AN ANALYSIS OF HOW PEOPLE LEARN AT THE PLACE OF WORK

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Abstract
        The paper analyses how people learn and illustrates the definition and meaning of learning and workplace learning, in which the theory of Lave and Wenger (1991) is analysed, including the strengths and limitations of the concepts of 'communities of practice' and 'legitimate peripheral participation'. The paper contains the analysis and discussion of the inductively surfaced categories relating to workplace learning, which surfaced from the observations and interviews, as part of a study carried out at the University of Malta. The Analysis Section is mainly designed around four main categories which surfaced from the reading, coding and analysis of the data. These categories deal with the types of workplace learning, the most important part/s of the participants' job, the ease of learning the relevant task/s and the feedback that the employees receive. Each category is supported by representative quotations from the fieldwork and the participants, and a few prominent issues regarding the categories are analysed and discussed in detail. The importance of learning by experience and informal learning is highlighted and issues of power and politics emerge throughout the discussion presented in the paper.

Introduction
        Workplace learning is a means of improving the skills of employees and enhancing their knowledge, and the learning involved may be either formal or informal. Formal learning, which consists of qualifications and certified training, is no longer seen as the sole method of learning. Qualifications are gradually more viewed in terms of a wider structure that concerns workplaces and the employees, educational institutions and various communities within organisations.   As a matter of fact, informal learning at the workplace is becoming an increasingly important tool for training employees. Undoubtedly, employees can only benefit from this type of

learning if the employer supports and values workplace learning per se. In view of this, the argument put forward in this paper illustrates that workplace learning has a positive impact on the performance of both the individual and the organisation as a whole, as long as learning is supported by the same organisation.

Learning and working are both interconnected. Learning is often defined as the route in which any type of knowledge is attained (Eraut, 2000, 116; Lave & Wenger, 1991: 47).   Consequently, workplace learning is the way in which skills are upgraded and knowledge is acquired at the place of work. Workplace learning occurs through work-related interactions, a fact that contributes to the learning of both the individual employee and the organisation as a whole (Doornbos *et al*, 2008: 131; Felstead *et al*, 2005: 360, 363; Fenwick, 2008: 228). Workplace learning can enhance skills that may include formal qualifications, as well as narrowly focused skills (Stroud & Fairbrother, 2006: 458). Workplace learning is also 'culturally bound', meaning that the skills that an employee learns represent the requirements of his or her tasks within the organisation (Muhammad & Idris, 2005: 65). Moreover, evidence shows that people learn more from each other and they find solutions for their day-to-day problems at the workplace (Felstead *et al*, 2005: 368; Hager & Johnsson, 2009: 497).

Lave & Wenger's Situated Learning

Maybe the most common theory of the meaning of learning at work stands with Lave & Wenger's (1991) book on situated learning, of which ideas guided and helped researchers understand the meaning of workplace learning and apprenticeships. In their book, Lave & Wenger emphasise on two concepts, namely 'Communities of Practice' and 'Legitimate Peripheral Participation', where they provide insights on the meaning of workplace learning, mostly apprenticeships (Fuller *et al*, 2005). The 'Communities of Practice' concept relates to the action of participating in social practices that leads to a sense of belonging within a community (Clarke, 2005: 191; Fuller *et al*, 2005: 52; Fuller & Unwin, 2003: 409; Lave & Wenger, 1991: 98). These communities may include some sort of uniformity or diversity in their structure and may also be either organised or made up voluntarily (Chang *et al,* 2009: 409).   It is often argued that communities of practice aid individuals to learn and consequently to perform better at the workplace (Chang *et al*, 2009: 410-11). Several critiques were presented regarding this concept such as the lack of analysis on the politics, comradeship, and form of a community, the lack of attention on the development of the knowledge within the community during periods of change that are expeditive and, the lack of consideration on the innovation offered by the community and the

agency/structure actions within (Fenwick, 2008: 235; Fuller *et al*, 2005: 35-36).

The 'Legitimate Peripheral Participation' concept relates to a developing type of relationship and to the process of newcomers when they become part of the community of practice (Lave & Wenger, 1991: 5). This concept is also a way of understanding learning that is unintentional (Lave & Wenger, 1991: 40-41). The concept also suggests that newcomers that are alienated from the specialist or master have limited learning possibilities. This is because through peripheral actions, newcomers become familiar with the skills and tasks of a community. A great limitation on Lave & Wenger's theory is the fact that it ignores the 'old timers' when introduced into a community of practice and thus focuses mainly on newcomers (Fuller *et al*, 2005: 53).

