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Citation

Edmond, Nadia and Reeve, Fiona (2011). Work-based higher education and skill utilisation, examining the interaction between the academy and the workplace. In: 7th International Conference on Researching Work and Learning (RWL 7), 4-7 Dec 2011, Shanghai, China.

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Work-based higher education and skill utilisation, examining the interaction between the academy and the workplace.

*Dr. Nadia Edmond (University of Brighton, Brighton, UK),
Dr. Fiona Reeve (Open University, Milton Keynes, UK)*

Abstract

In the UK, as elsewhere, employers are urged to invest in workforce development to increase competitiveness (DfEE 2005; DIUS 2007). Policy makers have argued that demographics in the UK require the existing workforce to be ‘up-skilled’ through part-time and work-based learning (WBL) including via new vocationally-based foundation degrees (FDs). However, in a climate of financial constraint, higher education (HE) is increasingly viewed as an investment in the skills of the workforce or individual, raising questions regarding the effectiveness of that investment - particularly given evidence that increasing the *supply* of HE level skills may not be sufficient to improve an organisation’s productivity and performance (Scottish Government 2008). Recent analyses recognise that *demand* for new skills, deriving from work design and opportunities to deploy skills are critical factors. Consequently, we need greater understanding of the relationship between learning practices, the context of the workplace and the potential role of HE WBL in skills utilisation.

Public sector workforce development in England has been shaped by the ‘modernisation’ agenda resulting in significant shifts in workforce organisation and the creation of many new ‘intermediate’ roles (Edmond and Price 2009). In this paper, we address the conference theme of ‘Learning Theory, Skills and Work’ and consider Cultural Historical Activity Theory in examining the relationship between HE WBL programmes, individual learner/worker agency and developing professional identities and work organisation and skill utilisation. We argue that a more nuanced understanding of the potential of HE WBL practices to support skill utilisation in the workplace is needed to critically examine policy assumptions. Drawing on public sector examples, we suggest that HE WBL has the potential to be instrumental in shaping identities at work and can have a distinctive role to play in mediating social practices in the workplace to support demand for skills and hence skill utilisation.

Beyond Skill Supply – the question of the role of HE in Skill utilisation

In the last decade, employers, in the UK as elsewhere, have been urged to invest in workforce development as one way of increasing international competitiveness (DfEE, 2005, DIUS, 2007). A focus on the supply of appropriately skilled individuals for the needs of the economy was evident in the 2006 Leitch Review of Skills (Leitch 2006) which put forward a series of ambitious qualification targets designed to make the UK a ‘world leader’ in skills supply at every qualification level by 2020. These targets were subsequently adopted as the main plank of skills policy for England (DIUS, 2007). This continued a trend which saw an 89% increase in supply of first degree graduates in the UK between 1989 and 1996 (Mason, 2001) and a further increase of 26% between 1996 and 2005 (HESA 1997; HESA 2007).

In the UK, demographic considerations imply that much of the ‘up-skilling’ needs to be focussed on the existing workforce and delivered through part-time study. In

2007/08, nearly two out of every five UK undergraduates, around half a million students, were studying part-time (Callender and Wilkinson 2011).

A particular contribution to skills supply in the UK has been Foundation Degrees (FDs). Created in 2001, FDs are a HE level vocational qualification provided by further and higher education institutions. Their introduction was premised on a shortage of skills “at higher technician and associate professional level [which] are already in short supply, and will be in still greater demand in the next decade” (HEFCE 2000). Initial incentives stimulated the growth of FD participation to about 100,000 students in 2009-2010 of which 40% are part-time (HEFCE 2010). The new coalition government in the UK has retained FDs at this level although removing incentives for further development.

An important feature of FDs is that they are explicitly charged with integrating academic and work-based learning through close collaboration between employers and programme providers and have a range of distinctive characteristics. The most notable of these is that FDs “are intended to provide students with the knowledge, understanding and skills that employers need. In order to achieve this it is important that employers are fully involved in the design and regular review of Foundation Degree programmes. It is beneficial if employers are involved, where possible, in the delivery and assessment of the programme and the monitoring of students, particularly within the workplace.” (QAA 2010) the rationale is clearly the supply of relevant occupational skills.

