Affordances and constraints on informal learning in the workplace:
A sociocultural perspective

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

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ABSTRACT

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. Somewhat surprisingly however, there have been relatively limited empirical investigations into the actual processes of informal learning in the workplace. This may in part be due to the particular methodological challenges of examining forms of learning that are not structured or organised but incidental to daily work activities. There remains, therefore, a clear need to better understand how learning occurs informally in the workplace, and most importantly, to gain insight into workers’ own accounts of informal learning experiences. This thesis addresses this issue by examining workers’ personal experiences of informal learning, and how these contributed to better participation in their regular workplace activities.

Four bodies of literature were reviewed as directly relevant to this research, adult learning, organisational learning, informal learning, and a sociocultural perspective on learning. Together, they provide complementary perspectives on the development of learning in the workplace. A conceptual framework, grounded in the sociocultural perspective, was developed to
address the issue of how informal learning leads to better participation in
the workplace, and reciprocally, how better participation leads to continuous
informal learning. Consistent with the sociocultural perspective, the
workplace was conceptualised as a complex social system in which co-
workers, who constitute that social system, are assumed to co-regulate each
other’s learning opportunities. Social interactions, therefore, are considered
as creating a context in which informal learning is afforded or constrained.
Understanding what role workplace culture and socialisation play in affording
or constraining informal learning opportunities is therefore crucial. This is
because the relationships between co-workers is assumed to influence how
both new and established co-workers participate in and experience the
socialisation process and how they see their respective roles. The
framework developed for the study generated two main research questions:
How do co-workers learn informally in the workplace? and How does the
workplace, as a social system, afford or constrain informal learning in the
workplace?

The methodology chosen for this empirical study was consistent with key
concepts from the sociocultural perspective, namely that individuals and
their social context must be studied concurrently as learning is assumed to
be part of a social practice where activities are structured by social, cultural
and situational factors. Accordingly, qualitative research methods were
employed to gain knowledge and understanding of informal learning in the
workplace from the perspective of co-workers. Co-worker’s reflections on
their informal learning experiences and participation in the workplace are
presented in narrative form and their accounts interpreted from the sociocultural theoretical perspective. The narrative format provides a useful way of presenting data in a way that immerses the reader in the phenomenon, with enough concrete details that the reader can identify with the subjective experiences of informal learning of each participant.

The study highlighted how the nature of some relationships between new and established co-workers afforded opportunities for informal learning, while other relationships constrained such opportunities. These afforded or constrained opportunities were by nature spontaneous, planned, intentional or unintentional. The study also revealed that personal and organisational factors co-contributed to creating these social affordances or constraints. Common across groups was the importance given to the quality of relationships between co-workers. The way new and established co-workers participated and interacted in the workplace was found to represent important sociocultural processes that impacted on the effectiveness of informal learning.

Overall, this study draws attention to the complexity of participation and interaction in the workplace. A major implication is that opportunities for informal learning are, potentially afforded or constrained by the social context. The study also highlighted conceptual and methodological issues in identifying and interpreting how co-workers learn informally in the workplace. Future research should establish how opportunities for effective informal learning might be fostered further through the design of more
enabling workplace practices. The significance of perceived and expected roles between new and established co-workers also deserves further empirical attention, at the level of everyday informal practices but also at the level of organisational processes and structures that provide the broader context.
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CHAPTER ONE | INTRODUCTION

The workplace is changing. Globalisation, technological and social changes, economic shifts, and organisational restructuring are just a few examples of how workplaces are continually evolving. 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.

Many scholars agree that the workplace provides a rich environment for learning (see for example, Hager, 2001; Beckett and Hager, 2002; Boud and 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…” (2002a, p. 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, p. 150). For this reason, workplace learning has become a contested notion by some educationalists despite the processes involved having received little research attention (Boreham and 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. Therefore, the present study is situated in a time of changing views about how best to define learning in the workplace. In general, these views include formal types of learning that are organisational (see for example Senge, 1990 and Rylatt, 2000), and more non formal types of learning, such as informal and incidental learning (eg Marsick and Watkins, 1990, 1999; Marsick and Volpe, 1999; Hager and Halliday, 2006). There needs to be clearer distinction between the activity, the context, the experience, how learning occurs, and what is actually learned in the
workplace. According to Billett, “to understand further how learning through work occurs and it can be best organised, necessitates a critique of some assumptions in the current workplace learning discourse” (2001, p. 1).

Despite the ambiguity associated with defining workplace learning, universal attention has been directed to learning in the workplace, what co-workers need to learn, and where co-workers learn.

The recent increase in the attention given to learning in the workplace by educators, sociologists, economists, and organisational developers has led Fenwick (2001) to question why researchers and theorists are so interested in workplace learning. According to Fenwick:

This explosion of understandings and practices of workplace learning is challenging traditional learning models and educators’ roles.

Strong concerns about knowledge are embedded in action, interrelation of contexts and identities, the dynamics of difference and continual change, politics and power relations, ecology and ethics, and knowledge processes in work and organisations are moving workplace education practice in new directions” (2001, p. 3).

These challenges and changes in the nature of work have generated much interest in what it means to learn in the workplace. Fenwick’s (2001) statement posits multiple themes associated with learning in the workplace. These include the overlapping themes of situated views of learning in work, context, identity, change, and ethics in workplace learning. These themes have been acknowledged in the literature for many years.
In the 1920s for example, Lindeman wrote “every adult person finds himself in specific situations with respect to his work, his recreation, his family life, his community life, etc. – situations which call for adjustments. Adult education begins at this point” (1926, p. 8). Similar to Lindeman’s (1926) views on adult learning and the relationship between the individual and their personal and professional development, an early reference to workplace learning can be traced back to Schön’s (1973) notion of ‘the learning society’ which recognised the relationship between change, work and the need for continual learning in the workplace.

Interest in learning in the workplace became very popular during the 1990s through the work of Senge (1990) and Rylatt (2000) who wrote about organisational learning and its benefits for organisations and co-workers. Also during the 1990s, through the work of Marsick and Watkins (1990, 1999), the focus on workplace learning acknowledged the role of informal and incidental learning in the workplace and drew attention to the type of learning that occurs as part of everyday experiences and participation in the workplace. Over time, the role, function and processes of learning in the workplace have been examined and a myriad of labels, terms and concepts have been used to describe learning in the workplace. A brief introduction to learning in the workplace is provided next.

**LEARNING IN THE WORKPLACE**

Learning in the workplace has become a common feature in contemporary organisations and is represented by a variety of strategies for how co-
workers learn as part of their everyday experiences at work. One definition of learning in the workplace was provided by Marsick during the 1980s. Marsick’s definition focused on the way individuals learn and respond to changes in the organisational environment that in turn influences “...the way in which people construct meaning in their personal and shared organisational lives” (1987, p. 10). Other definitions of workplace learning consider learning processes. For example, Holliday and Retallick referred to workplace learning as “…the processes and outcomes of learning that individual employees and groups of employees undertake under the auspices of a particular workplace (1995, p.7).

Work related learning is also a process of acquiring knowledge, skills and feelings (Agashae and Bratton, 2001; Marsick, 1987) that enable co-workers to learn social and technical knowledge required to perform their job successfully. According to Garrick (1998), such work related knowledge is valued by co-workers and organisations because it can generate competitive advantage. Further, Bratton and Gold (1999) claimed that work related learning contributes to the individual development of co-workers and can contribute to strategic human resource management goals such as commitment, flexibility, and quality.

In the workplace, learning can also 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 and Watkins, 2001; Marsick and Volpe, 1999; Foley, 1999; Hager and Halliday, 2006), self-directed learning (Foley, 1999), as well as, formal organisational learning (Senge, 1990). Learning new skills and knowledge make 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 and Wenger, 1991, Billett, 1996). Situated learning emphasises the dynamics of everyday learning and interaction, and focus 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 and Wenger, 1991, Billett, 1996). For example, Billett suggested that “workplaces and educational institutions merely represent different instances of social practices in which learning occurs through participation” (2001, p. 1).

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 the 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. According to Billett

...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, p. 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.

**Informal learning**

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, p. 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 a complementary to learning from everyday experience.

Following Knowles’s 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, p. 291). Boud and Garrick (in Boud and 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 and Middleton, 2003). For this reason, examining informal learning has the capacity to offer significant insights in order to better understand how co-workers learn in the workplace.

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 and Dale, 1999; Marsick and Volpe, 1999; Marsick and Watkins, 1990, 1999) represents the way “…in which people construct meaning in their…shared organisational life” (Marsick, 1987, p. 4). According to Marsick and Watkins “…people learn in the workplace through interactions with others in their daily work environments…” (1990, p. 4). Boud and Garrick (in Boud and Garrick,
1999) later described informal learning as learning from others. According to Marsick and Volpe, 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” (1999, p. 7). The problem, however, is that reflection is difficult to recognise (Marsick and 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, team work 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 and 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 and Watkins, 1990).
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 and 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 and 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 organisations culture, learning by mistake, or through trial and error (Marsick and Watkins, 2001).

Previous studies have shown that incidental learning includes learning through conversation (van den Tillaart, van den Berg and 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 and Watkins, 2001, p. 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, is that it is always occurring and is “…highly influenced by the social and cultural norms of others” (Marsick and Watkins, 2001, p. 31).

In this study, the workplace is conceptualised as a learning environment where co-workers informally learn as part of their everyday experiences and participation in work activities. Co-workers learn as part of their everyday experiences in response to the changes occurring in the workplace and their need for personal and professional development. The view of learning inferred in this study is similar to Evans, Hodkinson, Rainbird and Unwin (2006) who argued that learning in the workplace is related to the affordances of the workplace, and the activities and guidance that individuals have access to. Earlier research acknowledges the significance of individuals (Billett, 2001), and also the significance of wider social, economic and political contexts and pressures (Lave and Wenger, 1991), but seldom explores either in any great detail.

Furthermore, few studies have investigated the affordances and constraints of informal learning in the workplace from a sociocultural perspective, or how the workplace, as a social system, has an effect on the gradual informal learning process towards fuller participation in the workplace. This is a
critical area of investigation because of the growing reliance on informal learning as a means of developing the knowledge and skills required to effectively handle increasingly complex and ambiguous problems in the workplace. Informal learning, which is the focus of this study, is an aspect of workplace learning that specifically involves those learning activities that occur naturally in the workplace and result in the development of their professional knowledge and skills. In this context, informal learning is assumed to be a natural process of trying to better participate in workplace activities.

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 result from interaction with other co-workers. Informal learning “...takes place although people are not always conscious of it” (Marsick and Watkins, 1990, p. 12) and is often taken for granted and the result of unplanned or unexpected events (Carter, 1995) in peoples’ lives through everyday experiences. Informal learning occurs whenever people have the need, motivation or opportunity for learning (Marsick and Watkins, 2001) and is often linked to the learning of others (Marsick and 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.
SIGNIFICANCE OF THE STUDY

To this point, this introduction has highlighted that there is a considerable body of literature discussing the way organisations and co-workers learn. However, much of the empirical research has not fully recognised the significance of the actual intentional, unintentional, planned and spontaneous types of learning that occur during informal learning and as part of everyday participation in workplace activities. Recent research by Eraut (2004) represents one of few empirical studies on informal learning in the workplace which addressed what was being learned and how.

This neglect may in part be due to the fact that examining forms of learning that are not structured and organised but incidental to daily work activities present special methodological challenges. The workplace can be described as a social system where co-workers seek learning opportunities that may enable them to better participate in workplace activities. A new co-worker may choose participation as a way to become well integrated in the organisation and the work group, adapt to the new social and cultural practices of the work group, and acquire the specific technical and social knowledge required in that workplace situation. Established co-workers may rely on participation and interaction with other co-workers to learn new technical knowledge about how their job is done and keep up with technological advancement. This participation then, takes place in a complex social system, where the workplace and its co-workers, may
possibly afford or constrain the type of information they share among
themselves or give to other co-workers.

Therefore, there is clearly a need to understand the learning experiences of
coworkers, and more importantly, to increase the level of understanding of
the learning that occurs informally in the workplace. The nature of the
skills, knowledge, attitudes and values coworkers are developing through
their everyday activities, experiences, and participation in the workplace is
largely unknown. The role informal learning is playing in terms of coworker
integration and development needs to be established. Finally, whether the
workplace as a social system, with all its coworkers, affords or constrains
this gradual informal learning process towards fuller participation in the
workplace, needs to be determined.

OVERVIEW OF THE THESIS

The present study was designed to gain knowledge and understanding of the
relationship between the workplace, as a complex social system, and
informal learning. The overall aim of the study was to identify the nature of
informal learning and how it takes place in a complex social system. More
specifically, the study explored the extent to which the work environment
afforded or constrained the informal learning process implicitly leading
toward better participation in workplace activities. As “learning appears to
involve social aspects” (Salomon and Perkins, 1998, p. 1), participation in
social practices is expected to leave traces of Salomon’s notion of ‘cognitive
residue’, (in Salomon, 1993) or better forms of knowing. The study
examined these issues from the perspective of both new and established co-workers in one single organisation.

Chapter Two contains a review of four bodies of literature: adult learning, organisational learning, informal learning and sociocultural perspectives of learning. The first section reviews the large body of adult learning literature as it provides a useful foundation for understanding the way adults learn in the workplace and more generally. The second section reviews the organisational learning literature. This body of literature emerged during the 1990s from within management circles and emphasises the benefits of learning for both co-workers and the organisation. The third section reviews the literature on informal learning and conceptualizes informal learning as an essential and valuable part of working life. The final section examines the sociocultural perspective on learning. From this perspective, the workplace is conceptualised as a social system where co-workers afford or constrain each other’s learning opportunities. The conceptual framework and research questions for the present study are outlined at the end of this chapter.

Chapter Three outlines the study’s methods and explains the nature of the qualitative inquiry adopted to study informal learning in the workplace. The approach taken in the empirical study was informed by a phenomenological inquiry within a qualitative research framework. A qualitative study was designed to gain knowledge and understanding of informal learning in the workplace from the perspective of co-workers.
Chapter Four contains results. Co-worker’s reflections on their informal learning experiences and participation in the workplace are presented in story form. Stories, or narratives, have become a useful way of representing data and interpreting results. Narratives express human understanding through which individuals make sense of their lives by imparting meaning to their experiences (Taylor, 1992; Gergen, 1994; Ylijoki, 2001). By sharing stories, we are entertained and able to learn new things. Rossiter (2002) suggested that the increasing use of stories in adult education practice is pervasive because, and as posited earlier by Neuhauser (1993), they are believable and rememberable.

The results of the study are presented in two sections; social affordances and social constraints. Each section reflects co-workers experiences of everyday learning in the workplace. Both sections contain five stories. Co-workers’ everyday experiences of informal learning, and their participation in those experiences, are illustrated in each story. Taking a phenomenological approach recognises that these experiences are mediated by co-workers’ reflections as told in each story. Each story illustrates the structure and experience of the phenomenon as told by co-workers, which in this case, may be the job, relationships with other co-workers’, the type of learning undertaken, and may also indicate various emotions as felt by those co-workers.

Chapter Five is comprised of four sections. The first section summarises the results, organised around the two research questions that guided the
empirical study. The second part is a discussion of the major findings, starting with how new co-workers learn informally in the workplace, followed by how established co-workers learn informally in the workplace. This section concludes with a close examination of the factors that constrain informal learning in the workplace. The third section reflects on the boundaries of the methodological approach adopted for the empirical study. The final section suggests directions for future research.
In recent years there has been growing interest in workplace learning theory and practice. This interest can be attributed to economic, social, and political developments such as globalisation, deregulation, technological advancement, and privatisation. The focus on workplace learning has moved beyond the conventional view held during much of the twentieth century that individuals only engaged in vocational training and education before entering the workforce. During this time, clear distinctions were made between where people learned, including schools, technical colleges and universities, and where people worked. Learning was assumed to be a formal activity that only occurred in classrooms or in other structured environments. By participating in formal learning before employment, individuals were expected to enter the workplace with the necessary skills and knowledge to perform the job well and contribute to the effectiveness and efficiency of the organisation.

Over the past few decades, however, learning in the workplace has emerged as an important way to develop new skills and knowledge and keep up with work related changes. Today’s employees are expected to learn new knowledge and skills through everyday interaction and participation in the workplace. This type of learning is informal and may occur by means of observing and talking to their co-workers, trial and error, and it is typically unplanned or unintentional. The emergence of these types of learning
suggests that employees and their organisations now realise that they need to focus on everyday learning to ensure continual development.

Lifelong learning is important, as more than ever, organisations and their employees are operating in complex environments characterised by change. New ways of adjusting to change are sought by organisations who want to develop or maintain competitive advantage. In turn, employees are expected to learn new knowledge and skills in order to stay employable, perform well, and be satisfied with their working conditions. Today’s employees must be prepared for on-the-job learning, growth and development. Accordingly, the employment relationship encompasses workplace learning as an important strategy for sustainable competitive advantage, survival and growth.

A number of scholars from across disciplines have contributed to what can now be considered as a field of research in its own right, workplace learning. For example, researchers including Marsick and Watkins (1990; 2001), Watkins (1995), Hager (1998, 2001, 2004), Boud and Middleton (2003), Agashae and Bratton (2001), Billett (2001; 2004; 2006), Forrester and McTigue (2004), and Evans, Hodkinson, Rainbird and Unwin (2006) have drawn attention to workplace learning and literature can also be found in other disciplines such as education (e.g. Fenwick and Tennant, 2004) and management (e.g. Senge, 1990 & Rylatt, 2000). To encapsulate the view that learning is an integral part of working, Watkins (1995) broadly described workplace learning as what adult learners do in the workplace.
According to the Australian Department of Education, Science and Training, “people who continue to learn throughout their adult lives remain more competitive in the labour market and enjoy higher standards of living” (2003, p. 3).

Workplace learning therefore, refers to a large body of knowledge and widely used metaphor for describing the formal, non-formal, informal and incidental learning activities that occur in the workplace. The aim of this chapter is to examine how workplace learning is conceptualised in the literature. A multidisciplinary approach is adopted in this literature review to provide a broad perspective on the range of issues associated with workplace learning. According to Forrester and McTigue “workplace learning has a long history and many meanings” (2004, p. 219). As such, there are many angles of workplace learning to consider. Employees may choose to engage in formal learning to obtain occupational related university degrees or participate in vocational education and training activities. However, given the diversity in age, variety of experiences, and cultures of the current working population, it may be necessary to move beyond traditional models of learning as a formal activity and consider practices that draw upon previous experiences and encourage critical reflection and the transfer of knowledge between employees.

According to Boud and Middleton (2003) learning at work is the most significant part of the learning undertaken by adults during their lifetime. Evans, Hodkinson, Rainbird and Unwin described workplace learning as
“learning in, for, and through the workplace” (2006, p. 23), suggesting that learning can be embedded in social relations. The importance of social context is reinforced by Evans et al. (2006) who favoured a sociocultural approach to theorise about workplace learning because that approach recognises the social environment in which learning may occur.

This brief introduction has highlighted that learning in the workplace can be formal or informal and that workplace change can be a major driver of learning in organisations. Supporting and valuing learning in the workplace is important as ongoing learning is necessary for organisations to function well and for employees to grow and maintain their employability. Organisations can play a major role in facilitating their employees learning by providing an environment that is conducive to a positive attitude to lifelong learning.

This chapter is organised in four sections. The first section reviews the large body of adult learning literature as it provides a useful foundation for understanding the way adults learn in the workplace and more generally. By tracing the origins of adult learning from the 1920s to the present day, two main principles associated with adult learning will be addressed: self directed learning and critical reflection.

The second section examines the organisational learning literature. This body of literature emerged during the 1990s from within management circles and emphasises the benefits of learning for both employees and the organisation. This body of literature is reviewed given its popularity in
mainstream management circles where terms like workplace learning, organisational learning and the learning organisation have become a general ‘language’ about workplace learning, and accordingly, will be brought under conceptual scrutiny.

The third section reviews the literature on informal learning. This body of literature highlights how workplace learning is not always linked to organisational strategies, as often suggested by supporters of organisational learning, and from management circles. This body of literature conceptualises informal learning as an essential and most valuable part of working life. In contrast to structured learning, informal learning occurs through social interaction, observation, mentoring and trial and error. Incidental learning is then identified as a sub-set of informal learning, which emphasises that learning, can also occur as a by-product of other everyday activities in the workplace.

The final section examines the sociocultural perspective on learning, which focuses on the main interpretive framework for the empirical study. In the last decade, this perspective has gradually become a major theoretical perspective underlying current research on workplace learning. From this perspective, the workplace is conceptualised as a social system. This social system, with all its co-workers, is assumed to co-regulate each other’s learning opportunities. Social interactions therefore, are considered as creating a context in which informal learning is afforded or constrained in the workplace. In this section, three main perspectives will be addressed:
situated learning, participation in social practice, and workplace culture and socialisation. The conceptual framework adopted in this study will then be outlined.

In combination these four bodies of literature are expected to provide a useful overall framework for conceptualizing the present research on workplace learning. Although each body of literature originates from a different discipline, together, they provide complementary perspectives on the multifaceted aspects of workplace learning, and more specifically, informal learning in the workplace.

ADULT LEARNING

The large body of adult learning literature suggests a strong relationship between adult learning and workplace learning. Adults spend a significant amount of their time at work and are often required to learn new skills and knowledge in order to adapt to change and remain competitive in the marketplace. Employers also contribute to adult learning by identifying and providing opportunities for their employees to develop, maintain and improve work related skills (Australian Department of Education, Science and Training, 2003). Despite the plethora of literature that addresses adult learning, few writers attempt definition. Instead, adult learning is used as a broad term to describe how adults learn. A common theme in the literature is that adult learning is based on experience and learner preferences. According to Illeris learning is “the process though which an individual acquires knowledge, skills and possibly also attitudes and opinions” (2004,
When adults participate in this process it can be viewed as an informal social process occurring through interaction with other people (Lave and Wenger, 1991) or in formal settings such as a community college, a university, or a training centre.

Adult learning and references to lifelong learning have appeared in the literature since the writings of Plato and Aristotle. During the early part of the last century only elite members of the community attended universities or participated in formal learning. At the beginning of the twenty-first century, the empowering role of adult education was stressed by Lindeman who stated that adult education is a ‘social movement’ with the purpose to “put meaning into the whole of life” (1926, p. 5). Over the next few decades, the Depression and War prevented many people from participating in educational endeavours. Following that time, education and learning was then seen as a way of overcoming deprivation and struggle and it was not until the 1960s that lifelong learning and the importance of adult learning re-emerged in the literature. According to Evans et al. (2006) the renewed focus at the time was on reducing social and economic inequities and enhancing community development.

During the late 1960s, Knowles used the term ‘andragogy’ to describe adult learning and later referred to the ‘art and science of helping adults learn’ (1980, p. 43). Knowles (1970) described adult learning as a process of self-directed inquiry and contributed to current theorizing about adult learning. Knowles (1970) argued that adult learners have a need to be self-directing,
decide for themselves what they need to learn, and become ready to learn when they experience a life situation where they need to know something new. Mezirow’s (1977; 1981) development of the role of critical reflection in the process of adult learning built on Knowles’s earlier work. For Mezirow, occurring simultaneously with self-directed learning, the notion of critical reflection refers to the adult learner’s awareness of learning, knowing and evaluating.

Over the next two decades, the focus shifted again and became linked to productivity and coping with technological, political and social changes of the time. The emergence of knowledge-based economies and global competitiveness that emerged during the 1990s still exists today. Management theorists and human resource development professionals were attracted to the concept of the ‘learning organisation’ (Senge, 1990 & Rylatt, 2000) as a way of ensuring organisational growth and the continuous development of employees. Associated with the learning organisation were the notions of ‘high performance’ and ‘knowledge work’ which were also underpinned by assumptions of the need for continuous learning and development in the workplace.

However, Livingstone and Sawchuk (2003) have argued that while a ‘knowledge society’ may be present, vast amounts of skill and knowledge are unused in today’s workplaces and that we are far from experiencing a ‘knowledge economy’. This statement leads one to question the assumption that skills and knowledge are unused in the workplace and to consider what
factors afford or constrain the sharing of information among co-workers and work related learning. Do everyday social relations and interaction affect learning? What role do co-workers play in learning processes? What is actually being learned and how does this learning occur? These questions are all pertinent to the present study and will be examined later in this thesis. In sum, this brief historical overview of the literature on adult learning reveals how it has been shaped by broader social, political, and economical developments. The broad principles associated with the concept of adult learning are most relevant to the present study. Emerging from the work of Knowles (1970) and Mezirow (1977; 1981) the principles of self-directed learning and critical reflection provide a useful foundation for understanding how adults learn. Next, these principles will be reviewed to examine how adults learn in the workplace.

Self-directed learning

An emphasis on self-directed learning as a hallmark of adult learning can be traced back to the early 1900s when the philosophy and meaning of adult learning and education was considered by Lindeman (1926) and later by Dewey (1938) who both described adult education as a process whereby learners became aware of experience through self-direction. According to Lindeman:

Every adult person finds himself in specific situations with respect to his work, his recreation, his family life, his community life, etc. –
situations which call for adjustments. Adult education begins at this point (1926, p. 8).

According to Lindeman adult education is “a process through which learners become aware of significant experiences” (1926, p. 169) and apply meaning to these experiences. Lindeman’s (1926) writings also infer critical reflection which combined with self-direction, have become noteworthy aspects of adult learning theory, and will be discussed further in the next section. In general, Lindeman’s (1926) approach was based on the processes of learning and how experience and individual circumstances influenced learning. Lindeman (1926) argued that adults are motivated to learn, that their learning is life-centred, that experience becomes the richest source of learning, and more significantly, have a deep need to be self-directed. Dewey (1938) described the adult learner as a person with feelings, needs and interests who is engaged in lifelong growth. Lindeman (1926) and Dewey’s (1938) views received renewed attention in the 1970s through the work of Knowles (1970; 1975) and Freire (1976). Knowles (1970) reinforced self-directed learning and individual responsibility as important characteristics of adult learning theory, and incorporated these notions in his overall construct of andragogy.

By coining the term andragogy, Knowles suggested that “andragogy assumes that the point at which an individual achieves a self-concept of essential self-direction is the point at which he psychologically becomes an adult” (1970, p. 56). This definition implies that adult learners are able to
take responsibility for their own actions. The same idea appears in the work of Freire (1976) who also acknowledged the importance of self-directed learning and claimed that learning is empowering for individuals. By drawing on theories from Dewey (1938), Knowles (1970; 1975) and Freire (1976), adult learning can be summarised in the following way. Adults are considered to be responsible for their own learning decisions, their own lives, and learning is achieved if intrinsic driving forces such as quality of life and self-esteem are taken into account. Mezirow (1977; 1981; 1991; 1995; 1997) later expanded the meaning of self-direction to include the adult learner’s attitudes, values and perceptions. The term ‘performance transformation’ coined by Mezirow (1981) further expands on this notion by describing the psychological structures and meaning that adult learners are influenced by. These influences are assumed to include relationships, personal frame, personal goals and change by which individuals can develop new meanings and cope with new experiences. Like Lindeman (1926), Mezirow (1977; 1981) also emphasised the importance of critical reflection, claiming that individuals are able to recognise events that may be restricting their learning path.

