Learningful work: how can the workplace foster affordances for learning?

Geri Pancini, Victoria University
Dr Rob McCormack, Victoria University

Abstract

Victoria University has recently nominated workplace learning as a universal feature of all its courses. It has also established the Work-based Education Research Centre (WERC) to provide the research and development underpinnings needed to build world class innovation in vocational and work-based education at Victoria University and to contribute more generally to knowledge and policy development in these areas. As a contribution to the work of grounding these developments in current experience, theories and research, this paper will probe current literature around work-based education through the question: How can workplaces be places of learning? That is, how can they be sites that help produce graduates with learning attributes that are attuned and responsive to a flexible world of change, complexity and contingency?

Introduction

The current trend to include workplace components in higher education courses raises questions about how the workplace can be a 'site of learning and a site of access to learning' (Evans, Hodkinson, Rainbird & Unwin, 2006 p. 3). So, rather than focus on the question: How can education become more attuned to the concerns of employers and the workplace? this paper focuses on the counter-questions: How can workplaces be(come) places of productive learning for students? That is, how can workplaces help produce graduates with learning attributes that are attuned and responsive to a flexible world of change, complexity and contingency?

Recently, there have been three main approaches to workplace learning (Evans et al. 2006):

- Learning *for* the workplace: addresses general skills, personal dispositions and attributes required by the workplace (workplace preparation)
- Learning *through* the workplace: learning opportunities made available for employees (eg VET & higher education offerings)

- Learning *in* the workplace: initiates students into the practical aspects of their vocational studies by learning to perform job roles (vocational/professional training, work placements, practicums, apprenticeships).

This paper, however, will take a different approach. Rather than frame workplace learning as 'learning to work', work will be considered as a context for 'learning to learn' - what we will call 'learningful work'. That is, the paper will posit a larger goal relevant to both education-based learning and work-based learning. That goal is to develop learners who can engage productively with a world of complexity and change, not just in work contexts but across all domains of social life. Thus, on this view, the larger goal of all learning contexts in a time of complexity is not simply to apprentice learners into mastery of defined bodies of professional knowledge and/or trade skills, but also to encourage a new subjectivity and a new sense of learning.

The suggestion is that, in a world of rapidly changing technologies, organisational structures and knowledge/skill demands, the very meaning of learning itself must undergo a fundamental transformation (Engeström 2004, Garrick & Usher 1999). Rather than confine itself to mastery of existing knowledge, this new learning is focused on the capacity to engage with new and unfamiliar discourses, to deal with overlapping theories from competing disciplines, and the capacity to keep in touch with the continually moving 'state of play' in digital technologies. Thus, in liquid times (Bauman, 2000), learning itself must become liquid. In place of the stable habits and internalised procedures of traditional expertise (reproductive learning), the new learner must be able to engage with the undefined, the indefinite, the emergent. Many workplaces are subject to rapid turn-over in technologies, knowledge, procedural skills, and organisational structures and are therefore at the forefront of this shift from a stable world to a world of rapid change and complexity.

Students need to develop learning styles consonant with this new world both as workers and in their other roles of family members, citizens or students. So, for the purposes of this paper the question is: how can workplaces subject to these new imperatives be useful in developing student approaches to learning generally? However this raises the further question: what sorts of knowledge are involved in the workplace and how are they learnt? Around this issue there has developed a body of exciting theory and research.

Workplace knowledge and learning

In the world of stable modernity, working knowledge was thought to be easily analysed theoretically and that it was acquired either theoretically through off-the-job training or through procedural training resulting from a theoretical analysis and design of the tasks in the workplace. The modernist view was that guild-based expertise could be captured analytically, either in a Taylorist analysis so that the workplace could be reengineered as a Fordist assembly line of separate unskilled tasks, on the one hand; or into underlying technical knowledge, skills and learning outcomes for designing formal vocational education and training. Both the Fordist reconstruction of expertise as an assembly line of unskilled tasks, and the educational reconstruction of workplace knowledge as explicit technical knowledge that is learnable off-the-job, rest on assumptions concerning knowledge that are now under challenge from workplace learning researchers.

