The Hidden World of e-learning in Small and Medium Enterprises

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The thesis is submitted in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy of the University of Portsmouth.

February 2016
Abstract

This research explores the hidden world of e-learning in Small and Medium Enterprises (SMEs) through a social constructivist lens. A rigorous review of literature in the domains of both learning and e-learning in SMEs reveals these to be under-investigated areas with the majority of the scant previous research having been conducted from the perspective of owner-managers. The thesis reports an ethnographic study to enable a consideration of wider perspectives and therefore reveal more about such learning. Thematic analysis of the ethnographic fieldwork, which took place in three SMEs of varying sizes and in different industries/sectors in southern England during 2014 and 2015, suggests that more learning, e-learning and self-directed learning takes place in SMEs than indicated by previous research. My research indicates that employees’ e-learning, like their general learning, is influenced by owner-managers, resource constraints, issues of trust and their need for social interaction in their learning. However, it finds that while owner-managers’ influence on learning and e-learning in their organisations is significant, this is not always positive. Furthermore, owner-managers and employees have very different conceptualisations of e-learning with the latter using a diverse range of hitherto unconsidered media. This, coupled with the prevalence of previous research having been conducted from the perspective of owner-managers, has contributed to lack of acknowledgement of the extent of learning and e-learning occurring in SMEs. The terminology used by research participants, which can be specific to individual SMEs, has further hidden such learning, which has been exacerbated by some previous researchers using unsuitable research methods. Analysis of my data also suggests that the concept of Communities of Practice (CoPs) is relevant to the experience of e-learning in SMEs, but that Lave and Wenger’s (1991) CoP model must recognise technological and workplace developments to remain relevant to current practices.

Consequently, my thesis contributes to academic knowledge, research methodology and policy and practice, most significantly by the development of the first known model of e-learning for workers in SMEs. My research not only adds to scant research in the domains of learning and e-learning in SMEs, but also indicates exciting possibilities for further research and the future of e-learning in SMEs by showing that SMEs are indeed undertaking, and benefiting from, e-learning.
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Declaration

**Declaration**

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.

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<tr>
<td>3D</td>
<td>Three Dimensional</td>
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<tr>
<td>ACAS</td>
<td>Advisory, Conciliation and Arbitration Service</td>
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<td>ALP</td>
<td>Association of Labour Providers</td>
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<td>APM</td>
<td>Agile Project Management</td>
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<tr>
<td>CAQDAS</td>
<td>Computer Assisted Qualitative Data Analysis Software</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CIPD</td>
<td>Chartered Institute of Personnel and Development</td>
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<td>CMI</td>
<td>Chartered Management Institute</td>
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<tr>
<td>CoP</td>
<td>Community of Practice (Lave and Wenger)</td>
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<tr>
<td>COSHH</td>
<td>Control of Substances Hazardous to Health</td>
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<td>CPD</td>
<td>Continuous Personal Development</td>
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<td>EC</td>
<td>European Commission</td>
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<tr>
<td>e-CoP</td>
<td>electronic Community of Practice</td>
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<td>e-learning</td>
<td>Electronic learning</td>
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<td>EU</td>
<td>European Union</td>
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<td>FSB</td>
<td>Federation of Small Businesses</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>HRD</td>
<td>Human Resource Development</td>
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<td>IEE</td>
<td>Institution of Electrical Engineers</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>L&amp;D</td>
<td>Learning and Development</td>
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<td>LEP</td>
<td>Local Enterprise Partnership</td>
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<td>LLUK</td>
<td>Lifelong Learning UK</td>
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<td>MKO</td>
<td>More Knowledgeable Other (Vygotsky)</td>
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<td>MOD</td>
<td>Ministry Of Defence</td>
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<tr>
<td>MOOC</td>
<td>Massive Open Online Course</td>
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<td>NLP</td>
<td>Neuro Linguistic Programming</td>
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<td>SDL</td>
<td>Self-Directed Learning</td>
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<td>Small / Medium Enterprise</td>
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<td>SNS</td>
<td>Social Networking Sites</td>
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<td>TED</td>
<td>Technology, Entertainment and Design</td>
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<td>TEL</td>
<td>Technology Enhanced Learning</td>
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<td>UFHRD</td>
<td>University Forum for Human Resource Development</td>
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<td>Webinar</td>
<td>Web-assisted seminar</td>
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<tr>
<td>ZPD</td>
<td>Zone of Proximal Development (Vygotsky)</td>
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Glossary

ARIEL - The ARIEL project, which was supported by the European Commission’s e-learning initiative, investigated supply and demand factors in the e-learning market in the context of SMEs to try to predict future trends. Researchers included Beer, Hamburg and Paul (2006). The proceedings of the ARIEL final conference in November 2005 give a comprehensive overview of the research results and can be found at http://www.bokus.com/bok/9783830916314/e-learning-in-european-smes/

European Sixth Framework Programme - research project covering European Community activities in the field of research, technological development and demonstration for the period 2002 to 2006 which included Ahlgren and Engel’s (2011) research into 12 English and Scottish production and service SMEs. More information can be found at https://ec.europa.eu/research/fp6/pdf/fp6-in-brief_en.pdf

KaosPilots - an alternative business school located near Aarhus, Denmark, with all courses using English. Its offerings range from a three-year course which accepts 35-37 international students per year, with a minimum age of 21, and is funded by EU and students' school fees, to week-long courses. The KaosPilot program teaches in the fields of leadership, new business design, process design and project design for challenges in business, society and organizations. The program focuses on personal development, value-based entrepreneurship, creativity and social innovation. The KaosPilot school, was founded by Uffe Elbæk in 1991 and was nominated by Business Week in 2007 as a top Design School. The KaosPilot program has gone on to inspire schools in countries such as Australia, Norway, Sweden, Denmark and The Netherlands.

SIMPEL - SME Improving Practice in eLearning - a European Union (EU) project to promote e-learning in SMEs which included Hamburg and Hall’s (2008) research.

Swift Trust - Meyerson, Weick & Kramer (1996) advocate “swift trust for temporary teams” (p172) of individuals with diverse skills who may be working together as a one-off and which
requires individual team-members to behave consistently with their specialist skills in order to build trust.

**Skype** - a proprietary Voice-over-Internet Protocol (VoIP) service and software application, owned by Microsoft since 2011, which allows users to communicate with each other by voice, video, and instant messaging over the internet. Phone calls may be placed to recipients on traditional telephone networks. Calls to other users within the Skype service are free of charge, while calls to landline telephones and mobile phones are charged via a debit-based user account system. Skype can also be used for file transfer, and video-conferencing. Competitors include Empathy, Linphone, Ekiga and the Google Talk service.

**Whatsapp** - a proprietary cross-platform instant messaging facility for smartphones that uses the internet to send text messages, images, video, user location and audio media messages to other users using standard mobile numbers. In January 2016, WhatsApp had approximately 990 million users worldwide, making it the most popular messaging application globally.
Acknowledgements

I am indebted to numerous colleagues, friends and family for their unstinting support during my studies. I have met so many wonderful people that singling out any one person feels invidious, but some particular thank you’s must be made…

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A big thank you to my sister, Carol Noyce, for not only accepting that shopping trips and lunches have been less frequent, but also taking on the lion’s share of visiting Mum when deadlines loomed.

The biggest thank you must go to my ever-supportive husband, Howard, and our wonderful sons, Matt and Will. You who have all encouraged my academic endeavours, always told me that I could do it, cooked numerous meals (and made even more coffees) and provided the love and support which have enabled me to finish my doctorate; thank you and I love you all dearly.

Thank you all.
Dissemination


Short, H.J. (2015, May). *How can SMEs benefit from e-learning?* 3 Minute Thesis (3MT®) Competition presentation at the 10th Portsmouth Business School Post-Graduate Research Conference. (Winner.) This can be viewed at https://drive.google.com/a/port.ac.uk/file/d/0Bxs4RbV7Z9JKWdra3ZES29tcG8/view


Co-guest-edited British Journal of Educational Technology 45(6) with Dr S. L. Greener.


Co-chaired *Technology Enhanced Learning at Work* stream at the 14th University Forum for HRD Conference, June 2013, with Dr S. L. Greener.


