BULLETIN

Developing higher skills at work

Introduction

'Developing Higher Skills at Work' is part of a joint initiative of the Teaching and Learning Research Programme (TLRP) and IER. Recent debates and government reports in this area have focused on the achievement of qualifications rather than substantive skill development as part of a more nuanced conception of how to support the development and application of higher level skills, knowledge and understanding. This paper is about developing higher skills at work in two senses. It considers the importance of context – the need to understand how people develop and apply higher level skills, knowledge and understanding in different work contexts. It also focuses on the processes whereby higher level skills, knowledge and understanding are 'at work' – developed in a range of education, training and other contexts, including employment. There are six key processes involved in the upskilling or reskilling of individuals developing their higher skills at work: Engagement with challenging work; Interactions at work; Supporting learning of others; Knowledge at work; Self-directed learning at work; and Identities at work.

Engagement with challenging work

Engagement with challenging work can be a major element of developing higher skills at any stage in a person's working life: any work role, involving complex decision making, problem-solving, advanced communication skills, supervisory or managerial responsibilities and the application of skills, knowledge and understanding in different contexts requires the development of higher levels of skills, knowledge and understanding at work. Challenging work which involves the exercise of judgement, creativity, developing situational awareness and understanding, involvement in continuing improvement activities or performance improvement teams, supporting the learning of others, changing the ways work is done also require the development of higher levels of skills, knowledge and understanding at work. Workers at any level of an organisation can have their skills developed if they get the opportunity to engage in more challenging activities. The extent to which individuals have the opportunity to develop higher levels of skills, knowledge and understanding at work is an open question. Fuller and Unwin (2008) highlight how work activities can be characterised as more or less restrictive or expansive, and the skills profiles of similarly skilled workers can start to diverge in a short time depending on the type of activities with which they engage.

Interactions at work

Working and learning are social activities and work relationships, interactions and learning influence current and future opportunities for the development of work-relevant skills, knowledge and understanding. It is an open question whether interactions at work do lead to substantive learning and development. How workers at any level of an organisation can be engaged in challenging interactions is illustrated through a striking contrast. Workers may

engage in highly routine activities with little challenge, and yet take on additional responsibilities as, for example, health and safety representatives, shop stewards or union learning representatives. These duties require the exercise and development of higher level skills, knowledge and understanding. The Early Career Learning Project team (TLRP RB25) highlighted how some highly qualified graduates were employed as professional engineers but, given the dearth of challenging projects were given routine work. The lack of the promised professional interactions, in turn, compromised their opportunities for professional development. The Learning for Interagency Working project team (TLRP RB48) had examples of people learning from developing new ways of working. The project examined how practitioners, such as social workers, psychologists, health workers, teachers, police collaborated to prevent the social exclusion of vulnerable children. Interactions at work can be a source of developing higher skills through learning while working. They can also signal when additional learning is required at the individual and/or organisational level. What is required for a professional to become more aware of the perspectives of other professionals and to forge new interactive ways of working will vary according to the individual, organisation and context.

Knowledge at work

Developing higher levels of skills, knowledge and understanding at work means engaging with a substantive knowledge base, either prior to starting work, while working, through career development activities away from work, or through a combination of all three. Higher Education often contributes to these processes and the Enhancing Teaching-Learning Environments project team found that high quality learning was linked to the development of ways of thinking and conceptual understanding, involving an induction into 'the inner logic of the subject' and its 'ways of thinking and practising' and university study enabled students to engage with valued forms of knowledge (TLRP RB32). One critique of this approach is that disciplinary study and emphasis upon mastery of a knowledge base is out of tune with changes in the forms and speed of knowledge production and other process-oriented skill sets are more important.

However, this critique seems to overlook the point that mastery of a knowledge base is itself often seen, not least by major employers, as a transferable skill as the following example makes clear. A Human Resources Manager in charge of global graduate recruitment at an investment bank made it clear that they looked for both technical specialists and good generalists (RB53). The former tended to be 'deep engaged learners' with well-developed technical skills and mastery of a substantive technical knowledge base (often in finance, economics, engineering or mathematics), while the latter had good communication skills, some mathematical aptitude, could work effectively in a team and had demonstrated that they were capable of 'organised effort.'

The TLRP Early Career Learning project team (RB25) argue that the transfer of knowledge between contexts is not a straight forward process as it depends upon: the extraction of potentially relevant knowledge from the context(s) of its acquisition and previous use; understanding the new situation, a process that often depends on informal social learning; recognising which areas of knowledge are relevant to the new situation; focusing more precisely on what knowledge is needed for a particular assessment, decision or action; interpreting and/or transforming that knowledge to suit the new situation and context; and integrating the relevant aspects of knowledge prior to or during performance. The transfer of knowledge, skills and understanding between people is often seen as unproblematic, but there are significant challenges to transfer between individuals, within teams and within organizations. Obstacles to the development of shared knowledge include the tacit dimension of knowledge and how these issues are overlaid by others concerning power and relationships. There may also be a deceptive discourse where people think they mean the same as each other without checking there are genuinely shared understandings. Overall, it is clear that developing knowledge at work is fundamental to developing higher skills at work (RB60). The above illustrations have highlighted how the links between knowledge developed in different contexts such as HE and work are themselves complex and contextualised.

