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PRACTICE ARTICLE

Informal learning in the workplace: A review of the literature

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In the last few decades, the workplace has been increasingly recognised as a legitimate environment for learning new skills and knowledge, which in turn enables workers to participate more effectively in ever-changing work environments. Within the workplace, there is the potential for continuous learning to occur not only through formal learning initiatives that are associated with training, but also through informal learning opportunities that are embedded within everyday work activities. This paper surveys the growing body of literature on informal learning, makes some critical observations about the importance of informal learning, and explains the various ways that informal learning can occur in the workplace.

Introduction

In the last few decades, the workplace has been increasingly recognised as a legitimate environment for learning new skills and knowledge, which in turn enables workers to participate more effectively in ever-changing work environments. Many scholars agree that the workplace provides a rich environment for learning (see for example, Hager 2001, Beckett & Hager 2002, Boud & Middleton 2003). Billett (1996) proposed that changes in the contemporary workplace represent the importance of workplaces as significant sites for learning. Therefore, learning has become important on many organisational agendas. However, there is no clear or consistent definition of workplace learning and, although often confined to learning that takes place in the workplace, definitions can be broad and include other types of work-related learning which support work roles.

Consequently, in the literature learning in the workplace has become a somewhat confusing concept that is represented by a variety of meanings. Hager (1998) described workplace learning as ambiguous and Spencer claimed that ‘much of the rhetoric proclaiming the virtues of workplace restructuring seldom matches workplace reality’ (2002: 298). A year earlier, Engeström noted that current theories of organisational learning were ‘typically weak in spelling out the specific processes or actions that make the learning process’ (2001: 150). For this reason, workplace learning has become a contested notion by some educationalists, despite the processes involved having received little research attention (Boreham & Morgan 2004). The emerging body of literature related to learning in the workplace suggests that this is widely researched and in continuous development.

The way co-workers and their organisations perceive learning can be very different. This is perhaps, as Hager (2001) suggested, because the term ‘learning’ is used in so many diverse ways and it can refer to

either process and product, or both. In general, these views include formal types of learning that are organisational (see for example, Senge 1990, Rylatt 2000), and more non-formal types of learning, such as informal and incidental learning (e.g. Marsick & Watkins 1990 & 1999, Marsick & Volpe 1999, Hager & Halliday 2006).

Therefore, within the workplace, there is the potential for continuous learning to occur not only through formal learning initiatives that are associated with training, but also through informal learning opportunities that are embedded within everyday work activities. This paper surveys the growing body of literature on informal learning in the workplace, beginning with an overview of learning in the workplace.

Learning in the workplace

Today's co-workers are constantly faced with challenges that affect both the way they perform their job and their participation in everyday workplace activities. They are expected to continually modify and update their work practices in order to sustain competitive advantage, remain employable and perform well. For this reason, the workplace is increasingly recognised as a legitimate environment for learning new skills and knowledge that enable co-workers to better participate in everyday, work-related activities. If learning through life is essential to the labour market, then workplaces and co-workers are crucial in supporting, valuing and developing opportunities for learning.

In the workplace, learning can be described as situated in the context of social practice (Lave & Wenger 1991), in which the work setting provides an opportunity for co-workers to acquire knowledge that connects theory to practice in a realistic and efficient way (Billett 1996). Workplace learning includes experience-based learning, incidental and informal learning (Marsick & Watkins 2001, Marsick & Volpe 1999, Foley 1999, Hager & Halliday 2006),

self-directed learning (Foley 1999) as well as formal organisational learning (Senge 1990). Learning new skills and knowledge makes it possible for co-workers to manage change, perform well and be satisfied with their work. For this reason, work and learning are synonymous as experiences accumulate in the course of everyday participation in work activities. The work and learning experience encompasses the way co-workers make sense of the situations they encounter in their daily lives and especially in the work setting.

Learning in everyday settings has been coined situated learning (Lave & Wenger 1991, Billett 1996). Situated learning emphasises the dynamics of everyday learning and interaction, and focuses on the interactive relationship between co-workers and their work environment. Situated learning provides models of learning in context, and suggests that learning does occur in the workplace context (Lave & Wenger 1991, Billett 1996). For example, Billett (2001: 1) suggested that 'workplaces and educational institutions merely represent different instances of social practices in which learning occurs through participation'.

