

The workplace as learning environment: Introduction

Christian Harteis and Stephen Billett

University of Regensburg, Germany, and Griffith University Brisbane, Australia

1. From places of experience to learning environments

In the last two decades, and driven by economic and social imperatives, there has been much research into learning in workplaces. The first wave of research was mainly concerned to understand the problem of the lack of transfer from what was learnt in schools to settings and activities beyond schools (Brown, Collins, & Duguid, 1989; Raizen, 1991; Scribner, 1985). Hence, understanding the contextualisation of learnt knowledge and its application and situated learning processes became focuses for inquiry. However, now governments, enterprises and workers themselves are increasingly concerned about maintaining and developing further individuals' workplace competence throughout working life. Therefore, in addition to initial occupational preparation which often relies upon the contribution of workplace experiences, there is a growing realisation that as work and occupational requirements constantly change, there is a need for ongoing development throughout working life and through work. The workplace and workplace experiences are seen as being central to this ongoing development (Harteis & Gruber, 2004). Moreover, developing the particular requirements for effective work practice within specific enterprises necessitates learning through engagement with particular instances of occupational practices (Billett, 2006a).

These imperatives have economic, social and personal dimensions that are in some ways consistent and richly entangled, yet can have distinct emphases. Governments want skilful and adaptable workforces to maintain or improve national prosperity and the capacity to deliver social provisions, and for workers to be positioned to resist unemployment. Both public and private enterprises are interested in a workforce able to respond to the changing work requirements in ways pertinent to their workplace needs, in order to sustain the effective provision of their goods and services. Workers need to maintain their capacities for effective performance, and for some (e.g., older workers or those with disabilities, or minority workers), this may have to occur without the direct support of their employers. Moreover, workers may be less concerned with realising the employers' enterprise-specific outcomes and seek to direct their learning efforts to personal goals, such as career mobility. So, there is a growing and important set of imperatives to understand the ways in which workplaces can support learning to sustain these different kinds of development (Harteis, 2003). All of this

has led to interest in and focuses on workplaces as learning environments in their own right, rather than as environments whose key purpose and contribution is to augment and extend the experiences in and learning from educational institutions.

In this way, understanding more about workplaces as sites of learning serves more than short-term pragmatic economic concerns of increasing business efficiency and national economic goals. Developing and sustaining workers' occupational competence stand as important and worthwhile educational goals through being able to support individuals' personal and professional advancement. For individuals, this includes enjoying a rich working life, resisting unemployment, seeking advancement and securing effective work and occupational transitions. These goals can be realised through engagement in ongoing learning through work and throughout working lives. They include a consideration of issues associated with identity and how individuals can come to position themselves as competent in changing work and occupational circumstances. Thus, learning for workplace and personal-professional development come together through a consideration of learning through work and now stand as a central and growing field of education. No longer is it possible to assume and claim that a robust early education and initial occupational preparation will be sufficient for a long working life. Ongoing learning through working life is now a necessity for most workers, and essential for those engaged in transitions across work and occupational boundaries. Much of this development will occur, and needs to be extended, through workplace activities and interactions.

It is these kinds of social, economic and personal imperatives that are now initiating workplaces being transformed from being seen only as sites of experiences, to needing to be understood as effective, important learning environments. Through these negotiations and activities not only are goods and services generated, but individual learning and the remaking of those practices arise. Aligned to these purposes has been a growing body of scholarship into learning through work. As noted, much of the earlier considerations of workplaces were about the provision of experiences to augment and extend (i.e., make more transferable) the learning occurring through participation in educational institutions through drawing on models of learning based on occupational practice (Brown et al., 1989; Collins, Brown, & Newman, 1989). A central concern was also to improve experiences in educational settings with those from the circumstances in which the knowledge is to be applied (Resnick, 1987). Yet, it is in more recent times that considerations of workplaces as learning environments in their own right have commenced, for instance, theoretical and procedural considerations of the pedagogic qualities of different kinds of work (Colin, 2004; Nerland & Jensen, 2006),

learning through errors at work (Bauer & Mulder, 2007), the active role of the learner (Billett, 2006b), including their subjectivity and sense of self (Somerville & Abrahamsson, 2003), the effect of professional practice for the development of tacit knowledge (Klein, 2003), and the complex entanglements between personal interests and capacities and those of the workplace (Hodkinson & Hodkinson, 2004). Consequently, there is now a growing array of theoretical concepts and investigative procedures being directed to identify the curriculum practices and pedagogic qualities of workplace settings, and also the roles that learners need to play in engaging and supporting this learning. However, these emerging theories and practices remain nascent (Evans, Hodkinson, Rainbird, & Unwin, 2006), as they require more encompassing explanatory frameworks.