Self-directed learning at work

Developing higher skills at work depends partly on whether work offers an expansive learning environment (RB55). However, it is also dependent upon individual actions. People vary in their self-awareness about their goals, aspirations, motivation, personality, inter-personal skills and resilience. They also differ in their appreciation of learning opportunities, contextual understanding and their ability to develop relationships and networks to support their learning and development. Capabilities for analytical thought, critical reflection, visualisation and organisation, and the ability to switch between context and generalisation, all help individuals to make the most of their learning opportunities (RB25). The TLRP's HE projects differentiated between several approaches to learning in higher education which could influence the subsequent development of higher levels of skill, knowledge and understanding. Students who applied organised effort to their studies, and who have the time management skills to concentrate and focus their attention, had a skill set which is valued in many work contexts (RB31). However, other work contexts do not make heavy cognitive demands, and require the development of other forms of skills, knowledge and understanding which can build on the personal development and social networking achieved by students in higher education (RB32). At work, being self-directed in terms of taking advantage of learning opportunities is helpful for individual development (Bimrose and Brown, 2009). It can involve willingness to engage in a wide range of activities

such as asking questions; getting information; locating key resource people; listening and observing; learning from mistakes; giving and receiving feedback; trying things out; independent study; and working for a qualification (RB25).

Identities at work: anchors and chains

Developing higher skills at work is linked to early career learning, up-skilling or re-skilling, and transitions in work-related learning, careers and identities (RB25; 47; 51; 55; 56). For example, fragmented employment experiences for beginning teachers reduced the quality of their Early Professional Development (RB56) and insufficiently challenging work delayed the process of engineers regarding themselves, and being seen by others, as professional engineers (RB25). In most circumstances strong attachment to work brings considerable benefits, including a sense of career stability and having a career 'anchor.' But a strong attachment to work might also hold an individual 'in chains' and prevent them from attempting a career transition. Those individuals who see that their skills can be transferred to other contexts had significant advantages in changing career direction over those who defined themselves almost exclusively by their occupational and organisational attachments (Bimrose *et al.*, 2008). People can learn from their lives through the stories they tell about them. This is important for their identity and agency (RB51) and their willingness to engage in developing higher skills at work.

Supporting the learning of others

Learning by interaction and from colleagues is also important for developing higher skills at work. Its effectiveness depends upon how well colleagues are able to support the learning of others. In knowledge-intensive work and settings involving complex teamwork, many organisations explicitly use a developmental view of expertise that goes well beyond expecting technical proficiency and a commitment to continuing improvement. These organisations pay particular attention to ensuring that teams possess people able to support the learning of others. Giving feedback on aspects of individual performance over time can be useful (RB25), including: immediate comment on aspects of a task given on the spot; informal conversations away from the job; formal roles such as mentor or supervisor involving responsibility for a learner's short to medium term progress and regular formative feedback; review designed to give employees feedback on personal strengths and weaknesses and ascertaining views on learning opportunities and expectations. Feedback and support may have an affective dimension. Early professional learning of teachers (especially in the first year of teaching) is mainly about emotional and relational development rather than cognitive learning (RB56). This means that those interacting with new teachers need to learn how to support this phase of professional development.

Evidence-informed principles for developing higher skills at work

1. Skills development policy should have twin foci upon enhancing individual development and organisational performance.

2. Effective development of higher skills at work depends on the learning and development of all those who support the learning of others in the workplace.

3. Informal learning is a central component of developing higher skills at work.

4. Developing higher skills at work involves both individual and social processes and outcomes.

5. Higher skills development at work promotes the active engagement of the individual as a learner.

6. Effective higher skills development at work is dependent upon the timeliness and quality of feedback and support.

7. Effective higher skills development at work requires some aspects of learning to be systematically developed.

8. Effective development at work recognises the importance of prior experience and learning.

9. Effective higher skills development at work engages with expertise and valued forms of knowledge.

10. Effective higher skills development at work should engage with individuals' broader life goals.

References

Bimrose, J. and Brown, A. (2009). Older workers' transitions in work-related learning, careers and identities. In K. Ecclestone, G. Biesta & M. Hughes (Eds) *Transitions and Learning through the Lifecourse*. London: Routledge.

Bimrose, J., Brown, A. and Barnes, S-A. (2008) Researching careers, learning & identities: Career attachments as anchors or chains? *Perspectives in Education*, 26, 3, pp. 71-81.

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Relevant TLRP Research Briefings

(http://www.tlrp.org/pub/research.html):

RB60   Putting Knowledge to Work: Integrating work-based and subject-based knowledge in intermediate-level qualifications and workforce upskilling

RB56   New teachers as learners: a model of early professional development

RB55   Improving Working as Learning

RB53   Are we witnessing the rise of a high skilled, low waged workforce?

RB51   Learning Lives: Learning, Identity and Agency in the Life Course

RB48   Learning in and for Multi-agency Working in Preventing Social Exclusion

RB47   Learning to Perform: enhancing understanding of musical expertise

RB32   What is learned at university? Social & organisational mediation of university learning

RB31   Learning and Teaching at University

RB25   Early career learning at work