Who Do We Learn from at Work? Interlinked Communities of Practice and Informal Learning

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Abstract: This paper addresses the question of who is involved in learning in workplaces. It draws on a study of multiple worksites with differentiated work within a large educational organization. It discusses the value of communities of learning in conceptualizing the question and suggests that additional factors such as social networks, structural relationships and the context of particular work need to be considered.

Introduction

Learning at work constitutes a large part of the learning undertaken by adults during their lives. This paper investigates a fundamental aspect of this: who do we learn from at work? This is important because firstly, there have been suggestions that formal systematic learning is of much lesser importance than informal learning and, secondly, it has been argued that the person who is expected by organizations to foster learning in the workplace—the workplace supervisor—is unable to do so effectively because of other features of their role (Hughes, in press). The work reported here is part of a broader study focusing on the relational aspects of learning at work which aims to uncover informal learning. It draws on interviews with workers in diverse worksites within a single organization and presents preliminary findings about how these workers find what they need to learn effectively.

The study draws on the framework of communities of practice (Wengers 1998). This idea is utilized to represent the informal learning that takes place every day in workplaces. According to Wenger, social participation within the community is the key to informal learning. It is embedded in the practices and relationships of the workplace and helps to create identity and meaning. It both complements and can substitute for formal learning mechanisms. However, informal learning is often not acknowledged as learning, but is typically regarded as being 'part of the job' or a mechanism for 'doing the job properly' and is thus rendered invisible

The project of which the research reported in this paper is a part is a joint endeavour between the University of Technology, Sydney and the largest provider of vocational education and training in Australia–the New South Wales Department of Education and Training (a state government department) (Solomon *et al* 2001). The project aims to find ways in which informal learning can be more effectively utilized within organizations.

Method

The focus on the 'who' of learning informed the methodological approach in that the research has been qualitative—employing long interviews and social network analysis as the primary instruments to draw out subjective experiences of work and learning. Each member of a workgroup was given a semi-structured interview lasting approximately 45 minutes which sought to investigate general information on their role and their career trajectory, who were the primary sources of workplace information, and how any challenges in the jobs were dealt with. They were then asked to draw a map of who they communicated with regarding workplace matters over the period of the following five days. The data was analyzed to identify the issues discussed with other workers and who they related to with respect to which kind of issue. In addition to these interviews, members of the project team spent time in the worksites seeking to understand and document the context of the work and the nature of the activities in which participants engaged.

Those interviewed were employees at four worksites of the organization within the Sydney metropolitan area. The sites were chosen to maximize variation in workplace activity and the diversity of work and working relationships. The first group (strategy planners) is a specialized unit offering advice to

the leader of a group of colleges (the Institute Director) on current trends and future educational planning. It includes senior college management and administrative support personnel across several geographical locations. A second group (tiling teachers) is a unit in a single physical location comprising floor and wall tiling teachers of many years standing. Another (human resources) is an administrative, office-based human resources unit with personnel staff working in teams closely with each other. The fourth (business outreach) is a group of business studies teachers who offer training exclusively off-campus to commercial clients. Because of space limitations, this paper will report directly on the findings of the first three of these groups.

Findings

Analysis of the interviews and social networks yielded two significant findings with regard to the 'who' of informal learning. The first concerns the interaction between context and the form of the learning that occurs, and the second is the significance of informal networks for learning. These are considered together here.

Despite belonging to a large bureaucracy which sought to homogenize work practices through extensive documentation of policy and procedures, unsurprisingly, each of the workgroups exhibited a unique context and learning experience.

Tiling Teachers

The tiling teachers are a well established unit who have worked together for at least ten years. Formally, they are considered to be peers, apart from the senior head teacher who is two grades above them. In recent years their learning has encompassed coming to grips with significant changes in their curriculum imposed by the institution, the use of computers for both teaching and administrative purposes and product changes within the industry. The head teacher has attempted to master all of this, plus come to terms with the multiplying administrative demands of the organization.