Dissemination

Chapter 1 Introduction

This research explores the hidden world of e-learning in Small and Medium Enterprises (SMEs). E-learning in SMEs is under-researched. This research adds to the scant published knowledge in this area and, specifically, it contributes an analysis that incorporates the perspectives of employees in SMEs whose experiences have been largely ignored in the research literature thus far. The research is grounded in social constructivism and reports an ethnographic research methodology appropriate to an examination of the ways in which SMEs conceptualise their e-learning. The fieldwork undertaken in three SMEs of varying sizes and in different industries/sectors in southern England is reported and the analysis of the findings contributes to academic knowledge, research methods and practice and policy literature. The analysis underpins the development of a new model of e-learning for workers in SMEs, to provide the basis for further research into e-learning in different contexts.

This chapter explains the research rationale and the gaps in literature and practice which it seeks to fill. Firstly, it shows the SME context in which this research is situated before examining the background to, and rationale for, this research. This shows the research question and objectives which this study will need to address in order to fill the gaps in previous research. The resultant contributions to academic knowledge, research methods and practice and policy are then briefly explored before outlining this thesis’ structure, indicating the arguments explored in each chapter.

The SME Context

Although different definitions of the term ‘SME’ are used in the research and policy literature (see, for example, Roy, 2009), this study uses the definition of an SME provided by the European Commission (EC), namely an organisation which has less than 250 employees and under €50m (£41m) turnover or under €43m (£35.26m) balance sheet. SMEs can be split into Micro, Small and Medium-Sized as shown in Table 1.1 (EC, 2014).
Introduction

<table>
<thead>
<tr>
<th>Company category</th>
<th>Employees</th>
<th>Turnover</th>
<th>Balance sheet total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium-sized</td>
<td>&lt; 250</td>
<td>≤ € 50 m</td>
<td>≤ € 43 m</td>
</tr>
<tr>
<td>Small</td>
<td>&lt; 50</td>
<td>≤ € 10 m</td>
<td>≤ € 10 m</td>
</tr>
<tr>
<td>Micro</td>
<td>&lt; 10</td>
<td>≤ € 2 m</td>
<td>≤ € 2 m</td>
</tr>
</tbody>
</table>

Table 1.1 Definitions of Medium-Sized, Small and Micro SMEs (EC, 2014)

The definition of an SME, as stated above, is very broad. Consequently, there are many differences between the attitudes, structures and systems in large SMEs (those with between 150 and 250 employees) and enterprises with between 50 and 100 employees, much less micro-firms which have less than 10 employees (Attwell, 2003; CIPD, 2015a). Similarly, within each SME, the approach to, and requirements for, learning and development (L&D) will depend upon many factors, not only the size of the organisation, but also its industry/sector, its maturity, the presence (or otherwise) of a Human Resources (HR) manager and the owner-manager’s vision for the business and desire for it to grow, which will change as time progresses and as the organisation grows (CIPD, 2015a; Innes & Wiesner, 2012; Sambrook, 2003; Saunders, Gray & Goregaokar, 2013; Webster, Walker & Brown, 2005).

An SME which is expanding, or has a desire to grow, is more likely to offer L&D opportunities to its staff in order to achieve further growth, although perceived value of the learning is vital as employees appear unlikely to want to undertake learning unless they are convinced of its relevance to work situations (Beaver & Hutchings, 2004; Moon, Birchall, Williams & Vrasidas, 2005; Sambrook, 2004; Webster et al, 2005). However, distinctions between different-sized organisations can be particularly apparent in some aspects of learning, for example the organisation’s ability to provide and develop an infrastructure and culture which is supportive of learning, which may be more complicated when that learning involves technology (Admiraal & Lockhorst, 2009; Attwell, 2003; CIPD, 2015a; Hamburg & Hall, 2008; Jones, 2005; Sambrook, 2003). An often-overlooked advantage that SMEs have over larger organisations is that the owner-managers, and at least some other managers and possibly employees, are likely to have an invaluable understanding of the whole business which is almost taken for granted. This arises
Introduction

from working closely with all, or many, aspects of the business which could be particularly
valuable in highlighting learning needs. This is especially important as a business and/or its
industry grows and develops as such insights into the business could help to fine-tune its learning

The research literature about SMEs suggests that they are affected by different skills shortages at
different times with consequent changes to views regarding whether this restricts their growth
(Hamburg & Hall, 2008; Matlay, 2000). However, the range of activities typically undertaken
within an SME is, through necessity, very broad and therefore learning is likely to be needed
throughout the organisation in both strategic and operational areas (Beaver & Hutchings, 2004;
CIPD, 2015a). There are indications that SME owner-managers may prefer to employ skilled
people, rather than having to provide L&D opportunities for employees who may then leave the
organisation (Coetzer & Perry, 2008; Stanworth & Purdy, 2006). Similarly, the Chartered
Institute of Personnel and Development’s (CIPD) 2008 Learning Survey concluded that SME
employees tended to be less well-educated and/or in lower socio-economic groups, as well as
being less likely to receive learning opportunities, although it should be noted that its sample size
was small with only 751 interviewees (CIPD, 2008).

**Background and Rationale for this Study**

Learning, particularly e-learning, in SMEs is an under-researched area. Most literature in the
Human Resource Development (HRD) and e-learning fields is influenced by the experience and
priorities of large organisations (Higgins, 2009; Nolan & Garavan, 2011; Roy, 2009; Roffe,
2007). Although there has been increased interest in organisational learning in recent years
(Higgins & Aspinall, 2011), negligible empirical evidence of learning in SMEs is published,
much less examples of e-learning (Admiraal & Lockhorst, 2009; Beaver & Hutchings, 2005;
Jones, 2005; Kelliher & Henderson, 2006; Nolan & Garavan, 2016). It is possible to argue that
SMEs offer proportionally less learning opportunities to their staff compared with larger
organisations (Matlay, 2000), but scaling down large organisation learning methods is unlikely to
be appropriate to SMEs (Anderson & Boocock, 2002; Billett, 2001; Hill, 2004) as learning
requirements may vary between different-sized organisations, with the need for specialist, rather than generalist, skills more likely to emerge in larger ones (CIPD, 2015a).

SMEs are critical to the UK economy, through their significant and continuous contribution to employment and GDP growth (Matlay, 2005; UK Parliament, 2014a). In 2014 there were 5.2 million SMEs in the UK, comprising 99% of all UK businesses, providing 60% of employment and generating 47% of turnover (CIPD, 2015a; Federation of Small Businesses, 2015; UK Parliament, 2014b). SMEs contribute around £3.5 billion each year to the UK economy and employ more than 20 million people (Matlay, 2014). SMEs play a similar role in other economies, including Europe, Canada, New Zealand and East Asia (Attwell, 2003; Coetzer & Perry, 2008; Hamburg, Engert, Anke & Marin, 2008; Mellett & O’Brien, 2014).

Policy documents suggest that an educated work-force is essential to global competitive advantage, with lifelong learning, continuous workplace learning and anticipating and building competencies for future needs being especially important (International Labour Office, 2010). The risk of small business failure may be influenced by L&D (Clarke & Gibson-Sweet, 1998; Ibrahim & Soufani, 2002). For SMEs that are in developing and/or fast-changing industry sectors there is a higher than average need for well-trained employees (Beaver & Hutchings, 2004; Kerr & McDougall, 1998). Nevertheless, despite several calls for more exploration of learning in SMEs, L&D has remained an under-researched area (Johnson, 2002; Kelliher & Henderson, 2006; Roberts & Sambrook, 2014).