An important part of situated learning is the construction of knowledge within the social and cultural circumstances in which learning occurs, namely the social context. For example, Billett (1993) conducted several studies of coal miners and workers in other industries, concluding that, in the informal learning setting of the workplace, effective learning resulted from learners' engagement in authentic activities, guided by experts and by interacting with other co-workers. Although learning was unique to each co-worker, it was also shaped by workplace culture. According to Billett, the quality of learning depended on the kind of activities engaged in, access to support, guidance and how co-workers constructed their knowledge of different situations:

... these factors influence the process of learning and what is learnt. In doing so, they reflect the interdependence between

work and learning, providing a basis to consider not only the contributions of the workplace as a learning environment, but also how the workplace might be organised to improve learning (2001: 21).

If learning occurs as part of everyday experiences and participation, then there is also the potential for learning to occur in many different ways. This includes informal strategies, as well as formal learning initiatives that are associated with training. The importance of learning in the organisation is not new; however, much of the emphasis has been on the way co-workers formally acquire and develop new knowledge and skills in the workplace.

Research by Enos, Thamm Kehrhahn and Bell (2003) and earlier by Bell and Dale (1999) suggested that most of the learning that takes place in organisations is informal and forms part of everyday work activities. Marsick and Watkins (1990) distinguished between informal learning, which they view as predominantly experiential, and incidental learning, which occurs as a by-product of another activity. The importance of informal learning focuses on the interplay between informal learning activities, the environment where they occur and the characteristics of those engaged. Learning in the workplace, from the perspective of informal learning, is meaningful, everyday learning and participation in work activities. It involves making sense of the daily learning that occurs in organisations and involves examining embedded knowledge and encouraging learners to be self-directed and reflect on their learning experiences.

In sum, learning in the workplace represents a variety of strategies and perspectives that enables co-workers to learn as part of their everyday experiences at work. Learning in the workplace can be formal learning that is planned and provided by the organisation in an effort to increase co-worker effectiveness. Workplace learning can also be informal learning that is unintentional and results from interaction with other co-workers. Informal learning 'takes

place although people are not always conscious of it' (Marsick & Watkins 1990: 12) and is often taken for granted and the result of unplanned or unexpected events (Carter 1995) in people's lives through everyday experiences. Informal learning occurs whenever people have the need, motivation or opportunity for learning (Marsick & Watkins 2001) and is often linked to the learning of others (Marsick & Volpe 1999). As informal learning emerges during everyday activities in the workplace, there is the potential for this type of learning to occur more often than formal learning.

Informal learning—past, present and future

Although explicit writings about informal learning did not emerge until the 1980s, characteristics of informal learning can be traced back to the early writings of Lindeman (1926), Dewey (1938) and Knowles (1970) who suggested that adult learners become aware of their learning experiences through self-direction. Writings by Watkins and Marsick (1992), Marsick and Volpe (1999) and Bell and Dale (1999) considered the relationship between the learner and the environment and acknowledged that much of the learning occurring in the workplace took place through interaction with others. Additionally, much of the learning that takes place in the workplace occurs as a by-product of other everyday activities and is often haphazard or unsystematic. Informal learning is represented by a range of strategies including conversation, social interaction, teamwork and mentoring. Informal learning involves interaction between people and is not limited to a predefined body of knowledge.

The term informal learning was introduced in the 1950s by Malcolm Knowles in his pioneer work on informal adult education. Since then, many authors have written about informal learning and offered their unique perspective on the meaning of the term. Informal learning provides a straightforward contrast to formal learning and suggests greater flexibility for adult learners. However, Eraut described

dichotomies as ‘indicators of lazy thinking’ (2004: 250) and prefers to describe informal learning as learning that comes closer to the informal rather than the formal end of a continuum. This includes learning that is implicit, unintended, opportunistic and unstructured (Eraut 2004). Eraut (2004) also implied that informal learning also recognises the social significance of learning from other people and has greater scope for individual agency than socialisation. Earlier, Marsick and Watkins (1997) suggested that not only is informal learning unique to the individual, but control of learning rests primarily in the hands of the learner. Informal learning draws attention to the learning that takes place in the spaces surrounding people, activities and events in the workplace. It can also be considered as complementary to learning from everyday experience.

Following Knowles’ work during the 1950s, the role of informal learning has emerged in the workplace learning literature, although ‘few studies to date have problematized the phenomenon itself with reference to its accomplishment in moment-by-moment interaction’ (Sawchuk, 2003: 291). Boud and Garrick (in Boud & Garrick 1999) have acknowledged informal interaction with work colleagues as a predominant way of learning in the workplace; however, it is often considered ‘part of the job’ and not acknowledged as formal learning (Boud & Middleton 2003).