Fuller *et al* (2005) argue that Lave & Wenger's study lacks the process of skilled workers learning from beginners (2005: 35). This is because young people usually teach older people those skills that are concerned with ICT (Ashton & Sung, 2002: 28). This results from the fact that young people find their own ways in dealing with day-to-day situations, which is learning in itself (Lawy, 2000: 601). Moreover, in their study of older workers, Pillay *et al* (2003) identified that in order for older workers to engage in new work practices, they are required to take up formal learning. Of course, their study only involved two organisations and thus the issue in question cannot be generalised.

The Way People Learn

Engestrom (2001) dictates that both individuals and organisations are learning something invisible. This means that most learning occurs unconsciously or as various researchers put it, in an *informal* way. Evidence shows that informal learning is the most important type of learning for acquiring and developing skills and competencies at the workplace, and that formal learning (such as classroom based learning or training) is of minor importance (Ashton & Sung, 2002: 24; Eraut, 2000: 116; Kitching, 2007: 50; Lawy, 2000: 602; Skule, 2004: 11; Yeo, 2008: 318). In addition, skills learned at the workplace are much easier to understand than skills learned in training outside the workplace, since external training is less relevant to the workplace practices (Berge, 2008: 390; Kitching, 2008: 103). Felstead *et al* (2005) identified that knowledge obtained by formal training and certification is of more help for the initial stages of obtaining competence, and in order for an individual to improve his or her performance, workplace learning is more useful (2005: 368). Moreover, individuals learn best when the subject matter is of direct relevance to their job (Payne *et al*, 2009: 552).

Lawy & Bloomer (2003), in their study of identity and learning with two young people, argue that formal education and training had not appropriately prepared the two young people for employment (2003: 40). This is because from their formal education both individuals developed numeracy and literacy skills but did not learn how to be creative and how to manage their identity work. Malcolm *et al* (2003) illustrate how the impact of learning, especially informal learning from the day-to-day operations improved the teachers' performance. Malcolm *et al* provide the example of teachers comparing each others work, which is a means of learning from others (2003: 319). Other type of workers, of which jobs do not require college training, learn more through their day-to-day tasks (Billet & Somerville, 2004: 315).   Ashton & Sung (2002) also provide an excellent example of a graduate that works as a cleaner in an office who does not necessarily perform better than an unqualified individual who does the same job (2002: 17). In their research on continuous learning and its effect on the employees' competencies, Rowold & Kauffeld (2009) illustrate that informal training or workplace learning is the most successful in helping individuals to gain the necessary skills and to perform better (2009: 97-98).   This notwithstanding the fact that from their research it also transpired that formal creativity training is of importance too.

The so called 'new capitalism' type of change in the way people perceive workplace learning means that now employees should be able to be more innovative and think critically and reflectively (Gerber, 1998: 170; Malcolm *et al*, 2003; Pillay *et al*, 2003: 97; Yeo, 2008: 317-8). This has an evident impact on the performance of both the individual employee and the organisation as a whole. Of course, there are employees who resist learning and consequently the change that comes about with acquiring new skills (Pillay *et al*, 2003). This is either due to the fear of the unknown or simply due to the lack of initiative or interest to learn new skills. This leads to the issue of attitude towards learning and training. Gelade (2007) offers an example of learning resistance of older academics in her study of workplace learning in academia. Here Gelade (2007) argues that old academics who have been employed with a University for a long time, see research as the sole activity they should be engaged in (2007: 216). Therefore, one can argue that if employees do not see learning as part of their tasks, than it would be difficult for them to accept the fact that workplace learning has to take place as part of their job.

As argued by Pillay *et al* (2003), one of the main barriers to learning is the employers' attitude towards learning and training (2003: 98). The employer plays an important role here, since learning depends on the opportunities and support he or she provides to employees in order to learn new skills (Ashton, 2004: 47, 51; Gerber, 1998: 172; Kitching, 2007: 44-45).

In the case of management workplace learning, some evidence shows that support is also important for managers to be able to benefit from this type of learning. This is illustrated in the study of Ouweneel *et al* (2009) with regards to managerial learning in a Dutch home care. On the other hand Lave & Wenger (1991) argue that motivation of employees stems from them being involved in shared practices that are culturally appreciated, in which something valuable is formed.   This reflects the importance of the commitment of an individual employee to the organisation as a whole and the wider values of the organisation (Ashton & Sung, 2002: 13). In addition, researchers argue that people are motivated to learn when they are presented with a problem to solve, as illustrated by the study of Payne *et al* (2009) regarding an e-learning constructivism approach to learning. In this study it is identified that this type of approach, which includes a problem solving approach, aids individuals to have the ability to learn (Payne *et al*, 2009: 551).