In summary, much of the learning undertaken by adults is considered to be self-directed and informal. Adult learners are viewed as able to take responsibility for their own actions and empowered by their learning experiences. Motivations for adult learning can be extrinsic or intrinsic, and allow individuals to develop the skills necessary for learning new skills and coping with new experiences in their lives. As much of this learning is
assumed to be self-directed, individuals are considered as capable to identify what they need to learn and how they will achieve their goals. In doing so, adult learners are expected to critically reflect on their lives and experiences. Therefore it is also necessary to consider the role of critical reflection in adult learning.

Critical reflection

Writings by Lindeman’s (1926) and Mezirow (1977; 1981) highlighted the role of critical reflection in the process of adult learning. Critical reflection builds upon the adult learner’s awareness of learning, knowing and evaluating. The relationship between self-direction and critical reflection can be seen through Mezirow’s (1977; 1981) concept of performance transformation. According to Mezirow (1977; 1981) an individual can become a transformational learner through critical reflection by recognizing that social and cultural factors, including beliefs and attitudes, can influence learning processes. The adult learner’s ability to critically reflect allows the learner to psychologically adapt to change and new experiences. Mezirow (1995) later used the term ‘emancipatory learning’ synonymously with transformational learning and identified critical reflection as a key characteristic of successful adult learning.

The role of critical reflection is also considered in the popular work of Schön (1983) who highlighted the significance of reflective practice or ‘reflection-on-action’. According to Schön:
The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation (1983, p. 68).

Schön’s (1983) statement infers that individuals can look to their experiences, connect with their feelings and successfully adapt to the new experience. Even though an individual may not have a full understanding of an event before it happens, reflection-on-action helps to avoid major problems in a new situation. Similarly, Kolb’s (1984) Learning Cycle refers to the process by individuals, teams, and organisations understand their experiences and consequently modify their behaviour. During the Learning Cycle, individuals experience, or immerse themselves in a task, reflect, conceptualise the experience and then plan what will happen next.

Schön (1987) later introduced the concepts of knowing-in-action and reflection-in-action. Knowing-in-action refers to the automatic responses that enable us to be efficient in daily actions. Reflection-in-action occurs when we recognise that our existing schema is no longer appropriate, and we change our schema accordingly. Through this reflection individuals are able to become aware of their implicit knowledge and informal theories. Schön believed that reflective practice was to be enacted and played a
significant part in adult learning. In the early 1990s critical reflection was elevated to the major objective of adult education in further work by Mezirow who suggested:

Perhaps even more central to adult learning than elaborating established meaning schemes is the process of reflecting back on prior learning to determine whether what we have learned is justified under present circumstances. This is a crucial learning process egregiously ignored by learning theorists. (1991, p. 5).

The real significance of these principles of adult learning, according to Mezirow (1991), appears when learners begin to re-evaluate their lives and to re-make them. Cranton (1996) suggests that engaging in critical reflection requires moving beyond new knowledge and understanding to question assumptions, values and perspectives.

Contemporary theorists such as Agashae and Bratton (2001) and Fenwick and Tennant (2004) have argued that for learning strategies to work employees must be given the appropriate skills that are necessary for critical reflection. According to Fenwick and Tennant (2004) this suggests that during the learning process the learner must have opportunities to reflect on a lived experience, interpret what they see and hear, make personal associations, and construct their own knowledge. A key element in Fenwick and Tennant’s (2004) argument is that different learners construct different meanings based on their experiences and their processes.
In summary, this review of the large body of adult learning literature has examined two principles that are considered useful for understanding adult learning, self-direction and critical reflection. As much of adult learning is assumed to be self-directed, individuals are considered as capable to identify what they need to learn and how they will achieve their goals. In doing so, adult learners are expected to critically reflect on their lives and experiences. These two principles were reviewed in an attempt to better understand the individual’s role in seeking opportunities for and participating in adult learning. These terms were particularly useful in the design of the empirical study as they provided important information about the way adults learn.

ORGANISATIONAL LEARNING

The term organisational learning can be traced back to Schön’s (1973) notion of ‘the learning society’ which recognised the relationship between change and the need for learning. Schön wrote at the time that “the loss of stable state means that our society and all of its institutions are in continuous processes of transformation...we must...become adept at learning” (1973, p. 28). One of Schön’s greatest contributions at this time was to explore the extent to which organisations were learning systems. Describing the business firm as an example of a learning system, the importance of knowledge generation and the ability to adapt well to change was identified by Schön. A decade later, other terms associated with learning in organisations emerged in the literature. For example, Barnham,
Fraser and Heath described the learning organisation as “one where training and personal development are an integral part of the organisation and where learning is a continuous process...” (1988, p. 12). Similarly, Pedler, Boydell and Burgoyne introduced ‘the learning company’, describing “…an organisation which facilitates the learning of all its members and continuously transforms itself” (1991, p. 1).

At the same time Senge (1990) was examining the relationship between organisations and learning and it was at this time that the use of the term ‘learning organisation’ emerged in mainstream management circles. Organisational learning was advocated by Senge (1990) in *The Fifth Discipline*. This book became extremely popular and represents best the advocacy literature on workplace learning and the learning organisation of the times. Senge’s vision of a learning organisation as a collective group of people who continually enhance their capabilities has been very influential in management circles. Senge described learning organisations as:

...organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together (1990, p. 3).

Senge (1990) argued that only those organisations that are flexible, adaptive and productive will excel in times of rapid change. For this to occur, Senge emphasised the need for individuals to re-create themselves in
times of change and described the practice of the learning organisation in terms of five disciplines: personal mastery; mental models, shared vision; team learning and systems thinking. Through these disciplines, Senge provided a set of characteristics for organisations to use for continuous improvement and learning.

By using the term ‘discipline’ Senge suggested ways of understanding learning as “a development path to greater proficiency” (1990, p.10).

During the 1990s the process by which organisations experienced change (Finger and Woolis, 1994) and how organisation members developed shared values (Lipshitz, Popper and Oz, 1996) were emphasised. According to Edmondson and Moingeon (1998) individuals use organisational data to guide behaviour in such a way that promoted the ongoing adaptation of the organisation. These definitions stress a commitment to self-management, providing support for learning, developing a shared vision and promoting team work (Senge, 1990; Marquardt and Reynolds, 1994, McGill, Slocum and Lei, 1992). These aspects became the focal point of the advocacy literature on individual and organisational success.

For example, DiBella, Nevis and Gould (1996) referred to the processes that exist within an organisation used to maintain or improve performance based on experience. Similarly, Lipshitz, Popper and Oz (1996) described organisational learning as a process through which organisation members develop shared values and knowledge based on past experience of themselves and of others. For Rylatt (2000) developing shared values was
a crucial strategy for the survival of an organisation representing the
“sustained and high leverage development of people in line with
organisational outcomes (Rylatt, 2000, p. xxi). Like Senge (1990) before
him, Rylatt (2000) proposed that learning was a necessary component for
individual and organisational success. Following Senge (1990) and Rylatt
(2000), the popularity of workplace learning, and the concept of the learning
organisation grew quickly in management circles.

The use of the term organisational learning has contributed to the
development of the term learning organisation. According to Agashae and
Bratton (2001) metaphors like ‘learning organisation’ and ‘knowledge
workers’ have become commonplace in contemporary management
discourse. A common characteristic of the learning organisation is a
coherent strategy where organisations provide ‘learning rich’ environments
(Agashae and Bratton, 2001) for their employees.

Such a learning environment would assume high levels of trust between
employees and between employees and employer. Issues of trust,
therefore, emerge as a significant concern when assessing the outcomes of
organisational learning. In their research on employer and employee trust
in a medium sized manufacturing firm, Marlow and Patton (2002) found that
trust occurs at the interpersonal level and is reflective of the relationship
between employer and employee. The problem, however, is that there are
many varied definitions of trust (Atkinson, 2007). Nethertheless, following
Butler’s (1991) view, it is the knowledge of what creates trust that is more
important than agreeing on a definition. Thus, the present study adopts Butler’s (1991) assertion. Furthermore, Lane’s (1998) perception of trust as a social phenomenon, rather than an attitude, is also useful.

According to Luke (1998) trust is an essential part of interpersonal relationships in the workplace. This includes the confidence and the ability to predict the actions of others, and is based on moral integrity and goodwill. In their study on organisational leadership and trust, Fairholm and Fairholm (1999) stated that trust building should be a legitimate business cost essential to improving the bottom line. However, they also acknowledged that many organisations, and their employees, do not consider trust or trust building in their activities. The implication here is that individual and organisational factors can hinder the development of trust (Fairholm and Fairholm, 1999) and how employees carry out their daily work activities.

In addition to trust, other concerns about the appropriation of the learning paradigm and its uncritical approach to expected outcomes for workers have emerged. A number of scholars have been critical of some of the claims made in the organisational learning literature. They have argued that workplace learning has the potential to also inhibit or constrain employees (e.g. Coopey, 1996; Coffield, 1999; Spencer, 2002a, 2002b; Hennessy and Sawchuk, 2003; Sawchuk, 2003; Bratton, Helm-Mills, Pyrch & Sawchuk, 2003). For example Coopey (1996) argued that strategies like organisational learning serve only to strengthen the power of senior
management and produce an environment which impedes learning. Similarly, Spencer warned that “...the enthusiasm for ‘lifelong learning’, the ‘learning society’, and ‘learning organisation’ has dulled researchers’ critical gaze as to what exactly is going on in the workplace” (2002a, p. 299).

The main criticisms of the organisational learning perspective are that management style, power relations and conflicts of interest shape how learning occurs in the workplace (Bratton et al., 2003). For example, Legge (1995) expressed concerns that organisations could use learning as a tool for ‘cultural control’. Similarly, Forrester (1999) feared that learning may be used as a managerial tool for control and work intensification. These concerns have also been taken up by Spencer who warned that learning in the workplace may lead to a ‘social technology’ that masks ‘new forms of oppression and control in the workplace that should be acknowledged in workplace learning research” (2002b, p. 33). Another perceived weakness of the uncritical organisational learning literature is that it represents a management perspective with much rhetoric and no empirical support for the claims that are being made. Furthermore, that literature does not consider how adults learn, and in particular how adults learn in an environment that is not formally designed for learning.

In summary, the body of literature on organisational learning illustrates how the concept of the learning organisation has been promoted by management consultants and advocates as a way to restructure organisations in order to meet the challenges of a changing global marketplace. Organisational
learning was seen as a way to achieve competitive advantage in an unpredictable and dynamic business environment by focusing on continuous improvement and the sustained engagement and development of employees.

The problem for many organisations, however, is that learning occurs in ways other than formal training, workshops or team meetings. Much of the learning that occurs in the workplace happens on a daily basis and may be spontaneous, haphazard, unplanned and unintentional. An individual may learn from observation, watching someone else, trial and error, or as a by-product of everyday activities. The place and value of this type of learning needs to be better understood and is a critical aspect of this research. The fact that learning occurs as part of everyday experiences and activities in the workplace leads to the significance of examining informal learning in the workplace.

INFORMAL LEARNING

Although explicit writings about informal learning did not emerged 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, team work and mentoring. Informal learning involves interaction between people and is not limited to a predefined body of knowledge.

Over the last three decades, a number of researchers have started to show an interest in non formal types of learning (e.g. Marsick and Watkins, 1990, 1999; Boud and Garrick, 1999; Bell and Dale, 1999; Boud and 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 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. According to Watkins and Marsick (1992) informal learning involves action and reflection and includes self-directed learning, mentoring, coaching and trial error. In the literature, informal learning is often contrasted to formal learning. Marsick and Watkins 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 (1990, p. 12).

Non formal learning includes learning that is not highly structured or classroom based, that is not formally assessed, and that 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, Marsick and Volpe (1999) 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.

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 thirty five managerial job skills, managers self-reported having developed thirty 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 an 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 (in 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 Foley (2004) informal learning can occur during a management committee meeting or by employees redesigning 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 summary, 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, in 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 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

Incidental learning is generally treated in the literature as a sub-set of informal learning that occurs as a by-product of everyday experiences (Marsick and Watkins, 1990). A review of the literature on informal and incidental learning highlights that incidental learning is unplanned (Tusting, 2003), unintentional (Marsick and Watkins, 1990; Bell and Dale, 1999, Tusting, 2003) and takes place in the work context although is often not recognised by the employer (Bell and 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 than 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) 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 (p. 53).

Lave and Wenger’s (1991) statement implies that learning is a social process and can be influenced by the relationships that individuals engage in. 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 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.
This concept will be reviewed in more detail in the next section of this chapter; the sociocultural perspective on learning.

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. For the purpose of this study, the characteristics of both informal and incidental learning will be combined. The intention of this study is to represent the broad range of experiential, intentional, unintentional, planned and spontaneous learning experiences in the workplace. From this point on, the term informal learning will be used to encompass the wide range of experiences and activities that facilitate non-formal learning in the workplace. This includes a wide range of activities and experiences including self-directed learning, networking, mentoring, trial and error, hit and miss, conversation, interaction and other spontaneous events that lead to learning in the workplace.
In summary, a review of the literature on informal 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.

To this point, three bodies of literature have been reviewed in this chapter. The adult learning literature was reviewed first to provide a background to adult learning. By tracing the origins of adult learning from the 1920s to the present day this body of literature highlighted that adult learning is expected to be self-directed and benefit from critical reflection. The organisational learning literature was then examined which revealed how the management literature promotes the value (without empirical support) of learning organisations. The workplace was conceptualised as a useful environment for learning which allowed individuals to develop strategies and skills for adapting to changes in the workplace. The literature on informal learning was then reviewed and it was highlighted that much valued workplace
learning is in fact unplanned and unintentional and based on everyday experiences in the workplace. Although there is limited empirical research from this perspective, the studies have shown that everyday experiences occur within a complex relationship among co-workers. These social relationships and the social setting in which they take place generate opportunities but also constraints for informal workplace learning. The significance of focusing on the social systems in which learning occurs among co-workers in real life work activities is highlighted in sociocultural theory. This perspective is reviewed next.

THE SOCIOCULTURAL PERSPECTIVE ON LEARNING

The origins of the sociocultural perspective on learning can be traced back to the work of Vygotsky (1978; 1987) who suggested that learning and development cannot be understood without considering the social and cultural context in which learning takes place. Vygotsky’s perspective on learning suggests that individuals are embedded within and constituted by a network of social relationships and cultural interaction. One of the key points that emerged from Vygotsky’s (1978) work is that higher mental functioning stems from the individual’s participation in social practices. He argued that in order to understand the individual, one must also study the social context. This is because higher mental functions are assumed to be the result of social interaction. Vygotsky focused on the connections between people and the cultural context in which they act and interact in shared experiences. For example, Vygotsky’s concept has helped cultural
anthropologists, such as Lave and Wenger (1991) and Rogoff (1990) to explain how, in non-Western cultures, complex skills such as weaving and midwifery pass between generations.

Other scholars, including Engeström (1987; 2001), Lave and Wenger (1991), Rogoff (1990; 1995), Argyris and Schön (1996), Wertsch (1991), and in relation to workplace learning, Billett (2000; 2002; 2004; 2006) have also adopted a sociocultural perspective on learning. These scholars emphasised the importance of participation in social interactions and culturally organised activities for development. For example, Engeström (1999; 2001) focused on the complex interrelationships that determine the types of activities individuals engage in and argued that there is a link between the individual and the social structure they participate in.

Similarly, Billett (2002) suggested that the relations between the mind and the social world help us understand how learning occurs. In their earlier work, Lave and Wenger (1991) discussed learning as a sociocultural activity and introduced the term situated learning to describe learning that is contextual and embedded in a social and physical environment.

This section concentrates on three key components, emerging from the sociocultural perspective, that are directly relevant to the present research. The first, situated learning focuses on the early work of Lave and Wenger (1991) which highlighted how learning occurs through everyday participation in social activities. The second, participation in social practice, extends the concept of situated learning to show the significance of
participation as a key concept to understand learning. The third, workplace culture and socialisation, stresses how social relationships in the workplace can afford or constrain learning in the workplace.

Situated learning

From the perspective of situated learning, introduced by Lave and Wenger (1991) in their seminal work, and later examined by Rogoff (1995), learning is essentially a matter of creating meaning from the activities of everyday experiences. Lave and Wenger’s (1991) research was based on case-studies of how newcomers learn in various occupational groups which are not characterised by formal training. Their case for the significance of situated learning is supported by empirical studies of everyday learning in five different settings: midwives, native tailors, navy quartermasters, meat cutters and alcoholics. In all cases, Lave and Wenger (1991) identified that there was a gradual acquisition of knowledge and skills as novices learned from experts in the context of participation in everyday activities. They suggested that legitimate peripheral participation is the key to effective learning in the workplace. According to Lave and Wenger (1991), initially, individuals have to join communities and learn from the periphery. As they become more competent they move more to the centre of the particular community and become full participants.

From Lave and Wenger’s (1991) perspective, everyday learning should be conceptualised as not so much the acquisition of knowledge by individuals so much as a process of social participation through a community of
practice. More significantly, this approach suggests that the nature of the situation impacts significantly on the process of learning. The focus is on learning by doing and on addressing real problems. Essentially, the argument made by Lave and Wenger (1991) is that communities of practice are everywhere and that individuals are generally involved in a number of them, whether that is at work, school, home, or in our civic and leisure interests. Similarly, Rogoff (1990) argued that situated learning is dependent upon participation in cultural activities with the explicit or implicit guidance of more skilled partners. Extending her view, Rogoff (1995) continued to research the relationship between cognitive development and social context and maintained that learning occurs in the social situation or context in which an individual participates as part of everyday activities in the workplace.

In relation to everyday activities in the workplace, Lave & Wenger (1991) identified what they defined as a ‘societal’ perspective on ‘zones of proximal development’. They argued the relations between new and established co-workers occur in the context of a changing shared practice. The ‘societal’ perspective highlights the historical and social dimensions of learning. First, it directs attention to the distance between an individual’s everyday activities and the new forms of social practice that need to be collectively generated as solutions to everyday problems. Secondly, it identifies learning as a social process and acknowledges the contribution that technological and other external resources can make in support of such learning processes.
Lave & Wenger’s (1991) ‘societal’ perspective posited a different approach to issues that are central to any understanding of learning. First, they emphasised that activity, meaning, cognition, learning and knowing must be seen in relation to each other. Second, they indicated the importance of understanding how individuals develop their social identities through participation within different communities. Third, they highlighted the importance of examining how individuals maintain their identities and sense of meaning while moving across organisational and cultural boundaries. Thus, learning is assumed to be a matter of developing social relationships and identities by participating in different communities of practice.

In sum, situated learning is concerned with how learning occurs through everyday participation in social activities. It is a theory about the nature of human knowledge, where knowledge is conceptualised as dynamically constructed within social activity in a given social context. Lave & Wenger (1991) stressed the idea of situated learning which sensitizes individuals to learning as a social practice and to how opportunities to participate within workplace cultures influences whether we learn and how that learning takes place. The literature on situated learning provides a useful means for analysing learning and how it relates to how individuals acquire new skills and become members of communities of practice. In addition to situated views of learning at work, other scholars have conceptualised learning in the workplace as participation in social practice. This approach is discussed next.
Participation in social practice

A second key concept emerging from the sociocultural perspective on learning and from the writings of Vygotsky (1978), Engeström (1987; 2001), Lave and Wenger (1991), Rogoff (1990, 1995), Argyris and Schön (1996), Wertsch (1991), Billett (1994, 2002; 2004) is participation in social practice. In this context, and expanding on Lave and Wenger’s (1991) research on situated learning previously discussed, learners are assumed to participate in communities that may require mastering new knowledge and skills. In return, this encourages learners to become full participants in the sociocultural practices of that community. Lave and Wenger (1991) argued that situated perspectives on learning in the workplace assume that learning occurs through interaction and participation in everyday experiences and through a ‘community of practice’. These authors described participation as “a way of learning – of both absorbing and being absorbed in the ‘culture of practice’” (1991, p. 95). Participation in social practice is assumed to be one way of learning new knowledge and skills. Through participation, learning takes place best through activities where individuals work together toward a common product or goal. Later, Wenger contended that “participation here refers not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities” (1998, p. 4).
In the setting of the workplace for example, shared ways of understanding that environment are created through participation in everyday activities. Rogoff’s (1990) approach is similar to Wertsch (1985) in that through participation, individuals have the opportunity to talk about what they are doing and therefore learn during everyday activities. Later, building upon Vygotsky’s (1978; 1987) ideas, Billett (2002) stressed that workplace activities are structured by historical, cultural and situational factors that influence the kind and quality of learning and participation that occurs through work. Billett also suggested a need to consider learning in workplaces in terms of participatory practices by saying “if...learning is conceptualised more broadly as being the product of participation in social practice though engagement in the activities and access to support and guidance, it may be possible to adopt a broader view of learning experiences in the workplace” (2002, p. 56). Billett’s views are consistent with Rogoff (2003) who claimed that human development is a product of each individual's participation in the routine activities of the communities in which we live and work. This led Rogoff, Paradise, Arauz, Correa-Chavez and Angelillo (2003) to argue that people learn actively by observing and ‘listening in’ on ongoing activities as they participate in shared endeavours, such as work.

The relationship between learning and participation in social practice emphasises the importance of situated learning as previously discussed and recognises that individuals and their social context must be studied concurrently. Wertsch’s (1991) comments on the basic tenet of the
sociocultural approach are consistent with Vygotsky (1978). Wertsch wrote that:

The basic tenet of the sociocultural approach to mind is that human mental functioning is inherently situated in social interactional, cultural, institutional and historical context. Such a tenet contrasts with approaches that assume implicitly or explicitly, that it is possible to examine mental processes such as thinking or memory independently of the sociocultural setting in which individuals and groups function (1991, p. 85)

Wertsch’s (1991) statement stressed the importance of the social context and the relationship between individuals in such contexts. The way people learn is assumed to be influenced by the social context, and in turn, knowledge is assumed to be influenced by social and cultural practice. Billett (1998) acknowledged a similar relationship occurring between the learning environment and social interaction which is connected with the historical and cultural background of the learner. In later work, Billett (2001) further developed that point and argued that the quality of learning in the workplace depends on the kinds of activities engaged in, the level of access to situational factors (like guidance and support), and how individuals react and respond to learning situations. Together these are expected to influence the process of learning and what is being learnt.

Within a shared setting of interaction and participation in everyday activities, learning facilitates opportunities for individuals to participate in
collective activities (Rogoff, 1990; Lave & Wenger, 1991). The approaches discussed so far have highlighted that learning is social and comes largely from our experience of participating in daily life. For example, Lave and Wenger described learning as “an integral part of generative social practice in the lived-in world” (1991, p. 35) and Rogoff (1990, 1995) emphasised the role of social interaction. Rogoff (1990) argued that from a sociocultural perspective, the basis unit of analysis is no longer the (properties of the) individual, but the (processes of) socio-cultural activity, involving participation in socially constituted practices. Learning, therefore, is assumed to be socially and culturally situated (Lave, 1988) and dependent on interaction and participation with others’ in a larger sociocultural context.

According to Billett (2001) workplaces symbolise a social practice where learning occurs through participation with other people. Guidance from others assists in the development of learning by transferring ‘tricks of the trade’, interacting with other workers, observing, and listening to other people (Billett 2001). Therefore, learning is viewed as not isolated from the social context in which it occurs. In the context of the workplace, Billett later suggested that the “social basis for knowing...informs the means by which individuals are likely to learn the knowledge required for their practice” (2006, p. 21).

In summary, this discussion of participation in social practice has highlighted how the social environment is assumed to influence how individuals construct and use knowledge, and is useful in understanding workplaces as
environments for learning. Within a shared setting of participation in social practice, learning facilitates opportunities for individuals to participate in collective activities (Rogoff, 1994; Lave & Wenger, 1991). The workplace is one example of a shared setting in which co-workers participate in everyday activities. While the works of Vygotsky (1978), Engeström (1987; 2001), Lave and Wenger (1991), Rogoff (1990, 1995), Argyris and Schön (1996), and Wertsch (1991) continue to be cited in writings on the sociocultural perspective on learning, the potential and applicability of the sociocultural perspective on learning at work remains under-developed.

There is a need therefore, to expand our understanding of learning as participation in social practice and how the workplace, as a social system, affords or constrains opportunities for co-workers to learn as part of their everyday activities in the workplace. Lave recognised this need almost two decades ago when she claimed that everyday activity “is a more powerful source of socialisation than intentional pedagogy” (1988, p. 14). Lave’s view of learning is intended to capture the way informal learning occurs in the workplace and that it is a natural process that co-workers use to try to better participate in workplace activities. As discussed in the previous section, informal learning occurs through everyday experiences in the workplace and tends to rely on the complex relationship between co-workers. It is assumed therefore, that workplace culture and socialisation may have an effect on how informal learning occurs during everyday work activities. These ideas are discussed next.
Workplace culture and socialisation

To this point, this review of the sociocultural perspective on learning has concentrated on how knowledge and skills that co-workers acquire as part of everyday learning through participation in the workplace, and how it is assumed to be closely associated with the social and cultural context in which informal learning occurs. Both Lave and Wenger (1991) and Billett (2001, 2006) highlighted that learning at work is social and cultural in nature. This points to the importance of conceptualizing the workplace as a complex social system which may afford or constrain opportunities for learning. This idea is illustrated in Engeström and Middleton’s (1996) work which revealed that workplaces constitute participatory practices where norms and practices often determine how individuals participate in work. Because of this, social relationships within the workplace are assumed to influence how learning occurs in the workplace. According to Billett “how opportunities to participate in the often contested relations that constitute work practice become central to understanding learning through work” (2002, p. 57). Billett (2001; 2002) suggested that workplaces symbolise a social practice where learning occurs through participation with other people. In his research on skill formation in coal mines, (1994) Billett argued that workplace activities are structured by historical, cultural and situational factors that influence the kind of learning that occurs through work. In later research, Billett (2001; 2002) again emphasised that the relationship between the individual and social practice can influence learning in the workplace.
It is therefore necessary to understand what role workplace culture and socialisation plays in affording or constraining informal learning opportunities. Because the relationship between co-workers is assumed to influence workplace culture and socialisation, it is important to understand how both new co-workers and established co-workers participate and experience the socialisation process and how they see their respective roles.

*New co-worker experiences*

To fully understand workplace culture and socialisation in workplace activities it is necessary to examine the new co-worker experience. New co-workers enter work groups with a range of knowledge, skills, experience and preconceptions about what the new job will entail. Some new co-workers will not know anything about the new job or the work group, or they may know something about the job through previous interaction with work group members or they may have worked in a similar environment. Either way, it is assumed that all new co-workers go through a transition phase as they adjust and adapt to the new job and the new work group. This transition can be challenging because as discussed by Levine and Moreland (1991) work group culture is the unspoken and often unrecognized routines and beliefs that guide the actions and activities of work group members. The challenge for new co-workers therefore, is to acquire information relating to the expectations of other co-workers and group processes and knowledge about how the job is done. However, this may be difficult for the new co-worker, as this unique knowledge is typically embedded in work group
culture and practices and may initially be invisible to new co-workers. There is little research on how new co-workers construct new knowledge by participating and socialising in everyday work activities or how the workplace, as a social system, affords or constrains these opportunities for informal learning. Therefore, a greater understanding of how new co-workers participate in everyday work activities and how they interact with other co-workers is needed.