Workplace knowledge is now considered to include a critical element of practical situational understanding which is a way of participating in the flow of situations with an awareness of the many players, activities, tensions, goals and tasks 'at play' in that situation. Workplace knowledge consists in knowing how to 'play the game' and knowing 'how to go on'. This form of understanding is not a stable abstract knowledge that can stand apart from the situation, like theoretical or technical knowledge. In fact one does not know what do until the situation arises, nor often does one know that one will know what to do before the situation arises. This knowledge that is concerned with acting and deciding what to do or how to do something in new or unprecedented situations is thus closer to the old notion of 'practical judgement' derived from Aristotle, which was also a way for dealing with new and different situations (Hager & Halliday 2006, Beckett 2007). For Aristotle, practical judgement contrasts as a form of knowledge with the stable and self-contained knowledges that can exist for theoretical objects and technical processes (Dunne 1993).

Insofar as workplace knowledge includes practical judgement, it cannot be easily extracted or captured in stable theoretical or technical terms, terms that could then be deployed to train new workers. In this sense workplace knowledge is, in key aspects, tacit and can only be learnt by participation.

The turn to practice

In order to theorise the workplace and the forms of work, knowledge, skill and social demeanours required of workers, many theorists of workplace learning have turned to a new way of describing human and social being, sometimes called 'a turn to practice'. Central to this turn to practice is the notion that learning, knowledge and expertise all derive from participation in a social grouping, a social grouping that possesses and passes on to newcomers, its practices and ways of doing things along with the purposes, values, criteria for evaluating worth and success, as well as stories of typical cases and extreme cases, and so on. Thus knowing and learning develop through initiation and participation in what Wittgenstein called a 'form of life' which is defined by the way it brings together publicly shared skills, contexts, goals, technologies, histories, and locations in social and institutional spaces. A traditional trade is a good example of a 'form of life' in this sense. This 'turn to practice' locates individuals more emphatically in their social, historical, cultural and situational context, a way of thinking that is at odds with the individualist, cognitivist and mentalist assumptions of modernity (Lave and Wenger, 1991, Engeström 1999, 2000, Eraut 1994, Billett, 2004, 2007, Hodkinson and Hodkinson, 2004).

The practice paradigm is used to research workplace learning by theorists from a range of disciplines including: organisational studies (Argyris & Schön 1978, 1996, Nonaka & Takeuchi 1995, Tsoukas 1998); educational philosophy (Becket 2007a, 2007b, Hager 2002, Hager and Halliday 2006, Winch 2006), evaluation studies (Schwandt 2005), social psychology (Lave & Wenger 1991), management studies (Wenger 1998, Senge 1991), sociology (Engeström, 2004, Bourdieu 1980, Giddens 1986), philosophy of social science (Flyvbjerg 2001, Schatzki 2002).

By highlighting that workplace knowledge consists in the capacity to engage in a situation that is not preordained as stable and defined, the turn to practice shows up the difference between being 'able to go on' in, say, a mathematical deduction and being 'able to go on' in a tense cross-organisational planning meeting. The former calls for an analytic deduction, the latter for a nuanced judgement.

The assumption behind this paper is that the organisational world of rapid change and complexity into which we are moving is more a world requiring nuanced judgement than one requiring logical application of settled concepts or the deployment of long-

habituated expertise. In a changing world, nuanced judgement that is tested against the public practices of a social community is more likely to be relevant and helpful than a mentally developed theoretical deduction. So, we could say that whereas modernity and its ways of acting favoured Plato's *theoria,* the emerging world of change and complexity favours Aristotle's *phronesis* (practical judgement) as a way of knowing (Beckett & Hager 2002).