The head teacher's role is key in managing the information flow to the unit and therefore the learning of its staff. He passes information on verbally at regular informal lunchtime gatherings. He reads trade journals, newsletters and the administrative updates that come into the unit, marks the relevant sections and passes them around to the other teachers to read. He receives information about ongoing changes within the institution through involvement with committees, his participation in external working groups and consultancies on behalf of the organization. When one of the tilers was asked how he accessed information about what was happening or what counted in the organization, he responded: "we've got a head teacher to do that".

When it comes to teaching matters, the picture is less clearcut. Discussions about the lack of effectiveness of the new curriculum have taken place extensively among all of the teachers, both at their informal meetings and among individuals. The results of the discussions were reported to other levels in the college, once again by the head teacher, and feedback on their input was received. Interestingly, another source of feedback to the teachers about the effectiveness of the curriculum is a vicarious one—the students who are apprenticed to tilers report the opinions of their bosses about what they have learnt, and sometimes information about new products filters back to the teachers in this way.

The challenge of adapting to computers has been a key area of learning. While some have taught themselves how to use computers with enthusiasm, there has been resistance to their use by others. The cause of the resistance for most of them appears to be because retirement is their next career move, and they are not prepared to invest effort in learning how to use email or new online student administrative systems. The computer enthusiasts within the group act as a learning resource for the others. One teacher describes both his learning and his resistance this way: "Hank's incredible with the computer. He's taught me everything I know, which is probably nothing."

The teachers draw primarily on each other as resources for solving issues with students and have devised an informal division of labor among themselves for administration tasks such as typing and filing the curriculum notes and drawing specialized diagrams—tasks which may well have been done by an administrative assistant in the past. There is little need for them to seek any kind of assistance outside their

own unit. In fact they have very little contact with other tiling teachers in the state, and meet only informally with these colleagues on annual golf days. They have some contact with industry specialists who visit them and speak to their students about new products and these people are relied on in turn to solve problems that occur with the use of those products. Occasional social contacts with working tilers help to keep them informed about developments in the industry.

Strategy Planners

The contrast between the tilers and the strategic planning group could not be greater. Many of these people have reached the pinnacle of their careers in the organization, having been teachers and head teachers or having held other significant management positions. They were drawn together as assistant faculty directors (ADFs) to form part of a unit which was created only two years prior to this study. The roles they undertook were also newly created, and evolved from a major restructure. In addition to providing planning advice to the Institute Director, each one holds responsibility for a faculty of up to five divisions. Initially they were required to explore what their role on paper entailed in practice, which was fundamentally a process of trial and error. Some months into the job it emerged that the advice they were providing to the Director was not what was required and a major reassessment of the roles ensued.

This was undertaken as a problem solving exercise. While there was some formal input, sharing of their experiences and collective knowledge over time was the focal point. This pattern of sharing knowledge is now characteristic of the ADFs, with all of them nominating their colleagues as primary sources for information and discussion of issues within their own faculties. The unit manager, who is in fact two administrative grades above them, was also significant in providing guidance and feedback on their performance. Some had the advantage of informal networks whose ranks included more senior colleagues who were able to offer them advice.

One area of learning essential for them was how to master the political intricacies of the job. It could be safely conjectured that mastery of the political was a key to rising through the ranks their present role. The overt political issues on their agendas could be quite sensitive: downsizing a department, entailing the need to satisfy industrial union requirements or encouraging teachers to accept a new curriculum they were resisting. As newcomers to dealing with issues at such a high level and in divisions that they were unfamiliar with, this was one of the biggest challenges they had to face. The unit manager was again a key resource in assisting them to deal with the political within the wider organization, and once again they drew on the experiences of other ADFs and senior colleagues in their informal networks and community sources outside the organization.

Human Resources

The third group whose context we examined is the the payroll section of the human resources unit. The focus of work here is to process payroll and leave applications from across the college. This is the most stratified of the three groups, consisting of clerks at various levels grades, a section manager and a unit manager. Despite its divisions, the unit has a strong identity of being a team. The most junior clerks do preparation and checking work; the next grade do the more complex processing while the higher grades act as team leaders and trainers to the more junior staff. The section manager is their substantive supervisor while the unit manager supervises all of the unit's different sections. All are required to be familiar with the administrative processes and the terms of the industrial agreements which govern the different sections of the faculty as well as using a dedicated computer based HR system.