In particular, there is a need to understand workplace learning from the perspectives of both the workplaces that are generative of and use that knowledge and the individuals who learn and enact it, and the kinds of negotiations that occur between these social and personal contributions to that learning. This includes elaborating theories of curriculum, pedagogy and epistemologies that are premised and explain workplaces as settings in which individuals participate and learn whilst engaged in activities that have social geneses (i.e., history, culture and situation). Consequently, understanding these processes and outcomes has conceptual and procedural salience for learning per se. Indeed, whereas workplaces have been used extensively to develop theory within cognitive and social cultural theory, these sites for learning provide rich bases for developing richer conceptual accounts of learning, unencumbered by a discourse which is premised upon what happens in educational institutions, and how learning is conceived and purposes shaped through associations with those institutions.

Indeed, one such advance is the focus of this special issue, that is, to understand ways in which the social and personal contributions to learning are negotiated in the processes of learning through and for work, and the remaking of practice. In doing so, the body of work here represents a contribution to an emerging and important theme within contemporary theorising about the relationship between the personal and social in both individuals' learning and the remaking of social and cultural practices.

2. Relations between the personal and the social in learning

Much of the existing research on workplaces, by disciplinary tradition and researcher preference, has focused on either individual or organisational contributions to learning through work and working life. Analyses of individual contributions focused on the cognitive

development of workers and their knowledge creation (e.g., Streumer, 2006). Conclusions offered concentrated on individual cognitions even in analyses of social interactions at workplaces (e.g., Palonen, Hakkarainen, Talvitie, & Lehtinen, 2004). Research on organisational contributions, on the other hand, described changes in social processes and investigated interaction patterns mediated through the social environments of workplaces (Cole, 2001). However, there are shortcomings in conceptions of and theorising about workplace learning through only individual or organisational perspectives. One such shortcoming is that less emphasis has been placed on the relationships between the organisational and individual contributions. This raises at least two concerns. Firstly, individual contributions are socially influenced by the organisationally generated demands or tasks individuals have to deal with at workplaces. Secondly, individuals contribute to the social construction of knowledge at workplaces by applying personal constructions of meaning and practice developed in particular life histories and biographies (e.g., Hodkinson & Hodkinson, 2004). It is the enactment of these personal constructions that shape the remaking of these social practices at particular points in time and circumstances. Therefore, organisational contributions cannot be understood without considering individual bases for learning the remaking of practice when engaging in workplace settings. Moreover, as the construction of meaning is premised on individuals' earlier socially- and culturally-derived experiences, their construals of what they experience and what they construct from that are likely to be personally unique in some ways (Billett & Somerville, 2004). So the mediation of what is experienced and learnt in workplaces in the immediate experience of engaging in and learning through work is likely shaped through unique combinations and negotiations between personal construals and what is afforded by the workplace setting.

In this way, the social forms and suggestions that individuals have experienced earlier, and then through immediate workplace experiences, are exercised with different degree, focus and intensity by individuals' construction, agency and interest in the particular suggestion, and how that suggestion is exercised in the workplace setting, the community that surrounds it, and the cultural and historical practices it represents. Hence, because of the different ways workplaces afford experiences and the potentially idiosyncratic process of knowledge construction, the relational contributions of the organisational and personal become important to understanding learning as an inter-psychological process.

All this suggests that comprehensive conceptual bases for understanding workplaces as learning environments will not be realised without consideration of both the personal and situational, and the relationships between them (Billett, 2006b). Without these bases, the

conception of the workplace as a learning environment, and the development of a workplace curriculum and conceptions of workplace pedagogies, cannot properly proceed, because they may simply be privileged by just social or personal factors. These include consideration of the workplace as a learning environment on the basis of what they afford learners in terms of contributions to learn the knowledge, rules, and practices required for work and also how individuals come to engage and learn through these experiences. The studies included in this special issue propose that it is insufficient to understand this learning in workplace settings without consideration of both organisational and personal contributions, and, importantly, the relations between them. These comprise the affordances of the workplace (i.e., its invitational qualities), in terms of the access to activities and interactions that are required to secure the knowledge required for performance, which constitutes the social experience. Then, there is the degree by which individuals elect to engage with what is afforded them. In the negotiations between the two, individuals will likely be selective in how they engage with these affordances and may work to extend their engagement beyond what they are being afforded. Hence, it is necessary to understand the potential contributions and agency of both the social and the workplace or work setting in this learning. This is because there are both person-dependent and situational bases to these separate contributions. Perspectives on these contributions are appraised and discussed in relation to the five separate components of this special issue. Each provides instances of how organisational and personal factors shape learning experiences in workplaces.