Informal learning has been described by Marsick and Volpe (1999) as haphazard, idiosyncratic and driven by serendipity. The informal learning literature (e.g. Coffield 1999, Cofer 2000, Bell & Dale 1999, Marsick & Volpe 1999, Marsick & Watkins 1990 & 1999) represents the way ‘in which people construct meaning in their ... shared organisational life’ (Marsick 1987: 4). According to Marsick and Watkins ‘people learn in the workplace through interactions with others in their daily work environments’ (1990: 4). Boud and Garrick (1999) later described informal learning as learning from others. According to Marsick and Volpe (1999), informal learning

involves both action and reflection which involves 'looking back on what we have done, measuring it against what we wanted to achieve, and assessing the consequences' (p. 7). The problem, however, is that reflection is difficult to recognise (Marsick & Volpe 1999) and so co-workers and their organisations may not recognise or be able to identify informal learning experiences in the workplace. Despite this difficulty, examining how informal learning occurs has the potential to contribute to current debates surrounding the notion of workplace learning.

Informal learning is represented by a range of strategies including conversation, social interaction, teamwork and mentoring. Informal learning involves interaction between people and is not limited to a predefined body of knowledge. This had led authors like Coffield (1999) and Hager and Halliday (2006) to advocate informal learning as an important form of learning. Other authors have suggested that informal learning can be successful if used in conjunction with formal learning (Bell 1977, Bell & Dale 1999). According to Alpern (1997), organisations are no longer relying just on technical skills, but are placing more emphasis on competencies in other areas, like knowing how to learn, problem-solving, creative thinking, interpersonal skills, ability to work in a team, communication skills and leadership effectiveness. Most of this learning is situated within social situations and is also referred to as incidental learning (Marsick & Watkins 1990).

Over the last three decades, a number of researchers have started to show an interest in non-formal types of learning (e.g. Marsick & Watkins 1990 & 1999, Boud & Garrick 1999, Bell & Dale 1999, Boud & Middleton 2003, Conner 2003). During the early 1990s, Marsick and Watkins (1990) offered a theoretical framework to define and describe informal learning. According to Marsick and Watkins (1990), informal learning may include self-directed learning, networking, mentoring, coaching and trial and error and can occur anywhere and

at any time. Marsick and Watkins continued to examine the difference between formal and informal learning and became leading writers about informal learning. In 1992, Watkins and Marsick wrote about new ways of increasing efficiency in the workplace and emphasised the need for employers to recognise the benefits of informal learning as opposed to formal learning activities. In the literature, informal learning is often contrasted to formal learning. Marsick and Watkins (1990: 12) described this contrast in the following way:

Formal learning is typically institutionally sponsored, classroom based, and highly structured. Informal learning, a category that includes incidental learning, may occur in institutions, but is not typically classroom based or highly structured, and control of learning rests primarily in the hands of the learner... informal learning can be deliberately encouraged by an organisation or it can take place despite an environment not highly conducive to learning.

Non-formal learning includes learning that is not highly structured or classroom-based, not formally assessed, and does not lead to formal qualifications. Marsick and Volpe (1999) argued that, despite past attempts by organisations to support organisational effectiveness by providing formal training and education, 'most workplace learning has been left in the hands of employees and has been gained through informal methods and through trial and error' (p. 1). They argued that as the ethos of organisations has changed, more and more organisations are focusing on ways of fostering informal learning. Furthermore, they stated that organisations now need to purposely provide a working environment that promotes and encourages continuous informal learning. A summary of empirical research on informal learning will now be provided.

Empirical research on informal learning

In 1988, research by McCall, Lombardo and Morrison about managerial learning revealed that the acquisition of managerial skills such as negotiation and proficiency were predominantly developed

through informal learning. They found that out of 35 managerial job skills, managers self-reported having developed 30 of them through informal learning. In the late 1990s, Garrick's (1998) research in the building industry and Boud's (1999) study of academia highlighted that a major part of informal learning involves learning from others at work. Bell and Dale (1999) also considered the importance of informal learning in the workplace. In their study on informal learning in the workplace, Bell and Dale (1999) described informal learning as learning which takes place in the work context and relates to the individual, their job and their performance. They argued that such learning is not formally integrated into a learning program or activity by the employer and that informal learning may be motivated by everyday activities or need and could take place in conversations and social interactions. Furthermore, Conner (2003) has stated that informal learning is a learning process whereby the learner can acquire attitudes, values, skills and knowledge as part of their daily routine.