Research that has focused on learning within SMEs highlights how it tends to be informal (Ekanem & Smallbone, 2007; Roy, 2009; Sambrook, 2003) and job-oriented (Ahlgren & Engel, 2011). E-learning, the subject of this research, is informal, flexible and easily-accessible and can save time, money and travel (Bersin & Associates, 2009; Citrix Online, n.d.; Hamburg & Hall, 2008; HRZone, ACAS & CIPD, 2015; Mitchell, 2010). E-learning appears to be a good match for SMEs’ learning requirements (Roy, 2009), but early research into e-learning in SMEs - Sambrook (2004; 2003) – suggests that lack of familiarity with, and fear of, technology could be an inhibiting factor to its take-up in this sector. This is less likely to be an inhibiting factor in the 21st century (Bennett, Maton & Kervin, 2008; Prensky, 2001).
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In a context of low economic growth and recession, e-learning could be seen as an attractive option (Business Matters Magazine, 2012; HRZone et al, 2015; ONS, 2015; Shaw, 2012; UK Commission for Employment and Skills, 2014), but its adoption appears surprisingly low in businesses in general (Mote, 2012) and SMEs in particular (Admiraal & Lockhorst, 2009). Although the CIPD’s Spring 2015 Employee Outlook survey reports that e-learning is the second most used learning method with 29% of respondents using it, such respondents also claim it to be one of the least effective learning methods (CIPD, 2015b). However, the sample size was only 1,993 individuals, with no indication of how many of these worked in SMEs. This further highlights the paucity of information available regarding e-learning in SMEs.

This discussion has shown that little academic research has been undertaken in the area of learning in SMEs. Even less research exists in respect of e-learning in this context, with some of that small amount having been overtaken by changes in technology and attitudes towards it. Additionally, the majority of previous research into learning/e-learning in SMEs has considered the perspective of owner-managers, indicating a need for research into learning, and particularly e-learning, in SMEs which considers the perspectives of employees. This thesis seeks to address these gaps. The theoretical framework used for this will be explored in the Literature Review (Chapter 2); this framework will also inform the research methodology as detailed in Chapter 3. The Literature Review chapter explains why the definitions for learning (page 19) and e-learning (page 43) were chosen and gives those definitions. The research question and objectives which need to be addressed in order to fill the gaps in existing academic knowledge are given below.

**Research Question and Objectives**

In its examination of e-learning in SMEs, the research question addressed by this research is:-

How is e-learning understood and undertaken in SMEs?
Introduction

Consequently, the objectives of this research are to:-

- Explore the context of learning that takes place in SMEs;
- Examine how e-learning is understood and conceptualised in SMEs;
- Examine the use of e-learning in such organisations and
- Develop a model of e-learning for workers in SMEs.

This chapter, the Introduction, introduces the objectives. The Literature Review, Research Methodology, Findings and Discussion chapters address the first three objectives, with the Conclusions chapter showing the model of e-learning for workers in SMEs which develops from these, thus addressing the fourth objective. Chapter 6, Conclusions, also discusses whether the objectives have been met.

**The Contribution**

This study contributes to the scant research base into e-learning in SMEs. It is of interest to scholars in the e-learning and the HRD fields. It also has relevance to policy and practice in the small business community, specifically to organisations such as the Federation of Small Businesses (FSB) and the CIPD. The contributions to academic knowledge, to research methods and to practice and policy are detailed in Chapter 6, Conclusions, pages 227-233.

Specifically, the research provides the basis for the development of the first known model of e-learning for workers in SMEs shown in Figure 6.1 (page 222), which has value for both scholars and practitioners in the business community.

Having discussed the background and rationale for this study and its research question, objectives and contribution, the structure of this thesis will now be summarised.
Introduction

Structure of this thesis

This thesis consists of six chapters, namely Introduction, Literature Review, Research Methodology, Findings, Discussion and Conclusions. The structure of this chapter, Introduction, has already been given at the beginning of the chapter, but the arguments explored in each of the other chapters will now be outlined.

Chapter 2, Literature Review, critically evaluates literature relevant to learning, particularly e-learning, in SMEs. The paucity of research into learning and e-learning in SMEs is apparent throughout the literature review, with consequent reliance on practitioner, as well as academic, literature, research which spans many years and which may be, partly at least, overtaken by technology and work practices, and that which explores learning/e-learning in the general workplace, rather than specifically in SMEs (Nolan & Garavan, 2016). This chapter develops a theoretical framework grounded in social constructivist theories which forms the basis for the conceptual model for this thesis. The chapter argues that learning in SMEs occurs chiefly through social interaction which leads to the development of meaning and a common reality and which may involve Communities of Practice (CoPs). Although initially e-learning appears to limit social interaction, exploration reveals that some informal e-learning methods allow such interaction. This chapter highlights similarities between learning and e-learning in SMEs, particularly concerning methods, namely informal, on-the-job and interpersonal. It also shows the extent to which owner-managers may influence learning within their SME (Admiraal & Lockhorst, 2009; Hamburg & Hall, 2008), although there are suggestions that this may be because research is usually undertaken from their perspective. There are indications that the extent and depth of learning and e-learning in SMEs may be hidden because of terminology, which can be peculiar to an SME (Devins & Gold, 2002; Gold & Thorpe, 2008; Nolan & Garavan, 2011) and because it is contextualised in day-to-day operations (Attwell, 2003; Rigg & Trehan, 2002).

Chapter 3, Research Methodology, explains the ethnographic research methodology chosen for my primary research from a social constructivist basis to examine how individuals in SMEs interpret the world and their learning experiences through the generation of rich data regarding
participants’ intentions, feelings, behaviours, actions and meanings. This approach also matches my belief that knowledge of reality is context-specific, as well as recognising participants’ individuality. Ethnography is suggested as the most appropriate research design to allow observation of micro-interactions between SME employees at first-hand to facilitate a fuller understanding of learning and e-learning in SMEs to be obtained. The thematic analysis process and purposive sampling strategy are also explained.

Chapter 4, Findings, describes the findings from my primary research. It suggests that more learning, particularly e-learning, occurs in SMEs than previous research has indicated, although this is often hidden by its everyday, operational context and participants’ terminology. In SMEs both learning and e-learning occur informally through on-the-job and interpersonal interactions. This chapter argues that SME employees’ preference for interpersonal learning supports the case that CoPs are formed through e-learning, although in different forms to those characterised by Lave and Wenger (1991). This chapter further shows the influence of owner-managers on both learning and e-learning in SMEs, although this influence is not always benevolent. The findings indicate that learning may occur despite, rather than because of, owner-managers. The data further suggest that owner-managers and employees have different conceptualisations of e-learning. Further findings relate to the incidence of self-directed learning (SDL) which occurs more pervasively than owner-managers realise. The data indicate that owner-managers encourage e-learning which can be undertaken in employees’ own time and, linked with this, the data indicate the importance of trust as an influence on learning/e-learning processes. Finally, the findings indicate greater awareness of the need for depth of learning in SMEs than previous research has suggested.

Chapter 5, Discussion, examines the context in which e-learning takes place in SMEs and the factors which affect such learning. This provides the basis for the first part of the development of the model of e-learning for workers in SMEs (Figure 6.1). It shows how the context, influences and methods of general learning in SMEs also apply to e-learning, particularly the influence of owner-managers, resource constraints, issues of trust and social learning within CoPs. It also argues that the extent of e-learning in SMEs is under-reported because it is affected by, and moderated through, each organisation’s specific and unique context, history and terminology; in
particular, participants’ interpretations of the term ‘e-learning’ which tend to be different to those that are generally accepted academically. It discusses previous research into learning/e-learning in SMEs which has mostly focused on the perspective of owner-managers and highlights the less benevolent facets of their behaviour identified through the ethnographic research. This behaviour, coupled with the limited technical knowledge exhibited by some owner-managers, means that they may be unaware of the extent and richness of e-learning in their own organisations. Linked with this, the chapter discusses relationship between e-learning and SDL in SMEs. It shows that more SDL occurs in SMEs than previous research suggests which arises, not from career aspirations as might be the case in larger organisations, but, partly at least, to meet employees’ needs for interpersonal interaction which can be met through participation in online forums. These forums exhibit some properties of COPs; they encourage social learning and provide a basis for interaction beyond the limited confines of the SME.