The policy emphasis on skill supply in the UK, reflected in both increasing numbers of graduates and the creation of specifically employer relevant HE programmes such as FDs, is, however, starting to be supplemented by concern for skill utilisation taken up within sections of the UK policy community (Payne 2011). Recent data from Scotland, for example show that although relative levels of spending on education and training in Scotland over the past two decades have consistently exceeded those in England and, although having a more highly qualified workforce at some levels, Scotland is lagging behind England in terms of productivity. The conclusion has been drawn that increasing investment in the skills base through rising qualification levels on its own may have limited impact on productivity (Scottish Government 2008).

Yet there is evidence that, in some circumstances, level of qualification does impact on performance and productivity. For example, quality of patient care is improved in hospitals which employ more highly qualified nurses (Aiken and Patrician 2000), the impact of Teaching Assistants on the learning of children is dependent on their level of qualification and pedagogical knowledge (Blatchford, Bassett et al. 2006), and children make more progress in Early Years settings that have staff with higher qualifications (Institute of Education 2004). More generally, recent research on the impact of higher education for part-time students (who are mostly employed and pursuing study for career progression) found evidence that part-time study often leads to more demanding tasks and responsibilities and to higher paying jobs for the individuals concerned (Callender and Wilkinson 2011).

The problem of skill utilisation may be better understood in terms of the capacity more highly qualified or skilled employees have, within their workplaces, to improve

and enhance work practices. Looking at graduates employed in the public and private sector, Mason (2001) has argued that “not only are graduates often capable of performing [non-graduate] jobs to higher standards [...] but there is also considerable scope for some of these jobs to be redefined and expanded in order to take advantage of graduate level skills and knowledge”. This recognition of the role of workplace culture and practices in skill utilisation is apparent in the policy interest in the UK on “High Performance Working” (HPW) focussing on HR management and working practices (see for example Belt and Giles 2009).

Skill utilisation has been defined as “ensuring the most effective applications of skills in the workplace to maximise performance, through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices” (Scottish Government 2008). In this paper we focus on the role HE can play as a ‘learning provider’, going beyond its role as a ‘supplier of skills’ to contributing to the deployment of knowledge and skills in the workplace.

Although involving only a small percentage of the total HE student population (5% of all undergraduates), FDs are particularly interesting in relation to questions of skills utilisation because of their particular design characteristics through which WBL “enables learners to take on appropriate role(s) within the workplace, giving them the opportunity to learn and apply the skills and knowledge they have acquired as an integrated element of the programme” (QAA 2010).

In the interactions created within the intimate relationship between HE and the workplace in the delivery of FDs, we argue that potential is generated for influencing the skill demand of the workplace through pedagogical features of the programmes, through development in the worker/student identity and through associated impact on power and individual agency within workplaces.

Work-based HE learning in Foundation Degrees and Skill Utilisation

The authors of this paper have separately undertaken research into FDs which suggest ways in which becoming a Foundation Degree students impacts on individuals’ capacity for skill utilisation at work. As part of a wider study of FD and HN practices in England and Scotland, (Gallacher, Ingram et al. 2010) noted how part-time students employed in the Early Years sector in England used their participation in an FD to gain access to new areas of work. Edmond (2010) has focussed on the distinctive nature of part-time FDs for teaching assistants (TAs).

A key feature of these studies was identification of the role played by work-based pedagogical processes and artefacts on workplace practice, essentially enabling worker/students to participate in work practices in which they may not otherwise have engaged. For example, work-based assignments on ‘child protection’ or ‘partnership with parents’, provided opportunities for students to access organisational policy and engage in discussions with senior staff, and, on occasion, to shape changes.

