

Who Learns What at Work?

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Abstract

In comparison with the interest in how people learn at work, there has been less focus on the questions of ‘what’ is learned and what different groups of workers need to know in order to do their jobs. This paper aims to contribute to debates on what it means to ‘know’ in the workplace. It provides illustrative material from current research in the food processing and retail sectors, drawing on interviews with employees at different levels of the occupational hierarchy, to add to the evidence base.

Introduction

The question of how people learn at work has become of increasing interest to researchers, policy makers and employers in recent years. Research undertaken within the ‘learning as participation’ perspective is furthering understanding of workplace learning processes (*inter alia*, Lave and Wenger, 1991; Billett, 2001; Eraut, 2000; Fuller and Unwin 2003). The findings are providing evidence which challenge conventional ways of viewing ‘learning as acquisition’ (see Beckett and Hager 2002 for a detailed discussion). In comparison with the interest in the ‘how’, there has been less focus on the questions of ‘what’ is learned and what different groups of workers need to know in order to do their jobs. This paper aims to contribute to such debates and uses illustrative material from our current research¹ in the food processing and retail sectors to add to the evidence base.

This summary paper is structured in two main sections. The first outlines ways of conceptualising knowledge and their relevance to exploring who learns what at work. The second provides illustrations from two different organisations participating in our project. The paper concludes by arguing that closer attention needs to be paid to developing empirically and contextually grounded understandings of what ‘knowing’ in the workplace means for employees at different levels and with diverse job roles.

Issues and approaches associated with the ‘who’ and the ‘what’

There are two dimensions to the question posed in the title of this paper. In terms of the ‘who’, the uneven distribution of learning opportunities in the UK has been an important finding emerging from surveys of adult learning (e.g. Beinart and Smith, 1998). There are writers within academic traditions as diverse as ‘adult education’ (see e.g. Fenwick, 2001) and ‘labour process theory’ (see, e.g. Lloyd and Payne, 2004) who are highly sceptical about trends in the quality and availability of learning opportunities for those located in low status jobs. At the risk of over-simplifying, such writers share the view that (global) economic drivers are underpinning employers’ attempts to ‘sweat’ more productivity from their human resources. The consequence for employees in weak labour market positions is perceived to be limited job roles,

¹ The project, *Learning as Work: Teaching and Learning Processes in the Contemporary Work Organisation* (RES 139250110), is funded under the ESRC’s Teaching and Learning Programme. For more details and project research papers, see www.clms.le.ac.uk/research/learningaswork/html

training, career development and task intensification, within restrictive workplace learning environments. In contrast, others suggest that the emergence of the 'new economy', high performance and involvement working practices (see, e.g. Ashton and Sung, 2002) can give rise to more 'learning intensive' workplaces (see, e.g. Skule, 2004). The inclusion of diverse sectoral, organisational and individual participants in our study is enabling us to investigate the empirical reality of both pessimistic and more optimistic perspectives.

It is well established that people with higher levels of initial education and qualifications and who occupy more senior positions in the workforce have disproportionately more opportunities to participate in formal training events, particularly those which lead to further qualifications (see e.g. Felstead *et al*, 2000). Recent survey work by Felstead *et al* (2005 in press) has enabled connections to be made between informal and formal sources of learning and their perceived helpfulness (in terms of doing the job better) to groups at different occupational levels. The findings confirmed that those at the top had the greatest opportunities to engage in courses and qualifications but, interestingly, also indicated that employees at all levels perceived that the learning that occurs through 'everyday' productive activity at work is the most helpful for doing the job. The authors highlight:

'...the relatively high importance of social relationships and mutual support in helping individuals to improve performance at work compared to the relatively low importance attached to qualifications and attendance on courses...'
(Felstead *et al*, 2005: p.4)

However, those at the top end of the occupational hierarchy were more likely, than those lower down, to perceive their participation in formal sources of learning as useful. This implies that there is a relationship between the context and characteristics of specific work settings (eg the type of work, job role and design), the opportunities to learn to which they give rise, and the types of knowledge resources needed for workers to do their jobs effectively. In our case studies, we are developing an analysis which unpacks this further by looking closely at what constitutes 'the knowing' that people (in particular jobs in particular types of organisation) are applying at work. Hence, we are interested in the nature of knowledge in use and in context.