This section on new co-worker experiences comprises two parts. Firstly, the conceptual ideas held by Louis (1980) and Levine and Moreland (1991) on the new co-worker experience are reviewed. Although the ideas expressed by Louis (1980) and Levine and Moreland (1991) are not explicitly grounded in sociocultural theory, the issues they address reflect sociocultural ideas. In their work, Louis (1980) and Levine and Moreland (1991) use the term newcomer to represent the new co-worker, and oldtimer to represent the established co-worker in this study. In the second part, how other researchers (Choi and Levine, 2003 & Filstad, 2004) have recently applied sociocultural ideas to research in the workplace is discussed.

According to Louis (1980), an individual’s status as a newcomer may have an effect on how knowledge is shared in the workplace and who has access to which kind of knowledge. This was particularly evident in her argument that the way newcomers adapted to a new organisation had the potential to influence the effectiveness of their learning. Louis suggested that an understanding of the newcomer experience is necessary to fully understand
the processes that newcomers use to cope with entering a new work group. She describes change, contrast and surprise as three key features of the newcomer entry experience. Firstly, newcomers experience changes in role, professional identity and in working conditions. Secondly, contrast refers to the knowledge a newcomer has becoming entering the work group and may include knowledge about new and old roles, dress and perceptual processes. Thirdly, surprise involves the difference between the newcomer’s anticipation and subsequent experiences in the new workplace. This may include positive surprise (an office overlooking garden view) or negative surprise (a window cannot be opened), or may be related to social expectations about the work group. Once the newcomer has experienced these conditions, he/she is able to make sense of and attribute meaning to their new surroundings.

In later years, Levine and Moreland’s (1991, 1999) research used similar terms to Louis (1980) although did not refer directly to Louis’s work. In contrast, Levine and Moreland (1991) offered a more in-depth reflection on the role of culturally shared cognition in work groups. Levine and Moreland (1991) described how workgroup culture consists of the task and social knowledge that group members are required to share in order to learn and share knowledge. They proposed that cultural and social practices that exist in the workplace have the potential to influence learning opportunities as these practices often determine how individuals participate in learning. For example, the way individuals react to change has the potential to affect the
culture of the work group and how knowledge is shared between group members.

Levine and Moreland (1991) stated that co-worker participation in the workplace consists of three or more people interacting to perform and achieve tasks in the workplace and have a common frame of reference, or culture. The culture of the work group determines the social knowledge and information that workers, particularly new co-workers, acquire in order to participate in the work group. This information, or socially shared knowledge, includes knowledge about the group, knowledge about group members and knowledge about work. In this context, workplace practices have the potential to shape learning as it involves participation in what Lave and Wenger referred to as a ‘community of practice’ (1991). The argument made by Lave and Wenger (1991) is that communities of practice are everywhere and that we learn through participation in social relationships.

In relation to culture and socialisation, Levine and Moreland (1991; 1999) suggested that when a newcomer joins an organisation they are expected to learn the culture of the new work group. During the socialisation process, interaction occurs between newcomers and oldtimers. When a newcomer enters a work group they pass, according to Levine and Moreland (1991), through five stages of group membership including investigation, socialisation, maintenance, re-socialisation and remembrance. For the purpose of the present study, socialisation is the most relevant stage, and is
assumed to have implications for the way individuals participate, share knowledge, and informally learn in the workplace.

The relationship between oldtimers and newcomers is carefully examined by Levine and Moreland (1991) as they argue that the quality of the relationship is a determinant for the way informal learning occurs in the workplace. For example, oldtimers tend to influence the way cultural knowledge is shared (see also Choi and Levine, 2003). A newcomer will usually have formed an opinion on the work group prior to entry depending on whether they have been exposed to similar work situation, stereotypes, gossip, or other forms of knowledge about the group or organisation. A newcomer who is motivated by their ability to acquire information about the work group and who have strong social skills are more likely to be valued by other group members and hence more likely to be accepted as a member of the group. Oldtimers are more likely to accept newcomers who have strong skills and who demonstrate higher commitment to their responsibilities, and therefore more likely to assist newcomers with their learning. However, newcomers often hold peripheral roles in the organisation until their status is determined.

In summary, Levine and Moreland’s (1991; 1999) work on culture and socialisation in work groups and Louis’s (1980) notions of surprise and sense making provide a useful start to understanding the newcomer experience. The discussion highlighted how newcomers enter a new work group with a range of preconceived expectations about the job and the work group and
then though socialisation, experience surprise and engage in sense making.
It is assumed that these strategies are useful for newcomer integration,
acceptance and participation in the work group. This discussion has shown
that newcomers’ experiences and expectations may influence their
relationship and participation with other co-workers in the work group,
especially oldtimers. Once they have entered the work group, newcomers
are then faced with a wide range of new experiences and they may have to
learn new knowledge and skills in order to become accepted members of the
work group. A newcomer’s ability to acquire new knowledge and be
receptive to other group members depends on their motivation, willingness
and more importantly, their social skills. A newcomer is more likely to be
accepted by oldtimers if they are open, motivated, and seen to be
committed to the work group.

Other researchers, such as Choi and Levine (2003) and Filstad (2004)
recently examined how new co-workers socialise and participate in everyday
work activities. The aim of Choi and Levine’s (2003) research was to
investigate newcomer innovation in work groups. They found that new co-
workers can play an active role in new work groups by introducing new ideas
and ways of doing things. In their research, Choi and Levine selected 141
male undergraduate university students to work as members of a simulated
air surveillance team. At any one time, three participants were brought into
a laboratory and informed that their team’s composition may change during
the task. Team members were taught how to use the specialist equipment
and roles were assigned and presented with two alternative strategies of
action. Team members were either assigned strategy or chose one. Participants were then required to complete a questionnaire on their commitment to the strategy. Following this, one member left the team and a newcomer entered. The newcomer suggested a new way of approaching the strategy, action was taken, and then the experiment ended. Each session was recorded in order to analyse group discussions and to determine when decisions were made and another questionnaire was presented to participants at the end. The research revealed how newcomers can bring about change in work groups although as indicated by Choi and Levine (2003), more research is needed on innovation by newcomers in work teams.

Like Choi and Levine (2003), Filstad’s (2004) research focused on newcomer socialisation and participation in work teams. In her research on members of the real estate industry, Filstad (2004) found that new comers use role models to facilitate organisational socialisation where the workplace was assumed to represent a social practice in which learning occurred through participation and everyday experiences. The process of working and learning formed experiences where co-workers were able to interact and socialise with each other, while at the same time, finding new ways of doing everyday activities. Filstad’s (2004) study examined how newcomers use co-workers as role models in organisational socialisation. Filstad recommended taking a multiple approach to newcomer socialisation so that the importance of established co-workers in the relationship can be acknowledged. She conducted 52 in-depth interviews in a real estate
company that at the time, had 11 newly appointed employees, all with little or no experience working in that industry. Each newcomer was contacted every two months and interviewed. Other interviews were conducted with the other employees who were not newcomers, including supervisors, co-workers, and secretarial staff. The research focused on the social and cultural learning processes that occurred between newcomers and other co-workers from the time the newcomer entered the new work group until they became an established member of the organisation.

Filstad found a strong relationship between newcomers’ early experiences and the use of role models as strategies to assist them socialise and become work group members. The research highlighted how newcomers depend and rely on role models in observations and interactions, and learn different things from different role models, including tacit and explicit knowledge. Personal characteristics such as expectation, experience, competitive instinct, and self-confidence all influenced the newcomer experience whereby proactive newcomers were more successful in socialisation using role models. In light of Filstad’s research, newcomers can be assumed to be more accepted by other co-workers if they show commitment and dedication to the new work environment. This finding is similar to Levine and Moreland’s (1991; 1999) claims that oldtimers are more likely to accept newcomers who have strong skills and who demonstrate higher commitment to their responsibilities.
In sum, the empirical work by Choi and Levine (2003) and Filstad (2004) has shown how newcomers socialise in work groups and illustrated the relationship between the arrival of newcomers and the social dynamics of work practices, culture and socialisation. That work highlighted that new co-workers are likely to be more successful in their efforts to adapt to new workgroup culture and socialise with other co-workers if they appear motivated and willing to adjust to new working conditions. These studies also stressed the role of co-workers’ interaction, socialisation, and observation in learning workgroup culture.

Overall, the conceptual ideas provided by Louis (1980) and Levine and Moreland (1991), combined with empirical research by Choi and Levine (2003) and Filstad (2004), have highlighted newcomers’ experiences of workplace culture and socialisation. The writings of Louis (1980) and Levine and Moreland (1991) illustrated how newcomers are faced with a range of new experiences and how they may have to learn new knowledge and skills in order to become accepted members of the work group. In this context, a newcomer’s ability to acquire new knowledge and be receptive to other group members depends on their motivation, willingness and more importantly, the way they integrate into the workplace culture and socialise with other co-workers. The empirical research by Choi and Levine (2003) and Filstad (2004) also highlighted that the interaction between co-workers may influence the way new co-workers socialise and become group members. For this reason, the role of the established co-worker in workplace culture and socialisation is reviewed next.
Role of established co-workers

The role of established co-workers in establishing workplace culture and promoting socialisation is assumed to influence new co-workers’ experiences. Oldtimer attitudes toward newcomers are also assumed to have the potential to influence co-worker participation and the dynamics and functioning of the work group. However, little attention has been given to the role of the established co-worker in work group socialisation. Levine and Moreland’s (1991; 1999) conceptual discussion on culture and socialisation in work groups is one of few articles that specifically focus on the established co-worker, as well as, the new co-worker. To gain an understanding of the role of the established co-worker, Levine and Moreland’s discussion on the characteristics and tactics of oldtimers will be reviewed next. By examining the tactics used by oldtimers, this discussion provides insight as to how established co-workers may afford or constrain new co-worker participation in everyday workgroup activities.

Levine and Moreland’s (1991; 1999) writings on culture and socialisation in work groups and the relationship between oldtimers and newcomers is widely cited. According to Levine and Moreland (1991; 1999), when a newcomer enters the team, oldtimers subject them to a range of socialisation tactics. Firstly, through encapsulation, newcomers are exposed to oldtimers who are willing to share information about the group’s culture. This may also include informal interactions outside of work hours. Secondly, oldtimers may be expected to act as mentors or patrons to newcomers so
that they can observe appropriate behaviour. Thirdly, oldtimers may be
expected to train all newcomers in a consistent manner and fourthly,
oldtimers may test newcomers by telling them an ‘in house’ joke to see how
they respond.

These tactics are based on the assumption that oldtimers accept newcomers
into work teams without hesitation or conflict. However, as suggested by
Levine and Moreland (1991), this may not always be the case. They claimed
that oldtimers are more likely to regulate the type of information that
newcomers receive and may influence the way that information is
transmitted between members of the work group. When oldtimers accept
newcomers into the work group they tend to transmit information that is
correct and helpful to the newcomer. However, based on this literature
review, if the oldtimer does not accept the newcomer, incorrect information
can also be transmitted. Such a negative reaction may be due to the
oldtimers past experiences with newcomers or concern over loss of
responsibilities and duties. Oldtimers tend to regulate the information
newcomers receive based on their past experiences with newcomers, the
strength of the team, and the perceived motivation of the newcomer.

In sum, the quality of the relationships between oldtimers and newcomers
has the potential to afford or constrain co-worker participation and how
informal learning occurs in the workplace. As everyday learning is taking
place in social practices, the way newcomers and oldtimer interact has the
potential to influence participation, socialisation, and learning practices.
Knowledge about the work group, the job, and group members can be transmitted from oldtimers to newcomers. If the newcomer is accepted by the work group, oldtimers are willing to share their skills and knowledge, however, some oldtimers may transmit knowledge that is incorrect or may choose not to interact with the newcomer at all. The fact that oldtimers may withhold or restrict the type of knowledge they share with newcomers raises some interesting issues about how informal learning occurs in the workplace. Despite the attention given to the relationship between oldtimers and newcomers by Levine and Moreland (1991; 1999) much of the empirical research has focused on the newcomer experience (e.g. Choi and Levine, 2003; Filstad, 2004). These studies tend to focus on newcomer socialisation and the role of oldtimers is acknowledged, however, it is not pivotal to the research.

The sociocultural perspective on learning reviewed in this chapter forms the main interpretive framework for the empirical study. The research aims to contribute knowledge about how the workplace, as a social system, affords or constrains co-workers informal learning in the workplace. This involves examining how both new co-workers and established co-workers participate and learn in everyday workplace activities.

CONCEPTUAL FRAMEWORK

As discussed earlier in this chapter, informal learning occurs as part of everyday experiences in the workplace and relies on the complex relationship between co-workers. Informal learning implicitly aims at better
participation in required activities in the workplace. It is assumed that informal learning occurs by watching other people and interacting with them. However, although the studies reviewed in this chapter were useful at providing a description or a definition of informal learning, few have considered how informal learning occurs in the workplace. Furthermore, terms like interaction, observation, and self-direction are often used very loosely in the informal learning literature. Many scholars have focused on describing what informal learning is and when it occurs (e.g. ad hoc, hit-and-miss, unplanned, spontaneous) however, little attention is directed to how the workplace, as a complex social system, affords or constrains the informal learning process towards better participation in workplace activities, a point highlighted in the sociocultural literature. If informal learning does occur in the workplace as the literature proposes, several key questions emerge: Who are interacting? How are they interacting? When are they interacting? Who is watching whom? What is being learned? What does the learning contribute to the social system?

Consequently, from the sociocultural perspective, a better understanding is needed as to how informal learning occurs in the workplace. What role does the social context of the workplace play in affording or constraining informal learning opportunities? How does informal learning benefit co-workers? How does the relationship between new co-workers and established co-workers affect what is being learned and how this learning takes place? How does informal learning lead to better participation in workplace activities? And finally, what happens if informal learning has negative
outcomes? The present study is designed to address these questions from the perspective of co-workers themselves. The major aim is therefore to develop a better understanding of informal learning in the workplace, based on individual subjective accounts using a sociocultural perspective as the overall conceptual framework. The overall approach adopted for this study is presented in Figure One on the next page.
Figure One provides a visual representation of how two bodies of literature, informal learning and the sociocultural perspective on learning, were combined to form the conceptual framework for this study. Informal learning, highlighted at the top of the figure is the main focus of the study. It is conceptualised as learning that takes place as part of everyday activities in the workplace, and as represented in the literature, is characterised as intentional, unintentional, planned and spontaneous. In
some cases, the learner may not be aware that learning has taken place as it may occur by interacting with or observing other co-workers, and as highlighted, takes place during everyday activities. Based on the review of literature, it is argued that informal learning is a natural, everyday, activity used by co-workers, to better and more fully participate in workplace activities. This is represented in Figure One by the arrow from informal learning to better participation and reciprocally better participation leading to continuous informal learning. This leads to the first research question ‘how do co-workers learn informally in the workplace?’ presented in the middle of Figure One.

Informal learning therefore, is assumed to be the key for better participation in the workplace. Given that participation takes place in a complex social system, with all its co-workers, both new and established co-workers have to be included as workplace participants as the system may afford or constrain this gradual informal learning process towards fuller participation in the workplace. The bottom part of Figure One represents the sociocultural interpretive framework adopted for this study. It raises the second research question related to how the workplace, as a complex social system, affords or constrains informal learning in the workplace.

Because the empirical research on informal learning is limited, it is imperative to continue research on this natural process where co-workers try to better participate in everyday workplace activities. As highlighted earlier, informal learning can be used by co-workers to acquire the specific
technical and social knowledge required in that workplace situation.
Informal learning allows better participation in the workplace and given that participation takes place in a complex social system, such as the workplace, co-workers may afford or constrain opportunities for informal learning.

Better participation in workplace activities, in this dissertation, is intended to capture the idea of co-workers becoming more confident to carry out their every work-related tasks and dealing with emerging challenges, regardless of whether these are task related or involve interactions with other co-workers. This conceptualisation therefore is not reflecting a management or human capital orientation (better participation as greater efficiency or higher performance), nor a critical thinking perspective (better participation as willingness to challenge workplace norms and innovate new forms of practice).

Using the sociocultural perspective as a conceptual framework, the aim of the present study is to attempt to better understand informal learning in the workplace. This forms the framework for the two research questions that guide the present study.

The two research questions are:

1. How do co-workers learn informally in the workplace?
2. How does the workplace, as social system, afford or constrain informal learning in the workplace?
The next chapter outlines the methodology used to address these research questions and the form of qualitative method and the sociocultural perspective adopted in this study.
CHAPTER THREE | METHODOLOGY

This empirical research aims to better understand informal learning in the workplace. In the previous chapter, four bodies of literature were reviewed to gain a broad understanding of what it means to learn in the workplace. These four bodies were adult learning, organisational learning, informal learning and the sociocultural perspective on learning. The last body of literature, the sociocultural perspective on learning, was most influential in the development of this study. It will be used to interpret Research Question One, “How do co-workers learn informally in the workplace?” and it forms the theoretical underpinning of Research Question Two, “How does the workplace, as social system, afford or constrain informal learning in the workplace?”

The methodology chosen for this study therefore, is grounded in some key concepts from the sociocultural perspective. Following a sociocultural perspective, namely the significance of participation and opportunities and affordances that can be created through participation, it is assumed that within a shared social setting of interaction and participation in everyday workplace activities, informal learning opportunities may be afforded or constrained by co-workers. Thus, individuals and their social context must be studied concurrently as learning is assumed to be part of a social practice where activities are structured by social, cultural, and situational factors. Informal learning then, can be described as a phenomenon informed by individuals’ everyday experiences in the workplace. For this reason, the
approach taken in this study is informed by a phenomenological inquiry within a qualitative research framework. The focus of the study is on what people experience as part of their everyday activities in the workplace, and how these afford or constrain opportunities for informal learning. The phenomenological approach encourages an in-depth analysis of how these everyday experiences and participation in workplace activities affect informal learning.

This chapter will now outline the methodology used in this study. It will also provide justification for why this particular methodology was considered to be suitable to achieve the aims of this study, and address the two research questions that were proposed in the conceptual framework. This chapter has four sections: research approach; data collection; presentation and interpretation of findings; and data quality.

**RESEARCH APPROACH**

The current study uses a qualitative methodology to gain an understanding of how informal learning occurs in the workplace. Morse (1991) stressed that qualitative research is useful for studying a phenomenon where little is known as it provides rich descriptions of unexplored phenomena, whether it be a naturally occurring event, a relationship, or some form of interaction. In the present study, qualitative research provides the opportunity to understand how a phenomenon, like informal learning, takes place as part of everyday activities. As informal learning takes place as part of everyday experiences in the workplace, co-workers’ experiences, and how they
participate in everyday activities are central to how informal learning occurs. For this reason, this qualitative research is grounded in a phenomenological approach. This study focuses on descriptions of what people experience, how they participate in everyday activities in the workplace, and how these activities provide affordances or constraints for informal learning that are assumed to lead to better participation in the workplace. From a phenomenological approach, this study seeks to portray co-workers’ everyday experiences of informal learning and participation in the workplace. The phenomenological approach is discussed next.

Phenomenology

A number of theoretical orientations can be found in qualitative research including phenomenology, ethnography, ethnomethodology and heuristics. According to Jacob (1998) qualitative research conveys different meanings to different people and therefore cannot be discussed as if it were one approach. Depending on the researcher’s background the theoretical orientation of the qualitative method may differ. By taking a descriptive approach to lived experience, as highlighted by Van Manen (1997), the theoretical orientation adopted in this study is phenomenology. According to Valle, King and Halling (1989) this orientation emphasises the world as lived by a person, not the world or reality as something that is separate from the person. With this in mind, the present study is designed to illustrate the experiences of participants’ rather than the author’s experience of the phenomenon as in a heuristics tradition, or observation of the group
or culture as in ethnography, or to identify socially accepted behaviours through ethnomethodology.

Phenomenological inquiry seeks answers to questions such as ‘what is this experience like?’ The origins of phenomenology can be traced back to Kant and Hegel, yet Vandenberg regarded Husserl as “the fountainhead of phenomenology in the twentieth century” (1997, p. 11). According to Husserl, realities are treated as pure ‘phenomena’ (Eagleton, 1983, p. 55). Husserl (1970) asserted that the ‘life world’ is understood as what we experience pre-reflectively, without resorting to categorization, and quite often includes what is taken for granted or considered common sense. Later, Polkinghorne (1995) described phenomenology as an attempt to understand or comprehend meanings of human experience as it is lived. Similarly, Welman and Kruger proposed that “phenomenologists are concerned with understanding social and psychological phenomena from the perspectives of people involved” (1999, p. 189). As this study aims to better understand informal learning in the workplace as experienced by co-workers, a phenomenological approach encourages the data to be collected and analysed in such a way to understand how the social context affords or constrains informal learning as a gradual process towards better participation in workplace activities.

In addition, phenomenological research is descriptive and focuses on the structure of experience and the organising principles that give form and meaning to the life world. Phenomenology seeks to elucidate the essences
of these structures and make the invisible visible (Osborne, 1994; Polkinghorne, 1995). In the present research, participants were encouraged to provide descriptive information about their everyday informal learning experiences and their participation in workplace activities while reflecting on their working lives. This approach is similar to Connelly and Clandinin (1990) who suggested that through storytelling, participants are able to explain the way they make meaning of their experiences. Later in this chapter, Connelly and Clandinin’s (1990) approach to presenting and interpreting data will be expanded and justification will be given for why the results of the present study are presented in story form.

Using a phenomenological approach that is informed by experience, the research methodology chosen for this study is strongly influenced by the sociocultural perspective on learning. Other researchers, including Billett (2002; 2004) and Engeström (2001) are also influenced by this perspective. For example, much of Billett’s research on learning in workplaces used a qualitative methodology informed by sociocultural theory to collect and analyse data on learners’ accounts of workplace tasks to discuss participation and learning in the workplace. In addition, Engeström’s developmental research in the study of organisations and work is anchored in cultural-historical activity theory. His recent research has focused on learning and formation of distributed expertise in work teams and on expansive learning in organisations undergoing major transformations.
In sum, a phenomenological approach is most suitable to address the sociocultural issues that were presented in the conceptual framework in Chapter Two. By using a phenomenological approach, it is assumed that participant accounts of informal learning and participation in everyday workplace activities will be portrayed in such a way that those experiences can be illustrated. By doing so, it is anticipated that this approach will generate an in-depth description and analysis centred on the three research questions proposed in the conceptual framework. Here, the focus is on how a phenomenological approach can help us understand the relationship between peoples’ everyday experiences, their informal learning, and participation in the workplace.

This phenomenological study focuses on the experiences of individual participants in the sociocultural context of their daily practice. In this context, this research aims to draw intricate meaning from co-workers’ everyday experiences of informal learning that ultimately lead to better participation in workplace activities. Next, data collection methods used in this study are outlined.

DATA COLLECTION

This section on data collection has four parts. The first part provides information on the research site and describes the organisation that was chosen for this study. The second part describes the sample selected for the present study. The third part outlines the interview process that was used to collect data. Lastly, the fourth part outlines the position of the researcher.
and highlights that rapport between the researcher and research participants has been built and maintained over time.

Research site

Selecting a single research site provided the opportunity to study one organisation in-depth and provide a rich description of informal learning and participation in the workplace. The organisation chosen for this study was a medium sized Australian government public sector agency. The organisation is divided into seven main directorates or work groups. Each work group is led by a curator and a supervisor. As informal learning takes place as part of everyday activities, it was assumed that co-workers in each work group would be presented with opportunities for informal learning on a daily basis. For this study however, research participants were chosen from three of the seven directorates; Science, Botanic Gardens and Operations. These three work groups were chosen based on their proportion of new co-workers and established co-workers. For example, the Science work group consists mainly of researchers and research students and therefore has a higher turnover than the other work groups. For this reason, they have more new co-workers than other work groups. In comparison, the Botanic Gardens and Operations work groups have little turnover and so consist mainly of established co-workers. Each work group is described in turn.

Firstly, the Science work group is responsible for botanical research. The majority of employees in this directorate are university educated and most of the full time employees have completed a PhD or are completing doctoral
studies. Because of the high number of research students, there is a high turnover in this work group and thus more new co-workers than other work groups. Due to the scientific nature of the work group, there is little or no contact with other work groups, who are predominantly operational. At the time of the research there were 15 full time employees and 20 research students in this work group. In conjunction with a university these research students were doing Honours research, Masters, or PhD research. Due to high proportion of research students there is a high turnover of non-permanent staff in this work group. For example, if completing a PhD, students remain in the team for a period of three years, Masters students stay for two years, and so on. This work group has little mobility in or around the organisation and there is little need to have regular contact with other work groups. Their work space is located in one building adjacent to the main works depot.

Secondly, the Botanic Gardens work group is responsible for the care and maintenance of the botanical gardens. At the time of the research there were ten full time staff working in this team accompanied by one apprentice. All employees have obtained a horticultural qualification from a technical college. A high proportion of these employees represent long service in the organisation. For example, seven of the ten employees have worked in the same work group for over 15 years, thus a higher number of established co-workers compared to the Science work group. The remaining three co-workers have been working in the group for less than five years. The Botanic Gardens work group is geographically isolated from the other work
groups. The workshop and other facilities are located approximately one kilometre from the main works depot. Although the work is restricted to the Botanic Gardens area co-workers regularly communicate and work with other work groups to achieve common tasks in the organisation.

Lastly, the Operations work group is responsible for maintenance and engineering. During the research, there were six full time employees. Out of these six, two have technical college certificate qualifications in motor mechanics. Similar to the Botanical Gardens work group, five employees have worked together in the same work group for over 15 years. The remaining work group member was employed two years ago. The Operations work group represents the least number of staff turnover in the entire organisation. Members of this work group are mobile but have a base workshop in the main works depot. Out of the seven work groups present in the organisation the Operations work group have the most mobility and contact with other work groups as their tasks and responsibilities are organisation wide. In addition, out of the three work groups described, the Operations work group has the lowest turnover and therefore the highest proportion of established co-workers.

In sum, an overview of the organisation that was chosen for the present study has been provided. Research participants were chosen from three of the seven directorates in that organisation; Science, Botanic Gardens and Operations. This overview has shown the diversity of each directorate and
how they are positioned in the organisation. Next, a description of the sample chosen for this study is provided.