Towards a new learner

If it is true that the world encompassing student lives is being transformed from a world of relatively stable and distinct institutions, structures, roles and practices into a world of ever-changing complexity, uncertainty, ambiguity, and contingency, then a fundamental dissonance is created between the modes of knowing and learning required for functioning in this new world (flexible practical judgement) and the forms of knowing and learning embodied in the practices of educational institutions, especially higher education (stable theoretical knowledge). Theoretical knowledge is knowledge of the general, the generic, the universal, the abstract, and cannot be directly applied to real situations of practical activity. In fact the power and scope of theoretical knowledge arises precisely from the fact that it withdraws from actual engagement with specific situations in all their messiness, particularity and conflicting interests. For in real situations there is always a range of interests and interpretations, as well as an indefinite range of unknowns and undecidables, all of which can be ignored or abstracted away by the 'theory' of the academy. So, even though the theoretical knowledge of the academy may produce rigorous 'concepts', these cannot be applied without effort or judgement to real situations; in truth, their application requires practical judgement.

Thus, insofar as theory was intended as a way of unearthing the underlying principles, conditions or causalities of action, it now transpires that theory's embrace of generality, essences, precise definitions and clear lines of causality are no longer an advantage. In fact in times of complexity, portability and transferability of knowledge and skill depends less on mastery of underpinning knowledge and more on the ability to participate with full engagement in new situations and to be attuned to its meaningful similarities and differences from other previously experienced situations. Practical understanding of a situation is not simply a matter of mobilising pre-formed schema or routines, rather it is a matter of listening to fine differences, 'differences

that make a difference', subtle differences that only someone deeply attuned and engaged in the situation can 'hear', often only subliminally.

Another feature of work in times of rapid change and complexity has been formulated by Engeström under the heading of 'knotworking'. Knotworking is the work required to sustain inter-organisational collaboration. Drawing on Victor and Boynton's (1998) picture of the recent evolution of work as a succession of five major types: craft, mass, process enhancement, mass customisation, and co-configurational, Engeström explores the final form of work, co-configurational work, which consists in continuously configuring products and services in interaction with customers. (In passing, we would suggest that it is precisely this co-configurational work that will be critical for the success of partnerships between higher education institutions and workplaces in creating and sustaining learningful work for students).

To the extent that work in new workplaces is now a matter of forging connections, trust and commitment between disparate members of project teams or partnerships, being able to judge the 'mixed messages', the 'coded messages', the hesitations and silences is far more important than slavish following the formal protocols of the committee meeting genre. The 'face' work, discursive work and textual work of the new workplace are all vitally important to sustaining organisations and inter-organisational structures.

If the line of argument so far is convincing, then we can infer that the workplace is a better learning setting than higher education settings for inducting students into the demands and exigencies of this new world of rapid change and complexity. The 'hot action' (Beckett, 1996), liquid formlessness of social processes (Bauman, 2000), and contingency (Billett, 2001) of this emergent social regime is more present in the workplace (admittedly some much more than others) than in higher education institutions. Higher educational institutions, despite conflicting discourses and rhetorics, still seem to be largely functioning as modernist mass institutions.

Boud and Middleton (2003) point to three 'significant areas of informal learning' in workplace groupings they studied: mastery of organisational processes, negotiating the political, and dealing with the atypical. This list summarises precisely the kinds of understandings that cannot be learnt in the virtualised world of educational classrooms, learning spaces that are defined by their strong insulation from the world

of the real. In the virtualised classroom, both the practical world referred to by the academic discipline and the institutional structure of the organisation itself are largely kept at bay; the classroom shields students from the institutional politics in play for both the organisation and the practical field; and finally, the challenges within the classroom do not carry the urgency or imperative to be resolved that press on real life contexts in organisations.

Of course these three regions of knowledge (the institution, the politics, the unprecedented) are precisely what are needed to function within the workplace, and as Boud and Middleton note, they are best learnt informally through participation in the workplace. Learning the workplace as an institution, its politics and its points of breakdown are not simply aspects of work that need to be learnt to 'do the job', they are also contexts in which a new understanding and approach to learning itself can be learnt.