Conceptions of knowledge relate to whether an individual or social perspective is taken. The individual perspective tends to resonate with the concepts of learning as acquisition and knowledge as products (units of codified knowledge – theories, concepts, scientific facts) which individuals acquire and store in the 'stock room' of their minds (Beckett and Hager, 2002). This knowledge is assumed to be context-independent. Evidence that the individual possesses such knowledge resides in the qualifications they possess and the curricula (codified knowledge) they have 'mastered' through participation in courses. In contrast, the social perspective resonates with the 'learning as participation' approach. Eraut and his collaborators have observed:

'A social perspective draws attention to the social construction of knowledge and of contexts for learning, and to the wide range of cultural practices and products that provide knowledge resources for learning.' (Eraut *et al*, 2004)

The social perspective or 'sociality of knowledge' (Muller, 2000) originates in the idea that (all) knowledge is social because it is constructed by social groups operating in particular socio-economic and cultural contexts. Knowledge *per se* is viewed as

context-dependent. The idea that knowledge is constructed is consistent with an emphasis on 'knowing' as an active concept (Blackler, 1995) From the social perspective, scientific, disciplinary knowledge can be seen to have high currency because it is created by high status groups; is acquired through participation in high status settings (such as universities); and because it, or its symbols (certificates), can be exchanged for high status positions in the socio-economic pecking order. Its strong currency is based on its social construction and not on any putative objectivity that makes it intrinsically superior to other forms of knowledge. Young observes:

'It follows that the specialised, codified, or discipline-based knowledge associated with the college curriculum (and off-the-job learning) is in principle no different from everyday common sense (or on-the-job) knowledge; it is just some other people's knowledge.' (2004: 193).

However, accepting the conceptual argument that all knowledge is socially situated, does not mean that we should stop distinguishing between different types of knowing. There is a danger that conceiving all knowledge as equal inhibits understanding of how the currency accorded to different types of knowledge is strongly related to the social settings and practices in which they are used, and the social groups between which they are 'traded'. In terms of the individual or groups, different benefits accrue to those whose knowledge is perceived to have different kinds of value (Fuller, 1995). The exchange value of knowledge depends on where it was acquired and the value attached to it by 'users' of these currencies (e.g. in employee recruitment, selection for prestigious universities, gatekeepers to entry into prestigious professional institutes and associations). On the other hand, being selected for promotion is likely to depend more on the individual's proven ability. In this regard, the use value of what has been learned and how it has been applied is likely to be given more weight by selectors than candidates' participation in off-the-job courses or acquisition of certificates.

Fuller and Unwin's earlier work (2003, 2004) on expansive and restrictive learning environments and approaches to apprenticeship is relevant here. It showed that those engineering apprentices who had opportunities to participate in a broad range of activities including off-the-job courses which covered engineering theories and concepts, were in a stronger position to progress within and between firms than those who only had access to on-the-job learning experiences. Young is right to point out that:

'[although] ...context specificity is a feature of the knowledge required for all jobs, many jobs also require knowledge involving theoretical ideas shared by a community of specialists that are not tied to specific contexts; such knowledge enables those who have acquired it to move beyond specific situations.' (ibid: 193-4).

