond the basic hair procedure are also part of the considerable knowledge and skill base of this dynamic sector. The key questions for our project are to: a) discover more about the extent to which the level of control exerted by franchisors facilitates or inhibits effective learning; and b) the extent to which single owner, independent salons exceed, match or fall short of the range of learning opportunities provided by the franchise chains.

2. Social Care (public and private sector)

Our case study sites in social care (local authority run and private sector) are residential homes for the elderly. This is a sector whose behaviour is now heavily regulated by national legislation and inspection. Prior to the Care Standards Act of 2000, local authorities regulated and administered the provision of care homes in both the public and private sectors. Concern that regulation of the private sector was falling behind led to the establishment of the Commission for Social Care Inspection (CSCI) and to the imposition

of a requirement that 50% of care workers are trained to NVQ level 2 and care home managers to NVQ level 4 by 2005. To that extent, the public and private social care sectors operate on a level playing field, but the nature of how they implement and go beyond the CSCI's regulations reflects the wider context in which they operate. This includes: the level of skills and availability of potential carers in the local labour markets within which they recruit; the level at which the local authority or private employer decides to set their standard (i.e. at or above the CSCI standard); the nature of the client group (social class is a variable here and something the project is seeking to examine); and the resource base within which the homes are being run.

The decision to apply NVQ level 2 as a quality standard is also an issue for our research as the process by which employees achieve this competence-based qualification may stretch from a simple act of accrediting what they already know and do through to engagement in training designed to foster new learning. Both performance targets and the NVQ requirement affect the organisation of work, but this is also heavily influenced by the nature of shift working. Having to operate shifts affects, in turn, the extent to which colleagues can share knowledge and innovate, and the extent to which managers can put together their best team on any particular shift. A further major issue for this sector is the nature of the 'business'. Some employers (in both sectors) conceptualise care homes as 'homes' in that the employees are working in the residents' home rather than the residents living in the employees' workplace. This means the concept of employee involvement has to embrace another group (i.e. the residents) and perhaps turns the concept on its head.

3. Hospitality

Our work in the hospitality sector is at a very early stage but we raise here a particularly interesting issue in terms of the relationship between organisational performance and learning. Indeed, the very word 'performance' increasingly has a significant double meaning in this sector, where employees in restaurants and bars are often expected to 'perform' in the sense of actors on a stage, as well as meet performance (business) targets. Recruits are 'auditioned' as opposed to being interviewed and their physical

attributes (physique, teeth, skin colour) and personality (including accent) are deemed more important than level of education and experience. The world of the aesthetic and emotional labour market (see Nickson et al, 2003) challenges both traditional notions of skill sets and vocational knowledge, and the role of workforce development. Bryman (2004) describes how employee control is managed in the Disney theme parks through a tightly defined and controlled process in which: a) employees are 'cast' into their roles according to their emotional and aesthetic attributes; b) they are trained in the values and traditions of the organisation; and c) they learn prescribed 'scripts' for communicating with customers.

One of our case study sites is wrestling with the question of whether to put the majority of their investment into recruitment and strip back post-recruitment training to a bare minimum. The emphasis here is on the belief that the best 'performers' are born not made. If this scenario actually reflects workplace practice, then it follows that neither teaching nor (new) learning will be strong features of employees' experience.

4. Construction

Due to increasing concerns about the performance of construction firms, the sector has been urged by sector-wide and professional bodies (e.g. Institute of Civil Engineers and the Construction Industry Institute) and by government, to emulate manufacturing and introduce what might broadly be called new forms of work organisation (e.g. high performance working, multi-skilling, EI). At first sight, given the accepted wisdom about the nature of working relationships in the sector, there would seem to be two major barriers to this: a) the short-term nature of project working and secondments inhibits the development of skilled and experienced teams and, hence, for incremental and continuous improvement; b) the extensive use of sub-contracting and the widespread adversarial nature of client-contractor relationships inhibits the generation of commitment and motivation. Our fieldwork suggests, however, that the external pressure to move to new forms of work organisation has been sufficient to cause significant change. In particular, some major construction projects (e.g. airport expansion) are moving into the era of 'partnering' in which both client and contractor are expected to share both the 'pain and the gain'. This directly affects the skills of project managers. Where traditionally they would need to be skilled in gamesmanship (e.g. tendering unrealistic bids), they are now required to be skilled in negotiation, team building and facilitation. The key questions for our project are: a) how far the increase in opportunities for learning extends below manager level; and b) whether other areas of construction (e.g. house building) are introducing new forms of work organisation to facilitate learning; c) what pedagogical processes are available to the participants in these new 'teams'.

CONCLUDING REMARKS

All learning in the workplace, as in formal education institutions, is influenced by a range of factors and is shaped by external as well as internal imperatives. The combination of those factors and imperatives will differ according to the nature of the goods and/or services being produced, the type of ownership and culture of the organisation, its viability and status in its product market, and the extent to which outside forces (notably government) can interfere in its activities. We are pondering the implications of our initial findings for the conceptualisation and development of workplace pedagogies. We are also considering the ways in which different organisations identify, develop and utilise employees charged with or expected to exert a specific pedagogical remit (e.g. trainers, mentors, coaches, workplace assessors, supervisors, line managers). In addition, it will be important to identify those engaged in 'teaching' activities, but who are not recognised as having a pedagogical function. As we pointed out in the introduction, it is now accepted that workplaces are sites for learning. Our research is beginning to uncover and examine the extent to which they are also sites for 'teaching'.