Research by Enos, Thamm Kehrhahn and Bell (2003) on the extent to which managers engaged in informal learning found that employees successfully learned core managerial skills from informal learning activities. They found that significant informal learning activities included interaction and watching others to make sense of their experiences and learn new skills. On the basis of their study, the results indicate a move away from formal training to the recognition of informal learning opportunities like interaction with others, observing others and encouraging reflection, and challenging experiences. Furthermore, research by Fuller, Ashton, Felstead, Unwin, Walters and Quinn (2003) conducted in a variety of workplaces including a hairdressing salon, accountancy practice and a car dealership, found that informal learning was a part of everyday work practices and occurred outside of formal education and training settings. Similarly, by applying theories of informal learning to social movements, Foley (2004) described informal learning as the type

of learning that occurs consciously when a co-worker is trying to learn from an experience. According to him, informal learning can occur during a management committee meeting or by employees re-designing their job through consultation with management.

The type of knowledge gained via learning informally in the workplace can be also referred to as tacit knowledge. Although McAdam, Mason and McCrory (2007) have suggested that there is considerable disagreement in the literature on how best to define tacit knowledge, for the purpose of the present study, tacit knowledge is interpreted as the subjective and personal knowledge acquired by individuals. Gourlay's (2002, 2004) review of research studies from different disciplines characterises tacit knowledge as personal, experience based, job specific, transferred through conversation, and both known and unknown to the user. Informal learning, then, can be one way to acquire tacit knowledge.

In sum, informal learning can be planned but is often spur of the moment. Informal learning may occur through networking with other employees, or a particular person may be identified as being an 'expert' in the area and helps contribute their knowledge. Interaction between co-workers may initiate social and personal relationships that contribute to the well-being of other co-workers and the organisation. Most of this learning is tacit and situated within social situations and therefore co-workers may have little control over when or where the learning occurs. More specifically, the learning may occur during the process of performing other activities and may be more incidental than informal (Foley 2004).

While the term 'informal learning' generally dominates in the literature, it is sometimes used interchangeably with incidental learning. In 1990, Marsick and Watkins drew a distinction in focus between informal and incidental learning. They described informal learning as focusing on experiential forms of learning and incidental learning as focusing on unintentional forms of learning. In this

context, learning is assumed to be an action arising from experience that may enable the learner to develop and acquire new skills. The learner may not be conscious of this learning as it is unintentional and occurs as a by-product of everyday experiences and activities in the workplace. For example, through repetition or observation, employees may learn basic computer skills or new ways of doing everyday tasks in the workplace. This learning may occur through informal interaction with other co-workers, and therefore social interaction may play a significant role in how this type of learning occurs. For this reason, the nature of incidental learning will be examined in greater detail in an attempt to determine the role of social interaction and its impact on informal learning in the workplace.

Incidental learning

The term 'incidental learning' is a sub-set of informal learning and is sometimes used interchangeably with informal learning. Incidental learning is described as the unintentional activities that occur as a by-product of everyday experiences (Marsick & Watkins 1990). As incidental learning is a sub-set of informal learning, it is also defined in terms of the tacit, taken-for-granted, everyday activities occurring in the workplace (Marsick & Watkins 1999). In most cases, incidental learning is unintentional or unplanned learning that results from other activities in the workplace. In comparison to informal learning, incidental learning can be a result of learning from mistakes or the hidden curriculum that may be associated with formal learning, suggesting that incidental learning is not a planned action. Other examples of incidental learning are the hidden agenda of an organisation's culture, learning by mistakes, or through trial and error (Marsick & Watkins 2001).

Previous studies have shown that incidental learning includes learning through conversation (van den Tillaart, van den Berg & Warmerdam 1998), observation, repetition, social interaction

(Cahoon 1995) and problem solving (Kerka 2000). Similar to the view taken by Marsick and Watkins (1990), Foley (1999) suggested that learning through social action is incidental and, consequently, is not legitimately recognised as learning as it 'almost always takes place although people are not always conscious of it' (Marsick & Watkins 2001: 25). Therefore, learning is taken-for-granted, tacit and unconscious. Incidental learning is also unintentional or unplanned learning that is a result of other activities (Kerka 2000). In research conducted by Callahan (1999), interviewees commonly referred to incidental learning as the 'karma in the walls and halls'. The most significant characteristics of incidental learning, however, are that it is always occurring and is 'highly influenced by the social and cultural norms of others' (Marsick & Watkins 2001: 31).