We are concerned, then, that an uncritical acceptance and adoption of the social perspective on knowledge can lead to a papering over a) of the differences between what is learned, how and by whom; and b) the uneven distribution of opportunities throughout the population which give rise to a highly segmented socio-economic and occupational structure and outcomes for individuals and groups. *While we accept that all knowledge is equal at the conceptual level, it is far from equal at the level of outcomes.*

Michael Eraut has a longstanding interest in analysing 'what is being learned' at work. He identifies two broad types of knowledge, cultural and personal. The former is linked to the social perspective and the latter to the individual perspective. Whilst Eraut is prepared to concede that, '...all knowledge is cultural knowledge and socially situated' (2004: 201), he does not want to lose sight of the individual. Hence, he defines 'personal knowledge as what individual persons bring to situations that enables them to think, interact and perform.' (ibid: 202). Aspects of both cultural and personal knowledge can be 'codified' or 'non-codified'. Codified cultural knowledge is represented in artefacts such as academic textbooks, scholarly papers, operational manuals, and other forms of workplace documentation. Codified personal knowledge is represented in what Eraut calls 'personalised versions of public codified knowledge' (ibid). This includes 'authored' assignments, projects and tasks which can be undertaken in diverse settings including formal education and the workplace.

The territory covered by non-codified knowledge is broad and varied and needs to be uncovered and elaborated to illuminate the nature of knowing in the workplace. There is a tendency to bracket non-codified cultural and personal knowledge with the notion of tacit knowledge i.e. knowledge which is taken for granted and hard to articulate. Researching the tacit certainly constitutes a methodological challenge but the evidence being generated through interviews with our research participants is suggesting that whilst there may be some areas of workers' knowledge which are hard to uncover, respondents are often able to articulate a good deal about what they and others need to know in order to do their jobs.

From the perspective of this paper, Eraut's work has two important implications. First, there is no easy 'read-across' between types of knowledge and their availability and distribution across particular settings. For example, depending on the occupational or professional context, codified academic knowledge may or may not be just as crucial a resource in the workplace as in the educational institution. Second, that what is learned by individuals, in what sorts of context, how they interpret this learning and how they apply their knowledge is highly relevant not only to gaining a better understanding of workplace learning but also to the relationship between workplace learning, the organisation of work and individual and organisational performance.

Illustrating who learns what at work

Our research is employing a range of qualitative and quantitative methods in case study sites which span both the public and private sectors. Fieldwork is currently underway in organisations of different types and sizes in 14 manufacturing and service industries. We are interested in employees at all levels. In line with our view that organisational context is highly significant, we are developing profiles of the wider economic, political and social landscape in which the case studies are located.

In this section, we draw on transcribed interviews in two companies in the food processing and retailing sectors to illustrate the sorts of 'knowing in practice' we are uncovering. Interviews were all face-to-face and lasted up to an hour and a half. For each setting, we focus on the cultural knowledge and, where appropriate, on the personal knowledge applied by participants. In particular, we are interested not only in what there is to know in the setting (and who knows it) but also on how knowing

appears to relate to individual and organisational performance. At this interim stage in the project, the analyses presented are tentative and partial.

Company A: Food Processing

Food processing is currently the largest sub-sector (13%) within manufacturing industry in the United Kingdom (UK). Within food processing, the sandwich making sector of which Company A is part, is worth approximately £3 billion to the UK economy. The company was founded nearly ten years ago by two friends and currently has around 30 employees. It now operates as a limited company, with the founders employed as joint managing directors (MDs). It turns over around £800,000 per year and makes about 25,000 sandwiches a week. The bulk of the staff are employed as either sandwich makers/assemblers (approximately 17) or delivery personnel (approximately 9). Sandwich making is a very competitive business, characterised by low entry costs. By the volatile standards of the sector, Company A has managed to establish itself as a relatively long-standing supplier of sandwiches in the East Midlands of England. Its main customers are neighbourhood shops such as those available on garage forecourts.