Sample

The sample was selected from the three work groups previously described. In qualitative research, Boyd (2001) regards a range of two to ten participants as sufficient to reach saturation and Creswell (1998) recommended long interviews with up to ten people for a phenomenological study. With this in mind a sample of four people from each work group was chosen using a range of sampling methods. Initially, through convenience sampling (Sarantakos, 1996), one person with whom I had already developed rapport with over recent years was chosen from each work group. Then, through purposive sampling, participants were selected to provide maximum variation on a number dimensions including age, length of service in the organisation, position in the work group and amount of authority in the work group. Toward the end of the research phase snowball sampling began to occur. Babbie (2004) and Crabtree and Miller (1992) identified snowball sampling as a useful method of expanding the sample by asking one or more participants to recommend others. Overall, from the 12 participants, five co-workers were new to the organisation and seven co-workers had more than 10 years of service. A summary of the profiles of the twelve participants appears in Table One.
Table 1. Profile of participants

<table>
<thead>
<tr>
<th>Work group</th>
<th>Age at time of interview</th>
<th>Role</th>
<th>Length of service (in years)</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>55-59</td>
<td>Research officer</td>
<td>25</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td></td>
<td>20-24</td>
<td>Research assistant</td>
<td>&lt; 1</td>
<td>Honours</td>
</tr>
<tr>
<td></td>
<td>45-49*</td>
<td>Scientist</td>
<td>5</td>
<td>PhD</td>
</tr>
<tr>
<td></td>
<td>50-54</td>
<td>Geneticist</td>
<td>10</td>
<td>PhD</td>
</tr>
<tr>
<td>Botanic Gardens</td>
<td>55-59</td>
<td>Horticulturalist</td>
<td>32</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td></td>
<td>35-39</td>
<td>Horticulturalist</td>
<td>15</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td></td>
<td>25-29</td>
<td>Horticulturalist</td>
<td>2</td>
<td>Diploma</td>
</tr>
<tr>
<td></td>
<td>20-24</td>
<td>Horticulturalist</td>
<td>1</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td>Operations</td>
<td>60-64</td>
<td>Supervisor</td>
<td>28</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>Stonemason</td>
<td>32</td>
<td>Trade Certificate</td>
</tr>
<tr>
<td></td>
<td>35-39*</td>
<td>Handy person</td>
<td>18</td>
<td>Year 10</td>
</tr>
<tr>
<td></td>
<td>35-39</td>
<td>Mechanic</td>
<td>3</td>
<td>Trade Certificate</td>
</tr>
</tbody>
</table>

*the story written about this participant was not used in data analysis

Interviews

Data were collected through an interview process. A tape-recorded, semi-structured interview, using a general interview guide approach was selected to obtain data as it allows the participant some input into the direction of the interview. The role of interviewing in a phenomenological study is to gain
insight into the participant’s feelings, thoughts, intentions and experiences. The semi-structured interviewed gave participants greater freedom in their responses and allowed me to shape the discussion through the use of open ended questions.

The interviews took place over a three month period from June to August in 2005. The interviews were undertaken during work time with the permission of the workgroup supervisor and the Chief Executive Officer. Co-workers from the Science workgroup were interviewed in a meeting room and co-workers from the Botanic Gardens and Operations workgroups were interviewed in a common staff room. Both of these locations were chosen by 10 of the 12 participants, who did not appear concerned that other co-workers knew of their involvement in the study. The remaining two co-workers requested that their interviews take place in the privacy of their own homes.

Prior to the interview participants were asked to read a document containing information about the research project, confidentiality, and contact details of the researcher, and if willing to continue their participation in the project, were asked to sign a letter of consent. Each interview lasted between 30 and 90 minutes. I took notes during the interview and with the permission of each interviewee each interview was recorded. Each interview was recorded on a separate tape and each cassette assigned with an interview code. After each interview I listened to the recording and made notes.
Interview questions were formulated from the key issues identified in the literature review. In order to explore the specific research questions in this study the interview questions were based on participants’ experiences of learning in the workplace. In the first set of questions I encouraged participants to talk freely about themselves and their job in an attempt to create a comfortable and relaxed atmosphere and build rapport. The first set of questions was broad and related to the job, length of service, and general attitudes about the job. The second set of questions was designed to obtain information about the social context and the relationships that interviewees had with other co-workers. The third set of questions, which took the form of a conversation, were aimed at exploring interviewees’ experiences of informal learning in the workplace and designed to identify individual differences in learning and interacting with co-workers. The interview questions that guided the conversations with participants were based on three broad themes: work, learning and change; the social context; and informal learning at work. These questions, that were designed to be open ended, and used as a guide only, can be found in Appendix One.

RESEARCHER POSITION

As a past employee of that organisation, I had previously developed trust and rapport with seven of the 12 research participants. According to Marshall and Rossman (1995) the development of a relationship based on rapport can contribute to the success of research and provide rich data. Edwards (2002) described the benefit of insider research being the
knowledge the researcher has about organisational culture and an awareness of the culture norms of the work group. Berg (2004) suggested that rapport can be used to gain entry to a research setting and balances the power between the researcher and the research participant. In the present study rapport played an important part in gaining access to potential participants and forming relationships based on trust and openness. According to Patton rapport “is built on the ability to convey empathy and understanding without judgement” (1990, p. 317). Gaglio, Nelson and King (2006) and Springwood and King (2001) described how rapport refers to positive concepts such as empathy, friendship, collaboration, trust and loyalty.

In sum, rapport enables the formation of relationships that allow “…thick, rich, description and in-depth, intimate interviews” (Harrison, MacGibbon and Morton (2001, p. 323). Gaglio et al (2006) said that reciprocity is the method used to develop the level of rapport that establishes a good research relationship. Both the researcher and research participant may have different perceptions of trust and power within this relationship that will influence the research process. Corbin and Morse (2003) described the interview as an effective method to overcome such issues because they are more like everyday conversations than other data collection methods. Therefore, both parties have relatively equal control over what is said (Corbin and Morse, 2003).
The aim of qualitative research and the phenomenological researcher is to produce a description of lived experience. In a phenomenological study, data includes information gathered from research participant’s and the researcher’s personal reflections on the topic. Phenomenology encourages a ‘thick description’ of events and experiences, and how participants interpret their experiences and their surroundings. In this study, a phenomenological approach was used to provide a descriptive account of participants’ everyday experiences of informal learning and participation in workplace activities. In addition, the methodology for this study derived from the conceptual framework outlined in Chapter Two, which is grounded in a sociocultural perspective. From this perspective, it is assumed that informal learning leads to better participation in workplace activities, however, the relationship between new co-workers and established co-workers may afford or constrain the informal learning process.

The research questions were designed to find out how informal learning occurs in the workplace. This includes how and what co-workers learn informally, and more significantly, to find out whether the workplace, as a complex social system, affords or constrains informal learning in the workplace. The phenomenological approach, combined with a sociocultural perspective, was chosen as the most suitable methodology to address the research questions. The phenomenological approach seeks to elucidate the experiences of co-workers as told by those individuals and to provide an
account of what actually happens when everyday activities lead to informal learning. The sociocultural perspective helps to determine whether these everyday activities that lead to informal learning are afforded or constrained by co-workers. The phenomenological approach encourages an in-depth analysis of how these everyday experiences and participation in workplace activities affect informal learning. The presentation of results was mediated by co-worker’s reflections on their informal learning experiences and participation in the workplace. In this study, the intention is to present the data in a way that will immerse the reader in the phenomenon and provide enough concrete details that allow the reader to identify with the experiences of each participant. One way of achieving this is through the use of stories, which are then analysed from a phenomenological approach using a sociocultural perspective.

Stories have become a useful way of representing data and interpreting results. In educational research for example, this emergence is evident in Connelly and Clandinin’s (1990, 2000) work on narrative inquiry. These authors described the study of narrative as the “study of the ways humans experience the world” (1990, p. 2). Similarly, narratives express human understanding through which individuals make sense of their lives by imparting meaning to their experiences (Taylor, 1992; Gergen, 1994; Ylijoki, 2001). When we compare similar experiences, stories are shared between people, as according to Polkinghorne the data “…moves from common elements to stories” (1995, p. 12). According to Connelly and Clandinin “we lead storied lives” (1990, p. 2) through everyday activities like
talking to family and friends, watching television and reading books.

Cortazzi (1993) argued that stories are created naturally, and as emphasised earlier by Clandinin and Connelly (1990), as people live stories, they tend to modify and create new ones along the way.

By sharing stories, we are entertained and able to learn new things. Rossiter (2002) suggested that the increasing use of stories in adult education practice is pervasive because, and as posited earlier by Neuhauser (1993), they are believable and rememberable. According to Gudmundsdottir (1990) stories are a part of our identity and culture. Referring to the work of Bruner (1986), Gudmundsdottir (1990) described how stories look for connections between events, making individual events more comprehensible by identifying the whole. According to Barone (1992), stories are a powerful way of communicating as they provoke emotions and empathy, and stimulate the reader to identify with the characters and their experiences. Rossiter (2002) later described how stories involve us in the actions and interactions of individuals, where the reader creates and discovers meaning.

In the literature, the term story is often used interchangeably with the term narrative. In addition, terms including narrative inquiry, narrative method, and narrative analysis are also used. For example, Connelly and Clandinin (1990) referred to narrative inquiry, Cortazzi (1993), Riessman (1993) and Feldman, Skoldberg, Brown and Horner (2004) wrote about narrative analysis, and other authors used both narrative and story. In the literature,
narrative is a vague term that can mean different things to different people. Despite the growing number of authors who use terms like narrative and story, few have attempted definition or justification for their method.

According to Labov and Waletsky (1967) and Czarniawska (1998) the interchangeable nature of these terms may be because they have similar characteristics such as chronological order and thematic ordering of events. Connelly and Clandinin (1990) described narrative as both phenomenon and method, calling the phenomenon ‘story’ and the inquiry ‘narrative’. Polkinghorne indicated that “narrative analysis moves from common elements to stories” (1995, p. 12). This problem of defining narrative and distinguishing between narrative and story was also discussed by Riessman (1993) who commented on the broad use of the terms that included just about everything. Later, Feldman, Skoldberg, Brown and Horner suggested that a story is a subset of narrative that “provides rich data that express movement, interpret ideas, and describe from the storyteller’s perspective how things used to be and how they are...” (2004, p. 150).

In an early attempt to clarify the distinction between narrative and story, Denzin’s definition appears to encapsulate most of the pertinent issues:

A ‘narrative’ is a story that tells a sequence of events that are significant for the narrator and his or her audience. A narrative as a story has a plot, a beginning, a middle and an end. It has an internal logic that makes sense to the narrator. A narrative relates
events in a temporal, casual sequence. Every narrative describes a sequence of events that have happened (1989, p. 37).

For the purpose of the present study, Denzin’s (1989) definition is most suitable, and in this study, the term story will be used in the context of participants’ accounts of their experiences. Next, I will outline the process used to generate and interpret each story.

In this study, data were collected from interviews conducted with co-workers from one organisation. Using a phenomenological approach, the interview was useful for generating stories because the aim of the interviews was to elicit experiences of informal learning and participation in the workplace. The unstructured nature of the interviews allowed probing questions that initiated stories from participants’ everyday experiences in the workplace. For example, during the interview I was interested in hearing about participants’ jobs, their learning experiences, and their role in the work group, including information about the social context and their relationship with other co-workers. Participants gave examples of their experiences relating to these questions. In the next chapter, these examples are the stories told in this thesis.

As an example, ‘Long service’, will be used to describe my approach to the story method used to present and interpret the results for this study.
Long service

Some changes are hard to get used to. I don't like the sort of changes that are heavy with bureaucracy. These are the ones that overload me with too much information like new procedures and regulations. For example, every now and again changes are made to my job description. Management say that it's to my advantage but the extra paperwork, added to my usual work responsibilities, takes up too much of my time. Sometimes it's hard to see how this would improve my work here.

Things have changed a lot since I started working here as a horticulturalist over 25 ago. At that time, management consisted of a handful of people that you could rely on. Now, they just about outnumber the rest of the staff, and it's hard to justify why. It doesn't make my job any easier. At last count, there were 15 people working in the main office. I hardly know all their names so I don't know if I could trust any of them. When I first started here there were only 5. Today, I don't know what they all do.

Some years ago, I was forced into a different position. I had two choices, accept it or leave. I chose to stay. During the transition, I wasn't offered any orientation or training. As the change was obligatory, I didn't have a choice but to teach myself new skills. As time went on, I realised that I was able to learn things more effectively through talking to other people and reading. Now, I am a self-taught expert in my field.

For example, during the time that my job required me to use a computer, training wasn't provided. Over time, through trial and error, reading manuals and talking to experienced people, I was able to adapt to technological changes. In those days, computer training wasn't offered. Some computer courses are now offered, but not everyone participates.

Over time, I have developed the necessary skills to do my job well, and despite feeling unvalued at times, I enjoy it. I am now able to work with people in other fields and I have formed a strong membership with a number of organisations. People from all over the country ask me for advice. But as with any group, the same people do all the work and my organisation still expects a lot from me.

The title of each story represents the phenomena and participants’ experiences in the workplace. ‘Long service’ was chosen as the title to represent that participant’s 25 years of service to the organisation and the changes experienced over that time. Writing in first person encourages the reader to become familiar with the participant and become immersed in the story.
‘Long service’ tells the story of an established member of an organisation who has endured many changes over 25 years. ‘Long service’ is about that participant’s reaction to change and informal learning experiences in the organisation over a 25 year period. Workplace changes have encouraged the learning of new technical skills. The most significant change emerging from that participant’s experiences was the introduction of computer technology. That participant was not provided with any formal training in using a computer and learned through ‘trial and error’. In the narrative that participant also talked about changes in management and structure that have influenced their position and job role. A change in role and other changes in the number of employees was questioned by that employee who says “it doesn’t make my job any easier”. These changes also raised issues about the role of trust and social relationships in the workplace by that participant who said “I hardly know all their names so I don’t know if I could trust any of them”.

Following advice from Denzin (1989), each story has a beginning, middle and an end. In ‘Long service’, the first paragraph introduces a participant grappling with change. The second paragraph established that participant as a horticulturalist who has worked in the organisation for over 25 years. From this information the reader begins to identify with that participant and their work situation. The second paragraph also highlighted some of the changes that participant experienced over time. For example, changes in employee’s roles and numbers made that participant talk about trust. The next two paragraphs of ‘Long service’ outlined the events and initiated the
climax or development that illustrated the main issues experienced by that participant, which were change and learning. The next paragraph of ‘Long service’ described the type of change that participant had experienced.

In the next paragraph that participant recalled how learning to use a computer occurred by “trial and error, reading manuals and talking to experienced people”. The haphazard nature of informal learning was illustrated when that participant learned new skills in response to everyday changes in the workplace. The final paragraph concluded the narrative by offering an outcome or ending. In ‘Long service’ that participant described how, despite the changes and associated challenges, now enjoys the job. Although the organisation “still expects a lot from me” that participant is well known in that field and has developed the skills needed to perform that job well.

However, according to Feldman et al, “although all of us are generally adept at interpreting the stories we are told in our everyday lives, rigorous methods of analysis are useful when we interpret stories for research” (2004, p. 150). For this reason, the process from story to analysis deserves attention at this point. According to McCance, McKenna and Boore (2001) there are many ways to conduct narrative analysis. The approach called ‘personal narrative as social process’ is most relevant to this study as it focuses on storytelling as embedded in larger social processes. In this study, the workplace is a social system, where co-workers may afford or constrain opportunities for informal learning in the workplace. Co-worker
participation and interaction represents the social process in which informal learning occurs in the workplace. In order to examine the experiences of each co-worker, it is useful to compile individual stories. Polkinghorne, in conversation with McCance et al said that “the basic work of narrative analysis is to produce an integrated story with a plot for each of the participants in the study. Studies using narrative analysis usually produce a case study of each participant, and then, a commentary addressing the differences and similarities among the case studies” (2001, p. 355).

It is therefore necessary to explain my process of interpretation. Like Feldman et al (2004) I recognise that the social world is characterised by multiple interpretations. In this study the analysis of each story began with identifying the story line, or the basic point that the participant was making about their everyday experiences of participation and learning in the workplace. In ‘Long service’, the various changes experienced by that participant formed the story line. From listening to the audio recording of the interview, a story emerged whereby that participant used the word change to describe new technologies, new role and responsibilities, new co-workers, social relationships, and how these factors influenced trust and participation everyday workplace activities. From this story line, several sub-plots, or themes, emerged. In ‘Long service’, the sub-plots are trust, self-directed learning, and learning by trial and error. Over time changes in technology meant new ways of performing work tasks. As training was not provided to learn new skills, that participant acquired new skills by talking to other people, reading and by trial and error. The identification of these
issues led to the final level of analysis, to discuss the relationship between that participant’s experiences of interaction, participation and informal learning in the workplace.

The process of writing the stories is a creative act and it is “...often not clear when the writing of the study began” (Connelly and Clandinin, 1990, p. 7). I wrote the stories in this study within one week of the interviews. Following suggestions from Holloway (1997) and Hycner (1999), at the beginning of the writing process, I listened to the audio recording of each interview to become familiar with the words of the participant to develop a holistic sense, the ‘gestalt’. In some cases, the interview was played back to the participant where it was possible to share our thoughts and interpretations. Sharing my interpretation of the data with participants encouraged the use of ‘multiple lenses’ (McNiff and Whitehead, 2000). Connelly and Clandinin (1990) described the process of storytelling as a collaborate document constructed from the lives of both the researcher and the participant. After the stories were written, participants were asked to read their story to ensure my interpretation of their experience was accurate. Some stories were then re-written to accommodate any changes made by the participant. This process adds to the rigor of the research process.

During the story writing process I was also conscious of the likelihood of my own interpretation entering the unique world of the participant (Moustakas, 1994; Creswell, 1998). I adopted a strategy recommended by Cho and Trent (2006) who suggested the importance of bracketing as a "researcher’s
constructions of realities will inevitably be reconstructions, interpretations” (2006, p. 323). According to Miller and Crabtree (1992) bracketing the researcher’s personal views or preconceptions adds to the rigor of qualitative research. In this study I was mindful to remove my perception of each participant and their experiences. For example, from my prior contact with that participant in ‘Long service’, my perception was that this person was unhappy in their position and disillusioned. Following the interview my original perception remained. To ensure that my perception was not going to interfere with my analysis, I engaged in a follow-up conversation with that participant, who was asked to read the story and given the opportunity to add, remove, or make changes. That participant explained to me that it has been difficult adjusting to changes in role and in the organisation, but, over time has accepted those changes and decided to make the most of the job and the situation. This conversation cleared any misinterpretation on my behalf. Similar to the approaches used by Cho and Trent (2006) and Groenewald (2004) this process helped me to review my interpretation and perception of that participant’s experiences in an effort to achieve mutual understanding.

In summary, the use of stories allow descriptions of events and situations (Ylijoki, 2001), giving meaning to the data, providing rich accounts of the phenomena under investigation; the affordances of constraints of informal learning through participation at work. The next chapter contains ten stories. Each story represents the phenomena of informal learning in the
workplace and seeks connections between participation in workplace activities and informal learning.

DATA QUALITY

Qualitative research, like all forms of research, must address issues of reliability and validity. The nature of qualitative research suggests that these are difficult to determine as the uniqueness of each participants’ experience cannot be generalised. For this reason, Lincoln and Guba (1985) proposed four alternative ‘naturalistic’ criteria for evaluating the quality of qualitative research: credibility; transferability; dependability; and confirmability. Credibility refers to the confidence one can have in the truth of the findings and can be established by various methods. My two methods of choice were triangulation and member checking. Participants were given the opportunity to read their narratives so they could agree or disagree with my interpretation. During this process participants had the opportunity to confirm that the data collected reflects their informal learning experiences (Hycner, 1985). Coffey & Atkinson emphasised that “good research is not generated by rigorous data alone ... [but] 'going beyond' the data to develop ideas” (1996, p. 139).

In addition to ensuring credibility the guidelines for writing a good story was followed. A good story must be invitational and encourage the reader to participate (Connelly and Clandinin, 1990). Spence (1982) referred to ‘narrative truth’ whereby each story must display continuity, closure, aesthetic finality and a sense of conviction. Connelly and Clandinin wrote
that a plausible narrative is achieved when the reader says ‘I can see that happening’ and so “narrative and life go together...its capacity to render life experiences, both personal and social, in relevant and meaningful ways” (1990, p. 10).

Throughout the interview process I regarded the possibility of interviewees telling me what they thought I wanted to hear. Having participants listen to their audio recordings and read over their constructed ‘narrative’ helped to reduce this as I verified the narrative (Richmond, 2002). The credibility of my own position as a researcher may have also influenced the quality of the study. Although there can be no definitive questions that establish credibility, Patton (1990) recommended that the researcher acknowledge any personal connections that the researcher has to the people, program or topic being studied. Throughout the research I also ensured the anonymity of the participants by using pseudonyms.

Transferability allows other researchers to apply the findings of the study to their own investigations and refers to the possibility that what was found in one context by a piece of qualitative research is applicable to another context. As Lincoln and Guba (1985) pointed out:

If there is to be transferability, the burden of proof lies less with the original investigator than with the person seeking to make an application elsewhere. The original inquirer cannot know the sites to which transferability might be sought, but the appliers can and do. . . The responsibility of the original investigator ends in providing
sufficient descriptive data to make such similarity judgements possible (p. 298).

To enable transferability this study presented findings with thick descriptions of informal learning phenomena through the use of stories. Transferability also provides the reader with enough information to judge the appropriateness of applying the findings to other settings. Lincoln and Guba's (1985) use of the transferability implies generalisability of the findings and results of the study to other settings, situations, populations, or circumstances. The aim of transferability is to give readers enough information for them to form a thick description and judge the applicability of the findings to other settings. In this study the stories provide the reader with a first person account of the phenomena and the informal learning experience. Dependability was illustrated in this chapter by providing documentation of data, methods and decisions about the research process. This approach emphasises the need to account for the ever-changing context within which the research occurred, including changes that occurred in the setting, and how these changes may have affected the research process.

Confirmability uses auditing as a means to demonstrate quality. In this study techniques such as analytical triangulation were used to ensure confirmability. To enhance confirmability in this study I also documented the procedures for checking and rechecking the data throughout the study. A data audit was also performed that examined the data collection and
analysis procedures allowing me to make judgments about the potential for bias or misinterpretation. I relied on analytical triangulation and participant feedback where I asked interviewees to review findings based on the participant stories I wrote about their experiences. This process also encourages communicative validation where confirmability can be ensured through additional questioning once the researcher has re-entered the field and collected additional data. Another way of ensuring confirmability was to share these interpretations with interviewees as done in the bracketing and member checking processes. In any research it is necessary to acknowledge techniques that enhance the quality of analysis yet it need not be antithetical to the creative aspects of qualitative analysis...” (Le Compte and Goetz, 1982). Lincoln and Guba (1985) suggest that confirmability can replace the need for objectivity in qualitative research.

In sum, my approach to addressing Lincoln and Guba’s (1985) four ‘naturalistic’ criteria for evaluating the quality of qualitative research has been provided in this section. In this study, triangulation and member checking were chosen to ensure data quality. As participants’ experiences were portrayed using stories, it was important to ensure credibility and confirmability with those participants.

Overall, this chapter has described the qualitative approach adopted in this study and outlined the research approach, data collection methods, presentation and interpretation of results, and data quality. As emphasised in this chapter, the phenomenological approach to qualitative research seeks
to identify and illuminate phenomena through how they are perceived by the participant. Phenomenological research seeks to understand subjective experience and move beyond taken-for-granted assumptions. Given the conceptual framework for this study showed how informal learning leads to better participation in workplace activities, the methodology chosen for this study was influenced by the sociocultural perspective on learning that was reviewed in Chapter Two. From this perspective, informal learning in the workplace is conceptualised as a social system that affords or constrains informal learning opportunities. The next chapter contains results.
CHAPTER FOUR | RESULTS

This chapter presents the results of the study. In order to develop a deeper understanding of informal learning in the workplace, a conceptual understanding of informal learning is needed. A sociocultural conceptual framework was used to present and analyse data about informal learning and participation in everyday workplace activities, gathered using a phenomenological approach. From within that framework, two research questions emerged: How do co-workers learn informally in the workplace? And how does the workplace, as a complex social system, afford or constrain informal learning in the workplace?

The results of this study are presented within the conceptual framework presented in Chapter Two. It was argued that informal learning takes place as part of everyday activities, aimed at enabling better participation in everyday work activities. Participation, however, may be influenced by social affordances and social constraints which are created through interaction between new and established co-workers. In time, these social affordances and constraints are assumed to be influenced by the nature of their relationships in the complex social system of the workplace. These two key concepts, social affordances and social constraints, are used in this chapter to present the results of this study within a sociocultural framework on learning.

This organisational structure, around affordances and constraints, was found useful to present how informal learning took place in the workplace setting.
chosen for this study. In presenting the results, the themes and complexities that emerged in the data are highlighted, and attention is drawn to the complexity of this psycho-social phenomenon.

The key themes that emerged from the interview data are presented through stories. Following each story, the nature of informal learning described in that story is analysed. Co-workers everyday experiences of informal learning, and their participation in those experiences, are also illustrated in each story. By taking a phenomenological approach, these experiences are mediated by co-workers reflections as told in each story. Each story illustrates the structure and experience of the phenomenon as told by co-workers, which in this case, may be the job, relationships with other co-workers’, the type of learning undertaken, and may also indicate various emotions as felt by those co-workers. In a phenomenological sense, this approach enables the reader to gain some understanding of what co-workers experience and how they interpret their own world.

SOCIAL AFFORDANCES

Five stories were generated to illustrate different types of informal learning in the workplace which were assumed to lead to better participation in everyday workplace activities. In these stories, co-workers reported how social interaction and participation in work activities provided emerging opportunities for informal learning by means of observation, shadowing, trial and error, and ‘having a go’. Much of this learning appeared to be spur-of-the-moment and self-initiated, where co-workers appeared to recognise...
opportunities for learning social and technical knowledge and skills that would enhance working conditions. Further, these stories illustrated the reciprocity occurring in the social context of the workplace where informal learning occurred between co-workers that was assumed to lead to better participation in workplace activities. This reciprocity suggests interdependence between co-workers in how informal learning occurs, and the opportunities they are presented with, as part of everyday actions and participation in the workplace. The five stories analysed as evidence of social affordances in this section are: ‘A notebook for coping’; ‘A welcome party of one’; ‘Here to stay’; ‘Walking together’; and ‘Computer whiz’.

‘A notebook for coping’

The first story, ‘A notebook for coping’, describes the adjustment process experienced by a new co-worker, Amy, who joined the work group nine months ago after completing a plant science degree at university.
A notebook for coping

After finishing my plant science degree last year, I started looking for a rewarding job. I wanted a job where I could work with people with the same interests in plant biology and learn more about plant science. I had this place in mind, but never dreamed I would be lucky enough to work here. In my field, working here is considered very prestigious.

A few weeks later I started my new job here as a laboratory assistant. I've now been here for 6 months working in research. It's different from the research I had been doing at uni. A lot of the work is new, and I have had to learn new skills. Safety is very important here, there is some equipment that could be dangerous if not used properly.

I was anxious to learn how things are done around here so that I could fit in. For the first couple of weeks, I shadowed the two people I work most closely with, who have been here for a long time. If I needed to learn something new, I would watch them do it first, and then do it myself. In some cases, my supervisors would describe to me how to do it, and then I'd have a go. I have found that observation and doing is the best way to learn. I like to have a go. I have a notebook that I write everything in. I look in my notebook if I can't remember something.

Sometimes my work can be boring. Much of it is repetitious but my supervisors always explain the relevance behind the work that is boring. Also, if I refer back to my studies, I am able to understand the experimental design and realise that the boring moments have the potential to lead to greater things in the future.