A review of the literature on informal and incidental learning highlights that incidental learning is unplanned (Tusting 2003), unintentional (Marsick & Watkins 1990, Bell & Dale 1999, Tusting 2003) and takes place in the work context although is often not recognised by the employer (Bell & Dale 1999), at least not formally. Marsick and Watkins (1999) have defined incidental learning in terms of the tacit, taken-for-granted, everyday activities occurring in the workplace. In most cases incidental learning is unintentional or unplanned learning that results from other activities, such as interaction with co-workers. In contrast to informal learning, which may be facilitated through strategies like mentoring, incidental learning can be the result of learning from mistakes, but not always.

A number of empirical studies have been conducted on incidental learning by Astin (1977), Mealman (1993), Cahoon (1995), Van den Tillaart, Van den Berg and Warmerdam (1998) and Lawrence (2000). Research conducted by Astin (1977) found that university students learned through incidental learning simply by being on campus and interacting with their lecturers and peers. In a similar study, Mealman (1993) suggested that unintentional learning, through interaction

and personal contexts, played an important part in students' overall experience. In his study on the computing industry, Cahoon (1995) found that most learning in the workplace occurs in the course of everyday work practices and contributes to a socialisation process, and in turn, benefits on-the-job learning. Cahoon (1995) established that incidental learning about computers through coaching and problem solving was more important in developing skills than formal training. Accordingly, Van den Tillaart, Van den Berg and Warmerdam's (1998) research in the printing industry showed that employees were able to keep their skills and qualifications current by problem solving and through assistance by more experienced workers. During adult learning workshops Lawrence (2000) found that more effective community-based learning took place as much during social activities as during the formal course structure.

On the basis of these studies by Astin (1977), Mealman (1993), Cahoon (1995), Van den Tillaart, Van den Berg and Warmerdam (1998) and Lawrence (2000), incidental learning occurs through work-related interaction and socialisation processes. Incidental learning can be described as unintentional or unplanned learning that results from other activities including observation, repetition, social interaction and problem solving. Although adult learners do not necessarily distinguish or recognise incidental learning opportunities (Cahoon 1995) in the workplace, co-worker interaction is assumed to play a significant role in how new skills and knowledge are acquired. In light of the studies reviewed in this section, incidental learning can be described as a social process and can be conceptualised using Lave and Wenger's (1991: 53) notion of a 'community of practice' where:

Activities, tasks, functions, and understandings do not exist in isolation; they are part of a broader system of relations in which they have meaning. These systems of relations arise out of and are reproduced and developed within social communities, which are in part systems of relations among persons... Learning thus implies becoming a different person with respect to the possibilities enabled by these systems of relations. To ignore this aspect of learning is to overlook the fact that learning involves the construction of identities.

Lave and Wenger's (1991) statement implies that learning is a social process and can be influenced by the relationships in which individuals engage. In his studies on social movements, by comparing the learning experiences of mine workers and homemakers, Foley (1999) argued that social action and interaction can facilitate incidental learning. Foley described how male mine workers discussed and critiqued management practices over dinner with other co-workers, indicating that workers retreated to a safe place and with people they felt comfortable with to reflect on work practices and experiences. By reflecting on work in this way, it can be said that these co-workers engaged in a type of social learning occurring in what Lave and Wenger (1991) would describe as a community of practice.

The literature on incidental learning has highlighted that this type of learning is unintentional or unplanned learning that results from other activities in the workplace. It occurs often in the workplace through observation, social interaction and problem solving. Incidental learning is often not recognised by employees as learning *per se*, and like informal learning, is not always recognised by the organisation as legitimate learning. As previously highlighted, Marsick and Watkins (1990) used informal and incidental learning to distinguish between planned and unplanned learning. They described informal learning as experiential and non-institutional, and incidental learning as unintentional, a by-product of another activity.

Concluding comments

In summary, this review of the literature on informal and incidental learning in the workplace has shown that informal learning is a broad term that describes a wide range of experiences and activities that facilitate non-formal learning in the workplace. The nature of informal learning suggests that the social and cultural environment in which learning takes place has the potential to influence how learning occurs. Researchers including Marsick and Watkins (1990, 1999, 2001), Garrick (1998), Bell and Dale (1999) and Coffield (1999) have considered the role of informal learning in the workplace. Their studies have shown that informal learning is planned or unplanned learning that is often spur-of-the-moment learning, self-directed, and involves trying new things and learning along the way. More significantly, these studies have highlighted the importance of the social context in which informal learning occurs. This is important because if informal learning emerges during everyday activities in the workplace, there is the potential for this type of learning to occur more often than formal learning.

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