Chapter 6, Conclusions, brings together the arguments made throughout this thesis, discussing the contributions made by this research, regarding both learning/e-learning in SMEs and e-learning in general to academic knowledge, to research methodology and to practice and policy. Suggestions are made for future research into e-learning in larger workplace organisations and into CoPs. Specifically, more research is needed into learning, principally e-learning, in SMEs, to build on the findings of this study and extend the range of contexts to provide a basis for comparison of experiences in SMEs of different sizes and in various industries/sectors and geographic settings. Further research in SMEs is also needed that goes beyond the perspective of owner-managers to give a more holistic and interpretive account of their practices. This chapter further argues that research into e-learning in larger (non-SME) organisations could indicate the applicability of the model of e-learning for workers beyond the SME context, the use of social media as a learning medium and the influence of trust in the domain of e-learning. Further examination of the concept of CoPs is also required to take account of technology developments and changes to organisational forms and working practices. Ethnography is also advocated as an approach to generate and identify e-learning instances previously hidden from empirical analysis. The HRD field as a whole would benefit from ethnographic research to add to understanding not only in relation to e-learning, but also of workplace learning in general.
Introduction

Having outlined the arguments explored in each chapter, the first of those, Chapter 2, Literature Review, follows.
Chapter 2 Literature Review

Introduction

This chapter critically evaluates literature pertaining to learning, including e-learning, in SMEs in order to address the research question and objectives, as stated in the Introduction chapter (pages 5-6). It develops a theoretical framework grounded in socially situated learning theories which progresses through an examination of these theories’ relevance to learning, particularly e-learning, in SMEs to a conceptual model for the thesis. This chapter argues that learning in SMEs occurs chiefly through social interaction and that such interaction leads to the development of meaning and a common reality. The examination of social learning leads to the emergence of other key issues, namely the conjunction with on-the-job learning and informal learning, as well as the influence of owner-managers, each of which is investigated in relation to learning in SMEs. Although e-learning serves to limit physical social interaction, an exploration of it reveals that emerging, less formal methods allow some interaction. This chapter also explores the extent and depth of learning within SMEs, including e-learning where the paucity of literature allows, arguing that deeper and more extensive learning occurs than is commonly thought, possibly due to being hidden by its informality, ubiquity and terminology.

This chapter is divided into five main parts. It starts with an examination of theories which consider that learning is situated in a social context, developing a theoretical framework as a basis for examination of learning, including e-learning, in SMEs. Then the literature relating to SMEs is reviewed before issues of learning in SMEs are considered, at which point the findings regarding learning in SMEs are added to the framework. Next the chapter addresses e-learning in general before a discussion of e-learning in SMEs leads to the theoretical framework being developed into a conceptual model which provides a basis for subsequent data analysis.

Socially Situated Learning Theories

This research is grounded in a social constructivist philosophy because this analyses how individuals interpret the world and their experiences through the systems they create (Anderson,
2013), allowing them to “construct their own unique meaning in order to learn” (Savin-Baden & Major, 2013, p30). Accordingly, it should allow insights into how learning, specifically e-learning, occurs in SMEs. Berger and Luckmann (1971) assert that social constructivism emphasises the role and importance of inter-personal communication in learning. Their perspective highlights the role of language in establishing a common reality with meaning being accepted as due, not to empirical evidence, but to shared values, histories and circumstances between social actors. Although Schipper (1999) acknowledges Berger and Luckmann’s premise that reality is socially constructed, he disputes whether conversation is the most important influence on the construction of reality, as they assert, suggesting rather that it is one of a number of factors including phenomena such as other people and perceptions. In relation to learning, theories of knowledge construction stress that social interaction leads to learners building new knowledge (Leach & Scott, 2000; Allchin, 1999). My position regarding this is that meanings are not objective, but are created through social interaction and therefore they may change according to the context, allowing new realities to evolve. This approach has been successfully used in an SME context by Devins and Gold (2002) who employed a social constructionist framework to investigate the development of managers in small businesses and this thesis sets out to take this approach forward.

This section outlines the theories of learning on which this thesis is based, specifically Vygotsky’s Socio-Cultural Theory of Human Learning, otherwise known as his Social Development Theory (Vygotsky & Cole, 1978), Bandura’s Social Learning Theory (Bandura, 1977), which became his Social Cognitive Theory (Bandura, 2012) and Lave and Wenger’s Situated Learning Theory (Lave & Wenger, 1991). These consider that learning occurs through social interaction and so are particularly relevant to learning in SMEs, where much learning occurs this way. This section considers the extent to which those theories may be relevant to e-learning, for example virtual communities of practice (CoPs) (Lave & Wenger, 1991).

**Vygotsky’s Socio-Cultural Theory of Human Learning**

Vygotsky viewed learning as a social process and the origination of human intelligence in society and through his Socio-Cultural Theory of Human Learning he advocated that social
interaction was fundamental to the development of cognition with all learning originating from relationships between individuals (Vygotsky & Cole, 1978).

Vygotsky’s theory suggests that learning occurs on two levels: firstly, through social interaction between people, that is the inter-psychological level, and secondly through the transformation of information internally, that is the intra-psychological level (Turuk, 2008; Vygotsky & Cole, 1978). This suggests that the interactional level of learning which takes place in the first stage represents superficial learning. Although this can be useful in solving urgent and/or short-term problems, if it occurs in isolation, it precludes the possibility of developmental learning (Anderson & Boocock, 2002). Argyris and Schön (1996) call this single loop learning, while Senge (1990) refers to it as adaptive learning. Vygotsky’s second stage of learning, the intra-psychological level, occurs during reflection and questioning, processes which are necessary if knowledge is to be integrated and stored. Senge refers to this process as double-loop learning and without this critiquing stage, deep learning is unlikely to develop (Anderson & Boocock, 2002; Argyris & Schön, 1996; Senge, 1990).

Vygotsky’s theory focuses specifically on this potential for cognitive development. He suggests a Zone of Proximal Development (ZPD) which represents the distance between an individual’s actual developmental level and his/her higher potential developmental level, which needs support, such as social interaction, to become fully developed. Vygotsky highlights the role of a More Knowledgeable Other (MKO), such as a teacher or a more experienced peer, to enable the development of complex skills and the growth of knowledge within the ZPD. For Vygotsky the ZPD represents the area where information is transformed from being inter-psychological to intra-psychological; this requires instruction to have been received and will be affected by the level of development within the individual (Turuk, 2008; Vygotsky & Cole, 1978). Although Turuk examines Vygotsky’s theory in the context of learning a second language in a classroom, he highlights the importance of “scaffolding” (p251) which enable a novice to develop skills and knowledge which leads to the development of the ZPD. Turuk views this scaffolding as the support supplied by an MKO, who plays an active role in the learning process by providing help when it is needed and then gradually removing it as the learner’s ZPD is developed. Turuk (2008) discusses this support in the context of “expert-novice relationships in the everyday
“setting” (pp252-253), although this is in the context of the classroom rather than the workplace. Through the ZPD and the MKO, Vygotsky highlights the importance of social interaction and culture in learning, indicating that these can enhance cognition and pass on accumulated wisdom.

**Bandura’s Social Learning and Social Cognitive Theories**

A related perspective is Bandura’s Social Learning Theory which focuses on learning from the environment which resulting from human beings’ cognitive capacity (Bandura, 1977; Bandura, 2012; Rae, 2005; Schreiner, n.d.). Bandura acknowledges learning as a cognitive process in a social context but his focus is on learning occurring from observation or direct experience which leads to behaviour being modelled and imitated. He suggests that behaviours can be learned through influence, which could be either deliberate or inadvertent. Although Bandura considers the learner’s personal characteristics and behaviour, together with the environment, to be important, he emphasises the social aspects of learning with other people playing a vital part in individuals’ learning.

Accordingly, a role-model is a key concept in Bandura’s theories with learning occurring through observation of the role-model with the observed behaviour then being retained and possibly copied depending upon whether the role-model’s actions are rewarded or punished. It is important that the learner is attracted to, and can identify with, the role-model, who is likely to operate in an area in which the learner wants to excel. Bandura argues that when an individual has learned “the guiding principle” (Bandura, 2012, p351) of modelling they can adapt the observed behaviour as circumstances change and choose which aspects of such behaviour to use. Bandura also emphasises the importance of reinforcement and motivation in the learning process, identifying two separate expectation types. He argues that efficacy expectations arise from motivation based on an individual’s own (perceived) rewards, whereby a behaviour must be carried out in order to produce a certain outcome, whereas outcome expectations emanate from others’ observed actions and are based on perceptions of resultant rewards/punishments resulting from such behaviours (Bandura, 1977; Bandura, 2002; Bandura, 2012; Bosma, Hessels, Schutjens, van Praag & Verheul, 2012; Rae, 2005; Young & Sexton, 1997).
Listerature Review

Bandura developed his Social Learning Theory into his Social Cognitive Theory which suggests that an individual can regulate his/her own learning, leading to intellectual self-development and laying the foundations for life-long learning (Bandura, 2002; Bandura, 2012). He argued that “self-directed learning was an essential means of academic self-development” (Bandura, 2012, p360) and highlighted the importance of motivation in the learning process, emphasising that learning is chosen not only for material gain, but also to align with personal values.