Participation in these ‘HE sanctioned’ workplaces practices was instrumental in individuals’ changing identity, for example TAs claiming an ‘intermediate’ identity (not a teacher but “more than a TA”). The claiming of this intermediate identity was expressed as the utilisation of skills in participating in certain (teachers’) practices.

This change in identity was expressed both in terms of self-perception and in terms of workplace dynamics. Consequent on their study, worker/students were identified as having some expertise relevant to the workplace and the work-based nature of assignments increased both the knowledge and visibility of the employee. While students in this position felt their skills were recognised by management and colleagues, in most cases this was independently of a formal change in role or increased pay, a phenomenon noted elsewhere in the sector (Knight, Tennant et al. 2006).

There was a consensus across the studies that increased confidence was a significant gain for worker/students, a finding consistent with Greenwood and Little's study of the impact of FDs on students and the workplace (Greenwood, Little et al. 2008). For those already in the workplace, such increased confidence tended to be expressed in terms of communication aspects of workplace activities (such as feeling more able to engage in work related discussions) and increased capacity to suggest changes to practice (Edmond, Little & Reeve, 2011).

However, the extent to which skill development and skill use facilitated by the HE study had a significant or lasting impact within the workplace depended on features of the workplace. The studies revealed for example, instances in which FD students experienced an ambivalence or even resistance within their workplaces towards them fully utilising their increased knowledge and skills. Structural issues may inhibit the ability of students to take up new roles on qualification or gain formal recognition for them (for example teaching assistants who take on new responsibilities but remain on existing grades and pay and students working in smaller early years settings found there were insufficient resources or opportunities for formal promotion).

These studies, amongst others, suggest that skill utilisation depends not on the 'possession' of skills, which are then simply applied in practice, but on the dynamic interaction through social practices between individual factors (which may include knowledge and skills but also others such as confidence, creativity and aspiration) and the social context of the workplace. It is the conditions created within particular contexts which provide the space for employees and workplaces to use the WBL process creatively, or which prevent it. The focus therefore needs to be on understanding the *relationship* between contexts, WBL processes and opportunities for skills utilisation. Below we draw the outlines of a frame for analysing this relationship in terms of particular theoretical perspectives.

Existing research and theoretical frames

Detailed research of learning at work, undertaken under the auspices of the Economic and Social Research Council's Teaching and Learning Research Programme (Fuller and Unwin 2004; Evans, Hodkinson et al. 2006) has highlighted the importance of understanding the context of work and its effects on learning opportunities; in particular how opportunities for learning at work can be more (or less) enabled by both how work is organised and the wider productive system (Felstead, Fuller et al. 2009). Fuller & Unwin (2004) propose the 'expansive' to 'restrictive' dimension along which workplaces can be positioned according to their potential for supporting or enabling learning. Amongst the indicators of more expansive environments, they include; access to range of qualifications and planned time off-the-job for knowledge based courses and reflection. We argue that sociocultural perspectives such as those

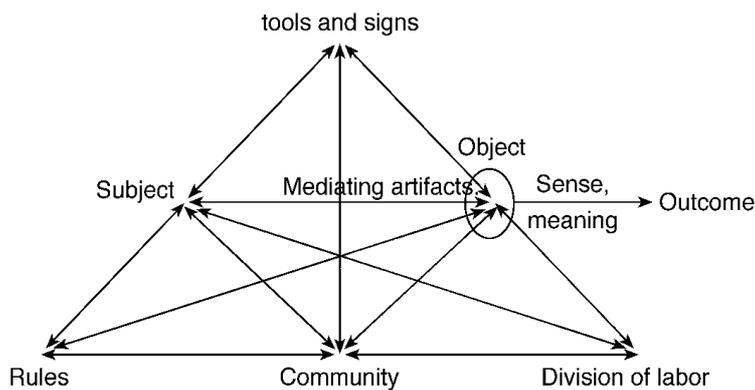
provided by Lave and Wenger (1991) and Engeström (1987), take us beyond a conception of higher education as an opportunity, which may be made available within a workplace, to thinking about higher education as interacting with the workplace and impacting on its practices.