When I first started here, I was apprehensive about having too much to say. I was scared of making mistakes and looking stupid in front of my workmates. Thanks to the help and support from my workmates, I feel like I can now make an opinion or offer a suggestion without being anxious. It hasn't taken that long for me to fit in.
This story represents the experiences of a new co-worker, Amy, who talks about learning new skills and knowledge and her willingness to ‘fit in’. The social processes occurring between Amy and the existing work group were illustrated and showed how learning opportunities were created through participation in this particular work group. The story shows how Amy seized opportunities for learning, and for what purpose, and highlighted the systematic nature of informal learning, whereby she used a notebook to record her learning experiences.

Amy’s learning experiences highlight the importance of the social environment and participating with other co-workers in enabling informal learning to occur as part of everyday experiences in the workplace. The role of other co-workers and the social environment were important here as they were assumed to provide the means by which Amy was made to feel comfortable in the new work group and able to identify new learning opportunities through participation. This learning was important here as, although she possessed the necessary technical skills and knowledge to fulfil the requirements of the job, building technical knowledge was perceived by Amy as only one part of the adjustment process to the new work group and environment. During this process, she also learned new work procedures and technical knowledge, including the social knowledge that led to successful integration into the work group. This new knowledge was attained through participation in everyday experiences in that particular work group.
When entering the new work group, Amy reported being faced with learning the social and technical knowledge that facilitated successful entry and acceptance by other co-workers. This included learning new knowledge about how the job was done and the norms and values of the work group. ‘A notebook for coping’ thus demonstrated how Amy learned new knowledge and skills about the content and context of the job. This included the procedures and practices consistent with the methods used by other co-workers in an effort to perform the job well and to ‘fit in’. Although much of this work was reported by Amy as being ‘boring’ and ‘repetitious’, she recognised that it could lead to ‘greater things’. This suggests that she may have been ambitious and determined to do well in her new job. This gave the impression that Amy was anxious to learn the social knowledge of the work group and careful not to make mistakes or ‘look stupid’ in front of other, more established co-workers.

In ‘A notebook for coping’, Amy also expressed a willingness to learn new technical and social knowledge that would enhance her job by shadowing and observing more experienced co-workers, and then ‘having a go’. A desire to ‘fit in’ was illustrated by her apparent anxiety to assimilate into the work group culture and ‘learn how things are done around here’. From Amy’s account, this was an informal process of interaction and asking questions so that social and technical knowledge could be acquired. Writing the new knowledge in a notebook allowed Amy to recall information when needed and was found useful for recording her new learning and knowledge. In this story, the notebook appeared to be an important symbol of Amy’s
learning experiences, as it represented recognition and understanding of
new practices and learning and the willingness to learn new skills and
knowledge.

‘A notebook for coping’ also illustrated how co-worker interaction and
participation facilitated opportunities for informal learning that were
assumed to lead to better participation in work group activities. Social
interaction seemed to have helped remove stress and tension from Amy’s
experiences by providing her with the opportunity to understand and learn
the skills needed for the job. This was illustrated in her account and
reflection, ‘thanks to the help and support from my workmates…it hasn’t
taken that long for me to fit in’. By interacting with other co-workers Amy
reported that she was able to learn the acceptable norms and behaviour
expected in the work group, and as highlighted, learning how ‘things are
done around here’, removed her anxiety.

In summary, ‘A Notebook for coping’ highlighted the importance of
established co-workers helping new co-workers adjust to the new work
environment. It showed how opportunities for informal learning through
everyday participation in workplace activities occurred in that particular
setting. One may wonder, however, what would happen if co-workers were
not as willing as the person in ‘A notebook for coping’ to help in this
process? What if other co-workers resisted access to important social and
technical knowledge about the job and the work group? If these social
affordances were not available to Amy, one would assume that ‘fitting in’
would have been difficult, and the transition process into the new job more difficult. A situation like this would alter the social dynamics that occur when a new co-worker enters a work group. The transfer of knowledge and skills among work group members might be unlikely. In ‘A notebook for coping’, positive interaction and participation between co-workers was found to enable successful integration into the work group, which highlighted the role of existing co-workers in accepting new co-workers into the work group. Workplace environments, however, are not always forthcoming in supporting the adjustment of co-workers, and reciprocally, new co-workers are not always so diligent in optimising their own learning of local knowledge. Before such situations are examined, a story told from the perspective of an established co-worker, who claimed to facilitate new co-workers’ adjustments, is provided next.

‘A welcome party of one’

This second story extends the phenomena of seeking opportunities for learning and benefiting from social support, by demonstrating how an established co-worker, Bill, facilitated the transition of a new co-worker to the work group. In ‘A welcome party of one’, a co-worker with over 20 years of experience in the group, talked about ways of helping new co-workers.
A welcome party of one

I have been working here for over 20 years. In the past, people got a job here and they stayed. We were all employed on a permanent basis, and we knew where we stood. In most cases, we knew who everyone was, and there weren’t too many changes. Even though my job has changed in recent years, out of the 6 people I originally worked with, I am the only one still here.

Now, we get new people all the time. I feel sorry for new people. It’s like they have to start over. They have to make new friends and try and fit in. Most of them are employed on a contract. This makes them vulnerable and it’s as if they have to work harder to stay here.

Some of them look for more security and so are here today and gone the next. This must be stressful for new people. There are so many expectations. This doesn’t do much for staff morale. Some of my workmates don’t even bother talking to new people because they know they might not be here for very long. There’s no point in forming any relationships, so they think.

New people look anxious and vulnerable, like a kid on the first day of school. They stand away from the group and you can tell that they are thinking ‘should I go over there and talk to someone’? They approach the group cautiously and hope that someone will acknowledge them.

I try to make new people feel welcome. I make a point to introduce myself and tell them to come and see me if they have any questions. I like to have a chat with new people. I enjoy meeting new people and I’m keen to share my knowledge and skills with them. More could be done to make new people adjust better. At the moment, there is no formal induction process, even though one is needed. Everyone needs to feel wanted.
This story is about an established co-worker, Bill, who was appeared to be considerate about new co-workers’ feelings, made an effort to say ‘welcome’, and encouraged new co-workers participation in everyday work experiences and activities. It also highlighted how a new co-worker benefited from being made to feel welcome at the start of a new job. In contrast to the first story, ‘A notebook for coping’, which focused on the perspective of the new co-worker, ‘A welcome party of one’, tells the other side of the story. That is, how an established co-worker helped a new co-worker fit in. The story showed how Bill created a context that enabled and facilitated informal learning for better participation in workplace activities. In the story, Bill was keen on alleviating new co-workers anxieties with the tacit expectation that this would help them fit in at a quicker rate.

In ‘A welcome party of one’, the anxiety experienced by many new co-workers’ was portrayed through the eyes of Bill, an established co-worker, who appeared to want to show empathy toward new co-workers. As illustrated in the story, Bill was well aware of the challenges faced by new co-workers, who are employed on short term contracts, and the difficulties they experience adjusting to a new job. This was demonstrated by his view that in the past, ‘we all knew where we stood’, suggesting that change was a not common occurrence at the time. As years passed, organisational changes forced employees to retrain and ‘now we get new people all the time’.
‘A welcome party of one’ demonstrated the role of an established co-worker who recognised the anxiety faced by new co-workers and was willing to help new co-workers adjust to the new work group. Bill used his existing technical and social knowledge, gained over many years, to make the new co-worker feel welcome. Bill felt sorry for those who are new to the work group who have ‘to make new friends and try and fit in’, and made a point of helping the new co-worker by offering his help and guidance. However, as illustrated in this story, a willingness to help new co-workers was not shared by all work group members. Some established co-workers may not talk to anyone new as they ‘might not be here for very long’. Bill recognised uncertainty on behalf of a new co-worker who approached the work group cautiously and hoped that someone will acknowledge them. As Bill mentioned, a new co-worker is ‘awkward and vulnerable’, and being friendly and helpful would help the new co-worker adjust.

In an effort to help new co-workers adjust to the new work environment, Bill also tried to make ‘new people feel welcome’. Bill made a point to facilitate interaction with the new co-worker through introduction and conversation, and encouraging participation in the work group. During this process, Bill offered assistance to the new co-worker, especially if they had any questions, or needed to know anything about the job. This interaction facilitated a reciprocal process between the new co-worker and Bill who said that he ‘enjoys meeting new people’ and is eager to share knowledge and skills. By acknowledging the apprehension faced by new co-workers, Bill suggested that a formal induction process is needed in the organisation as
'everyone needs to feel wanted’. Moreover, the reluctance of other co-workers to interact with new group members because they ‘might not be here for very long’ suggested that not all co-workers are as forthcoming with new co-workers as Bill.

The issue of reluctance of established co-workers to accept new co-workers in the work group was addressed by Bill’s acknowledgement that some ‘workmates don’t even bother talking to new people because they know they might not be here for very long’. This has implications for the social context in which informal learning occurs. Bill reported that he was happy to share knowledge and skills with new co-workers, and acknowledged that sharing knowledge and skills was a helpful way to make new co-workers feel welcome and reduce any anxiety stress and tension. By meeting new people and having a ‘chat’ with them, Bill imparted social and technical knowledge about the job to the new co-worker, although this process appeared somewhat inadvertent by the acknowledgement that a formal induction process is needed in the organisation.

However, by doing so, Bill also showed limited personal investment in facilitating interaction or new co-worker adjustment processes. Although Bill acknowledged that new co-workers were ‘anxious and vulnerable’, little was done to reduce this tension as Bill appeared to do no more than initiate conversation with a new co-worker. The empathy that was initially acknowledged by Bill appears clouded by a reluctance to instigate, or suggest to management, a formal induction program in the organisation.
Perhaps the perception of other co-workers who do not make an effort to talk to new co-workers had influenced the co-worker in ‘A welcome party of one’ to be distant with new co-workers, choosing only to talk and offer advice. This limited contact may have satisfied Bill’s empathy toward new co-workers, but at the same time, did not hamper relationships with other established co-workers in the work group who tend to avoid contact with anyone new. But is this all that Bill can offer? Perhaps a more concerted welcome and follow-up would be helpful for the new co-worker in the long term?

In summary, a ‘Welcome party of one’ illustrated the importance of social context in facilitating participation and informal learning opportunities in the workplace, and showed how an established co-worker reported feeling empathy toward new co-workers, and understands the vulnerability experienced by new co-workers. It also highlighted a relatively superficial attempt to make new co-workers feel welcome through conversation and interaction. However, beyond initial politeness, Bill did not take any responsibility for the new co-worker. There was no evidence of mentoring, coaching, or follow-up outside of introductory conversation. Surely, a new co-worker would need more social support to adjust successfully to a new work group?

‘Here to stay’

The third story, ‘Here to stay’, tells the story of a new co-worker, Harry, who was made to feel welcome by other co-workers in the work group. Harry
was able to learn new knowledge and skills relating to the job and the work group that enabled successful participation with other co-workers.
Here to stay

I started a university degree in landscaping but after a few months I dropped out. I started a gardening business which was more enjoyable than studying, but I was searching for something more secure and permanent. I then enrolled in a course in horticulture at the local technical college and got the job here. I found working and studying to be more hands on and enjoyable.

On my first day, everyone helped to make me feel at ease. The best thing was that I wasn’t left out of any conversations. One of the first people I worked with was ‘Crazy Cray’. Of course, this isn’t his real name, but he had a reputation for being obsessed with Cray fishing. He started asking me questions to get me to communicate. He made me feel welcome.

In the beginning, I didn’t know what was expected of me. But as time went on it became clearer. Everyone was so helpful. They helped me learn more about the job. Most of the time I just watched what other people were doing. Everyone has their own way of doing things; I just had to prove to them that my way was also good. After a while, I stopped watching and started working. Everything was going well.

I have now been working here for 20 months, and love every minute. I have been made feel welcome and as part of the team since day one. To sum it up, it’s a combination between good people and a good environment, every bit is good. My short time here has taught me the value of trust, recognition and respect. I haven’t yet had the opportunity to welcome someone new, but when the time comes, I will treat them the same way I was, with friendliness and respect. Hopefully, I’m here to stay.
Similar to ‘A notebook for coping’ and ‘A welcome party of one’, from Harry’s perspective, this story illustrated how an established co-worker helped a new co-worker adjust to the work group. This story took a step back in time and highlighted what can happen when the positive experience of a new co-worker and the enabling attitude of the social context come together to create a positive work environment for continuous and spontaneous informal learning opportunities.

‘Here to stay’ emphasised the reciprocity of enabling workplace learning environments where individuals and the social context jointly create opportunities for informal learning. The focus of the story was on Harry’s journey, over time, of informal learning since joining the organisation. At the beginning of the journey, Harry experienced feelings of uncertainty about the new job. At first, he thought it was better to ‘watch what other people were doing’, illustrating an awareness that established work group members would have their own way of doing things, and for this reason, he preferred to watch them and see how things were done.

Similar to the new co-worker’s experiences in ‘A notebook for coping’, Harry entered the new work group and was faced with learning the social and technical knowledge that facilitated successful entry, acceptance by other co-workers, and everyday participation in work group activities. This included learning new skills and knowledge about how the job is done in the particular workplace and the norms and values at the work group. Harry recalled how in the beginning, expectations about the job were ambiguous,
but as time passed ‘it became clearer’. Because established co-workers had their ‘own way of doing things’, Harry reported watching what other people were doing before joining in. Harry appeared to be mindful of the norms, values and practices that already existed in the work group between co-workers, who had been working together for longer, and who may have specific views on how the job should be done. As illustrated by his comment, ‘everyone has their own way of doing things’, Harry appeared eager to learn the procedures and practices that were consistent with the methods used by other co-workers in an effort to perform the job well and become a valued member of the work group.

‘Here to stay’ also described that new co-worker’s commitment to learning new skills and knowledge that would appear to enhance that job. As illustrated in the story, Harry ‘enrolled in a course in horticulture at the local technical college’, which suggested a willingness to learn and increase the technical knowledge required for that job. Harry’s current job was perceived as affording the combination of formal study with an informal means of acquiring new skills and knowledge that would enhance the working experience. This is illustrated by his reference to wanting ‘something more’ than a university degree or a small business venture. By describing the current position as ‘hands on’ and ‘more enjoyable’ he showed a willingness to be ‘here to stay’. In this context, informal learning opportunities occurred spontaneously as a result of interaction and participation with other co-workers.
Overall, Harry’s positive experiences, together with the enabling attitude of the social context, created opportunities for participation and informal learning to occur for the benefit of all. Levine and Moreland (1991) stressed how this type of interaction is essential for newcomers’ successful adaptation to a new work group. This story highlighted the importance of this type of interaction with co-workers during the first days on the job, indicated by Harry’s comment, ‘on my first day, everyone helped to make me feel more at ease’. Harry talked about how established co-workers were helpful during the transition into the work group by being made feel ‘at ease’ and included in conversations. He appeared, however, aware that the work group would have established norms and practices, and for that reason, preferred to observe other co-workers in an attempt to learn more about the job. This type of learning occurred as part of everyday activities in the workplace and was therefore unplanned, or unintentional learning.

This story has illustrated how a new co-worker’s integration into the new work group appeared to be successful due to informal learning opportunities created by that individual’s willingness to learn new knowledge combined with an enabling and participatory work environment. This suggests that co-workers play a significant role in helping a new co-worker learn the social and technical knowledge that is necessary to perform well in the job. As highlighted by Harry in the story, ‘it’s a combination between good people and a good environment, every bit is good’. Harry acknowledged that everyone had their own way of working and ‘just had to prove to them that my way was also good’. But what if the work group resisted the new co-
worker’s practices? For a new co-worker, negotiating the terrain of what is likely to be perceived as acceptable behaviour can be precarious but is a risk that has to be taken. The story ‘Here to stay’, demonstrated that for that new co-worker, this risk may have been worth it.

In summary, the co-worker in ‘Here to stay’ has not yet had the opportunity to welcome a new co-worker into the work group, but given the experiences portrayed in the story, one could speculate that this new co-worker may in turn, facilitate interaction with other new co-workers. The enabling process highlighted in this story has revealed how successful learning opportunities are created, and has stressed that informal learning is a social phenomenon.

‘Walking together’

In this section of opportunities for learning, the fourth story, ‘Walking together’, describes another way established co-workers can help new co-workers adjust to the work environment. In this story, a co-worker with over 30 years of experience in a work group, Max, describes an approach used to welcome and share knowledge and skills with new co-workers.
Walking together

In my job I don’t usually get the opportunity to work with new people. In my 34 years here, I’ve mostly worked alone. I like working on my own. It gives me time to think and work at my own pace. I find it very relaxing. As long as I do my work I can choose when and how I do it. I have a lot of freedom here. I can choose what time to have my lunch and what time to go home, as long as I put in 7 hours and 36 minutes each day in the gardens. By working alone, I can do what I like. Sometimes I listen to a talkback program on the radio while I’m working.

It’s not that I don’t like working with other people. If the job requires more than one person, I like having some contact with others in the team. This usually occurs toward the end of the year when we have to organise an annual exhibition. We have a flower show every year and everyone has to contribute. This time of the year can be quite stressful, so it’s good to have others share the work load and responsibilities.

When someone new comes here, my boss asks me to show them around. This isn’t very often, as we don’t usually see a lot of new people. Most of the people in my team have been here for more than 15 years. In most cases, the only new faces are the apprentices who come every 3 years. When I’m asked to show them around, I like to take a couple of hours to walk them around the botanic gardens, introduce them to the other people in my team, and point out any things of interest, like the war memorial.

During the walk, I like to share my knowledge of plants. I have a genuine interest in plants, especially exotic plants, and so I like to pass this on to other people when I get the chance. For example, when our newest apprentice started here, we walked around the gardens and talked about what plants we like the best and which have the nicest smell. Everyone has something to offer and I like learning new things. Now, when the apprentice wants to know something about a particular species, she feels comfortable asking me. It’s good to know that I can pass my knowledge on to others.
In this story, the established co-worker, Max, appeared to be willing to share knowledge with new co-workers, and welcomed the opportunity to work with new people. Like ‘Here to stay’, this story illustrated the notion of reciprocity in informal learning over a period of time. Unlike ‘Here to stay’, however, the perspective in this story is that of a co-worker who has substantial experience in the work group and organisation.

The story highlighted how an established co-worker took responsibility to facilitate the learning of new co-workers and create productive and participatory spaces for informal learning to occur. Moreover, the story showed how informal learning is a two way process that may benefit the new co-worker and the established co-worker. The type of learning was spontaneous and occurred when knowledge and special interests were shared between co-workers with similar interests. The story also told the story of an autonomous co-worker who appeared to have discretion over his everyday responsibilities and tasks, allowing him a great deal of freedom and choice for deciding when, and how, work was done.

It can be assumed that Max’s autonomy is a result of many years of service and commitment to the work group where trust has been established between himself and the organisation. Max also reported building significant knowledge about the job over time, and for this reason, indicated that he is often chosen by the work group supervisor to show new co-workers around. As illustrated in the story, this process involved Max and the new co-worker ‘walking together’, which represented a form of induction that was informal,
yet also sanctioned by management. The story illustrated that by walking; the new co-worker appeared to become fully immersed in the work environment where opportunities for technical learning occurred. The new co-worker learned about exotic plants from Max who reported being willing to share technical knowledge about the job.

Although Max referred to being happy to work alone and enjoyed the company of talk back radio programs during the day, ‘Walking together’ showed how new co-workers are a welcome change to everyday practices. In the story, Max reported that he enjoys talking with new co-workers and welcomed the opportunity to show them around, talk about horticulture, and share information about exotic plants. This type of interaction can be beneficial for new co-workers, because as illustrated in ‘A notebook for coping’ and ‘Here to stay’, new co-workers are often eager to learn knowledge about the job and the work environment in an attempt to ‘fit in’. In ‘Walking together’, Max’s ‘genuine interest in plants’ represented a stimulus for passing knowledge to others. Learning in this situation was reciprocal and presented an opportunity for Max to also learn new knowledge from the new co-worker. As illustrated in the story, by ‘walking together’ and being immersed in the work environment, opportunities for informal learning became spontaneous as the information exchanged during this process appeared to be unpredictable and linked to the type of interaction and participation that occurred on that particular day.
From an informal learning perspective, this participation appeared to be beneficial for both Max and the new co-worker. As indicated in the story, Max enjoyed the interaction and looked forward to talking to the new co-worker about plants. In turn, the new co-worker benefited from the extensive experience and dedication from Max who enjoyed showing new co-workers around and was enthusiastic to ‘pass this on’. Max’s knowledge was acquired over 30 years in the work group and when transferred and shared, could be an important way for new co-workers to learn the technical knowledge required to perform the job successfully. Passing on knowledge suggested that Max had a genuine interest in helping others and facilitating the learning of new co-workers.

In summary, ‘Walking together’ illustrated how interaction between established and new co-workers appears to encourage both parties to learn something new, share information, and transmit information and knowledge that is accurate and helpful to the job. As illustrated in this story, on one hand, as a mentor or guide to the new co-worker, Max reported having special expertise in plant species and welcomed the opportunity to share this knowledge. On the other hand, the new co-worker shared knowledge that may be new to the established co-worker who acknowledged that ‘everyone has something to offer’. Awareness like this demonstrates how co-worker interaction, especially interaction between new co-workers and established co-workers, can be enhanced through the sharing of information and knowledge that is related to the job. Although in Max’s case, this process was informal, it showed how established co-workers play an important part
in helping new co-workers adjust to their new work environment. From an informal learning perspective, the story highlighted how some co-workers created opportunities that facilitated the learning of new co-workers by providing productive spaces in which spontaneous learning could occur in a reciprocal manner.

To this point, all four stories have illustrated examples of informal learning and have highlighted the reciprocity of learning experiences between new co-workers and established co-workers. The next story illustrates an established co-worker’s learning experiences.

‘Computer whiz’

The fifth story, ‘Computer whiz’, is not about a new co-worker starting a job. It is about what happens when an established co-worker is confronted with new technology. The story illustrates the experiences of an established co-worker, Alan, who was the first person in the organisation to use a computer.
I have been working here for over 20 years. I have moved around a bit and worked for different teams, but I don't want to move anymore. I'm happy where I am. I now have the opportunity to work with the public and share my love of plants with people who are enthusiastic and interested in learning new things about plants. My job is stable now and I'm happy to see my time out in this position.

Unlike some of my work mates, I don't have any formal qualifications or anything like that. Over the past 30 years I have done a lot of reading, talking and trying out new things. The best part about my job is going to conferences. This gives me the opportunity to talk to people who share the same enthusiasm about plants. I pick up a lot of information this way. I like information that is practical.

Interestingly enough, I was the first person in my organisation to use a computer. My job at the time required me to store large amounts of data. I suggested that a computer would be the most effective way of doing this. In those days, we weren't encouraged to attend training courses, so I taught myself how to use it. It was a bit hit and miss at the beginning, but through persistence, I eventually learned how to use it.

As time went on, more and more people started to use them. Because of my experience, I was called on to help other people learn how to use the computers. Now I seem to spend a lot of my time teaching people computer basics than my job as a scientist. Instead of being recognised for my research breakthroughs, I have a reputation for being a computer whiz.

There have been a lot of other technological changes, but they don't affect everyone. For example, in my team, the equipment and technology needs vary. Those who have been introduced to technology seem to be coping well. Some people aren't interested in all at learning about computers. Maybe they have no need to?

Until now, computer training has been voluntary. In most cases, if someone wanted to learn new skills, they had to ask for it. If warranted, then training would be organised. The organisation now requires all employees to enter their timesheets electronically. Training is now provided, but not everyone has completed the course. I wonder how they do their timesheets.
The random nature of informal learning was portrayed in this story. In this context, the motivation for informal learning appears to have emerged from a desire to learn new knowledge, and an interest in attaining new skills that could make the job easier. Alan explained how over 20 years of work experience replaced the need for formal education or qualifications. Being the first person in the organisation to use a computer was a significant feature of his experiences with change and technology that required new learning to occur. Faced with the challenge of storing large amounts of data, Alan suggested to his organisation that a computer might be the best way of achieving this. As formal training was not provided at the time the computer was introduced, Alan reported engaging in random, self-directed learning, or as described in the story ‘hit and miss’ learning. This story described how this style of learning took some persistence but the co-worker eventually learned how to use the computer.

In ‘Computer whiz’, Alan engaged in informal learning by reading, talking to people with the same interests, and ‘trying out new things’. The nature of informal learning appeared to be random, whereby learning occurred through opportunistic interaction with others. For this co-worker, attending conferences was a significant source of new job related knowledge that occurred in a situation where technical knowledge about the job was shared between colleagues from other organisations who have similar interests and jobs. A willingness and motivation to learn new skills was demonstrated by Alan’s initial suggestion that a computer would be useful. This willingness was also indicated by the self directed learning required to know how to use
the computer, and the knowledge that has since been passed on to other co-workers. Similar to the previous stories, passing on the computer knowledge to other co-workers highlights the reciprocity of the learning relationship and the enabling attitude of co-worker and the social context come together to create a positive work environment for continuous learning opportunities in the workplace.

Alan was the first person to use a computer in the organisation. For this reason, he was considered to be most knowledgeable person in the organisation about how computers work. Accordingly, he is now recognised as the computer ‘whiz’ by other established co-workers. Prior to the introduction of formal computer training, he spent a great deal of time teaching other co-workers computer basics. As Alan was self-taught and learned by means of ‘hit and miss’, one would assume that similar processes were used to teach other co-workers. Learning this way represents the random nature of informal learning whereby co-workers learn only what is directly applicable to their own circumstance. By avoiding formal training, this approach suggests that co-workers are only willing to learn what is needed to get by in the job.

In the beginning, only those co-workers who needed to use a computer had access to one, and even now, as indicated in the story, some co-workers are not interested in learning about computers or new technologies. This leads one to speculate why some co-workers are disinterested in learning about new technologies. Is it because they do not need a computer to carry out
their job? Are they afraid of new technologies and what it could mean for the way they perform their job? Do they have problems with reading and writing? These questions raise significant issues about co-worker reactions to learning new technology, especially for those co-workers who have not participated in the training provided by the organisation. As highlighted in the story, all co-workers are expected to submit their timesheets electronically, prompting the co-worker in ‘Computer whiz’ to question how others submit their timesheets if they do not know how to use the computer.

In summary, ‘Computer whiz’ has illustrated the experiences of an established co-worker who was able to recognise new opportunities for informal learning. That co-worker’s proposal that a computer would make the job easier indicated his enthusiasm toward learning about new technologies that would improve the way work is traditionally done. Learning new technology also suggests that the co-worker was willing to ‘have a go’ and experience new learning. Further, the story highlighted what can happen when a co-worker reports positive learning experience and displayed a commitment to passing this knowledge on to other co-workers. In this situation, the enabling attitude of the co-worker contributed to the work environment by providing informal learning opportunities for others who were seeking to develop new skills. Even though some co-workers were reported to resist the introduction of new technologies, Alan was happy to provide advice and show those who were willing the basics of computer training.
In this section, five stories have been used to illustrate co-workers’ experiences and opportunities for informal learning and participation in the workplace. In each story, experiences of informal learning were explicated and several themes emerged. From the new co-workers perspective, these themes include a desire to ‘fit in’ and participate in everyday activities; a willingness to learn; and the ability to recognise and create new learning opportunities. From the established co-workers perspective, these themes include a readiness to help new co-workers ‘fit in’; a willingness to help new co-workers learn new social and technical knowledge; and the ability to recognise and create new learning opportunities for themselves.