The junior staff initially learn their job with supervision from the more senior clerks with strong backup from other clerks at the junior levels. Any new procedures or new administrative systems are initiated from the team leader, and once again the team leader is a resource for dealing with unusual or difficult problems. Informal meetings are occasionally held to deal with changing requirements, and matters that affect the whole unit are dealt with at regular staff meetings. The most junior clerks have no reason to seek help from anyone beyond their own peers or immediate supervisors, while the next level are happy to contact their counterparts at other Institutes if unusual problems arise. The senior grades are given the

opportunity to participate in college-wide committees, and the section manager regularly deals with others in a similar role from all over the country. She has in fact initiated an email discussion group to assist her learning:

> "I've set up a network, because HR changes all the time - new awards, new conditions, change of policies … What we found, we were becoming more and more isolated because we're autonomous and we do this, this way, so there was a need to meet on a regular basis to work through some of these issues and ensure consistency, like interpretation."

All staff are encouraged to act in jobs at a more senior level, or to act in jobs in other more specialized HR areas within the unit while other staff are on leave. Needless to say this provides a key opportunity for informal learning.

It can be seen in the different sites that the strongly hierarchical nature of the organization plays a key contextual role in the kind of learning that takes place and the scope of who can be drawn on as a resource for learning. Beyond the immediacy of peers and supervisors, informal networks begin to play a more significant role the further through the hierarchy one progresses. Contingent, informal factors which are not an artefact of the formal structure, such as career stage or the 'personal style' of supervisors such as head teachers are highly significant for the who and what of learning.

Patterns of learning

The portrayal of the work groups emphasises the contextual differences between the work sites and its effect on the kind of informal learning that is engaged in. The experience of learning is strongly influenced by the nature of their work and the work flow of units in which workers operate. Nevertheless, the findings from the different groups also illustrate some commonalities in informal learning. Three significant areas of learning are evident in the analysis of the interviews:

- Mastery of organizational processes. These include keeping pace with revised administrative requirements and becoming competent in the use of computer-based systems or other packages necessary to undertake work-related tasks
- Negotiating the political. This category includes both negotiating relationships within the everyday workplace, as well as strategic positioning to ensure a successful future career path
- Dealing with the atypical. These are issues for which there is no set procedure or process. Strategies have to be created for solving problems either as individuals or as a group.

These categories overlap, for instance dealing with the atypical can obviously occur in the mastery of computer use or dealing with student issues, but here it has been used in a more abstract sense to indicate perhaps how to creatively adapt a computer program for other purposes such as producing complex teaching diagrams for classroom use or undertaking a group exercise in redefining the work roles for a whole unit. However, the separation of the categories is a useful heuristic device which helps to illustrate the complexity of learning networks.

Because the institution studied is a large bureaucracy, all levels of employee engage to a greater or lesser degree in administrative processes or employ technical skills such as teaching or using computer programs. All levels too engage in a degree of dealing with the atypical. But how each learning area is approached, and more significantly who is approached and the kind of learning that occurs, varies according to the interaction of contextual factors with each category.

A common pattern is illustrated by the following. When a difficulty or query first arises concerning the organizational processes of a job, it is likely a person will seek an answer from a documentary source such as the Internet or recent precedents, where these exist. For example, the human resources clerks routinely consult written updates on industrial agreements or look for precedents in their records.

If this source fails, an expert in the area in question is sought. The person most likely to have expertise in a similar area to that person is a peer, generally someone physically close to hand. If someone close to hand is unable to answer the query satisfactorily then it is likely that a peer doing a similar job in another geographical location or (in the case of the junior HR clerks) a person in a slightly more senior role will be approached. If this fails, then the supervisor will be approached. Occasionally, if the information

sought is specialized, an expert in that area such as an officer from finance or the central administration will approached first in preference to the supervisor.