Learningful work: Affordances to foster learning

How can workplaces contribute to the development of learners who will be disposed to participation in the formation of practical judgements—not just the application of predetermined theory or technical procedures? Clearly, workplaces have the potential to contribute to the development of this new ontological, participation-based approach to learning, an approach centred on forming practical judgements (Beckett and Hager 2002, Billett 2004).

So, what are the features of workplaces that could support this kind of expansive learning (Engestrom 2004, Evans et al. 2006), what we are calling learningful work? Clearly the key issue is *ethos*, the mood of the workplace. Is it a workplace that encourages learning? That supports experiment and exploration of new ways? Is it a workplace that encourages speaking up and risk-taking even if they do not work out? Does it view mistakes as an opportunity to learn, not an occasion for ridicule or humiliation?

Does the workplace focus only on the logic of productivity or does it also support the logic of development for its workers and organisation? Are workers encouraged to alter the scope or design of their jobs to fit with their expanding capabilities, so that although a job may begin with a fairly stable core, over time it expands to include

more unstable and more unpredictable elements—so that the job continues to be a challenge and a source of learning? Are workers encouraged to explore or 'listen in' on other workers in order to gain an understanding or feel for more advanced work within the organisation and for 'the big picture' within which the organisation functions? Are there social or textual occasions set aside for communal reflection? Are workers encouraged to share their practical judgements, assessments and evaluations in a non-threatening atmosphere?

These are the questions and considerations that have been used to design the work for a VU program in which students are employed as mentors (called Rovers) in the new Learning Commons. The work of these Rovers is to assist other students master the technologies and organisational support systems of the university. Given that these were new positions, there was the opportunity to design the roles with a strong focus on learningful work. So instead of simply injecting another layer of student advice into a staff-based hierarchical service delivery model, the positions were framed as a community of practice in which Rovers themselves would create their own knowledge (as individual students are currently expected to) and validate it by sharing their knowledge on a communal blog. So, instead of being subjected to endless abstract front-end training, Rovers are very early thrown on the floor in a buddy system with a more experienced Rover, where they 'learn by working'. They are as it were learning by LPP (legitimate peripheral participation), by shadowing and observing a more experienced Rover at work. Buddies are expected to share insights, understandings, and know-how while the new Rover is scaffolded into Rover work. As well as operating initially in a buddy system, the Rover shifts are designed to create a 30 min overlap between shifts so that two pairs of Rover buddies can compare and share their understanding, experiences, know-how and learning.

Fortunately, there is a rhythm to the kinds of issues faced by Rovers: at the beginning of the academic year, most advice is concerned with computer login issues; a few weeks later the focus shifts to locating digital resources on databases and physical resources on library shelves, and finally the focus moves to issues of saving, scanning and printing academic assignments, a cycle that is repeated throughout the academic year. This cycle means that new Rovers can be scaffolded progressively into a reasonably confined domain of work via a ZPD, zone of proximal development (Vygotsky 1978), formed between the more experienced Rover and the new Rover, a dyad that is further supported by access to the regular university support services

Rovers work and communicate asynchronously via a blog to which they post a reflective end-of-shift reports that are read by all other thirty Rovers. This report is addressed horizontally to the Rover team, not to the supervisor. In this way it is more like a shift-handover and is intended to contribute to the communal reflective experience and learning of the team as a whole. Because it is addressed to the whole team there is strong pressure for the writer to speak on behalf of the larger goals of the program. Thus each Rover invariably writes their shift report from the subject-position of leader, and as a result construe themselves as assisting to define and concretely flesh out the substantive responsibilities, practices and social demeanours of this newly-created work role.

Although a research study to evaluate the success of this program in its efforts to design job roles of learningful work has only just begun, and so there is no current validated evidence for its success, anecdotal evidence suggests that students who work in this program do strengthen their learning to learn attributes such that they are more adapted to the working and learning demands of contemporary workplaces in a world of rapid change and complexity.

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