These stories have portrayed the reciprocity between co-workers and the work environment in enabling positive informal learning experiences to occur. Informal learning occurred through observation, shadowing, writing notes, self-initiation, reading, talking to others, hit and miss, and having a go. The nature of informal learning was systematic, spontaneous and random. The five stories also highlighted that informal learning enabled better participation in everyday workplace activities.

The reciprocity of informal learning was illustrated in these stories by focusing on the enabling attitude of the individual and the social context that allowed participation and informal learning opportunities to occur in the workplace. In each story, constructive learning environments were created through the experiences of new and established co-workers and the enabling attitude of the social context that together, generated a positive
work environment for continuous participation and informal learning opportunities. However, this is not always the case. The next section will highlight the challenges associated with creating a positive learning environment and will illustrate the reactions of co-workers who appear to dislike changes to their work setting.

SOCIAL CONSTRAINTS

The stories in this section illustrate the structures and processes that appear to constrain informal learning in the workplace, inhibit participation in everyday workplace activities, and hinder the transfer of knowledge between co-workers. The five stories in this section are: ‘The long road; ‘Suspicious minds’; ‘Passed over’; ‘Tricks of the trade’; and ‘The bargaining chip’.

‘The long road’

The first story, ‘The long road’, illustrates the experiences of an established co-worker called Sam who, looking back over time, describes the difficulties adapting to change and learning new knowledge and skills over a 20 year period.
The long road

It’s not always easy to adapt to changes at work or learn new skills. Although I have been working here for over 20 years, I still find it hard when things change. New ideas are introduced that affect the way I do my job, and it is expected that I will be able to learn new things and adapt successfully. People who have not adapted have moved on, but I am still here.

In the beginning, there was little communication between workers and decision makers. In most cases, those making the decisions had no idea what was happening on the ground. This made adjusting to changes, and accepting them, even more difficult. I felt powerless, as though my opinion didn’t matter. It became clear to me that we were just numbers. I felt like I was going nowhere.

As the years went by, changes in management led to more communication with workers. This has made it easier to voice opinions, and so I feel less affected by some changes. I feel like I have more input - I feel more valued. I feel like I am learning new skills about how to communicate with others. These changes have led to valuable learning experiences about how I interact with people.

As I get older, I have accepted that change is inevitable. I now make a point of being heard. If I feel strongly about a decision I voice my opinion. I no longer feel powerless. I have moved on. I am in a higher position, and to some degree, feel that I am valued.

I’ve realised now that my early experiences have made me a better leader. I am respected and trusted by those who work with me. Through my experiences early on, I have learned that communication, cooperation and dependability are important. It takes time to build these types of relationships. I am now heading in the right direction.
This story focused on structures in the organisation that according to Sam, have restricted his autonomy and limited his potential. These restrictions were reported by Sam as being associated with difficulties in communication and decision making authority, which have appeared to have influenced his perception of self-worth in the organisation. Over time, however, Sam reported that these difficulties have made him a better leader. The story, therefore, took a step back in time and followed Sam’s thoughts and actions over a 20 year period.

Sam’s self-reported accounts illustrated in ‘The long road’ showed how organisational structure appeared to have restricted his capacity for self-direction and autonomy, by controlling communication and decision making authority in the work group. The story highlighted the capacity of the organisational context to disable opportunities for continual improvement and individual satisfaction in the workplace. These experiences, however, appeared to have provided Sam with the skills to become more confident and involved in the daily operations of the work team and the organisation. Further, the informal learning that took place allowed Sam to become a better leader. Although this learning was not explicit, over time, he has seemed to have learned valuable skills in communication and how to interact with other co-workers.

‘The long road’ also portrayed images of change, acceptance, and learning over Sam’s 20 years of service in the organisation. In the story, he talked about how, in the past, a lack of communication between higher levels of
management and co-workers caused problems. During this time, Sam was dissatisfied with working conditions and felt ‘powerless’. This was indicated in the story when he referred to feeling like a ‘number’, and because decisions were made by managers who had little knowledge of what was ‘happening on the ground’, communication became difficult. In addition, Sam also experienced difficulties with change. These feelings were indicated by his recognition that ‘it’s not always easy to adapt to changes at work or learn new skills’ and a concern of being overlooked by the organisation’s management team.

In the story, Sam acknowledged that as changes were made over time, new ways of communicating and interacting with co-workers were introduced by management that encouraged mutual involvement in communication and decision making. The experience appeared to be positive for Sam, who as illustrated in the story, accepted that ‘changes have led to valuable learning experiences’. Adapting to changes allowed him to feel more valued due to greater participation and input into decision making processes and communication with other co-workers. Sam also learned valuable skills for becoming a better leader, and an understanding that communication, cooperation, and dependability are important characteristics of a good leader. These characteristics are assumed to be related to issues of respect and trust and significant to the way Sam learned new knowledge and skills. Because of this, Sam later referred to being ‘valued’ by the organisation.
‘The long road’ has also described how it was not until a change in management that Sam’s confidence grew, making it easier to ‘voice opinions’, and increased the amount and quality of communication and decision making between himself and management. Sam described this as a learning experience, where different techniques and strategies helped him to adjust to changes and communicate with co-workers. Learning these skills was important for Sam as change encouraged him to learn new knowledge and skills about the job and how to become a better leader. Some of the learning has been social, where he was faced with difficulties relating to communication and decision making, but these challenges were overcome and used in a positive way that enhanced performance and satisfaction in the workplace.

In summary, adjusting to change and learning new ways of communicating and making decisions was important for Sam to overcome the inadequacy of feeling like a ‘number’ and to increase self-confidence about how the job was done. In the story, Sam accepted that change was inevitable and that some change can be good. Adapting to these changes and informally learning new ways of communicating and interacting with co-workers, has allowed him to carry out a higher position and along the way has earned trust and respect from other co-workers. If Sam had continually resisted change and the opportunity to learn new skills, this may not have been achievable. As Sam says in the story, ‘people who have not adapted have moved on, but I am still here’. Sam’s perseverance and change in attitude
has afforded continual informal learning opportunities in a context specific to the job.

There are, however, challenges to learning that are more difficult to overcome. These challenges are portrayed next in ‘Suspicious minds’.

‘Suspicious minds’

This next story illustrates the experiences of an established co-worker, Henry, who appears to be suspicious of the intentions of new co-workers and is threatened by new co-workers. Because of this, Henry reports reluctance to share any technical or social knowledge, about the job, or the work group.
Suspicious minds

When it comes to meeting new people at work, I could be seen as stubborn. Those who are close to me say I’m a martyr to change. Even after twenty years in the same job, I find adapting to new people a challenge. I don’t like it when someone new threatens my territory.

A while ago, I was confronted with a new worker on his first day of work asking me ‘Why don’t you do it this way? It’s not done like that anymore, things have changed’. In the 20 years I have worked here, I’ve done my job well. I wondered - how could someone new, on their first day on the job, tell me what to do.

I began to worry about my future. ‘Was this person being groomed to take over my job?’ I decided that I would not share anything with this person. I’ve worked here for a long time and it has taken me years to know what I know. Why should I share this with other people?

That day, I kept my distance. More and more anxiety filled my head. Why would they employ someone else to do a similar job to mine? Are they preparing for my retirement? Did they expect me to help this new person fit in? Am I just an oldie whose time is running out?

As time went on, I realised that my work load was more manageable. The new person was very helpful and apart from my early doubts, I realised that I was not being replaced, yet. We were starting to get on well. Even though I may have been a little difficult at the start, I was prepared to accept him. I started to share my knowledge with him, but only a little bit. I’m still going to protect what I have. It takes time to build trust.
In this story, Henry talked about resisting new co-workers and being reluctant to share knowledge about the job or the work group. His perceived resistance to accept change in the workplace appeared to have significant implications for how social interaction and participation occurred and for how knowledge was transferred. For Henry, learning was reported as being a gradual process that occurred over 20 years. In the story, Henry reported being reluctant to share information with new co-workers.

In the story, Henry appeared to be threatened by new people joining the work group, and as self-reported, disliked receiving advice on how the job should be done. For this reason Henry referred to being stubborn when new people threaten his work group and territory. Henry illustrated that adapting to new co-workers can be a challenge, particularly when new co-workers' interfere in the way the job should be done, and especially when ‘someone new, on their first day on the job, tells me what to do’. The arrival of new co-workers has also prompted Henry to be concerned about his future in the organisation. Because of this, Henry envisaged plans by the organisation to bring in new co-workers to replace others who are reaching retirement age. This was evident in Henry’s question ‘was this person being groomed to take over my job?’

Due to Henry’s suspicion about new co-workers, he has claimed ownership over the knowledge and skills that he developed over 20 years of service to the organisation, and reported being unwilling to share this with the new co-worker. Henry’s decision not to share knowledge with the new co-worker
illustrates a reluctance posing a significant challenge for new co-workers. But, as told in the story, over time, Henry accepted the new co-worker and realised that another worker made the job easier and more manageable. Henry acknowledged that the new co-worker was helpful, and once suspicion over job security had lifted, the two co-workers interacted and worked well together. Occurring only a little at first, Henry began sharing knowledge with the new co-worker, yet in the story, acknowledged that some information will remain protected.

In ‘Suspicious minds’, Henry’s acknowledgment that ‘it takes time to build trust’, is central to the story’s meaning. Once trust was established, Henry realised that the job was less demanding, and interaction with the new co-worker increased. As illustrated by Henry in the story, ‘I started to share my knowledge with him, but only a little bit’. However, he added, ‘I’m still going to protect what I have’, suggesting that the new co-worker’s access to knowledge was restricted. Henry’s reluctance to share knowledge and the tendency to restrict important information about the job may have serious implications for the new co-worker’s learning and for his ability to accept change and learn new skills. A co-worker restricting knowledge suggests a tacit expectation that if the new co-worker does not have access to important knowledge, then failure could result. Blocking the transmission of knowledge may also prevent a new co-worker from doing the job well and therefore may not be favoured by other co-workers.
The content described in ‘Suspicious minds’ suggests that informal learning in the workplace cannot be taken for granted. If an established co-worker prevents a new co-worker from accessing important information and knowledge about the job, and the work group, the new co-worker is less likely to integrate successfully into the work group, or perform the job well. In this story, the established co-worker appeared to constrain the new co-worker’s participation in the work group. One questions the position and attitude of a new co-worker who is confronted with a situation similar to this one. How is the new co-worker expected to learn the social and technical knowledge that is required for the job if another co-worker is constantly blocking the transmission of information, or providing the wrong kind of information? Are new co-workers aware of this obstacle prior to entry? As illustrated in ‘A notebook for coping’ and ‘Here to stay’, new co-workers are willing to learn new knowledge in an effort to fit in and perform the job well, but would they join an organisation in which co-workers deliberately restrict or filter the type of information they receive?

‘Passed over’

The third story, ‘Passed over’, presents another challenge for informal learning in the workplace that emerges from the relationship between new and established co-workers. The story tells the story of an established co-worker, Sid, who reported enjoying meeting new co-workers and sharing knowledge. That is, until a new co-worker becomes a threat to his job and position in the work group.
Some people get out of the bed in the morning and dread the thought of going to work. For the past 15 years, I've been lucky enough not to be one of those people. Sometimes I wonder why people continue doing a job that they don't like.

I know that some people around me don't like it when new people come to work. Some of my workmates, for example, make it their point to ignore anyone who hasn't worked here for a few months or more. They prefer to watch from a distance and then make judgement. But I don't have a problem with new people. I look forward to meeting and working with them, and when I'm with someone I haven't worked with before, I like to get to know them. Some people say I talk too much and ask too many questions, but it's just my way of getting to know a person. I wouldn't call myself a gossip, but I like to know what goes on. I make it my point to keep up with the news. Until now, my openness hasn't been a problem.

Around 3 years ago I started working with a new apprentice. My relationship with her was like any other at work. We were able to get the job done and joke around at the same time. I showed her around, introduced her to everyone, and helped her fit in. I showed her the tricks of the trade so to speak. I didn't realise that this person would one day take over my job.

The apprentice has now been employed on a full time contract. Since then, I have been passed over for certain jobs and responsibilities that I would have once been privy to. I am being left out of the loop. I feel betrayed by the people I established a strong working relationship with over the past 15 years.

Over the years, I listened to the bitterness that my workmates have had toward new people. Until now, I didn't understand their concerns. I wonder if I have become too comfortable in a job I know I will never leave by choice. Have I become one of those bitter people doing the same job too long?
This story described a co-worker with 15 years experience working in the organisation. Through the eyes of Sid, it highlighted what can happen when a new co-worker is reported overstepping the boundary defined by an established co-worker. This story showed that the introduction of a new co-worker may have significant implications for the way co-workers participate, interact and share information and knowledge in the workplace. In the beginning, Sid described the work environment as positive and optimistic and enjoyable to work in. As time passed, happiness turned to discontentment when he reported feeling let down by the new co-worker and the organisation. For this reason, Sid appears to be reluctant to share work knowledge with other new co-workers.

Looking back in time, Sid recalled positive experiences of working in the organisation and demonstrated commitment and dedication to the job. Moreover, he reported that he enjoyed the social contact the job provided, especially when new people provided a diversion and a break from everyday activities in the workgroup. Sid expressed enjoyment in relation to meeting new co-workers and getting to know them. Because of this, Sid said that he enjoyed getting up in the morning and going to work and was thankful not to be the kind of person who dreaded going to work or dislikes new co-workers. Sid, however, reported that some co-workers react badly to changes in the workplace, especially when new co-workers enter the work group. The apprehension felt by these other co-workers was acknowledged by Sid who said that ‘I know some people around me don’t like it when new
people come to work’, especially when changes in group structure influence how co-workers treat each other.

In the beginning, Sid’s positive attitude to and acceptance of new co-workers appeared to have provided the new co-worker with the opportunity to become familiar with the job and the work group. During interaction between Sid and the new co-worker, important information was exchanged and Sid ‘... showed her around, introduced her to everyone, and helped her fit in’. From an informal learning perspective, interaction between co-workers provides important learning opportunities for both parties. As illustrated in ‘A notebook for coping’ and ‘Here to stay’, new co-workers are anxious to learn the social and technical knowledge that allows them to fit in and perform the job well. In ‘Passed over’, the established co-worker provides a positive enabling environment for learning opportunities to occur. As the social context enables learning to occur, reciprocity emerged from the relationship between the two co-workers in Sid’s story, as the established co-worker also benefited from the interaction with the new co-worker.

In the story, Sid’s perceived positive attitude to new co-workers, however, changed when the new co-worker had learned the job and began taking over his roles and responsibilities. Sid then reported that he felt betrayed and neglected when the new co-worker, who was provided with the ‘tricks of the trade’, was given more responsibility and allocated certain jobs that were usually assigned to him. This change in attitude was reinforced by Sid who said ‘I didn’t realise that this person would one day take over my job’.
Much of this betrayal appeared to be centred on the notion that the new co-worker had used the skills and knowledge that were given in kindness by the co-worker with more experience to take over the existing job and its responsibilities. After time passed, Sid wondered ‘have I become one of those bitter people doing the same job too long’ and concluded by saying that ‘I won’t be sharing my information with anyone else’. His approach to new co-workers seemed to have altered significantly from this experience, and will possibly have implications for the way interaction will occur the next time a new co-worker enters the work group.

In summary, ‘Passed over’ described a co-worker’s experience with a new co-worker and showed how critical incidents can alter the relationship and attitude between an established co-worker and a new co-worker. In the beginning, Sid reported being eager to assist the new co-worker adjust to the new work environment, and pass on the ‘tricks of the trade’, that were necessary to successfully integrate into the work group and perform the job well. A negative experience with a new co-worker altered the co-worker’s position on new co-workers and Sid then asserted that information will no longer be shared with other people. To what extend would the enabling environment for informal learning that was initially created by this co-worker be compromised? In the future, the co-worker’s sense of betrayal will limit how knowledge is shared with new co-workers. For other established co-workers, however, the attempt to deny new co-workers with knowledge about the job is much more deliberate. What are the implications for future
informal learning in an organisation where co-workers deliberately withhold information? What are the social implications of this behaviour?

‘Tricks of the trade’

In this section on structures and processes that constrain informal learning, the fourth story, ‘Tricks of the trade’, portrays the experiences of a co-worker named Frank, who has served over 20 years in the organisation. Over this time, Frank has observed many changes relating to the job, the work group and the organisation. These changes have allowed him to acquire new knowledge and skills through informal learning that have enabled him to fulfil a higher position. In this story, Frank openly talks about how new knowledge is learned and the dynamics of the work group, and highlights strategies that are used in the work group to deny new co-workers access to knowledge about the job.
Tricks of the trade

I have worked here for 25 years. For the first 20 years I did the same job day in day out. I was originally employed as a mechanic. My job was to repair and maintain vehicles and machinery, and I also did some welding. At that time there were 16 people in my team.

Over time, things have changed a lot. I am now the boss, and of the 18 people, only 7 remain in my team. This makes the job more demanding as there are less people to do more work. I don’t know why management won’t employ more people, but it makes my job very hard.

The best part about my job is that in our team, we all get along. Six of us have been working in the team for more than 15 years. Over that time, we have all learned to get on with one another. We know our strengths and weaknesses, and which buttons not to push. You could say that we all trust each other. The bad thing, though, is that we don’t like new people, and we don’t like sharing our ‘tricks of the trade’.

Every now and then, we get new people working here who expect to have access to our information. They waltz in here, pretend they know everything, and expect me to share 25 years of knowledge with them. Why should I share this with them? They’ve only been here for five minutes. What do they know?

The worst thing is that people don’t listen. Over the years, I have learnt the best way of doing my job. It’s been a process of trial and error, but eventually I found the best way. This makes my job easier and saves a lot of time.

New people come and stand outside my workshop and watch what I’m doing – as if they haven’t got anything better to do. They say ‘why don’t you do it like this’, or ‘this way is better’. This makes me angry. I tell them to do their own job and leave me alone. Because of this, I have a reputation for being grumpy. But at least they eventually wander off and find someone else to annoy.

The information I have gained is mine, and I don’t intend sharing it with anyone else. Why should I? I don’t feel guilty. Some people just go ahead and do something and don’t even bother running it by me. They think they know better.
This story illustrated the changes experienced by a co-worker over a 25 year period, and highlighted how long service in an organisation provided opportunities for continuous learning, whereby Frank moved from the position of mechanic to supervisor. During this process, new knowledge and skills were learned by Frank that enabled him to fulfil a higher role in the work group and lead other co-workers. The bond and trust between co-workers who have working in the same work group for a long period of time was also illustrated. Over time, these co-workers have formed close relationships with each other and appeared to have a mutual understanding about what behaviour was accepted in the work group and how they carried out their work. These standards can be useful for effective work group functioning. However, in this story, problems arose when new co-workers entered the work group.

In ‘Tricks of the trade’, change was a significant factor that influenced Frank’s attitude toward learning, work, and interaction with other co-workers. The story explained how change influenced Frank’s job and the way he interacted with other co-workers, especially new co-workers. Over a 25 year period, Frank reported seeing a decline in the number of original co-workers in the work group, which has influenced the social context of the work group and presented challenges for new co-workers. Frank’s promotion to supervisor has also influenced the dynamics of the work group. As six of the co-workers in the work group have been working together for more than 15 years, special relationships have been formed and as acknowledged, ‘we know our strengths and weaknesses, and which buttons
not to push’. These co-workers have all formed an attachment to one another, and their closeness and experiences together, appear to contribute to the effectiveness of the work group and the trust that is generated between them.

The close relationship shared by co-workers in the work group has generated trust and respect. According to Frank, the ‘best part about my job is that in our team, we all get along’. Frank recognised that learning how to do the job well was a result of many years of experience that has ‘been a process of trial and error. From this perspective, informal learning can be described as a gradual process where the co-worker was able to build on his original knowledge of being a mechanic, and through interacting with trusted co-workers, was able to create a positive work environment for continuous learning opportunities. Therefore, expertise, know-how, and ‘tricks of the trade’ were a result of hard work and persistence. The acquisition of this knowledge was described by Frank as ‘a process of trial and error’ leading to the best way to do the job. Because of this, he admitted to protecting technical knowledge, and openly questioned why this knowledge should be shared with new co-workers, who are new to the organisation and ‘only been here for five minutes’.

In ‘Tricks of the trade’, the length of time it has taken acquire the knowledge and skills for the job, interfered with Frank’s relationship and interaction with new co-workers. Frank reported openly resisting new co-workers to the work group and intentionally restricting the amount and type
of information that he passed on to new co-workers. Moreover, Frank acknowledged that ‘we don’t like sharing our tricks of the trade’, therefore, protecting knowledge that has taken 25 years to acquire. As the work group supervisor, he appeared to be protecting the knowledge that the six members have attained together.

When new co-workers do join the workgroup, Frank said that he avoided interaction or conversation with those new co-workers who ‘think they know better’. Frank reported that he was irritated by new co-worker’s who gave advice and suggestions on the best way to do the job. Over many years, Frank reported learning by ‘trial and error’, and has found the one best way of doing the job. Because of this, he reported having no intention of changing just because a new co-worker offered a suggestion. These ‘tricks of the trade’ were considered sacred knowledge that only a few co-workers had access to.

Frank’s reluctance to share knowledge and skills with new co-workers has significant implications for the way informal learning occurs in the workplace. The situation in ‘Tricks of the trade’ becomes a constraint to co-workers who are outside the co-worker’s trusted group of six. What does this mean for the new co-worker who is willing to learn the ‘tricks of the trade’ and who makes an effort to fit in and be accepted by the work group? How long does it take for a new co-worker to become a valued member of the work group? And how can this type of trust be generated? What type
of process is involved? How likely is a new co-worker to want to stay in a workplace in which knowledge is withheld?

The last story in this section, ‘The bargaining chip’, attempts to answer these questions by illustrating how other co-workers are happy to share knowledge, but only when they get to know the new co-worker and trust is generated between them.

‘The bargaining chip’

This story is about a co-worker in a work group who is tentative toward new co-workers, and tends to hold on to information that will protect his position in the organisation.
The bargaining chip

If someone is nice to me, then I'm prepared to share information with them. But when they are a threat to my job, I won't share anything. I'm getting older now, and I'm worried that new, younger people will slowly take over my job, or I might be made redundant. So, my feeling is that if I hold on to crucial information, I am more valuable to the organisation. It's like a bargaining chip that keeps me here.

For this reason, I don't like it when new, younger people join our team. I start thinking of the worst case scenario, and every time I see someone from management walking towards me, I think redundancy. Of course, they just want me to change the light globe in the main office, and then life goes back to normal.

When I get to know the new person and begin to trust them, then I'm happy to start sharing information with them. But only a little at first. I'll tell them how to do the smaller jobs like repairing sprinklers, but I usually hold on to information about more complex jobs. This is my bargaining chip.

Also, the more comfortable I am with the new person the more likely I will share information. I also need to know that they will be around for a while. Once, I took a work mate under my wing and put him on a number of courses to help him learn the job. But this backfired on me, as once he was trained, he left. This often happens, they leave and so we have to start over again.

There are a few of people who have been here the same time as me, and we share information amongst ourselves. When I work with trusted work mates, we get a lot of work done and feel satisfied with what we do. We share a lot of information between ourselves. Maybe it's because we have worked with each other for many years? Trust like this takes time.
Similar to the co-worker’s experiences in ‘Suspicious Minds’, this co-worker, Dave, appears wary of new co-workers when they first enter the work group. This story highlighted what can happen when a co-worker resists new co-workers and raises significant implications for how co-workers restrict opportunities for informal learning to occur in the workplace. ‘The bargaining chip’ also portrayed the processes engaged by existing co-workers in their acceptance of new co-workers and the way that informal learning is afforded or constrained by co-workers. Existing co-workers are important here as they possess the appropriate knowledge and skills that are required for the job. As illustrated in the story, Dave will only share knowledge and information about the job when the new co-worker responds positively to the work group and does not pose as a threat to existing positions in the work group.

As Dave is getting older, he expresses concern over redundancy and retirement as illustrated by his comments around co-workers who are ‘younger’ and ‘will slowly take over my job’. For this reason, Dave reported that information was only shared among co-workers when trust and respect was generated. Furthermore, important information and knowledge about the job was used as a ‘bargaining chip’ that Dave protected in an effort to remain valuable to the organisation. Important information was rarely shared with new co-workers, but on occasion, technical knowledge was shared with work group members who had earned the co-worker’s trust and respect. When Dave did begin to trust new co-workers, the information was restricted. Dave admitted that more complex technical knowledge was
controlled in an effort to maintain influence in the organisation, and thus restricting the flow of information to the new co-worker who was anxious to learn new skills and knowledge about the job.

This story showed that Dave was threatened by the prospect of new, younger co-workers joining the work group. As Dave was reaching retirement age, he reported being concerned that the organisation was bringing in new workers in preparation for replacing older workers. In similar examples, the co-worker’s in ‘Suspicious minds’ and ‘Tricks of the trade’ also seemed reluctant to pass on their hard earned knowledge. In the previous three stories, however, they did share knowledge among themselves. They have formed trusting relationships with co-workers whom they have worked with over many years, and did not pose a threat, as they understood the way the job was done.

The most significant learning challenge in ‘The bargaining chip’ concerns Dave’s restriction on new co-worker’s access to, and opportunity to learn social and technical knowledge, about the job and the work group. If a person is a threat to the established co-worker’s position, participation between new and established co-workers appeared to be inhibited and knowledge was not shared. Dave felt that by holding on to ‘crucial information’, his knowledge could be used as a ‘bargaining chip’ to maintain his position and status in the organisation. Dave seemed to negotiate a deal, or bargain, with co-workers and the organisation. Consequently, the co-worker’s attitude may have a negative effect on the social context in
which new co-workers can engage in informal learning. In this situation, a new co-worker would be unable to gain access to information that would make the job easier, and therefore, would take longer to fit in.

In summary, this study has revealed two concepts that are useful for understanding how informal learning occurs in the workplace. The first concept, social affordances, revealed that new co-workers were willing to learn new social and technical knowledge that will lead to better work performance and enable them to become accepted members of the work group. The stories also showed that established co-workers were able to make their own opportunities for learning new knowledge and skills, and were willing to participate in learning activities. In addition, the stories highlighted that some experienced co-workers were empathetic toward new co-workers and made an effort to help new co-workers adjust to their new surroundings. Co-workers revealed how social interaction provided spontaneous opportunities for informal learning by means of observation, shadowing, trial and error, and ‘having a go’, where much of this learning was spur-of-the-moment and self-initiated. These co-workers recognised opportunities for learning social and technical knowledge and skills that would enhance their working conditions. These experiences illustrate the importance of the relationship between co-workers in the workplace where informal learning occurs between co-workers as part of everyday experiences and participation in the workplace.
The second concept, however, revealed the social constraints that may have an impact on how informal learning occurred in the workplace. In this context, constraints included: a reluctance to accept change; suspicion toward new co-workers; issues of trust and mistrust; job security; a lack of enthusiasm to learn new knowledge and skills; and unwillingness to share and pass on knowledge to new co-workers. These challenges have implications for informal learning and better participation in the workplace. The stories showed that established co-workers, who have been working in the organisation for a long time, had formed relationships with other long serving co-workers and were suspicious of new co-workers. Because of this, they denied important information about the job and the work group to new co-workers. Overall, challenges centred on established co-worker reactions to change, reluctance to learn new knowledge, and the way established co-workers interact with new co-workers. These stories showed that for some co-workers, adjusting to change, accepting new co-workers and learning new skills and knowledge was not easy. For this reason, the interaction between co-workers and their participation in everyday activities as acknowledged in the first concept appeared to be absent. The critical issues that emerged from these findings are explored in detail in the following chapter.
CHAPTER FIVE | DISCUSSION

This chapter is comprised of four sections. The first section briefly summarises the results, organised around the two research questions that guided the empirical study. The second part is a discussion of the major findings, starting with how new co-workers learn informally in the workplace, followed by how established co-workers learn informally in the workplace, an angle under-examined in prior research. This section concludes with a close examination of the factors that constrain informal learning in the workplace. The third section reflects on the boundaries of the methodological approach adopted for the empirical study. The final section suggests directions for future research.