In-depth interviews with the MDs revealed that they are currently grappling with how to take the business forward. This includes making strategic decisions about expansion, capital investment in automated machinery, and bringing in specialist personnel. The data reveal the extent and nature of the cultural and personal knowledge being applied in this workplace context and the essential role this is playing in day-to-day decision-making and activities. For example, in the following extract one of the MDs is reflecting on the possible advantages of employing an experienced production manager. He can do (knows) all the production tasks but questions whether he could be applying other aspects of his knowledge to develop the business:

The time I'm there sticking labels on etc sort of doing the quality control at the end of the line, I just think to myself "what else could I be doing with my time in terms of perhaps getting new business, looking at new markets, looking at new product lines" etc, etc, etc. (MD)

In the next quote, the interviewee is explaining the dilemma of investing in new machinery. On the one hand, it will help bring down employee costs in what is a labour intensive manufacturing process but, on the other, he has to be convinced that the initial investment in new equipment will yield the returns that will make the financial outlay worthwhile. The MD is displaying his cultural knowledge of the economic challenges of the sandwich making business as well as his personal knowledge relating to specific investment decisions:

... the next bit of machinery that I'm going to be looking to buy, is a buttering machine, because that is quite labour intensive and I find that by buying a buttering machine I'll be able to work twice as fast but the downside is that they're 26 grand². (MD)

The MDs 'know' that their management style is critical to the success of the business. It is characterised a) by a highly hands-on approach - they can and often do perform all the workplace tasks, and b) by an approachable, friendly and communicative

² 'Grand' is a colloquial expression that means £1,000.

relationship with staff. Below, an employee refers to the importance of daily interaction and information exchange between van drivers and managers. This takes the form of knowledge sharing, swapping experiences and ideas and, importantly, having their suggestions acted upon:

Everyday we come in and talk. Can I have five minutes with you? Yeah no problem. They've [managers] always got time for you...they will listen to you. One day you go in and there haven't been many salads today...next day...all your trays are full salads. (van driver)

Overall, the MDs observations reveal cultural knowledge about business (e.g. the relationship between capital and labour, product-market and quality) as well personal knowledge in terms of what Eraut calls. 'everyday knowledge of people and situations' (2004: 202). Importantly, their evidence highlights the challenge of reconciling strategic issues relating to the long term development of a small business with day-to-day workload demands.

The van drivers' 'story' in Company A provides a telling reminder of the importance of collecting the 'voices' of employees at all levels of the occupational hierarchy and of not making assumptions about the relationship between what workers know and the social and occupational status of particular groups. The occupational label 'van driver' implies a narrow job role. However, the interviews contradict this by revealing the breadth and complexity of what the company's van drivers actually do. In addition to driving, their core functions include: business development, sales and administration. Each driver is responsible for a 'delivery round' comprising deliveries to fifty plus different outlets ('drops'). The following illustrates the range of 'knowledge challenges' involved for this group of workers including:

- Working out the most efficient route – order of deliveries;
- Knowing what types and prices of sandwiches sell to what type of outlet, in what type of location;
- Communicating 'field intelligence' to managers so that production can respond effectively to fluctuations in demand;
- Deciding on whether to vary prices on particular products to optimise sales to individual customers;
- Minimising waste – the sandwiches are mostly sold on a sale or return basis (once the products pass their eat by date, they become waste);
- Seeking and securing new customers;
- Arranging the products on the customer's shelf (presentation) in order to maximise sales;
- Developing and maintaining customer relations – the more well-established the personal relationship between 'van driver' and customer, the less likely the company is to lose the business to a rival;
- Recording deliveries, sales and returns for each outlet in "the book" and passing the record back to the office for processing;
- Calculating the correct amount of money owed by customers and collecting it.

There is not the space in this paper to present the full story of what the van drivers know, but the following quotes illustrate their criticality to organisational performance, particularly in terms of sales, customer service and relations, and providing the business with daily intelligence from the field. They are also indicative

of the range and interplay of cultural and personal knowledge embedded in this job role:

It's down to us [van drivers] at the end of the day. He's [MD] blind. We're like his eyes. We have to go out there and we come back with information. Can you change this, can you change that and come back to [MD] and he makes them [sandwiches]. That's how it is. (van driver)