To date, our fieldwork is revealing that the role, status and meaning of learning in the workplace have to be examined with great care. For example, the use of a 'tutor pack' in a component manufacturing plant might, on first sight, appear to be a standard training manual for use with new shopfloor operatives. Yet this pack turns out to have much deeper significance. All those who use the pack on a daily basis (operatives, shopfloor

coaches, trainers, and shift supervisors) regard it as a 'live' artefact to which they regularly contribute (e.g. to improve it, to delete and add material) and, by doing so, engage in a collaborative process where learning crosses role boundaries and takes place on several levels. Thus the pack is not limited to being a mechanism for training new recruits but has become a vehicle for the consideration of how work is organised, how knowledge can be shared, and, importantly how new knowledge might be created.

We began by emphasising the need to identify and examine the wide range of variables that form the different types of context within which learning at work takes place. We also want, however, to stress that some of those variables are common across a range of sectors, and it is through them that we hope to bring some coherence to what is currently a canvas on which paint is splattered in a messy and certainly colourful manner!

References

- Ashton, D. (2004) The impact of organisational structure and practices on learning in the workplace, *International Journal of Training and Development*, 8(1): 43-53.
- Beckett, D. and Hager, P. (2002) Life, Work and Learning, London: Routledge.
- Billett, S. (2001) Learning through working life: interdependencies at work, *Studies in Continuing Education*, 23(1): 19-35.
- Boreham, N., Samurçay, R. and Fischer, M. (2002) (eds) Work Process Knowledge, London: Routledge.
- Bryman, A. (20040 The Disneyization of Society, London: Sage
- Butler, P., Felstead, A., Ashton, D., Fuller, A., Lee, T., Unwin, L. and Walters, S. (2004) *High Performance Management: A Literature Review*, Learning as Work Research Paper No. 1, Leicester: Centre for Labour Market Studies.
- Darrah, C.N. (1996) *Learning and Work: An Exploration in Industrial Ethnography*, London: Garland Publishing.
- Doyle, L. and Hughes, M. (2004) *Learning without lessons supporting learning in small businesses*, London: LSDA.
- Edwards, P., Geary, J. and Sisson, K. (2002) 'New Forms of Work Organisation in the Workplace: Transformative, Exploitative, or Limited and Controlled' in Murray, G., Bélanger, J., Giles, G. and Lapointe, P. Work and Employment Relations in the High-Performance Workplace, London: Continuum.
- Elmholdt, C. (2004) Knowledge management and the practice of knowledge sharing and learning at work: a case study, *Studies in Continuing Education*, 26(2): 327-339.
- Engestrom, Y. (2001) Expansive Learning at Work: toward an activity theoretical reconceptualization, *Journal of Education and Work*, 14(1): 133-155.
- Eraut, M. (2004) Informal learning in the workplace, *Studies in Continuing Education*, 26(2): 247-273.
- Felstead, A. Fuller, A., Unwin, L., Ashton, D., Butler, P., Lee, T. and Walters, S. (2004) Applying the Survey Method to Learning at Work: A Recent UK Experiment, presented to the European Conference on Educational Research, University of Crete, 22-25th September.
- Felstead, A. and Unwin, L. (2001) Funding Post-Compulsory Education and Training: a retrospective analysis of the TEC and FEFC systems and their impact on skills, *Journal of Education and Work*, 14(1): 91-111.
- Fuller, A. and Unwin, L. (2004) Expansive learning environments: integrating personal and organisational development, in Rainbird, H., Fuller, A. and Munro, A. (eds) *Workplace Learning in Context*, London: Routledge.
- Fuller, A. and Unwin, L. (2003) Learning as apprentices in the contemporary UK workplace: creating and managing expansive and restrictive learning environments, *Journal of Education and Work*, 16(4): 406-427.
- Fuller, A. and Unwin, L. (2004) Young People as Teachers and Learners in the workplace: challenging the novice-expert dichotomy, *International Journal of Training and Development*, 8(1): 32-43.
- Fuller, A., Ashton, D., Felstead, A., Unwin, L., Walters, S. and Quinn, M. (2003) The Impact of Informal Learning at Work on Business Productivity, London: Department for Trade and Industry.

- Hall, P.A. and Soskice, D. (2001) An Introduction to Varieties of Capitalism, in Hall, A. and Soskice, D. (eds) *Varieties of Capitalism*, Oxford: Oxford University Press.
- Hodkinson, P. and Hodkinson, H. (2004) The Significance of Individuals' Dispositions in Workplace Learning: a case study of two teachers, *Journal of Education and Work*, 17(2): 167-182.
- Huys, R. and van Hootegem, G. (2002) 'A delayed transformation? Changes in the division of labour and their implications for learning opportunities', in Boreham op cit.
- Koike, K. and Inoki, T. (1990) *Skill formation in Japan and Southeast Asia*, Tokyo: University of Tokyo Press.
- Koike, K. (2002) Intellectual skills and competitive strength: is a radical change necessary?, *Journal of Education and Work*, 14(4): 390-408.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate peripheral participation*, Cambridge: Cambridge University Press.
- Lawler, E.E., Mohrman, S.A. and Benson, G. (2001) Organising for High Performance, San Francisco: Jossey-Bass.
- Lloyd and Payne (2004) Just another bandwagon? A critical look at the role of the high performance workplace as a vehicle for the UK high skills project, SKOPE Research Paper No. 49, Universities of Oxford and Warwick.
- Nickson, D., Warhurst, C., Cullen, A.M. and Watt, A. (2003) Bringing in the excluded? Aesthetic Labour, Skills and Training in the 'New' Economy, *Journal of Education and Work*, 16(2): 185-203.
- Rainbird, H., Fuller, A. and Munroe, A. (2004) (eds) Workplace Learning in Context, London: Routledge.
- Scarborough, H., Swan, J. and Preston, J. (1999) *Knowledge Management and the Learning Organisation*, London: CIPD.
- Schon, D. (1983) The Reflective Practitioner, New York: Basic Books.