Evans et al (2009) have argued that the issue of transfer of learning from one context to another is better conceived of as a series of movements of knowledge between the curriculum and the workplace as a chain of re-contextualisations. Their research identified a number of pedagogic strategies that facilitate such movements including, for example, the ‘gradual release’ of knowledge and responsibility to build engagement and confidence and our interest is in how this ‘movement of knowledge’ can be supported by the interaction of HE and the workplace in WBL.

Both Lave and Wenger’s (1991) conceptualisation of apprenticeship learning as ‘legitimate peripheral participation’ in established ‘communities of practice’ and Cultural Historical Activity Theory and Engeström’s (1987) model of interacting ‘activity systems’ emphasise the role of ‘mediating artefacts’ in social practices and learning. Mediating artefacts are the tools and signs that shape practices and opportunities for learning and skill utilisation in work. We argue that both the discourses of WBL programmes in higher education and their particular technologies such as ‘learning contracts’, ‘project plans’ or ‘reflective accounts’ which may be negotiated between the learner, and workplace and HE staff can function as such mediating artefacts.

In addition, Engeström’s model activity system contextualises the learner/worker within the rules of engagement, community and division of labour which underpin the use of artefacts.

Figure 1



(Engeström, 1987, p.78)

Treating the workplace and the HE provider as separate but interacting activity systems requires us to examine in detail the contexts (represented by the base of the diagramme) of both, and the ways in which these features may exert an influence on the WBL which we can discuss in terms of the interaction of ‘mediation’, ‘identity’ and ‘relations of power’.

The processes and technologies of work-based learning such as ‘learning contracts’, ‘project plans’ or ‘reflective accounts’ as well as the various ‘learning relationships’ both formal (eg. mentoring) and those which arise more naturally in the workplace, can be analysed in terms of ‘mediating artefacts’ and ‘rules’ and ‘community’ which mediate practices. For example, Rooney and Boud (2009) have argued that dominant individualised conceptions of the lifelong learner have tended to marginalise the importance of learning relationships in the workplace which are ‘reciprocal’, ‘horizontal’ and ‘dialogic’ (ibid). Focusing on community acknowledges FD learners’ networks of interaction with colleagues and the significance of learning from and with colleagues as well as the reciprocal impact of participation in WBL on workplace and HE practices.

In terms of ‘identity’, Engeström’s focus on the subject as part of any activity system suggests a concern to identify the subjectivities of individuals (learners, colleagues, managers, HE tutors) and the processes by which these subject identities both shape and are shaped by the activity system. Activity theory provides an analytical frame for exploring ways in which social and workplace relationships influence how individuals choose/are enabled to put their knowledge and skills to effective use within the workplace. This acknowledgement of individual choice reflects Billett’s (2010) argument that we need to retain space for the agency of individuals and for the effects of their subjectivities on what opportunities for learning are created and taken.

However, Garrick and Usher (2000) argue that work-based learning can be viewed as technology through which selves become ‘self-regulating subjects’, a process involving both greater agency and regulation for the worker. Employees may experience resultant identities as problematic: for example, the term ‘learner’ may imply some deficiency in knowledge and skills (Solomon and Boud 2003), reflective accounts produced as a ‘learner’, which form part of the pedagogical process and artefacts of work based learning, may be seen as a particular kind of surveillance (Zemblyas 2006).

With reference to learner identity, Packer and Goicoechea (2000) remind us that learning is about more than just changes in knowledge and entails broader changes in being. While much psychological research treats identity as self-concept, as knowledge of self, the “socio-cultural conception of identity address the fluid character of human being and the ways in which identify is closely linked to participation and learning in a community” (ibid.:229). Packer and Goicoechea (2000) also argue that socio-cultural perspectives can seem to value social conformism without giving sufficient recognition to the fact that membership of a community is never an unproblematic enculturation; “membership has its costs; conflict is inherent in community” (ibid.:235).