When you get your returns, because it's sale or return, what I do is then look at the returns and I think well they're not eating them and they're not eating them and they're not eating them so I keep them off and put another variety in. Change me variety as to what they're eating, you see. (van driver)

Yes [you can be trained to do the job]. If you've got it up there and you watch someone do it. If you came with me and I go into me shops and speak to the customers: good morning. Some of me Asian shops call them brother: good morning brother, how are you? (van driver)

To date the evidence emerging from Company A indicates the relevance of uncodified cultural and personal knowledge to individual and organisational performance. This is not to say that codified knowledge is absent from the workplace. As would be expected, there is a wealth of organisationally specific textual information relating to everyday work activities, including record-keeping for the health and safety and sales functions. Issues relating to environmental health are critical to a food processing and handling business. If the company were subject to a complaint about the safety of its products, it would have to be able to demonstrate 'due diligence' in relation to such matters. Therefore, products are sent to a laboratory for testing to establish their 'safe' shelf life, and the appropriate use by date. This is an area of codified scientific knowledge, in which at least some of the employees appear to have significant knowledge.

Company B: Retail – supermarket

Company B runs a nationwide chain of supermarkets, employing over 50,000 staff and with a turnover of more than £4 billion. For the purposes of our research we have conducted interviews with personnel at all levels in two similarly sized stores in the East Midlands (of England), as well as with the area manager who has overall responsibility for several outlets. Broadly speaking, each store has a manager, several department managers and supervisors, and 'shop floor operatives'.

The growing availability of information technology in recent years, for example through electronic point of sale systems, has facilitated the centralisation of the buying, stock control and marketing/presentation functions. In so doing it has limited the extent to which individual stores can plan their own stock profiles and the way in which their stock is presented to customers. Stock Store Management (SSM) is implemented via a device called a 'symbol gun'. This is used to check that the physical stock available on the shelves accords with what 'the computer' states the store should have. Discrepancies occur predominantly because of 'miss picks' at the warehouse and shrinkage. The symbol gun is used to collate data on availability and to write off stock. One manager observed:

...these little guns obviously are controlling...obviously we're putting all the information in to that which takes it to the computers, so I mean without these in

this store, we wouldn't know what our stock levels were and we'd be in a bit of a mess, we do rely on those.

In general terms, departments with fresh produce which is subject to spoilage over a relatively short period of time (a few days), have more discretion over stock ordering than those such as grocery (e.g. tinned food) which have a relatively long shelf life. Dairy and meat are seen as particularly critical sections for store performance because they combine relatively high turnover with the risk of high wastage if the ordering levels are inaccurate. It is the departmental manager's responsibility to maintain the integrity of stock levels (i.e. to ensure that the physical and computer stock levels match). Knowledge of local conditions and patterns of demand can have a significant impact on departmental and store performance, and this leads to a tension over how much discretion to give departmental managers to alter their centrally determined stock levels. Offering more discretion can lead to positive pay offs, when the manager's reading of local demand proves accurate, or negative when the store is left with high levels of spoiled produce. We concentrate here, then, on painting a picture of what departmental managers need to know, focusing in particular, on an account provided by one dairy and meat manager. The example is interesting because it illustrates the relationship between the computerised stock management system, and the people who operate and can over-ride it. This focus helps reveal what sort of knowledge is being drawn on and utilised, and the relevance of this to individual and organisational performance

The first quote confirms that the degree of discretion accorded to department managers differs according to the fragility of the produce and how they use their cultural and personal knowledge to alter what the system suggests should be ordered:

...what you had is grocery where they can't amend very much, but on dairy [I] mean fresh [food], you can amend everything, so you change it as much as you want. And the system, I don't know why, but it tends to order say too much and you just know from knowledge yourself, you sort of look at it, you get a sort of record in your own head. (dairy and meat department manager).

The computerised ordering system has the capacity to learn, such that: *"say we've got one product, say it's ordering five cases, I think that's not going to sell, I'll take one, the system sort of resets itself every time you do that."* In this regard, there is an inter-dependence about the relationship between 'the computer' and employee, with both aiming to manage 'each other's' behaviour.