3. About the contributions

The contributions provide qualitative and quantitative approaches of researching workplace and accounts of professional learning and highlight the relation of personal and organisational contributions in various examples from different countries, followed by a common discussion. Table 1 gives an overview on the central ideas of the contributions to this special issue.

INSERT TABLE 1 ABOUT HERE

In different ways, premises of understanding both the individual (e.g., personal epistemology, including agency) and the social (e.g., the affordances of the workplace) and the relationships between them are exercised in these accounts. In doing so, the contributions to theoretical development, policy, and practice are identified and elaborated.

References

- Bauer, J., & Mulder, R. H. (2007). Modelling learning from errors in daily work. *Learning in Health and Social Care*, 6, 121-133.
- Billett, S. (2006a). *Work, change, and workers*. Dordrecht: Springer Academics.
- Billett, S. (2006b). Relational interdependence between social and individual agency in work and working life. *Mind, Culture and Activity*, 13(1), 53-69.
- Billett, S., & Somerville, M. (2004). Transformations at work: Identity and learning. *Studies in Continuing Education*, 26(2), 309-326.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Cole, G. (2001). *Organisational behaviour*. London: Thomson.
- Colin, K. (2004). Workplace's learning and life. *International Journal of Lifelong Learning*, 4(1), 24-38.
- Collins, A., Brown, J. S., & Newman, S. E. (1989). Cognitive apprenticeship: Teaching the crafts of reading, writing and mathematics. In L. B. Resnick (Ed.), *Knowledge, learning and instruction, essays in honour of Robert Glaser* (pp. 453-494). Hillsdale, N J: Erlbaum & Associates.
- Evans, K., Hodkinson, P., Rainbird, H., & Unwin, L. (2006). *Improving workplace learning*. London: Routledge.
- Harteis, C. (2003). Learning organizations as seen by workers. *European Journal for Vocational Training*, 29, 15-24.
- Harteis, C., & Gruber, H. (2004). Competence-supporting working conditions. In H. P. A. Boshuizen, R. Bromme, & H. Gruber (Eds.), *Professional learning: Gaps and transitions on the way from novice to expert* (pp. 251-270). Dordrecht: Kluwer Academic Publishers.
- Hodkinson, P. H., & Hodkinson, H. (2004). The significance of individuals' dispositions in the workplace learning: A case study of two teachers. *Journal of Education and Work*, 17(2), 167-182.
- Klein, G. (2003). *Intuition at work*. New York: Doubleday.
- Nerland, M., & Jensen, K. (2006). Insourcing the management of knowledge and occupational control: An analysis of computer engineers in Norway. *International Journal of Lifelong Education*, 26(3), 263-278.
- Palonen, T., Hakkarainen, K., Talvitie, J., & Lehtinen, E. (2004). Network ties, cognitive centrality, and team interaction within a telecommunication company. In H. P. A. Boshuizen, R. Bromme, & H. Gruber (Eds.), *Professional learning: Gaps and transitions on the way from novice to expert* (pp. 271-294). Dordrecht: Kluwer Academic Publishers.
- Raizen, S. A. (1991). *Learning and work: The research base. Vocational Education and Training for youth: Towards coherent policy and practice*. Paris: OECD.
- Resnick, L. (1987). Learning in and out of school. *Educational Researcher*, 16(9), 13-20.
- Scribner, S. (1985). Knowledge at work. *Anthropology and Education Quarterly*, 16, 199-206.
- Somerville, M., & Abrahamsson, L. (2003). Trainers and learners constructing a community of practice: Masculine work cultures and learning safety in the mining industry. *Studies in the Education of Adults*, 35(1), 19-34.
- Streumer, J. N. (Ed.). (2006). *Work-related learning*. Dordrecht: Springer Academics.

Table 1. Overview on central ideas of the contributions to this special issue.

	Method	Focus	Relations	Goals
Murtonen et al.	Quantitative	Motivation	Workplace contribution to personal agencies	Identification of organisational impacts on personal prerequisites for learning at workplaces
Harteis et al.	Quantitative	Learning from mistakes	Workplace affordances – organisational conditions (i.e., climate) and personal orientation towards learning from mistakes	Learning from and improving practice through reflecting upon mistakes
Billett	Qualitative	Relation between social and personal in work life learning	Affordances of different kinds and different bases for engagement in work and learning	Learning and remaking practice
Simons & Ruijters	Quantitative	Varieties of workplace learning	Individual differences about how and what is learnt – interactions across and learning in workplaces as described by metaphors	How we can talk about learning through work actions – individual and personal perspectives: Making workplace learning accessible for research
Guile & Okumoto	Qualitative	Learning through practice – becoming a jewellery designer	Individual and workplace contributions to learning – individual agency and collective contributions	Learning and remaking practice