What is learned through work?

Margaryan, Anoush; Milligan, Colin; Littlejohn, Allison

Publication date:
2012

Document Version
Author accepted manuscript

Link to publication in ResearchOnline

Citation for published version (Harvard):
Margaryan, A, Milligan, C & Littlejohn, A 2012, 'What is learned through work? a typology of professional learning in the workplace', pp. 130.

Abstract

This paper outlines a typology of what professionals learn through daily work. Of particular interest are similarities and differences in what experienced workers, novices and midcareer professionals learn thorugh daily work. Grounded in an empirical study (survey, n=469 and in-depth interviews, n=29) within a global energy company and informed by existing frameworks, the typology incorporates five categories and 19 subcategories of knowledge, skills and dispositions that professionals were found to develop through work. The findings contribute to the theory of workplace learning by enhancing the current understanding of how professionals learn through work. The findings contribute to the practice of workplace learning in organisations by highlighting the wide range of different types of knowledge and skills that employees develop through everyday work. Recognising the learning potential of daily work could enable organisations to provide more effective learning and development opportunities for employees.

Aims: We report findings of a study that examined *what* professionals learn through their everyday work, individually or in collaboration with others. The organisational context was a global company in the energy sector. Despite increasing literature, learning through work remains an undertheorised field. While questions as to *how* professionals learn through work and *who* they learn with have received some attention (Eraut, 2004; Fuller et al, 2004; Koopmans et al, 2006; Tynjala, 2008), there is little understanding of *what* is learned through work –what knowledge, skills and dispositions. There is also little understanding of what profesionals with different levels of experience learn through work and if there are similarities and differences for experts, novices and midcareer employees. Although a number of studies of what is learned through work exist (Eraut, 2004; Le Maistre and Pare, 2006; Boud and Middleton, 2003; Carbert, 2006), these do not compare learning of novices, experienced and mid-career professionals. This paper addresses this gap. The study was guided by two research questions:

1. What do professionals learn through work?
2. What are the similarities and differences in what experienced workers, novices and mid-career professionals learn?

Methodology: A mixed-method research design was used: a questionnaire survey, followed by semi-structured interviews. Designed for a larger project of which this study was part, the survey (n=469) determined the experience level of the respondents, including how many years they worked in their area of expertise, the organisation and their current job role. Interviews (n=29) were carried out with experienced, novice and mid-career workers. Each interviewee was asked to recall his/ her most significant learning experience in the past year. Then they were systematically prompted to

articulate what they had learned. The interview script is at:
. For coding, a grounded theory approach was used. Coding for a sample of data was cross-checked by three researchers for inter-rater reliability.

Results: Synthesis of the data generated a set of 19 categories of what professionals learned through work. These 19 categories were grouped into five high-level categories: Conceptual knowledge; Procedural knowledge; Locative knowledge; Dispositions; and Enculturation.

1. *Conceptual knowledge:*
    1.1. Acquiring technical knowledge
    1.2. Contextualising knowledge
2. *Procedural knowledge:*
    2.1. Lab skills
    2.2. Using company-specific technology
    2.3. Delegation skills
    2.4. Managing people
    2.5. Time management and prioritising
    2.6. Project management
    2.7. Collaboration skills
    2.8. Working in virtual teams
3. *Locative knowledge:*
    3.1. Developing personal networks
    3.2. Knowing who to ask
4. *Dispositions:*
    4.1. Assertiveness
    4.2. Self-confidence
    4.3. Stress management
5. *Enculturation:*
    5.1. Developing visibility in the company
    5.2. Understanding the 'big picture'
    5.3. Navigating workplace politics
    5.4. 'Ways of being" in organisation

Our principal aim was to capture all the specific learning each respondent said he or she gained from their most significant learning experience in the past year. Therefore, we surfaced (in a grounded fashion) and systematised *every* type of knowledge, skill and disposition that could be observed through this sample, rather than only those types that were shared by the majority of the respondents. Consequently, even if a sub-category was mentioned by only one respondent, that subcategory was included in the final set outlined above.

The following pattern of similarities and differences was observed amongst the three groups. Firstly, there was a significant number of subcategories within "procedural knowledge", mainly generated from the novices' data. This may signify that novice learning largely focuses on acquiring 'the right means for the job'. Secondly, novices appeared to focus on acquiring core technical knowledge, procedural knowledge and developing 'ways of being' in an organisation, whilst midcareer professionals concentrated on contextualising their knowledge alongside the acquisition of core technical knowledge and experts focused on the development of collaboration skills.

Acquisition of specific types of knowledge (eg conceptual knowledge) is conventionally viewed as occuring only in formal learning settings (eg a university programme or a training course in a corporate learning centre). Our findings counter this view. The typology that emerged from our data demonstrates the breadth and variety of knowledge and skills that individuals acquire through daily engagement in work. It suggests that all types of knowledge are present in the workplace and are an inherent part of what professionals learn through work. Some knowledge types (eg conceptual knowledge) are less explicitly and systematically codified and organised in the workplace than they are in the curriculum in formal educational or training settings. Yet, the workplace offers possibilities for professionals to develop a wide range of types of knowledge and skills, as evidenced in this study and in previous research.

Significance of research for theory and practice: In terms of theory development, this paper contributes empirical evidence on the breadth and variety of types of knowledge and skills that can be acquired through work. The results confirm that significant forms of learning take place through work itself, and that therefore, rather than being inferior to formal education and training, workplace is a powerful learning environment. Improved understanding of what is learned through work also contributes to the practice of workplace learning, by raising organisations' and individuals' awareness and recognition of the knowledge and skills acquired through everyday work and by potentially encouraging organisations to provide more effective learning opportunities for their employees. This typology can be used in different ways. Firstly, it could serve as an analytical tool that could be applied in other organisational settings to guide similar studies aimed at improving the understanding of learning at and through work. Secondly, the typology can be used by those who have staff development roles in organisations (coaches, mentors, supervisors, and others) to guide the learning and development-related conversations and activities with workers, for example as part of personal development planning or annual performance review. Thirdly, professionals themselves could use this typology as a tool to support their self-reflection on their learning and development.

References:

Boud, D., & Middleton, H. (2003). Learning from others at work: Communities of practice and informal learning. *Journal of Workplace Learning, 15*(5), 194-202.

Carbert, H. (2006). *Eureka moments: Pivotal learning experiences in the workplace.* MSc Thesis, University of British Columbia, Canada. Retrieved on April 1, 2011, from https://circle.ubc.ca/handle/2429/17641

Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuous Education, 26*(2), 247-273.

Fuller, A., & 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), 32-42.

Koopmans, H., Doornbos, A., & van Eekelen, I. (2006). Learning in interactive work situations: It takes two to tango; why not invite both partners to dance. *Human Resource Development Quarterly, 17*(2), 135-158.

Le Maistre, C., & Pare, A. (2006). A typology of the knowledge demonstrated by beginning professionals. In P. Tynjala, J. Vaelimaa, & G. Boulton-Lewis (Eds.), *Higher education and working life: Collaborations, confrontations and challenges* (pp. 103-113), Amsterdam : Elsevier.

Tynjala, P. (2008) Perspectives into learning in the workplace. *Educational Research Review, 3*, 130-154.