Bandura viewed learning as a social and a cognitive process, focusing on the importance of learning by observation and viewing the interpretation of that observational learning in terms of cognitive processes which led to recognition of learners regulating their own learning. Although both Bandura and Vygotsky acknowledged the importance of social interaction in learning, it must be remembered that their research was concerned with the development of learning in children. However, I am interested in learning which occurs in the workplace, specifically in SMEs, and so I also need a theory which considers learning through social interaction in this context. Lave and Wenger’s (1991) Situated Learning Theory characterises learning as occurring through social participation which can occur in various workplace settings and therefore this will now be examined.

**Lave and Wenger’s Situated Learning Theory**

Social and behavioural approaches to learning are further extended by Lave and Wenger’s conceptualisation of CoPs in their Situated Learning Theory which recognises the importance of social participation in learning (Lave & Wenger, 1991; Ormrod, 2014). Lave and Wenger (1991) contend that, although they share Vygotsky’s belief in learning through social practice, their own focus is on “sociocultural transformation with the changing relations between newcomers and old-timers in the context of a changing shared practice” (p49). For them, learning does not result from internalisation of knowledge, as purported by both Vygotsky and Bandura, but it follows from participation in CoPs, being concerned with “the whole person acting in the world” (Lave & Wenger, 1991, p49).
Lave and Wenger’s Situated Learning Theory considers that organisational learning originates in the context of practical application and recognises the importance of social learning, seeing learning as, not the acquisition of knowledge by individuals, but a process of social participation within a group of practitioners (Lave & Wenger, 1991; Lervik, Fahy & Easterby-Smith, 2010). Wenger particularly stresses that learning does not only occur in academic settings (Wenger, 1998) and he and Lave developed their theory through ethnographic research in diverse social settings including midwifery, butchery and Alcoholics Anonymous (Lave & Wenger, 1991). This theory encompasses social and behavioural aspects of learning, including meaning, practice, community and identity. Meaning describes individual and collective ability in order to experience the world in a meaningful way, practice portrays a shared past, social resources, infrastructures and viewpoints to maintain mutual engagement in an activity, and community refers to the social structures which define whether an undertaking is worthwhile and participation in it is competent, while identity explains how learning transforms a person, producing a personal history of that person’s role within the community (Lave & Wenger, 1991; Wenger, 1998), as shown in Figure 2.1.

Figure 2.1 An initial inventory of the components of a social theory of learning (from Wenger, 1998, p5)
A central tenet of Lave and Wenger’s theory is legitimate peripheral participation whereby individuals can gradually acquire knowledge and skills and move from the edges of a community to become involved and useful and therefore in a state of "full participation" (Lave & Wenger, 1991, p37). Lave and Wenger see legitimate peripheral participation happening in CoPs and highlight that learning in this context requires participation by three possible participants, namely individuals, communities and organisations. For example, individuals must engage in and contribute to the community in order to learn, although learning is unlikely to happen if the community does not continuously improve its way of working and encourage new people to participate. Additionally, learning will only occur within an organisation if that organisation acknowledges, encourages and sustains the participation of CoPs through which its learning has developed and which has enabled it to become successful (Wenger, 1998).

Figure 2.2 Dimensions of practice as the property of a community (from Wenger, 1998, p73)

Lave and Wenger claim that many CoPs exist, both formal and informal. However, they stress that a CoP is not merely a team or group and neither is it a community of interest or a
geographical community. Rather, it is a community which shares practice with people brought together by joining in common activities and who have learned as a result of mutual engagement in these activities (Lave & Wenger, 1991; Wenger, 1998). A CoP has three crucial elements, namely mutual engagement, joint enterprise and a shared repertoire, as shown in Figure 2.2 (from Wenger, 1998, p73). For Lave and Wenger an effective CoP occurs when relationships are built, enabling members to learn from each other and share practice which develops over time through sustained interaction (Wenger, 1998).

This exploration of these theories has shown that Vygotsky’s theory is socio-cultural (Vygotsky & Cole, 1978) and that Lave and Wenger’s (1991) has close links with socio-cultural theories in that it is concerned with social learning which is situated, while Bandura’s theories (2002; 2012) are behavioural and cognitive. However, although all these theorists’ views are distinct from each other, they all focus on social, cultural and situated aspects of learning. Exploration of these theories has suggested that learning can occur at three levels: among members of a community, between individuals and within an individual learner. This has led to the development of a theoretical framework for learning as shown in Figure 2.3. Social and legitimate participation, as shown in the outer layer, evolves from the socially situated aspects of all three theories, particularly Lave and Wenger’s (1991) Situated Learning Theory which highlights the importance of community in the learning process. Their concepts of joint enterprise, mutual engagement, shared repertoire and legitimate peripheral participation influence appear also to be part of interactional learning, as illustrated by the middle band. This learning, which occurs between individuals and is likely to be superficial, is also suggested by Vygotsky’s MKO (Vygotsky & Cole, 1978) and Bandura’s (2002; 2012) observation and role-modelling. Vygotsky considers that deep learning occurs at an intra-psychological level, as represented by the centre of Figure 2.3, which enables the growth of the Zone of Proximal Development (Vygotsky & Cole, 1978). Self-directed learning (SDL), which Bandura discusses in his Social Cognitive Theory whereby individuals can regulate their own learning, may occur in any of the three levels of learning, depending upon what learners consider they need at various stages (Bandura, 2012). This framework will be built on during this chapter, leading first to Figure 2.5 which shows how learning in SMEs fits this framework and then to the Conceptual Model for workers’ e-learning in SMEs (Figure 2.6).
The rest of this chapter will concentrate on an exploration of SMEs and their learning, including e-learning, from which a conceptual model, based on this theoretical framework, will be developed as the basis for this thesis. However, first the term ‘learning’ will be defined.

**Definition of Learning**

Many definitions of learning exist. However, the social constructivist grounding of this research has led to a definition being used throughout which acknowledges the socially interactive aspects of learning while allowing it to be contextual. Therefore, learning is understood as a:-

“*responsive, rhetorical and argumentative process that has its origins in relationships with others*” (Holman, Pavlica & Thorpe, 1997, p. 143).

Holman et al arrived at this definition through a critical evaluation of Kolb’s Theory of Experiential Learning from social constructionist and activity theory perspectives, particularly drawing upon social, historical and cultural aspects of self, thinking and action, concluding that learning is an argumentative and rhetorical process in which managers have an important role.
Kolb viewed learning as “the process whereby knowledge is created through the transformation of experience” (1984, p38). He drew on three models to formulate his Experiential Learning Theory, namely Lewin’s Model of Action Research and Laboratory Training, Dewey’s Model of Learning and Piaget’s Model of Learning and Cognitive Development. Lewin’s Model of Action Research and Laboratory Training considered experiential learning to be a cyclic process encompassing concrete experience, observations and reflections, formation of abstract concepts and generalisations, and finally testing implications of concepts in new situations which Lewin asserted would lead to further concrete experiences and so a new cyclical process. Dewey’s (1938) Model of Learning, like Lewin’s, emphasised the integration of experience and concepts, observations and actions into the learning process, but made explicit Lewin’s implied developmental nature of learning, showing that the impulse of experience gives rise to ideas which themselves give direction to the learning so that it results in purposeful action(s). Dewey viewed learning as a feedback process arising from “observation of surrounding conditions, knowledge of what has happened in similar situations in the past... and judgement” (1938, p69). Consequently, he thought that, if learning was to occur, it was essential for immediate action to be delayed in order to allow for observation and subsequent judgement to happen. Like Lewin and Dewey, Piaget, through his Model of Learning and Cognitive Development, saw learning as a cyclical process resulting from the individual interacting with the environment. He considered that experience, concepts, reflection and action were the major drivers for an individual’s development, seeing learning as an outcome of the interaction of the adjustment of concepts to experience and the integration of experience into concepts.