An interesting model illustrated by Ashton (2004) explains how the motivation to learn of an individual engages in the process of learning, which is determined by previous experiences. In this regard, Ashton (2004) argues that the design of work is one of the most important factors that help employees to engage in learning, gain experience and enhance his or her performance (2004: 47).   Thus, experience is considered as the sole method on which learning should be based (Payne *et al*, 2009). This is because each of us is embedded in a continuous flow of experience throughout our lives and individuals learn most when they are allowed to make mistakes. At this stage the actual learning is most likely to occur.

Analysing the Participants' Workplace Learning

Evidence was gained from 35 participants who were undergoing some type of workplace learning, through participant observations and semi-structured interviews. The study employed a qualitative research design and research data was extracted from the fieldwork notes and interview transcriptions of the participants. A methodology based on an inductivist approach was used to explore the participants' experiences, thoughts and opinions, since the study involved social processes and behaviours. Moreover, this research was concerned with social phenomena, namely social processes and social relations, and aimed to explore the experiences of those who were undergoing some kind of workplace learning in their initial stages of employment. Therefore, the research design took the form of a qualitative ethnographic case study and the data collection was carried out in two stages via participant observations and semi-structured interviews.

The Sorting of Data & the Findings

This section focuses on how the data was sorted, and describes the process of the analysis for the inductively surfaced categories concerning workplace learning. Collected data which was transcribed and converted to text was analysed by using the N-VIVO Qualitative Data Analysis software. This is followed by a discussion of the types of workplace learning, the most important part/s of the participants' job, the feedback that the learner receives, and the ease of learning. It should be emphasized that respondents' accounts are not presented, or to be taken, as objective, factual representations of some organisational reality.

A broad demographic analysis took place to determine the overall details of the targeted participants. Details include the gender, age, employment period, and job category. The details are listed as a global amount in order to protect the identity of the participants. The aim of this initial analysis was to see if there were any significant correlations between these global details, such as the number of male and female participants, and the age. Table 1 shows that there were 18 males and 17 females. The majority of participants were aged between 21 and 29. These are mainly employed in the Administrative and Research functions as illustrated in Table 1 below. Also, most of the participants have been in the present position for the last 4 months. The academic and administrative parts include a few employees who hold a supervisory or managerial position.

		Number of Cases
Total Number of Cases:	35	
Gender:	Male	18
	Female	17
Age:	21 – 29	21
	30 – 39	9
	40 +	5
Employment Period:	1 month	2
	2 months	3
	3 months	5
	4 months	11
	5 months	2
	6 months	6
	7 months	3
	8 months	3
Job Category:	Academic	3
	Administrative	16
	Industrial	3
	Research	11
	Technical	2

Table 1 – *Participants' Overall Details*

Inductively Surfaced Categories Concerning Workplace Learning

From the participant observations and semi-structured interviews, a total of four categories have been identified and created as Tree Nodes in N-Vivo accordingly: 'Types of Workplace Learning', 'Most Important Part/s of the Participants' Job', 'Feedback', and 'Ease of Learning'. Sub-categories for each category above were also created as nodes. The sub-categories are explained and illustrated as tables in the sections that follow. According to Silverman (2006), quantification can efficiently link with the common sense of qualitative research when, instead of carrying out surveys or experiments, a researcher counts the participants' own categories as employed in *"naturally occurring settings"* (2006: 300). In addition, straightforward counting methods that derive from theory and that are built on participants' own categories, can present a way of surveying an entire body of data engrossed in rigorous, qualitative research (Silverman, 2006: 301).

Types of Workplace Learning

From the data gathered during the participant observations and the semi-structured interviews, it emerged that there was a heavy reliance on informal learning. This resonates with the research results of other studies, which suggest that something like 80% of the learning happens in an informal way (Yeo, 2008: 318). Table 2 below illustrates the types of learning concerning the 35 participants of this study, wherein, based on the replies of the respondents during the semi-structured interviews, 2 participants have learned in a formal way only, 10 participants have done some type of formal learning and learned informally as well, whilst a total of 22 participants have learned in an informal way. One participant claimed that she is not learning anything new; neither formally nor informally.