The performance of the department is assessed on three indicators, sales, availability and waste. Optimum success is achieved when the most profitable balance between the three is reached:

It's hard to get [to hit targets on all 3 indicators at the same time], you can normally get one without the other, get brilliant waste, cos you've cut back a lot and you haven't got the sales there. To get sales you need to spend more money, which goes... more waste, but if you want to meet your waste, you've got to try and get a happy medium which is very difficult. Availability comes with getting sales and waste...

This respondent spoke about the importance of experience in enabling people to achieve their targets and also about the need to 'be in rhythm' with patterns of

demand: “when you come back of two weeks holiday say...what you think is right is no longer right to what it was when you left.”

In addition, to the critical function of stock management, department managers are also responsible for employees in their ‘teams’. The dairy and meat manager explains what he needs to know in order to manage people effectively:

...being able to be a friend but yet be a boss, step away when you need to and yeah just like casual and friendly. You need to be able to separate them too if you need to, if you’re too nice all the time you’ll get nowhere, always be fair.

Interestingly, the approach to people management practiced and advocated by this department manager has been strongly influenced by the style promoted by the store manager, who is an avid reader of people-oriented prescriptive management texts such as Blanchard’s *One Minute Manager*. Such books focus on the idea that ‘your people are your most important asset’ and on ways of motivating and empowering them. The store manager makes this literature available to his management team as required reading. This provides an interesting example of codified cultural knowledge that goes beyond the expected raft of organisational textual and numerical material available in a supermarket.

At this early stage of our Company B analysis, we are trying to understand the full effect of the computerised stock system on employees’ roles, and the extent to which its introduction is limiting or simply changing what staff need to know. It may be that both narratives can be true. Whilst the technology in both stores is the same, the way in which it is used and perceived is influenced by the organisational culture generated by contrasting management styles. When asked how he would characterise the store manager’s role, the manager of our dairy and meat section respondent talked a lot about the importance of employee development. The dairy and meat department manager, himself, talked about his capacity to alter and ‘teach’ the system. In contrast, the manager of the other store in the case study perceives the technology as decreasing individual discretion and autonomy. She observed that: “*most of the job really is policing as it were and checking that things are being done. I meant the system checks I carry out tells me whether they’re doing their job right*”. Further analysis is required to clarify the links between management style and technology and the implications for job roles and workplace knowledge.

Conclusion

In conclusion, we would argue that closer attention needs to be paid to who is learning what (why and how) at work; and to developing empirically-grounded understandings about the types, distribution and application of knowledge in diverse workplaces. Unpacking these issues will help a) to avoid making easy assumptions about the complexity and value of workplace learning based on employees’ structural position in organisations, or the sectors in which they work; and b) to expose the range of knowledge available in the workplace and the relationship between knowing, job design, and individual and organisational outcomes. The illustrative material presented in this paper highlights the ‘art’ involved in applying knowledge effectively to fulfil occupational roles. For the department manager in Company B, there appeared to be an art to knowing how to manipulate the ordering system to continually hit three competing and dynamic performance targets. In Company A, the

van drivers' job role was shown to be broad, complex and to allow for considerable discretion and autonomy. Effective fulfilment of this role required the ability to draw on, develop and apply wide ranging cultural and personal knowledge. Management of a small business, such as Company A, called for 'knowledgeability' in every day tasks as well as in how to manage for longer-term success. Having 'the art' (the knowing) to achieve this balance appeared critical to the sustainability of the firm.

Importantly, the van drivers' role contradicts stereotypical assumptions about what apparently 'low level' employees know and can do. It provides a particularly evocative example of why it is important for researchers to look closely at what it means, for differently positioned employees, 'to know' in the workplace. Finally, the illustrative material provides evidence of relationships between job and occupational roles, types of knowledge, their application in practice and organisational outcomes. As the research progresses, the nature of these relationships will be further unpacked.

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