Drawing on the similarities between these three models of the learning and development process, Kolb developed his Experiential Learning Theory. This shows learning to be a cyclical process which is grounded in experience and balances potential conflicts between experience, concepts, observation and actions to drive learning forward. Kolb saw learning as “an holistic process of adaption to the world” (1984, p31) with knowledge being created through interactions between individuals and their environment. Consequently, for Kolb four processes were necessary pre-conditions for learning to occur, that is experience (‘doing’), reflective observation (‘observing’), conceptualisation (‘thinking’) and experimentation with what has been learnt which then contributes to more experience (‘experimenting’). Figure 2.4 shows Kolb’s Experiential
Learning Theory as a four-stage cyclical process which encompasses these which Kolb considered must be followed in sequence for effective learning to occur.

![Figure 2.4 Kolb’s Experiential Learning Theory](image)

**Figure 2.4 Kolb’s Experiential Learning Theory**

The four stages of Kolb’s Experiential Theory will be considered throughout the primary research.

At times, in both literature and practice, the term ‘learning’ is used interchangeably with the word ‘training’ so the differences between these will now be explored. Generally, learning is seen to adopt a multi-dimensional approach which seeks to develop an individual and/or to solve a problem and so is often referred to as ‘learning and development’ (L&D), whereas training is one-dimensional, often low-level, and usually biased towards a specific task, for example to
teach a person (or animal) a particular skill or type of behaviour (Baker, 2014; Stabile & Ritchie, 2013). Wenger (1998) suggested that classroom training is intended to be the “totality of the learning event” (p250), but learning may result in a persistent change in behaviour and increased skill levels through a physical transformation in the brain thereby providing resources for individuals to use in self-directed development (Baker, 2014). Kitching (2007) explains his differentiation of the terms by discussing “what employers do (provide training) rather than... what employees do (learn)” (p43), although he argues that employers should be “enablers of employee learning rather than just as providers of training” (p43). As will be shown in the Findings chapter, my research participants used the terms ‘learning’ and ‘training’ interchangeably.

Having established the theoretical grounding and a definition of learning for this study, this review continues by examining SMEs before undertaking a specific investigation of literature relating to learning within such organisations.

**SMEs**

As stated in the Introduction chapter (page 2), this study uses the EC definition of an SME, although different definitions are used in some non-EU countries. Regardless of which is used, the definition of an SME is very broad and there are likely to be many differences between the attitudes, structures and systems in large SMEs and those in smaller ones (Attwell, 2003; CIPD, 2015a). As outlined in the Introduction chapter (pages 1-5), SMEs are critical to the economy, in the UK and elsewhere, and therefore learning within them is an important issue.

Literature reports varying reports of the effects of skill shortages on growth in SMEs. In 2000 Matlay observed that SMEs were complaining of skills shortages while Hamburg and Hall’s (2008) work on SIMPEL (see Glossary) showed 10% of them citing lack of skills as an obstacle to their growth. However, Webster et al’s (2005) research into Australian SME owner-managers’ participation in, and attitude towards, e-learning found a direct relationship between an SME’s desire to grow and its use of L&D to achieve this, stressing that owner-managers need to perceive that the L&D will either be of immediate value or meet a specific business need.
Nevertheless, some SMEs exist for life-style reasons, such as giving owner-managers freedom to pursue other activities, and consequently do not aim to grow, although some learning is likely to be needed just for survival as Sambrook discovered in her research from 1998 to 2000 into e-learning in SMEs in North Wales (Sambrook, 2004; 2003). Although the desire of some SMEs to remain small is endorsed by Sambrook (2004; 2003), it is important to note that an SME is not a static object and that if it does grow, there are likely to be increased challenges as processes, particularly communications, within it become more complicated (Saunders et al, 2013).

SMEs typically have limited resources. They are also likely to operate in a less certain business environment than larger organisations (Anderson & Boocock, 2002) and so are particularly conscious of costs, especially in respect of learning (Beaver & Hutchings, 2005; Hamburg & Hall, 2008; Matlay, 2014) which may be, partly at least, because they do not have larger organisations’ advantage of potential economies of scale (Hill, 2004; Jones, 2005). However, it is also possible that SMEs are unable, by themselves, to identify and purchase items specific to their needs due to their limited expertise; this appears particularly problematic in respect of learning due to inadequate L&D knowledge (Matlay, 2000; Stewart & Beaver, 2004). Consequently, although Devins, Gold, Johnson and Holden (2005) assert that micro SMEs in particular need adequate funding if they are to develop incrementally in an ad hoc fashion, which itself will drive their learning, few SMEs have a specific L&D budget (CIPD, 2014a). Although realisation that inadequate funding can prevent SMEs from developing has led to various government-supported learning opportunities, few SMEs have availed themselves of these (Beaver & Hutchings, 2005; Department for Education and Skills, 2003; Devins et al, 2005). More recently the Association of Labour Providers and Lifelong Learning UK’s 2010/2011 survey (ALP and LLUK, 2011) showed that only 29.1% of those surveyed were using SME-oriented learning provided by the UK Skills Funding Agency. This may be due to lack of awareness of such initiatives (Matlay, 1999), as well as the rigidity of government initiatives to provide learning opportunities being incongruent with the informality and spontaneity of SMEs (Hill & Stewart, 2000), for example, some participants in Ahlgren and Engel’s (2011) research into 12 English and Scottish production and service SMEs, as part of the European Sixth Framework Programme research project (see Glossary), perceived “public funding as inaccessible and problematic” (p345).
The range of activities typically undertaken within an SME is, through necessity, very broad thus requiring learning across several areas, both strategic and operational, to maximise its potential (Beaver & Hutchings, 2005; CIPD, 2015a). SMEs which are expanding, or wish to, are more likely to offer their staff learning opportunities (Beaver & Hutchings, 2005; Jameson, 2000; Webster et al, 2005). Having examined some general points about SMEs, learning within such organisations will now be explored in detail.

**Learning in SMEs**

As mentioned in the Introduction chapter, despite the increased interest in organisational learning in recent years (Higgins & Aspinall, 2011; van Woerkom & Poell, 2010), many learning theories explain organisational learning from a large organisation perspective (Kelliher & Henderson, 2006). Additionally, the majority of research, both academic and practitioner, is inclined towards large organisations, (Higgins, 2009; Roy, 2009; Roffe, 2007) with learning in SMEs remaining an under-researched area (Kelliher & Henderson, 2006; Nolan & Garavan, 2011; Roberts & Sambrook, 2014; Susomrith & Coetzer, 2015). Nolan and Garavan’s (2016) systematic review of literature found only 117 articles relating to Human Resource Development (HRD) in SMEs from January 1995 to June 2014. Consequently, literature reviewed here spans many years in order to find sufficient relevant material, although the most recent material is used whenever possible. Also, both academic and practitioner literature is examined, especially in the area of e-learning where available literature is predominantly practitioner-based, rather than academic. However, it is acknowledged that practitioner literature is unlikely to be based on rigorous research and is often written to encourage sales of specific products, rather than necessarily the furtherance of learning useful to SMEs. In the context of this study, practitioner literature includes that from the Chartered Institute of Personnel and Development (CIPD) and it will be clearly stated when practitioner literature is referenced to indicate to the reader that it is potentially biased literature which is not necessarily based on meticulous research.

When examining learning within SMEs, problems arising from considering SMEs as a homogenous group become very evident. For example, the infrastructure and abilities needed to develop a suitable learning environment within a micro-SME, with less than ten employees, is
likely to be very different in a mid-sized SME, with between 100-150 employees, much less a Medium Enterprise with around 250 employees (Attwell, 2003; CIPD, 2015a). Factors, other than size, which affect an SME’s approach to learning include the industry it is in, its maturity and the owner-manager’s vision for the business and, as time progresses, the HR focus within organisations will inevitably change (CIPD, 2015a). Consequently, it is important to examine learning in SMEs in context, noting the organisation’s size, structure and industry.