Participant

Participant Code	Formal	Informal General	By experience	By observing	Help from colleagues	Unconsciously	Own research	No Learning
P1	0	1	1	0	1	0	0	0
P2	0	1	0	0	1	0	1	0
P3	1	1	0	0	1	0	0	0
P4	0	1	1	0	0	0	0	0
P5	0	1	1	0	0	0	0	0
P6	0	1	1	0	0	0	0	0
P7	0	1	0	0	0	1	0	0
P8	0	1	1	0	0	0	0	0
P9	0	1	1	0	0	0	0	0
P10	0	1	0	0	1	0	0	0
P11	0	1	1	0	1	0	0	0
P12	1	0	0	0	0	0	0	0
P13	0	1	1	0	1	0	0	0
P14	0	0	0	0	0	0	0	1
P15	0	1	0	0	1	0	0	0
P16	0	1	0	0	0	1	0	0
P17	1	1	1	0	0	0	0	0
P18	0	1	0	1	0	0	0	0
P19	1	0	0	0	0	0	0	0
P20	0	1	1	0	0	0	0	0
P21	0	1	1	0	0	0	0	0
P22	1	1	1	0	0	0	0	0
P23	1	1	1	0	0	0	0	0
P24	0	1	1	0	0	0	0	0
P25	1	1	1	0	0	0	0	0
P26	0	1	1	1	1	0	1	0
P27	0	1	1	0	1	0	0	0
P28	0	1	0	0	1	1	0	0
P29	1	1	1	0	1	1	0	0
P30	1	1	0	0	1	0	0	0
P31	1	1	1	0	0	0	0	0
P32	0	1	1	0	0	0	0	0
P33	1	1	0	0	0	0	0	0
P34	1	1	0	0	1	0	0	0
P35	0	1	1	0	1	0	1	0
TOTAL	12	32	21	2	14	4	3	1

TOTAL 12 32 21 2 14 4 3 1

Table 4.2 – Types of Workplace Learning

With regards to the informal type of learning and from replies derived from the respondents during the semi-structured interviews and discussions during the participant observations, 21 participants learned through experience, 14 participants learned by receiving help from colleagues, 4 of them learned unconsciously, 3 learned by doing their own research, and 2 participants have learned mostly by observing. Vigoda-Gadot & Dryzin-Amit (in Vigoda-Gadot & Drory, 2006) state that new employees are inclined to learn rapidly by observing and imitating the traditional behaviours (2006: 8). Vigoda-Gadot & Dryzin-Amit add that these type of employees are usually aware of when to hold back any remarks or overlook those circumstances that may urge them to challenge their supervisor's decision or move away from the traditional political principles (2006: 8).

Undoubtedly employees do not need to be 'actively engaged' in learning in order for it to happen as it may also happen passively, unconsciously and therefore, essentially, invisibly.

Most Important Part of the Participants' Job & Ease of Learning the Relevant Task/s

During the semi-structured interviews, participants confirmed what they saw as various important parts of their jobs. Some mentioned one part while other mentioned two or more. Table 3 below illustrates the most important items according to the participants' own words and the ease of learning these same tasks. The majority claimed that they found it easy to learn the relevant tasks.

Most Important P

Most Important Part of My Job	Participant Code/s	Ease of Learning
Accuracy	P13	Easy
Being a good team player	P32	Easy
Being able to deliver what you want to teach	P21	Easy
Being responsible and knowing what you are doing	P16	Easy
Communication	P26	Easy
Co-ordinating	P20	Easy
Delegation, co-ordination and quality check	P29	Extremely difficult
Diplomacy	P27	Not easy
Double checking and attention to detail	P4	Not difficult
Etiquette	P18	Easy
Good organisational skills	P9	Easy
Having science and technology know how	P32	Easy
Keeping every move documented	P1	Easy
Keeping myself up-to-date	P9 & P11	Easy
Knowing what is going on[1]	P27	Not easy
Lab Development	P24	Very Difficult
Linguistic skills	P19	Easy
Patience	P9, P18 & P28	Easy
Planning	P18	Easy
Team building skills	P31	Entails a lot of hard work
Time management	P5 & P11	Easy & Not difficult
To be approachable and nice to people	P7	Easy
To be of full use and feel utilised to give a good service	P14	Can't say
Unit development	P25	Easy

Code/s
Table 3 – Most Important Tasks & Ease of Learning Them

Participant P14 could not say whether the learning is easy or otherwise since she claimed that no new learning is taking place as per the semi-structured interview extract below:
"In general, I am a hard worker and I learn very quickly, but here I can't say because I am not given the opportunity to learn new things."