SUMMARY OF RESULTS

The aim of the research was to examine how informal learning occurs in the workplace. An empirical study of the intentional, unintentional, planned and spontaneous informal learning experiences that occurred between co-workers in a particular workplace was carried out. To identify how informal learning occurs, the study elicited new and established co-workers’ accounts and reflections of their experiences of informal learning and their participation in everyday workplace activities. The following table gives an overview of the main results for each question.
<table>
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<th>Research question</th>
<th>Key results</th>
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<td>1. How do co-workers learn informally in the workplace?</td>
<td>New co-workers reported learning informally important knowledge and skills about the job and the work group that enabled them to ‘fit in’ and perform the job well. This took place through observing more established co-workers, daily interaction and participation with other co-workers, and learning by doing, without explicit guidance. Established co-workers reported learning informally new skills and knowledge that allowed them to keep up with workplace changes and technological advancements. This took place through ‘trying out new things’, ‘trial and error’, ‘hit and miss’, attending conferences, and by communicating and interacting with other co-workers.</td>
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2. How does the workplace, as a social system, afford or constrain informal learning in the workplace?

The nature of relationships between new co-workers and established co-workers afforded opportunities for informal learning. This occurred when new co-workers learned workgroup practices and procedures by interacting with more established co-workers, when new co-workers received guidance and support from established co-workers, when new co-workers participated in everyday workgroup activities, and when new co-workers showed enthusiasm, motivation and commitment to the new work group.

Other relationships between new co-workers and established co-workers constrained opportunities for informal learning. A wide range of factors shaped the relationship between new co-workers and established co-workers. Established co-workers sometimes constrained the informal learning opportunities of new co-workers if they did not trust or felt threatened by new co-workers. As a consequence they denied new co-worker participation in the work group, access to important information about the job and the work group, and they restricted the amount and type of information given to new co-workers.

Afforded or constrained opportunities for informal learning are by nature intentional, unintentional, planned or spontaneous. This study revealed how personal and organisational factors co-contributed to create social affordances or constraints for informal learning. Common across groups was the importance given to the quality of relationships between co-workers.
DISCUSSION OF THE MAJOR FINDINGS

This section addresses how the results of the study inform the two research questions: How do co-workers learn informally in the workplace? How does the workplace, as a complex social system, afford or constrain informal learning in the workplace?

Co-workers learning informally in the workplace

One major finding of the empirical study is that all co-workers had stories about something they learned informally as part of everyday experiences in the workplace and how this took place. New co-workers reported learning informally important knowledge and skills about the job and the work group that enabled them to ‘fit in’ and perform the job well. In turn, established co-workers gave accounts of learning informally important knowledge and skills about the job that enabled them to adjust to changes in the workplace, technological advancements, and the way they interacted and communicated with other co-workers.

Informal learning was illustrated in several ways. Co-workers’ participation in everyday work activities and their interactions with other co-workers shaped what was learned informally and how that learning occurred. The nature of their participation and interactions with other co-workers also shaped those informal learning experiences in positive ways, where the relationship between co-workers afforded opportunities for informal learning.
Drawing together the results of the empirical study summarised in Table 2, the findings are now discussed first for new co-workers and then for established co-workers. Although all co-workers learned informally in the workplace, what they learnt informally, how they learnt it, and for what purpose, often differed. Common across the two groups of co-workers’ accounts was the importance given to relationships. These relationships emerged as one of the most critical factors in the generation of affordances and constraints for informal learning. New co-worker experiences of informal learning are discussed first.

*New co-worker experiences of informal learning*

Prior theory and research indicated that it is important to consider what happens when a new co-worker joins an organisation and enters a process of socialisation (see, for example, Louis, 1980; Levine and Moreland, 1991; Choi and Levine, 2003; Filstad, 2004) and learning. The results of the present study are consistent with these observations as they revealed the diverse ways new co-workers engaged in socialisation and participated in the everyday work activities that shaped their informal learning experiences. Successful socialisation and participation generated affordances for informal learning that in turn enabled better participation in everyday workplace activities.

The following discussion considers personal and organisational factors that afforded valuable informal learning experiences. These include: welcoming
gestures; wanting to fit in; participating in everyday work activities; and receiving guidance and support. Each factor is discussed in turn.

**Welcoming gestures**

There was evidence that new co-workers are faced with countless opportunities and challenges when they enter a new workplace. At the macro level, broad social and cultural factors appeared to have contributed to the nature of involvement and participation with other co-workers. According to Rogoff (1990), through participation, individuals have the opportunity to talk about what they are doing and learn during everyday activities. The difficulty however, is that individual co-workers may enter the workplace with varying amounts of pre-existing knowledge. According to Billett (2002), another predicament faced by new co-workers is that workplace activities are structured by situational factors that influence participation. For example, some new co-workers reported entering the new work group with a range of knowledge, skills, experience and preconceptions about the job and the co-workers. In contrast, others did not know anything about the new job or the work group.

At the more micro level, the nature of the work group was also found to shape participation in work activities. Sometimes, an established co-worker would assist new co-workers learn the ‘tricks of the trade’ and ‘how things are done around here’. Either way, all of the new co-workers in the study appeared to have gone through a socialisation period as they adjusted and adapted to the new job and the new work group. The challenge for new co-
workers therefore, was the desire, need and ability to acquire information about co-workers, the work group, and about how the job is done. This was often difficult for the new co-workers, as this unique knowledge is typically embedded in the culture of the work group and may initially be invisible to new co-workers. Many new co-workers found that established co-workers were helpful during that initial socialisation period by making them feel welcome; an issue discussed in Levine and colleagues’ work on the importance of established co-workers making new co-workers feel welcome and helping them to adjust to new work settings. These authors argued that this is because oldtimers tend to influence the way social and cultural knowledge is shared between co-workers in the workplace.

In the present study, the importance of making new co-workers feel welcome and confident to face the challenges of being a new co-worker was illustrated in ‘Walking together’. That story portrayed an established co-worker who was enthusiastic about working with new people and learning new skills as a way of coping with workplace changes. Levine and Moreland (1991) would describe that person as an oldtimer with special expertise in certain areas of group culture who provides correct and helpful information to newcomers. ‘Walking together’ highlights this role and the importance of interaction and the established co-worker in making new co-workers feel welcome. The problem however, is that new co-workers often feel exposed when entering a new organisation and work group. Similar to that established co-worker’s actions in ‘Walking together’, the vulnerability of new co-workers was acknowledged by another established co-worker in ‘A
welcome party of one’ who said “I feel sorry for new people. It’s like they have to start over. They have to make new friends and try and fit in”.

The established co-worker in ‘Walking together’ had similar concerns about new co-workers and told how when new co-workers join the work group “... I’m asked to show them around, I like to take a couple of hours to walk them around the botanic gardens, introduce them to the other people in my team, and point out any things of interest, like the war memorial”. That co-worker in ‘A welcome party of one’ has taken responsibility to facilitate the learning of new co-workers and create productive spaces for which informal learning can occur and encouraging the new co-worker to participate in everyday activities. A striking feature of both stories is that they show how informal learning can benefit both new co-workers and established co-workers. The type of learning is spontaneous and occurs when knowledge and special interests are shared between co-workers with similar interests.

The organisation in this study did not have any formal management strategies for new co-worker socialisation. The methods used by this organisation were informal and usually involved an established co-worker showing a new co-worker around and introducing them to other co-workers. For example, in ‘Walking together’ an established co-worker welcomed a new co-worker to the organisation and helped them adjust to the new surroundings. This type of socialisation is not formally recognised by management as a socialisation strategy, however, at a more macro level, this event suggests that some organisational members recognise the
importance of making new co-workers feel welcome and help them adjust to
the new workplace.

In sum, the findings of this study support the conceptual ideas provided in
previous research by Louis (1980) and Levine and Moreland (1991), and
empirical research by Choi and Levine (2003) and Filstad (2004). These
studies highlighted the importance of established co-workers helping new
co-workers settle in to their new workplace at the beginning of their
socialisation phase. That is of course, if the new co-worker demonstrates
enthusiasm, motivation and a willingness to fit in. This factor is discussed
next.

**Wanting to fit in**

In this study there was ample evidence that many new co-workers wanted
to fit in and it was clear that those who showed a visible commitment to the
new work group, and made a deliberate effort to fit in, were more likely to
be accepted by established co-workers. This finding is consistent with
Filstad’s (2004) research, who found that personal characteristics such as
expectation, experience, competitive instinct, and self-confidence influenced
the newcomer experience whereby proactive newcomers were more
successful in socialisation using role models who were more established co-
workers. Filstad’s (2004) research concluded that newcomers are more
accepted by other co-workers if they showed commitment and dedication to
the new work environment. This conclusion is consistent with Levine and
Moreland’s (1991; 1999) earlier claims that oldtimers are more likely to
accept newcomers who have strong skills and who demonstrate higher commitment to their responsibilities.

For example, ‘A notebook for coping’ described a new co-worker who was motivated by their ability to acquire information about the work group, and hence, was more likely to be accepted by established co-workers as a member of the work group. This finding can be compared with Levine and Moreland’s (1991) view that new co-workers who are strongly committed to the work group are more favoured by oldtimers especially when they are satisfied that the new co-worker will not deviate from the norm or cause imbalance in the organisation. Similar to the new co-worker in ‘A notebook for coping’, the new co-worker in ‘Here to stay’ also adapted successfully to the culture of the new work group. Evidence of motivation and commitment to the work group was noted by other co-workers, who reciprocally, showed higher commitment and assisted the new co-worker fit in and learn about the job.

Although “there is no universally accepted notion of what constitutes successful interaction” (Flanagin and Waldeck, 2004), the present study found that positive attitudes of new co-workers toward established co-workers helped them to fit in and ‘learn the tricks of the trade’. It also helped reduce new co-worker uncertainties such as how to do their job and how to identify social behaviour that is normal to the work group. Previous research by Choi and Levine on how new co-workers gain acceptance, complement this finding, saying that “...new co-worker influence is
unintentional, as when oldtimers’ understanding of group culture changes as a function of transmitting it to new co-workers or when the presence of new co-workers alters existing status relationships among oldtimers” (2003, p. 274). The importance of the new co-worker’s motivation and commitment to the new work group is emphasised here, and was highlighted in ‘A notebook for coping’ and ‘Here to stay’. Another way for new co-workers to learn informally in the workplace is by interacting with other co-workers, observing co-workers, and participating in everyday workplace activities. This factor is discussed next.

Participating in everyday work activities

When new co-workers participated in everyday work related and social activities, informal learning experiences were afforded by other more established co-workers in this study. This finding can be compared to the work of Rogoff (1990, 1995) who found that within a shared setting of interaction and participation, learning facilitates opportunities to participate in collective activities. In the present study, there was sufficient evidence of the importance of other co-workers in how new co-workers participated in everyday workplace activities and granted access to new knowledge, skills, and information about the job. Within a shared setting of participation in social practice, this finding is consistent with others who have argued that learning facilitates opportunities for individuals to participate in collective activities (see, for example, Rogoff, 1995; Lave & Wenger, 1991). This is important as the workplace is one example of a shared setting in which co-workers participate in everyday activities. Vygotsky (1978), Engeström
(1987; 2001), Lave and Wenger (1991), Rogoff (1990, 1995), Argyris and Schöon (1996), and Wertsch (1991) all suggested that learning cannot be understood without considering the social and cultural context in which learning takes place.

In the present study, new co-workers learned social knowledge about the workgroup, ‘tricks of the trade’, and new social and technical skills that helped them adapt to the new work environment through participation with other co-workers. New co-workers were dedicated to learning new social and technical knowledge required to adapt successfully to the new work group culture, perform the job well, and be accepted by other co-workers. The most common way for new co-workers to achieve this was through participation with more established co-workers in the work group. This finding is consistent with the empirical studies conducted by Filstad (2004) and Choi and Levine (2003) and Levine and Moreland’s views on newcomer socialisation (1991). These authors stressed that new co-workers often learn the practices and values of the organisation and its members through participation. In the present study, new co-workers often experienced anxiety and confusion as a result of their lack of social knowledge and were faced with situations that they may not have been able to understand. This supports the findings of Levine and Moreland (1999) who suggested that new co-workers often need help from more experienced people. In the present study, this help usually came from established co-workers who were willing to assist new co-workers learn their new role and become a part of the work group.
This process was illustrated in ‘A notebook for coping’ where a new co-worker was confronted with new practices and procedures. This process is similar to the approach to socialisation adopted by Handzic and Chaimungkalanont (2004). These authors described socialisation as tacit knowledge that is transferred between individuals through shared participation experiences like spending time and working together. Herrgard (2000) would describe this as the unarticulated knowledge that can be inherent in people, and obtained by individual processes such as experience or reflection, and then shared with others.

Participation in work group activities involves developing knowledge that could be used to enhance informal learning opportunities. New co-workers who successfully integrated into the work group were granted access to the type of social and technical knowledge that would enhance their work and participation in the work group. Examples of this participation included the new co-worker interacting, observing and listening to established co-workers so that they would become socialised into the work team as a productive and meaningful member. From the perspective of the new co-worker, this process was illustrated in ‘A notebook for coping’ and ‘Here to stay’. The role of the established co-worker in this process was demonstrated in ‘Walking together’ and ‘A welcome party of one’. ‘A notebook for coping’ stressed that when the new co-worker displayed a high commitment to participating in the work group, she was more valued by established work group members.
In the present study, new co-workers were also found to learn new technical knowledge about the job by participating in everyday activities with co-workers. The way that new co-workers learn new technical skills and knowledge is not well documented in the socio-cultural literature as the emphasis is usually on successful socialisation in the work group. The learning of new technical skills was evident in ‘A notebook for coping’ which illustrated that despite that new co-worker having the necessary qualifications to fulfil the requirements of the job, new skills relating specifically to that position were needed. This includes learning the practices and procedures that are used by other co-workers and how to use the equipment necessary for that particular job.

Participation with co-workers was found to be another common way for new co-workers to learn the ‘tricks of the trade’. This took place by learning through everyday work activities and developing knowledge through guidance from other people. These stories illustrated in ‘A notebook for coping’ and ‘Here to stay’. The findings of this study illustrated how new co-workers recognised that indirect guidance, interacting, observing, and listening to more experienced co-workers allowed them to obtain the social and technical knowledge required for the job. Together, these factors had an effect on the process of informal learning, what was being learnt, and from whom.

New co-workers’ descriptions of how they learned social and technical knowledge by interacting with established co-workers complements Filstad’s
findings on the use of role models in the real estate industry. Filstad (2004) found that through interaction and observation, new co-workers used role models to acquire new information, knowledge and skills to fulfil their new position. A similar process was used by the new co-workers in ‘A notebook for coping’ and ‘Here to stay’ where new knowledge about the job and the work group was acquired by observing established co-workers who had more experience in the work group. As these new co-workers were willing to learn new knowledge that would enable them to do the job well, and become valued members of the work group, they were able to integrate successfully into the work group. Participation in social practice is one way for new co-workers to learn informally new knowledge and skills. Through participation, informal learning takes place through activities where individuals work together toward a common product or goal. Within a shared setting of interaction and participation in everyday activities, learning facilitates opportunities for individuals to participate in collective activities (Rogoff, 1990; Lave & Wenger, 1991).

In ‘A notebook for coping’, for example, informal learning occurred through participation with co-workers and was systematic, involving observation, shadowing and having a go. In ‘Walking together’ the informal learning was spontaneous and involved participation with co-workers. This approach is comparable to Levine and Moreland’s (1999) ‘encapsulation tactic’ which can be used to increase a new co-worker’s interaction with existing co-workers. According to Levine and Moreland (1999), existing co-workers are able to transmit social knowledge and group culture and help avoid new co-worker
contact with others who cannot, or will not, assist in the transfer of such information. They found that once an appropriate established co-worker was selected by the workgroup to fulfil this responsibility, several tactics were employed by this person to transmit social information to the new co-workers. These tactics could include informal social interaction, being a patron or mentor to the new co-worker and attempting to assess the new co-worker’s knowledge about group culture (Levine and Moreland, 1999).

Further, ‘A notebook for coping’ showed how informal learning can be systematic and occur as a by-product of everyday experiences (Foley, in Foley, 2004; Marsick and Watkins, 1990). The learning can also be unplanned (Tusting, 2003), and unintentional (Marsick and Watkins, 1990; Bell and Dale, 1999, Tusting, 2003). Informal learning processes were demonstrated by that new co-worker’s ability to ‘shadow’ those people with more experience and learn by observation and trial and error. Much of this learning occurred as part of everyday experiences and, in this case, was not a planned activity. Instead, as shown in the present study, the learning occurred unintentionally and as part of social interaction with other co-workers.

Therefore, the way new co-workers adapt to a new work group has the potential to influence the effectiveness of their informal learning experiences. In the present study, that new co-worker in ‘A notebook for coping’ used tactics like observation, shadowing, and watching established co-workers to achieve successful integration into the work group. Another
new co-worker in ‘Here to stay’ also participated in informal mentoring activities and collaboration with other new co-workers so that they could learn the job, the work group culture, expected behaviour and social knowledge. Levine and Moreland (1991) refer to this as ‘socially shared’ knowledge in work groups.

In sum, the new co-workers in this study learned informally by interacting and observing more established co-workers, and by participating in everyday workplace activities. Lave and Wenger (1991) argued that situated perspectives on learning in the workplace assume that learning occurs through interaction and participation in everyday experiences and through a ‘community of practice’. This was ample evidence of participation and interaction between co-workers in this study. In addition, new co-worker experiences of informal learning were also facilitated by receiving guidance and support from other co-workers.

Receiving guidance and support

The results indicated that informal learning could also be afforded when new co-workers received guidance and support from more established co-workers. Direct and indirect guidance given to new co-workers by more experienced co-workers enabled new co-workers’ to adapt successfully to new work groups and everyday working conditions. This was illustrated in numerous stories such as: ‘A notebook for coping’, ‘Walking together’, ‘A notebook for coping’ and ‘Here to stay’. These stories reported new co-workers’ positive experiences upon entry to their respective work groups.
The experiences reported by these new co-workers were consistent with Billett’s (1998) view that workplaces may contribute to how an individual constructs knowledge and how that knowledge is mediated by other co-workers.

The quality of informal learning in the workplace, however, often depends on the kinds of activities engaged in, the level of access to situational factors (like guidance and support) and how individuals react and respond to learning situations (Billett, 2001). In the present study, how new co-workers accessed established co-workers and their knowledge influenced the learning process and what was being learnt. A new co-worker’s access to an established co-worker has implications for the way the workplace might be organised to facilitate learning and improve the potential for informal learning to occur. The importance of co-worker access is important and, as suggested by Billett (2001), learning through co-workers and learning through work are important sources of learning in the workplace.

In the present study, new co-workers who received guidance and support from more established co-workers engaged in successful socialisation upon entry to the work group and were able to learn new social and technical knowledge through interaction with other co-workers and participation in everyday activities. Research by Filstad (2004) found that newcomers use colleagues as role models in organisational socialisation and that there is a positive correlation between early experiences and successful socialisation. Moreover, Gruenfeld and Fan (1999) supported Louis’s (1980) findings that
newcomers experience cognitive growth in response to interaction with others in a new work environment. However, Flanagan and Waldeck (2004) warned that in order for this to occur, individuals must receive sufficient, accurate, and appropriate information about the job and the work group.

The role of established co-workers in promoting and providing guidance to new co-workers was evident in stories like ‘A welcome party of one’ and ‘A notebook for coping’. These stories are consistent with Billett’s (1998) view on receiving guidance from others, and support Levine and Moreland’s (1991) position on the role of oldtimers in promoting socialisation in work groups. In ‘A notebook for coping’, that new co-worker’s socialisation process was positive and led to successful and rewarding informal learning opportunities. For example, the social processes occurring between that new co-worker and the existing work group emphasised the role of other co-workers as important, as they provided the means by which that new co-worker was made to feel comfortable in the new work group and was able to identify new learning opportunities. According to Levine and Moreland (1991) and Filstad (2004), established co-workers may assist new co-workers learn and understand social information and organisational culture (norms and values) that exist within the work group and the organisation.

Overall, this study highlighted how receiving guidance from established co-workers can enhance new co-workers experiences and help them adjust to a new work group and new co-workers. According to Billett (2001) workplaces symbolise a social practice where learning occurs through
participation with other people. Guidance from others assists in the development of learning by transferring ‘tricks of the trade’, interacting with other workers, observing, and listening to other people (Billett 2001). The tactics used by both new co-workers and established co-workers in ‘A notebook for coping’, ‘A welcome party of one’ and ‘Here to stay’ support Billett’s (2001) view on the importance of direct and indirect guidance in the workplace and are useful for affording informal learning opportunities for new co-workers.

In summary, this discussion has emphasised how personal and organisational factors co-contribute to afforded opportunities for new co-workers’ experiences of informal learning. Those new co-workers who demonstrated enthusiasm, a readiness to learn, and willingness to ‘fit in’ were welcomed by established co-workers who shared their ‘tricks of the trade’ and provided support and guidance. Personal relationships between new and established co-workers encouraged spontaneous and unplanned informal learning opportunities. New co-workers learned informally from established co-workers important knowledge about the job, the work group, and the organisation that enabled them to adjust to the new work environment and perform the job well. Although this particular organisation did not have a formal management strategy or induction program to assist new co-workers, other factors facilitated by the organisation, such as asking an established co-worker to show new co-workers around, helped new co-workers form relationships with other co-workers and adapt to the new surroundings. New co-workers learned informally the knowledge and skills
that enabled better participation in everyday workplace activities. Next, established co-worker experiences and affordances for informal learning are discussed.

*Established co-worker experiences of informal learning*

This study revealed how established co-workers learned informally new skills and knowledge that allowed them to gain new skills and knowledge to keep up with changes in the workplace and better participate in everyday workplace activities. Like new co-workers, established co-workers appeared enthusiastic to learn informally the most effective ways of doing the job and interacting with other co-workers. Like for new co-workers, productive interactions of personal and organisational factors were critical in creating opportunities for established co-workers’ informal learning. From established co-workers’ accounts, two factors emerged as potential sources of informal learning. These factors are changes in the workplace and engagement in cultural practice.

*Changes in the workplace*

Today’s organisations and their employees work in complex environments characterised by technological advancement, demographic, cultural, and social changes. The established co-workers in this study were confronted by similar changes. New ways of adjusting to these changes were sought by those established co-workers who found it necessary to learn new knowledge and skills in order to stay employable, perform well, and be satisfied with their working conditions. These changes were broad and
included learning how to use computers, adjusting to changes in management, and the way they interacted with other co-workers, especially new co-workers.

The established co-workers in this study demonstrated a broad range of skills, experience and knowledge about work group culture and norms, other co-workers, and how the job is done. The results revealed ample evidence of how established co-workers generated their own affordances for informal learning and illustrated the experiences of some established co-workers who have been through many changes over their time in the organisation. Each story described different experiences relating to established co-worker’s reactions to new co-workers, trust, and new ways of learning new skills and knowledge.

Changes in management and workplace culture posed many challenges for one established co-worker in the ‘The long road’. This story depicted the experiences of an established co-worker who had experienced changes in the organisation over a 20 year period. During that co-worker’s 20 years of service in the organisation, a lack of communication from management and numerous other changes made him dissatisfied and despondent. One of the most significant obstacles faced was the relationship he had with other co-workers. In the story, he described the organisational context as a hindrance to the way he had to adapt to change and the work environment, which led him to develop a negative attitude toward the organisation and the job. According to McAdam, Mason and McCrory (2007), communication
is central to the effective management of knowledge in the workplace, as much of the knowledge gained by co-workers is not recorded, shared or used effectively. This information is often tacit knowledge, and although essential for understanding organisational routines, as illustrated in ‘The long road’, factors such as trust and perception of management’s support, often hinder the informal learning process.

However, things had changed in recent years. Changes in management and the organisational culture eventually altered his relationship with the organisation. A perceived more open style of communication was developed as a result between that co-worker and management, allowing him to become a better leader. That co-worker used change as a positive way to improve workplace culture and the way co-workers communicated with each other. As more positive changes were introduced, he found new ways of communicating and interacting with co-workers and was involved more in organisational based decision making.

By communicating in a different way, that co-worker learned valuable skills for leading the work group and dealing with problems. This example illustrates how productive interaction of personal and organisational factors led to valuable informal learning. Informal learning was found to be participative and reliant on both the social context and co-worker participative activities. Prior research by Rogoff (1990) and Lave & Wenger (1991) and Billett (2001) support this finding as workplaces symbolise a social practice where learning occurs through participation with other
people. Learning is viewed as not isolated from the social context in which it occurs. Although the informal learning process in ‘The long road’ was not explicit in that regard, nevertheless it represents how informal learning can be a gradual process of finding ways for co-workers to better participate in everyday workplace activities. This view of informal learning is consistent with Foley (in Foley, 2004) who described informal learning as the type of learning that occurs consciously when a co-worker is trying to learn from an experience.

*Engagement in cultural practice*

Participation in workplace activities, when reflected in a positive way, was also a dynamic way for established co-workers to learn informally. In the present study, established co-workers referred to the way they interacted with other co-workers and participated in everyday activities. The quality of their relationship with other co-workers, especially trust, was a significant recurrent theme that emerged from co-workers’ accounts of when they worked with others. In prior research, and referring to the sociocultural practices that occur when people work together, Boreham and Morgan (2004) discussed the use of symbolic tools like language and cultural artefacts that may encourage informal learning, as well as, more formative practices like guided participation. These authors referred to this as a collective resource and gives rise to what Van Maanen and Schein (1979) call organisational segments, or subcultures.
The relationship between organisational culture and participation was illustrated in two stories. ‘The long road’ and ‘Tricks of the trade’ showed how organisational sub-cultures developed over time and how work group subcultures encouraged participation and informal learning in the work group. The established co-workers in those two stories illustrated how their long service in the work group had allowed strong bonds to be formed between co-workers and allowed them to successfully participate in everyday workplace activities. In doing so, important skills and knowledge about the job was shared among those co-workers.