Primary research, rather than literature reviews and secondary research, which is examined in literature in this study is shown in Table 2.1. The context of research is particularly important in both social constructivism and the study of SMEs and so is included and shows the wide range of organisational size and countries covered by the research reviewed. The research and analysis methodologies are also indicated, where these are stated by the researchers, as this will help to decide how this study’s primary research will be undertaken. A chronological ordering is used to indicate possible trends in the methodologies employed.

<table>
<thead>
<tr>
<th>Research</th>
<th>Research Method(s)</th>
<th>Analysis Method</th>
<th>Research context</th>
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<tr>
<td>Arbaugh (2000)</td>
<td>Questionnaire</td>
<td>Quantitative analysis</td>
<td>97 MBA students, USA university</td>
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<tr>
<td>Frymier and Houser (2000)</td>
<td>2 case-studies</td>
<td>Quantitative analysis</td>
<td>93 &amp; 257 students, USA university</td>
</tr>
<tr>
<td>Stocks and Freddolino (2000)</td>
<td>2 case-studies</td>
<td>Quantitative analysis</td>
<td>24 USA graduate social workers</td>
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<tr>
<td>Kostner (2001)</td>
<td>Case-studies</td>
<td>Qualitative analysis</td>
<td>Large, mostly international companies, based in USA</td>
</tr>
<tr>
<td>Reference</td>
<td>Methodology</td>
<td>Analysis Method</td>
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<tr>
<td>Attwell (2003)</td>
<td>Questionnaires and case-studies</td>
<td>Qualitative analysis</td>
<td>Austria, 27 SMEs (questionnaire) Italy, 48 SMEs (questionnaire) &amp; 3 SMEs (case-studies) Poland, 100 SMEs (questionnaire) Spain, 1 SME (case-study) UK, 1 SME (case-study)</td>
</tr>
<tr>
<td>Sambrook (2004; 2003)</td>
<td>Telephone questionnaire interviews</td>
<td>Qualitative analysis</td>
<td>9 North Wales SMEs</td>
</tr>
<tr>
<td>Moon, Birchall, Williams, and Vrasidas (2005)</td>
<td>Focus groups</td>
<td></td>
<td>37 managers across SMEs in UK, Denmark, Czech Republic, Cyprus &amp; Malta</td>
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<tr>
<td>Webster, Walker, and Brown (2005)</td>
<td>Questionnaire</td>
<td>Quantitative analysis</td>
<td>716 Australian SMEs</td>
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<tr>
<td>Hardaker, Dockery, and Sabki (2007)</td>
<td>Questionnaire</td>
<td>Grounded theory</td>
<td>412 small &amp; micro SME workers, Yorkshire &amp; Humber, mixed industries</td>
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<tr>
<td>Coetzer and Perry (2008)</td>
<td>Semi-structured interviews</td>
<td>Content analysis</td>
<td>27 New Zealand SMEs (manufacturing and services)</td>
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<tr>
<td>Dewberry (2008)</td>
<td>Case-study</td>
<td>Qualitative analysis</td>
<td>USA-based groups communicating through social networking sites</td>
</tr>
<tr>
<td>Gold and Thorpe (2008)</td>
<td>Case-study</td>
<td>Qualitative analysis</td>
<td>1 Northern England SME</td>
</tr>
<tr>
<td>Hamburg and Hall (2008)</td>
<td>2 case-studies – part of SIMPEL (see Glossary)</td>
<td>Qualitative analysis</td>
<td>2 CoPs; 1 pan-European &amp; 1 German, both comprising SMEs and e-learning experts</td>
</tr>
<tr>
<td>Squire (2008)</td>
<td>3 comparative case-studies</td>
<td>Thematic analysis</td>
<td>3 SMEs in USA (50-100 employees)</td>
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<tr>
<td>Study Authors</td>
<td>Methodology</td>
<td>Analysis Type</td>
<td>Sample Description</td>
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<tr>
<td>Stephens and Mottet (2008)</td>
<td>Case-study Questionnaire</td>
<td>Quantitative analysis</td>
<td>75 workers, USA University communications department</td>
</tr>
<tr>
<td>Admiraal and Lockhorst (2009)</td>
<td>402 questionnaires (SME owner-managers); Interviews (105 owner-managers &amp; 35 employees)</td>
<td>Quantitative + Content analysis</td>
<td>402 SMEs in Austria, Italy, Netherlands, Poland, Spain, Sweden and Wales</td>
</tr>
<tr>
<td>Garavan, Carbery, O’Malley and O’Donnell (2010)</td>
<td>Questionnaire</td>
<td>Quantitative analysis</td>
<td>557 employees, including managers, in 275 Irish organisations (all sizes) which provide e-learning for their employees.</td>
</tr>
<tr>
<td>Ahlgren and Engel (2011)</td>
<td>Case-studies including 36 interviews</td>
<td>Thematic analysis</td>
<td>12 SMEs in England and Scotland (part of a larger European Sixth Framework Programme research project (see Glossary).</td>
</tr>
<tr>
<td>Geldenhuys and Cilliers (2012)</td>
<td>Case-study</td>
<td>Content analysis</td>
<td>21 employees, small broker’s office, South Africa</td>
</tr>
<tr>
<td>Saunders, Gray and Goregaokar (2013)</td>
<td>1000+ questionnaires; 13 focus groups; 20 semi-structured interviews</td>
<td>Quantitative analysis</td>
<td>1181 UK SMEs across a mixture of industries</td>
</tr>
<tr>
<td>Goggins (2014)</td>
<td>Ethnography</td>
<td>Grounded theory</td>
<td>Remote USA technology SME with 51 employees and 3 locations</td>
</tr>
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</table>
This section particularly explores research data relating to social learning in SMEs, focusing on interpersonal learning, informal learning, the influence of owner-managers and on-the-job learning. However, before exploration of these areas, an understanding of the development of meaning and common reality in learning within SMEs is needed and this will now be addressed.

### The Development of Meaning and Common Reality in SME Learning

The social constructivist perspective of this research focusses on the ways in which individuals interpret the world and their experiences through the social systems they create with language being used to establish a common reality and meaning being constructed through emerging and shared values, histories and circumstances (Nolan & Garavan, 2011). Senge (1990) proposes that common language is necessary for the development and growth of a culture conducive to learning, which Devins and Gold (2002) suggest is particularly pertinent to SMEs, each of which is likely to have unique language and customs. Furthermore, Devins and Gold (2002) liken small businesses to CoPs (Lave and Wenger, 1991), whose engagement in social practice is
fundamental to their learning and is based on common meaning and practice. Gold and Thorpe’s (2008) social constructionist case-study of Adam, a hairdresser who is an SME owner-manager in northern England, shows how conceptualisation of learning can affect attitudes towards it. Adam’s initial comment “Training, it’s a load of crap!” (p385) gradually changes to enthusiasm as he undertakes an individually-tailored development programme which includes mentoring. Adam’s exposure to different types of learning allows him to develop not only his skills, which Gold and Thorpe compare to Vygotsky’s ZPD growth, but also his conceptualisation of different learning methods so that he can choose those which suit his needs and preferences. Gold and Thorpe (2008) highlight the importance of the language used which Vygotsky shows to be “crucial to the development of more advanced forms of understanding” (p389). Therefore, inconsistencies in, and constant changes to, language may, partially at least, account for the apparent low level of learning in SMEs.

According to Rigg and Trehan (2002), “The prevailing wisdom on HRD in small firms is that not much is done” (p390). However, Nolan and Garavan (2016) contend that this is based on mis-specified searches for learning which are skewed towards practices and activities that are more likely to be found in larger enterprises, although scaling down large organisation learning methods is unlikely to be appropriate to SMEs (Anderson & Boocock, 2002; Billett, 2001; Hill, 2004). Therefore, learning within SMEs may not always be evident, because it is contextualised in everyday practical application, with learning occurring through, rather than on, the job so that it is often not recognised as learning (Geldenhuys & Cilliers, 2012; Gold & Thorpe, 2008; Hamilton, 2011; Higgins & Aspinall, 2011; Hill, 2004; Matlay, 2005; Rigg & Trehan, 2004). Similarly Lave and Chaiklin (1993) acknowledge that such learning is not always obvious, stating "Learning is ubiquitous in ongoing activity though often unrecognised as such" (p5). Van Woerkom and Poell (2010)’s research into organisational learning in the Netherlands considers social interaction to be inherent in workplace learning which often makes it difficult to differentiate between learning and operational activities, which is also indicated by both London and Hall (2011) and Marsick and Watkins (1999).