In relation to such conflict, activity theory also points to the power relations that regulate activity. A feature of cultural historical activity theory is a recognition of the fundamental ‘contradictions’ within activity systems deriving from the primary contradiction of all activities in capitalist socio-economic formations i.e. that between the exchange value and the use value within each element of the activity system (Center for Activity Theory and Developmental Work Research 2004). A criticism levelled at the use of activity theory in the development and change of workplace practices (such as the interventionist methodology of developmental work research, see for

example Engeström, 2000) has been that it doesn't sufficiently engage with this wider social context.

Avis for example, contends that where activity theory has been used to stimulate changes to work practices, it has been deployed conservatively, fails to challenge the status quo and neglects the wider social context in which activity systems are located as well as the associated issues of power and social antagonism (Avis 2007; Avis 2009). Similarly, Langemeyer and Roth (2006) argue that insufficient consideration is given to power relations within the particular activity system and the wider society, and a more dialectical approach is required. More recent developments in activity theory are beginning to address these issues and there is a need to critically analyse the way power circulates within and between activity systems. The "Working as learning framework" (Felstead, Fuller et al. 2009) suggests the need to understand the levels of discretion that employees can exercise over their everyday work in terms of the controls exercised in productive systems and embedded in the everyday tools and artefacts of workplaces.

Our research illustrates the inter-relationship between mediation, identity and power relations in shaping employee agency. Clearly, agency and affordances both affect the ability of employees to influence change in work practices, including job redesign. An evaluation of initial skills utilisation projects in Scotland indicates that the level of autonomy and discretion afforded to employees has a significant bearing on the scope available to employees to utilise their skills at work (Payne 2011).

Conclusion

Given that the existing literature has "failed to produce a conclusive and causal correlation between increased investment in skills [...] and increased productivity" (Scottish Government, 2008, p.10), the new focus at a policy level on the problem of 'skills utilisation' is helpful in shifting attention to the complex relationship between employer skill demand, the acquisition of skills and workplace opportunities for using them. A change in UK government has arguably slowed progress on this agenda, with the new coalition focusing its HE Policy on funding issues and wholesale changes in the composition of agencies that were working on skills issues. A 'reformed' UK Commission for Employment and Skills survives the upheaval to 'provide inspirational leadership to employers on how to get the best from their workforces' (BIS 2010).

The government argues that the funding changes, now including part-time students, will require HE to become more responsive to students and, they hope co-funding, employers. The funding changes may be viewed as an attempt to develop 'market led' demand for skill acquisition and it remains to be seen how this will change the micro-processes and learning outcomes of WBL courses.

We argue that, based on the empirical evidence of a number of studies, collaboration between HE and workplaces in the delivery of work-based HE programmes has a contribution to make to a more effective link between skill development and utilisation. We too are critical of the notion that skill utilisation depends solely, or even primarily, on the 'possession' of skills and argue that socio-cultural perspectives on learning and, in particular, the concept of higher education and the workplace as interacting activity systems provides a more useful theoretical base from which to

explore skills development and skills utilisation. We propose that cultural historical activity theory offers a useful framework for examining the way in which higher education practices interact with workplace practices and the impact of this interaction on individuals and workplaces.

The Scottish government has recently suggested that effective skill utilisation is about:

- confident, motivated and relevantly skilled individuals who are aware of the skills they possess and know how best to use them in the workplace

working in:

- workplaces that provide meaningful and appropriate encouragement, opportunity and support for employees to use their skills effectively

in order to:

- increase performance and productivity, improve job satisfaction and employee well-being, and stimulate investment, enterprise and innovation.

(Scottish Government 2010).

The role of higher education in supplying the first of these has long been understood. We argue that there is a potential role for higher education in the second though this requires more investigation. Participation in higher education can be instrumental in shaping identities at work and part-time higher education which supports the professional development of employees could have a distinctive role to play in mediating social practices in the workplace to support skill utilisation.

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