The participant is referring to the operations and the day-to-day activities that occur in the department. Although in all probability she is learning a few things, they are not the skills indicated in her job description.

Participant P31 believes that the most important part of his job is being able to create team building and he claimed that he has to undergo a lot of hard work and preparation in order for him to learn to do this. The following is an extract from the semi-structured interview:

"Well, it is not easy and it entails a lot of work. I have to prepare for the resistance and objections that I receive, so that when I am confronted, I will have a reply ready. I have to prepare myself a lot and do a lot of homework before a faculty board."

Feedback

The data collection included observations and discussions regarding the amount of feedback that respondents receive from the head, line manager or supervisor, regarding the new tasks or responsibilities. Table 4 below illustrates that, despite the political activities, 30 out of 35 participants claimed or seemed to be receiving feedback.

		Feedback		
Participant Code	**Department Code**	**Yes**	**No**	**Sometimes Yes, Sometimes No**
P1	D4	1	0	0
P2	D13	1	0	0
P3	D10	1	0	0
P4	D3	1	0	0
P5	D9	1	0	0
P6	D5	1	0	0
P7	D2	1	0	0
P8	D9	1	0	0
P9	D8	0	1	0
P10	D11	1	0	0
P11	D11	0	1	0
P12	D15	1	0	0
P13	D4	0	1	0
P14	D10	0	0	1
P15	D10	1	0	0
P16	D2	1	0	0
P17	D4	1	0	0
P18	D6	1	0	0
P19	D10	1	0	0
P20	D6	1	0	0
P21	D14	1	0	0
P22	D4	1	0	0
P23	D4	1	0	0
P24	D15	1	0	0
P25	D5	0	1	0
P26	D5	1	0	0
P27	D4	1	0	0
P28	D12	1	0	0
P29	D7	1	0	0
P30	D2	1	0	0
P31	D2	1	0	0
P32	D9	1	0	0
P33	D7	1	0	0
P34	D1	1	0	0
P35	D13	1	0	0
TOTAL		**30**	**4**	**1**

0 4 1

Table 4 - *Feedback*

Participant P11 seems to be not receiving feedback as per extracts below from the interview. Participant P13 has been in department for a very

short period and she claimed that she has not yet received any feedback regarding the tasks carried out, whilst Participant P14 seemed to ask for the feedback but does not always receive it, even though she says that she is learning nothing new. Following are extracts from the semi-structured interviews:

P11: "No one gives me feedback."

Probe: During the observations you had showed me a document that you received from your superiors regarding some spelling mistakes. Is that the only feedback you receive?

P11: "Yes that"s all! I totally agree with receiving feedback as I believe that feedback forms some 50% of the learning. I know what I do wrong and I don't know whether I am doing something else wrong because I receive no feedback."

P13: "At the moment I am asking a lot of questions about the work so I am instigating to get feedback. I am still in that phase of asking a lot. I try to come to a solution by myself but then I ask my seniors or colleagues. Until now I have not received feedback on something I did wrong or right."

P14: "I ask for the feedback, sometimes someone tells me "ok, this is good". Others do not give any feedback, even if I ask. I like to receive feedback and I like to ask the person whether I am doing things the right way."

The above analysis clearly illustrate that there seems to be a heavy reliance on informal learning and participants claimed that they have learnt mainly by experience and by help from their colleagues. The most important parts of the participants' job vary from one person to another and almost all of the entire participants claimed that they found it easy to learn the relevant tasks, except for a few.

Conclusion

Workplace learning is vital for enhancing the performance of the individual employee, and the informal type of learning seems to take 'precedence'. The main limitations highlighted in the paper included the lack of attention to politics and to old workers. This issue stems from the lack of trust in the organisation on behalf of the employee and the lack of support from the management side and more research is required on the issues in question (Fenwick, 2008: 238-239). The notion of apprenticeships mentioned in this paper, which is widely associated with technical skills, provided insights into the issue of power and how these affect performance. Research shows that apprenticeships of some countries, especially the UK, need to be modified. One has to understand the way most people learn and the socialisation process of individuals. As illustrated in this paper, individuals learn most informally through experience, through their mistakes,

and when they are presented with challenges and problems to solve. However, one cannot dismiss the fact that some need formal acknowledgement for the learning they engage in. Last but not least, more research and theoretical developments are required in the area of the affects of workplace learning on performance. In most cases, research is done in one or two organisations or sectors and without doubt, no generalisations can be made in view of this.

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