Prior theory and research on the sociocultural perspective on learning indicated that it was important to consider how individuals use social and cultural factors, or sub-cultures, to construct and use knowledge in the workplace. For example, this study found that established co-workers learned informally the skills and knowledge required to perform well in the job within the existing work group culture. This involves sharing knowledge and information about how the job should be done and the best way to do it. Gourlay (2002, 2004) would describe this type of knowledge as tacit, which is, job specific, held within, both known and unknown to the holder, and transferred through conversation and narrative. These social and cultural factors contribute to the existing work group culture, which Levine and Moreland (1991) described as the social knowledge that group members share when they participate in work group activities. According to Levine and Moreland (1991) cultural and social practices exist in the workplace and have the potential to influence learning opportunities. However,
opportunities for informal learning were only afforded if those established co-workers trusted each other.

Trust was a significant issue that emerged in this study from numerous established co-worker stories including ‘The long road’, ‘Passed over’, ‘Suspicious minds’, ‘The bargaining chip’ and ‘Tricks of the trade’. As highlighted, the role of trust in enabling informal learning for better participation in workplace activities has received relatively little research attention. Moreland and Levine’s (2002) work on socialisation and trust in work groups represents one of few articles in the sociocultural literature that examine trust in work groups, however, the relationship between trust and informal learning is not well understood. What emerges from this study is that when trust was present between established co-workers, individuals were more likely to share knowledge about the job with others, and provide effective environments in which informal learning could occur. Developing trust takes time and is influenced by numerous factors. These include changes in the organisation, changes in the work group, and the introduction of new co-workers. In this study, established co-workers knew what was expected of them, and similarly, expected certain behaviour from other co-workers in their work group.

In sum, this discussion has highlighted that like new co-workers, established co-workers learned informally new skills and knowledge that enabled them to better participate in workplace activities. Established co-workers play an important role in establishing and maintaining work group culture and
providing an environment that is conducive for informal learning. The relationship between new co-workers and established co-workers generates affordances for informal learning for better participation in workplace activities. Established co-workers sought new knowledge about strategies and techniques that would make their job easier and increase performance. Effective informal learning opportunities emerged when needed by the individual and were often unpredictable, spontaneous experiences that occurred just in time and were context specific. The cultural context in which informal learning occurred was significant for both new and established co-workers.

The sociocultural perspective on learning, drawing on the earlier work of Vygotsky (1978; 1986), and later expanded by Engeström (1987; 2001), Lave and Wenger (1991), Rogoff (1990; 1995), Argyris and Schön (1996), Wertsch (1991), and in relation to workplace learning, Billett (2000; 2002; 2004; 2006), recognises that learning and development cannot be understood without considering the social and cultural context in which learning takes place. It was these scholars who emphasised the importance of participation in social interactions and culturally organised activities for development and wide-ranging styles of learning. From the perspective of situated learning, introduced by Lave and Wenger (1991) in their seminal work and later examined by Rogoff (1995) and others, learning is essentially a matter of creating meaning from the activities of everyday experiences. This point of view is consistent with the findings of this study. Learning was found to be a complex process of social participation where the relationship
between co-workers affords informal learning. In turn, and most importantly, informal learning enables better participation in workplace activities.

One problem, however, is that informal learning is not always afforded in the workplace. Like opportunities, challenges often emerge from how co-workers interact with each other and how they participate in everyday activities in the workplace. Relationships between co-workers, both new and established co-workers, is of paramount significance because in the same way that relationships can afford opportunities for informal learning, they can also constrain opportunities for informal learning. These constraints are discussed next.

Factors that constrain informal learning

The present study found that while the relationship between new and established co-workers can enable informal learning, it can also constrain the way knowledge is transmitted and shared in the organisation. This finding is consistent with Levine and Moreland’s (1991; 1999) discussion of culture and socialisation in work groups. According to Levine and Moreland (1991), oldtimers are more likely to regulate the type of information that newcomers receive which may influence the way that information is transmitted between members of work groups. Further, Levine and Moreland (1991) argued that oldtimers tend to regulate the information newcomers receive based on their past experiences with newcomers, the strength of the team, and the perceived motivation of the newcomer. In
doing so, established co-workers use a range of tactics and strategies to shape co-worker’s participation in everyday work activities.

The sociocultural perspective on learning that was reviewed in Chapter Two provided a useful conceptual basis to understand these phenomena. Workplaces are conceived as constituting participatory practices where norms and practices often determine how individuals participate in work (see for example, the work of Engeström and Middleton, 1996). Past research by Levine and Moreland (1991) argued that the quality of the co-worker relationship is a determinant for the way informal learning occurs in the workplace. For example, oldtimers can influence the way cultural knowledge is shared (see also Choi and Levine, 2003). In regard to the new co-worker/established co-worker relationship, Levine and Moreland (1991) claimed that oldtimers are more likely to regulate the type of information that newcomers receive and may influence the way that information is transmitted between members of the work group. Further, if an oldtimer does not accept the newcomer, incorrect information can be transmitted.

Next, the relationship between new co-workers and established co-workers will be discussed using three factors that were identified in this study as constraining informal learning experiences in the workplace. These three factors are: negative attitude of established co-workers; negotiating group boundaries; established co-workers negative response to change.
**Negative attitude of established co-workers**

Some new co-workers experienced successful socialisation and entry into their new work groups. For example, those new co-workers in ‘A notebook for coping’ and ‘Here to stay’ indicated that established co-workers helped them adjust to the new work group. The role of established co-workers in this process was highlighted in ‘A welcome party of one’ and ‘Walking together’, where certain established co-workers appear to have made a concerted effort to make new co-workers feel welcome. However, this study also made explicit the ways established co-workers constrain new co-workers. This may be due to the large proportion of established co-workers in this organisation, where work group norms and bonds between co-workers are well established and grounded in the sub-cultures of that organisation. Alternatively, the negative attitude of established co-workers toward new co-workers can also be attributed to their past experiences with new co-workers, issues of trust, and how some established co-workers accepted change. The findings of this study provided ample evidence of this, particularly in ‘Suspicious minds’, ‘The bargaining chip’, and ‘Passed over’.

In those stories, established co-workers told of their past experiences with new co-workers. For example, the established co-worker in ‘Suspicious minds’ was reluctant to share knowledge about the job or the work group with new co-workers because that co-worker felt threatened by new people joining the work group, and could not accept advice on how the new co-
worker thought the job should be done. That established co-worker was also concerned about their future in this organisation; worried that management were bringing in new people to take over. Although these claims were not confirmed, they were nonetheless real issues for that established co-worker, causing that co-worker to restrict or constrain the type of information they passed on to the new co-worker.

Subsequently, the scenario described in ‘Suspicious minds’ indicates that informal learning in the workplace cannot be taken for granted. If an established co-worker prevents a new co-worker from accessing important information and knowledge about the job, and the work group, the new co-worker is less likely to integrate successfully into the work group, or perform the job well. In this context, the established co-worker is inhibiting the new co-worker’s participation in the work group.

Moreland and Levine (2002) noted similar findings in their research. They described new work group members as ‘quasi-members’, those who belong to the group, but are not yet full members of it. These new members have not been fully accepted into the group and so – how much can that person be trusted? How much information will established co-workers be willing to pass on? For example, if an established co-worker does not accept the new co-worker, incorrect information can be transmitted. Such a negative reaction may be due to the established co-workers past experiences with new co-workers or concern over loss of responsibilities and duties such as illustrated in the story ‘Passed over’, where an established co-worker felt
like a new co-worker was overstepping the boundary as defined by that work group.

* Negotiating group boundaries

Following on from the previous section, established co-worker attitudes toward new co-workers have the potential to influence new co-worker participation, socialisation, and the dynamics and functioning of the work group. Prior research by Levine and Moreland (1991; 1999) stated that when a newcomer enters the team, oldtimers subjected them to a range of socialisation tactics. The first tactic is encapsulation, when newcomers are exposed to oldtimers who are willing to share information about the group’s culture. Secondly, oldtimers may be expected to act as mentors or patrons to newcomers so that they can observe appropriate behaviour. Thirdly, oldtimers may be expected to train all newcomers in a consistent manner and fourthly, oldtimers may test newcomers by telling them an ‘in house’ joke to see how they respond. The established co-worker in 'Passed over' exhibited a similar process when welcoming a new co-worker to the work group. That established co-worker spent a great deal of time and effort in making the new co-worker feel welcome and become part of the work group.

However, that story also highlighted what can happen when a new co-worker oversteps the boundary defined by an established co-worker, showing that the introduction of a new co-worker has significant implications for the way co-workers participate, interact and share information and
knowledge in the workplace. In that story, the established co-worker’s positive attitude to new co-workers changed when the new co-worker had learned the job and began taking over this person’s roles and responsibilities. The co-worker felt betrayed and neglected when the new co-worker, who was provided with the ‘tricks of the trade’, was given more responsibility and allocated certain jobs that were usually assigned to this person, who has more experience and longer service to the organisation.

According to Moreland and Levine (2002), the work group’s history may affect how much established co-workers trust new co-workers. Have new co-workers misbehaved in the past? Moreland and Levine said that the “worse a group’s history in this regard, the less likely full members are to trust new or marginal members” (2002, p. 192). It becomes evident that trust is also a condition that constrains informal learning and participation in everyday activities. New co-workers can then be denied participation and interaction in work group activities and may fail to develop appropriate workplace procedures. This reluctance may also inhibit the outcome of workplace learning (Billett, 1998) for new co-workers, as was found in this study. In addition, the way co-workers responded to change also shaped informal learning experiences.

*Established co-workers negative response to change*

How co-workers react to change also has the potential to influence how an established co-worker interacts with new co-workers. In this study, some established co-workers responded negatively to workplace change,
especially the arrival of new co-workers. In ‘Suspicious minds’ for example, the co-worker resisted new co-workers based on a lack of trust, fear of losing their job, and loss of responsibility. That person resisted new co-workers to the organisation and saw them as a threat and as a result used tactics that prevented the new co-worker learning new knowledge. That person was very protective of the ‘organisational’ knowledge that was gained over the past 20 years and was not willing to share it with new co-workers until they demonstrated some degree of trust or mutuality. Levine and Moreland (1992, p. 269) warned that “oldtimers, by virtue of their higher status and power, often regulate the type of information that new co-workers receive, as well as how that information is transmitted. That established co-worker in ‘Suspicious minds’ openly admitted not dealing with change very well, especially new co-workers, but accepted that ‘it takes time to build relationships’ and communication played an important role in establishing trust.

In sum, the relationship between new co-workers and established co-workers can constrain opportunities for informal learning in the workplace in the same way as it can enable it. In this study, it was found that not being accepted as a full member of the group, new co-workers overstepping the boundary, trust and dealing with change were all significant relationship factors that had an impact on how knowledge was shared among co-workers. Established co-worker’s past experiences of what happens when new co-workers enter the work group also influenced work group dynamics, where the social system had an effect on how informal learning occurred in
the workplace. If an established co-worker had negative experiences, or felt threatened by new co-workers, they were reluctant to share their knowledge and understanding of how the job is done. In turn, the new co-worker is constrained by the established co-worker, who may choose not to share information, or make the new co-worker’s transition into the work group difficult. Overall, relationships between co-workers emerged as the key to affording or constraining opportunities for informal learning. Personal and organisational factors tended to contribute to this process in a dynamic way with possible implications in the long term.

RESEARCH BOUNDARIES

This section of the chapter raises some boundaries associated with the research methodology used in the empirical study. This study used qualitative methods, rather than quantitative, to gain an in-depth understanding of informal learning in the workplace. Therefore, the validity and reliability of the data depended on the skill and integrity of the researcher.

This research was designed from a sociocultural perspective in an attempt to determine how the workplace, as a complex social system, afforded or constrained informal learning in the workplace. The sociocultural perspective on learning assumed that within a shared social setting of participation in everyday workplace activities, informal learning opportunities could be afforded or constrained by co-workers. For this reason, individuals and their social context were studied concurrently, as
informal learning was assumed to be part of a social practice structured by individual and organisational factors. Informal learning then, was described as a phenomenon informed by individuals’ everyday experiences in the workplace. For this reason, the approach taken in this study was informed by phenomenology.

Adopting a phenomenological perspective allowed rich descriptions of co-workers’ informal learning experiences and their participation in everyday workplace activities to be illustrated. The researcher was able to collect rich descriptions of co-workers self-reported experiences. As Polkinghorne (1995) proposed, phenomenology is an attempt to understand human experience as it is lived. Co-workers’ self-reported accounts of informal learning exposed everyday activities that otherwise may have been taken for granted or overlooked as valuable opportunities for informal learning in the workplace. By responding to the critical question commonly asked by phenomenologists; ‘what is this experience like?’ the researcher designed the study in a way that allowed her to determine how individuals participated in everyday workplace activities at a particular workplace, how co-workers interacted with each other, and how informal learning occurred. The phenomenological approach was also most suitable to address the sociocultural issues that were presented in the conceptual framework in Chapter Two.

The method of interviewing was used to collect data on what people experienced in the workplace, how they learned new knowledge and skills,
how they participated in everyday activities in the workplace, and how these activities provided affordances or constraints for informal learning that were assumed to lead to better participation in the workplace. The role of interviewing in a phenomenological study is to gain insight into the participant’s feelings, thoughts, intentions and experiences. The semi-structured interviewed gave participants greater freedom in their responses and allowed the researcher to shape the discussion through the use of open ended questions. Prior to the interview, participants read a document containing information about the research project, confidentiality, and contact details of the researcher, and then asked to sign a letter of consent. The researcher took notes during the interview and with the permission of each interviewee, each interview was recorded.

In this study, the intention was to present the data in a way that would immerse the reader in the phenomenon and provide enough concrete details to allow the reader to identify with the experiences of each participant. This was achieved through stories, which were then analysed from a phenomenological approach using a sociocultural perspective. This way of presenting data is supported by Connelly and Clandinin’s (1990, 2000), Taylor (1992) and Ylijoki (2001) as they help express how individuals make sense of their lives by imparting meaning to their experiences. According to Barone (1992), stories are a powerful way of communicating as they provoke emotions and empathy, and stimulate the reader to identify with the characters and their experiences. Rossiter (2002) later described how
stories involve us in the actions and interactions of individuals, where the reader creates and discovers meaning.

During the story writing process, the researcher was mindful of Feldman et al’s concern that “although all of us are generally adept at interpreting the stories we are told in our everyday lives, rigorous methods of analysis are useful when we interpret stories for research” (2004, p. 150). There were some difficulties presenting data in this way due to the subjectivity of both the researcher, and then the reader. The researcher acknowledges that individual readers will invariably interpret the stories in different ways. Storytelling is a very personal way of both presenting and interpreting data. Each individual reading the stories will have invariably extracted different meanings based on their personal experience and how they related to the situation and the co-worker.

For this reason, the researcher acknowledges that there may be bias in her own interpretation, and has taken steps to correct this by ensuring that evidence for the analytical findings exists in the data, and that different interpretations of the data can be reconciled. Following suggestions from Holloway (1997) and Hycner (1999), at the beginning of the writing process, the researcher listened to the audio recording of each interview to become familiar with the words of the participant. After the stories were written, all participants were asked to read their story to ensure that the researcher’s interpretation of their experience was accurate. Some stories were then re-
written to accommodate the changes made by the participant. This process added to the rigor of the research process.

In addition, the researcher was also conscious of the likelihood of her own interpretation entering the unique world of the participant and therefore adopted a strategy recommended by Cho and Trent (2006) called bracketing. According to Miller and Crabtree (1992) bracketing the researcher’s personal views or preconceptions adds to the rigor of qualitative research. In this study the researcher was mindful to remove her perception of each participant and their experiences.

Qualitative research, like all forms of research, must address issues of reliability and validity. The nature of qualitative research suggests that these are difficult to determine as the uniqueness of each participants’ experience cannot be generalised. For this reason, Lincoln and Guba (1985) proposed four alternative ‘naturalistic’ criteria for evaluating the quality of qualitative research: credibility; transferability; dependability; and confirmability. Firstly, credibility refers to the confidence one can have in the truth of the findings and can be established by various methods. The two methods in this study were triangulation and member checking. Participants were given the opportunity to read their stories so they could agree or disagree with the interpretation. During this process participants, had the opportunity to confirm that the data collected reflects their informal learning experiences.
Secondly, to enable transferability, this study presented findings with thick descriptions of informal learning phenomena through the use of stories. Transferability provided the reader with enough information to judge the appropriateness of applying the findings to other settings. Lincoln and Guba's (1985) use of the transferability implies generalisability of the findings and results of the study to other settings, situations, populations, or circumstances. In this study the stories provided the reader with a first person account of the phenomena and the informal learning experience. Thirdly, dependability was attained by providing documentation of data, methods and decisions about the research process. This approach emphasised the need to account for the ever-changing context within which the research occurred, including changes that occurred in the setting, and how these changes may have affected the research process.

Lastly, analytical triangulation was used to ensure confirmability. To enhance confirmability the procedures for checking and rechecking the data throughout the study were documented. A data audit was also performed that examined the data collection and analysis procedures allowing the researcher to make judgments about the potential for bias or misinterpretation. The researcher relied on analytical triangulation and participant feedback. This process also encouraged communicative validation where confirmability could be ensured through additional questioning once the researcher had re-entered the field and asked participants to validate the data.
The strength of the phenomenological approach and qualitative method, however, leads to its main limitation. Data were collected from a few individuals who provided self-reports, meaning that findings cannot be generalized to the larger population. The study is too small to make broad generalisations about informal learning in the workplace. However, Stake (1978, p.6) quoted William Blake saying that ‘to generalize is to be an idiot’ and “what becomes useful understanding is a full and thorough knowledge of the particular”, as provided in the empirical study. However, the researcher acknowledges that while data from this study provides valuable information and insights into informal learning in one particular workplace, the experiences and perceptions of employees in other organisations may be quite different. Nevertheless, the aim of phenomenological research is to understand the experiences of participants, and it does not profess to generate theory or laws. The goal of phenomenology is reached when the reader has a better understanding of the way the participant sees things. The goal of this study, therefore, will be reached when the reader develops a better understanding of how informal learning occurs in the workplace and of the affordances and constrains of this type of learning for co-workers.

One more limitation of the methodology is that the only source of data collection was interviews. While other methods of data collection could have been used (e.g. document analysis, participant observation) the nature of the sociocultural framework and the research questions suggested that the most effective way to investigate co-workers’ experiences of informal learning was through in-depth interviews. The use of interviews led to the
gathering of detailed data about informal learning in the workplace. Small in-depth semi-structured interviews allowed the researcher to gather rich information which quantitative methods do not allow and observations alone cannot reveal.

FUTURE RESEARCH DIRECTIONS

The stories generated in this study are representative of the collectively shaped experiences of the participants in one workplace and have made visible some informal learning opportunities in that workplace. More research is needed across several workplaces to provide a holistic representation of how co-workers learn and interact in the workplace. Much remains to be learned. For example, does organisational size affect informal learning? What about the type of organisation? Or the proportion of new versus established co-workers? How does the history and the culture of the organisation influence informal learning?

The organisation in this study has a high proportion of established co-workers compared to new co-workers. Is the relationship between co-workers similar in other organisations that have a different proportion of new and established co-workers? How does informal learning occur in other organisations? What role does an organisation play in facilitating trust in the workplace? What role does an organisation play in providing opportunities for informal learning? There is a need, therefore, to learn more about informal learning at the individual, work group and organisational levels. This is especially relevant given the rapid growth in
technology and the way the workplace is changing. At present, three generations are working side by side in our workplaces. Does this have an effect on how co-workers learn informally and participate in everyday activities? How does age affect informal learning participation with others in the workplace? These are just a few of the many answered questions that can be taken up in future research.

CONCLUSION

This study used a sociocultural framework to understand and interpret the way new co-workers and established co-workers learned informally new skills and knowledge in the workplace through participation and interaction with each other. The relationship between new co-workers and established co-workers was highlighted and showed how their interaction influenced the type and quality of informal learning that occurred as part of their everyday activities in the workplace. Common across the two groups of co-workers was the importance given to their relationship with one another. Relationships emerged as one of the most critical factors in the generation of affordances or constraints for informal learning in the workplace.

In light of these findings, there is a lot more to the relationship between new co-workers and established co-workers in the context of informal learning than prior research has revealed. Choi and Levine’s (2004) study on minority influence in work teams supports this view. These authors stated that little research has been conducted on the social dynamics of work teams, especially when there are changes in work practices. In this study,
changes in work practices occurred when new co-workers entered work groups. Of most significance was the way that established co-workers afforded or constrained informal learning opportunities for new co-workers. The way established co-workers interacted and socialised with those new co-workers has revealed significant sociocultural processes and practices that influence how informal learning occurs in the workplace. The sociocultural context is central to the way new skills and knowledge are acquired, transferred or restricted between new co-workers and established co-workers.

This study drew two major findings. The first major finding was that informal learning does take place as part of everyday work activities and can be planned, spontaneous, intentional, or unintentional. There was evidence of valuable informal learning for most co-workers. What differed between new and established co-workers however, was the purpose of that learning. New co-workers learned informally important knowledge and skills about the job and the work group that helped them ‘fit in’ and perform the job well. Established co-workers learned informally new skills and knowledge that allowed them to keep up with workplace changes and technological advancements. For both new and established co-workers, informal learning enabled better participation in workplace activities.

Informal learning was found to represent a natural process of trying to better participate in workplace activities. This involved new and established co-workers being well integrated, able to identify social and cultural
practices, and acquire the specific technical skills and knowledge required in that particular workplace situation. The findings highlighted that informal learning is the key for better participation in workplace activities, and given participation takes place in a complex social system, it is possible that the social system can afford or constrain this gradual informal learning process towards fuller participation. This leads to the second key finding that emerged from this study.

The second major finding of this study was that relationships between co-workers afforded or constrained informal learning. The way new and established co-workers participated and interacted in the workplace revealed important sociocultural processes that influenced the effectiveness of informal learning. The process of successful informal learning was seen through participation, interaction and cooperation between co-workers. These processes were influenced by how these co-workers interacted, and more importantly, it was the social system that was central to how informal learning occurred. This study also highlighted the complexity of participation and interaction in the workplace. The implication here is that knowledge and opportunities for informal learning are potentially afforded or constrained by the social context. As previously discussed, the relationship between some new co-workers and established co-workers created social affordances that enabled informal learning to occur. However, the findings of this study also revealed that some established co-workers were inclined to constrain the type and amount of information and knowledge they
provided new co-workers with, therefore, restricting the new co-worker’s access to information to learning social and technical knowledge.

More research is needed on the relationship between new co-workers and established co-workers and how knowledge and information is passed between them. As stated by Marsick and Volpe “informal learning can be enhanced with facilitation or increased awareness by the learner….while much is known about these pervasive forms of adult learning, much remains to be learned” (1999, p. 32).
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APPENDIX ONE
# TABLE 3: INTERVIEW QUESTIONS

## Theme 1 – Introduction

**Work, learning and change**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long have you worked here?</td>
<td></td>
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<tr>
<td>Tell me about the job you do.</td>
<td></td>
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<tr>
<td>How long have you done this job?</td>
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<tr>
<td>How did you learn how to do that?</td>
<td></td>
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<tr>
<td>Do you enjoy your job? Why/why not?</td>
<td></td>
</tr>
<tr>
<td>What is the best part about your job?</td>
<td></td>
</tr>
<tr>
<td>What is the worst part about your job?</td>
<td></td>
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<tr>
<td>What have you been doing today?</td>
<td></td>
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<tr>
<td>What are you doing now?</td>
<td></td>
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<tr>
<td>How did you learn how to do that?</td>
<td></td>
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<tr>
<td>How did you get good at that?</td>
<td></td>
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<tr>
<td>Compared to when you first started working here, has it changed?</td>
<td></td>
</tr>
<tr>
<td>In what way?</td>
<td></td>
</tr>
<tr>
<td>How did you respond to these changes?</td>
<td>(positive, negative, no change, impact on job)</td>
</tr>
<tr>
<td>How have these changes affected your everyday work activities?</td>
<td></td>
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<tr>
<td>How did you find out about these changes?</td>
<td></td>
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<tr>
<td>Which changes are easy to get used to?</td>
<td></td>
</tr>
<tr>
<td>Which changes are hard to get used to?</td>
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<tr>
<td>In general, how do you react to change?</td>
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<tr>
<td>Do you trust the people you work with? (your team, division, organisation wide)</td>
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<tr>
<td>Do you feel like you are taken for granted? In what way?</td>
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<tr>
<td>Are you aware of any ‘unwritten’ rules or codes of conduct for behaviour in this organisation?</td>
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<tr>
<td>Theme 2 – Social context</td>
<td></td>
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<tr>
<td><strong>Learning with and from other people</strong></td>
<td>Who do you work with? (team, alone, for how long, all the time etc.)</td>
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<td></td>
<td>What types of work are you expected to do with other people?</td>
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<td></td>
<td>What do you talk about with your co-workers?</td>
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<tr>
<td><strong>Relationship between co-workers</strong></td>
<td>How would you describe the people you work with? (co-operative, difficult, helpful etc)</td>
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<td></td>
<td>How would you describe the relationship you have with other people in your work group, other work groups?</td>
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<td></td>
<td>How do you feel about having to work with other people?</td>
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<tr>
<td></td>
<td>Do you enjoy working with other people (reasons why/why not)</td>
</tr>
<tr>
<td><strong>New co-workers</strong></td>
<td>What happens when you work with other people? (productive, tension, helpful, enjoyable)</td>
</tr>
<tr>
<td></td>
<td>How long have you been working here?</td>
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<tr>
<td></td>
<td>What did you know about this job before you started working here?</td>
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<td></td>
<td>Did you have any expectations about working here?</td>
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<td></td>
<td>Did you know anyone who worked here? If yes, did that influence you in any way?</td>
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<td></td>
<td>Had you worked in a similar role before? If yes, do you think this helped you adjust to the new job? In what way?</td>
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<td></td>
<td>Did anyone help you settle in or learn the ‘tricks of the trade’? How did this happen?</td>
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<tr>
<td></td>
<td>Do you feel like you have been accepted by your new work group?</td>
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<tr>
<td></td>
<td>Did you experience any difficulties? (fitting in, jargon, etc)</td>
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<tr>
<td>Established co-workers</td>
<td>How long have you been working here?</td>
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<tr>
<td>------------------------</td>
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<tr>
<td></td>
<td>How do you feel when someone new starts working here? In your work team?</td>
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<td></td>
<td>Do other people feel the same way?</td>
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<td></td>
<td>Do you share information with new people about the job?</td>
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<tr>
<td></td>
<td>What sort of information? Can you give me an example?</td>
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<tr>
<td></td>
<td>What do you do to help new people fit in? In what way?</td>
</tr>
<tr>
<td></td>
<td>Overall, how do you feel about new people?</td>
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<tr>
<td></td>
<td>What happens if you do not like the new person?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 3 – Informal learning at work</th>
<th>Do you have to learn new things to keep up with changes in your job? Can you give an example?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How do you learn these new skills?</td>
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<tr>
<td></td>
<td>How do you prefer to learn?</td>
</tr>
<tr>
<td></td>
<td>Do you learn from other people? What kind of things?</td>
</tr>
<tr>
<td></td>
<td>Is there anything that helps you to learn? Hinders your learning?</td>
</tr>
</tbody>
</table>
In addition, probing questions were also used depending on responses. These included:

Can you give an example?

How did that make you feel?

Would you have done anything differently?

Is there any way you could have made that experience better?

In your view, how do your co-workers feel about that?

How did you deal with that situation?