This inclination to draw initially on documentary sources and on those who can readily point to precedents works well for our first area of learning, but for dealing with the atypical or the negotiation of the political there are generally no documentary sources for reference. It is here that both formal and informal networks come into play. When dealing with delicate situations such as downsizing trade teaching areas, one ADF drew on contacts with industry representatives, teachers, his supervisor, other ADFs and the Institute's designated officers to negotiate a successful outcome.

One member of the Strategy Planning Group approached problem solving this way:

> "I would always just take a situation, take a look at what I thought was involved, map it out, talk to my boss the Director or talk to a colleague, raise it in a larger forum if I thought that some of the issues weren't clear."

However, other dimensions of the political are almost by definition unable to be articulated directly and can only be inferred from statements made in interviews. Another newly appointed ADF reached further into his network when seeking feedback on his performance:

> "well I've come into this position with an existing network of people obviously and so I'm drawing on that network of people. And also the person who was acting in [my supervisor]'s job while he was overseas and also the other ADFs here and the various other senior staff that I've been meeting with. I've had a couple of brief chats with [the Institute Director] and she's got her priorities fairly clear. So, it's not just solely with my supervisor."

The political here is two dimensional and is somewhat understated. He is willing to draw on his informal relationship with the Institute Director, who is more senior to his supervisor, for advice about his role. He has downplayed the fact that this could be seen as a piece of strategic positioning for future roles. This example is illustrative the importance of informal learning networks when negotiating the less tangible political aspects of a job, but it raises further questions of whether a conflict between present participation in a community of practice and future career planning could occur with a resulting impact on the scope of informal learning.

Implications for communities of practice

The preceding analysis identified that people have explicit contacts for learning, some of whom are determined by structural relationships. This sets the pattern for workplace learning, but whether or not networks in themselves are communities of practice in Wenger's sense of the term is open to question. There are examples of communities of practice which create identity and meaning within the networks at all of the worksites. But there are also networks which contribute to learning but do not help build identification with a practice or act directly as a community of interest. There are examples of virtual networks such as the HR section manager's email group which are not geographical and examples of communities of practices which are networks because of the nature of work. For example the tilers' community of practice is almost exclusively face to face. This indicates that when work is structured differently or subject to different contingencies then the learning potentials of the community of practice are different.

Workplace supervisors are part of the networks of learning, but in most instances they are not the contacts of first resort. Similar to Hughes' (in press) suggestion that staff attempt to portray themselves as good workers to their supervisors, workers in the sites examined tended in general to manage their learning needs to avoid enlisting supervisors in their learning process except when they were clearly a part of the work flow (and thus not avoidable) or on particular occasions in the second area of negotiating the political when it was necessary for those senior to them to be made aware of their strategic needs, thus aiding their positioning within the organization. This latter example might be regarded as an instance of impression management which is a feature of negotiating the political.

While the idea of communities of practice provides some useful ways of accounting for the phenomenon we are considering, it also has limitations and is not sufficient for our purposes. The

relationships reported to us both reflect communities of practice in Wenger's terms and networking which is more loosely coupled than that described by him. It may be that some communities of practice are loosely coupled and others are more tightly coupled, and this has implications for the kinds of learning that can take place. The informal learning of the workplace as we have seen it in the sites of practice in our study may also be represented as sets of overlapping communities of practice as well as informal networks contingent on work flow and organizational practices which may change quite significantly over time. The centrality of identity and the key role of power relations in the learning process will be explored in future studies.

Conclusion

This study has begun to uncover the actual 'who' of learning at work as opposed to the formal 'who'. There is a diverse range of people that we learn from at work, very few of whom are recognized by the employing organization as people we learn from - that is people who are not designated supervisors or trainers. In a large bureaucratic organization, the range and diversity of communities of practice in which one may legitimately participate increases with seniority, and therefore the range of opportunities for informal learning increase as do the types of learning. Some learning networks manifest features of communities of practice, but others do not strongly build identity and meaning.

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