During their qualitative research in 27 New Zealand SMEs which sought to establish key factors affecting employee learning in small businesses, Coetzer and Perry (2008) encountered the view
that “only formal training is ‘real’ training” (p649). Such opinions may be responsible for the perception that little learning occurs in SMEs as much of their learning is informal, which Nolan and Garavan (2016) argue results in it being seen as absent or unjustifiably inferior. They contend that this is due to unsuitable research methodologies, including a proliferation of quantitative approaches which ignore the informal, flexible and possibly complex nature of SME learning, echoing Johnson and Devins’ (2008) assertion that “statistical evidence obscures as much as it reveals” (p7). Consequently, Nolan and Garavan (2016) recommend “greater use of ethnographic studies incorporating observational and participative research” (p98) which will be explored further in the Research Methodology chapter. However, the informal nature of SME learning has already been mentioned several times and so this will now be investigated.

**Informal Learning**

Informal learning occurs in everyday settings (London & Hall, 2011) and is common in the workplace (Marsick & Watkins, 1999), especially in SMEs (Bishop, 2014). Marsick and Watkins’ (1999) theoretical framework distinguishes between formal and informal learning, showing the former to be usually classroom-based, highly structured, and possibly undertaken in order to gain qualifications with the trainer typically choosing the learning content which is then presented to the learner. They refer to other learning as informal and incidental learning; this is also called accidental learning (Mumford 2003), self-initiated learning (Poell, 2014) and “implicit learning” (Tseng et al, 2012, p116). Susomrith and Coetzer (2015) suggest that incidental learning is likely to be an unplanned or unintentional occurrence, possibly being a by-product of a mistake or another activity, including social interaction, and therefore often happens without not only learners’ intention, but also their awareness as they are focused on another pursuit. However, Susomrith and Coetzer consider that Poell’s (2014) ‘self-initiated learning’ indicates conscious and intentional learning, which has similarities with Bandura’s (1977; 2002; 2012) consideration of observation and role-modelling, particularly in relation to individuals choosing their learning. Susomrith and Coetzer’s (2015) research adapts Lewin’s (1951) Behaviour-Person-Environment model and analyses 20 in-depth semi-structured interviews with engineers in Australian SMEs using content analysis to explore differences between owner-managers’ perceptions of barriers to formal L&D and those of employees. This found great
variation between these perceptions and showed employees using a variety of strategies to compensate for the lack of formal learning opportunities in order to select learning opportunities which matched their needs, leading Susomrith and Coetzer to conclude that lack of formal learning in SMEs does not mean a total lack of learning.

Research into learning in SMEs indicates that informal learning is particularly prevalent in such organisations due to its flexibility and adaptability which can address operational problems urgently (Anderson & Boocock, 2002; Webster et al, 2005). This style of learning may also be widespread in SMEs due to its cost-effectiveness (Susomrith & Coetzer, 2015), although an organisation’s maturity, structure and degree of innovation levels may also influence the level of formality in its learning (Stanworth & Purdy, 2006). Research also suggests that both communication and learning within SMEs tends to be relaxed and personalised, often with some resistance to formal, standardised methods and techniques (Coetzer & Perry, 2008; Matlay, 1999; Stewart & Beaver, 2004). Bishop (2014) indicates that SMEs’ approach to learning typically includes a new employee acquiring the ability to carry out his/her role through learning informally on-the-job from an experienced peer/manager which indicates alignment with Lave and Wenger’s (1991) concept of Legitimate Peripheral Participation.

Attitudes towards the degree of formality in learning are often cited as a key difference between SMEs and larger organisations. The latter are more likely to choose external education which often results in qualifications and improved career development opportunities, whereas the former favour informal skills and knowledge transfer between employees (Taylor, Shaw & Thorpe, 2004; van Woerkom & Poell, 2010). However, Sheehan’s (2014) telephone survey research into HRM in 336 UK SMEs indicates that informality is not inevitable in SMEs and that informality and formality should be regarded as a continuum, rather than dichotomies (Ram & Edwards, 2003). This has indicated that informal learning is likely to be situated in social contexts so social learning will now be explored.
Social Learning

Senge (1990) highlights the importance of the social dynamics of learning within organisations of all sizes, claiming that learners’ social environments stimulate learning and therefore that learning is dependent on social interaction. Accordingly, he suggests that organisations should create opportunities for both formal and informal learning, with occasions for social interaction being encouraged, as he sees the social environment as being critical to workplace success. Devins and Gold (2002) highlight the importance of social interaction particularly in small business learning. Social learning in small organisations results not just from the employees’ know-how, rather it arises from the interaction between owner-managers and employees and among employees, drawing upon individuals’ diverse problem-solving skills and knowledge (Higgins et al, 2013; Higgins & Mirza, 2011).

Social learning can occur in two ways; firstly, through collective participation in the learning process, for example through interpersonal learning as highlighted by Vygotsky, Bandura and Lave and Wenger, and second through interactional cognitive learning processes, for example the single loop learning which takes place in Vygotsky’s inter-psychological level and Bandura’s learning through observation. Rae (2005) suggests that Lave and Wenger’s (1991) conceptual model of a CoP is particularly well-suited to entrepreneurs as it acknowledges both levels. The social aspect of this can see an entrepreneur, such as an SME owner-manager, sublimating his/her individual identity to the identity of their organisation in order to achieve the enterprise’s aim; this aim may be survival, growth or development of a particular area of the business. This may involve forming a joint enterprise with others, for example creating a CoP for mutual learning. The outcome of this is communal learning which is not the property of an individual, but is shared between those in the community (Devins & Gold, 2002; Rae, 2005; Wenger, 1998).

SMEs are often based on an inter-dependent network which includes family members, friends, professional bodies and others, such as customers and suppliers (Gibb, 1997), allowing SMEs to interact with people outside of their organisation to enhance their knowledge (Devins & Gold, 2004). However, socio-cultural learning is dependent upon common meaning and therefore inter-organisational learning can highlight differences between SMEs, who may each, to varying
extents, have their own language and customs which, accordingly, may limit the extent of such learning (Devins & Gold, 2002). Nevertheless, Thorpe, Holt, Pittaway and Macpherson (2005) suggest that the social aspects of learning with, and from, other small business owners could alleviate any feelings which SME owner-managers may have of being isolated from others with similar challenges, and therefore necessarily having to rely solely on their own deliberations. Consequently, networking with other SME owner-managers could present effective learning opportunities for them (Chaston, Badger & Sadler-Smith, 2000; Gibb, 1997; Saunders et al, 2013; Tell, 2000). Despite this, SME owner-managers may be wary of competitors’ opportunistic behaviour and consequently need assurance that other organisations will work co-operatively, not using the information exchanged to their own advantage (Birchall & Giambona, 2007). This indicates that trust is crucial in learning situations with ideas and information being unlikely to be shared without it (Grover & Stewart, 2010; Mason & Rennie, 2008). Although trust is not specific to learning within SMEs, nor indeed within the workplace, it is particularly pertinent to interpersonal learning, as has been indicated, and therefore it will now be examined.

Trust

Trust is a complex and multi-faceted concept (Lyon, Möllering & Saunders, 2012) with over seventy definitions (Seppänen, Blomqvist & Sundqvist, 2007) and forty-seven different methodologies to measure it (McEvily & Tortoriello, 2011). However, this research will only consider trust in the specific area of learning and uses Zand’s (1997) definition:

“a willingness to increase your vulnerability to another person whose behaviour you cannot control, in a situation in which your potential benefit is much less than your potential loss if the other person abuses your vulnerability” (p. 91).

The components of trust are behaviour, goodwill, capability and self-reference (Blomqvist, 1997) and the more components that are present, the stronger the trust will be (Blomqvist, 2002). Goodwill comprises moral responsibility and acting positively towards other people whilst capability includes competence in both technology and business as well as in working with others (Blomqvist, 2002).
Literature Review

The need for trust grows as individuals move through the phases of learning, but it is the process of moving through these stages which allows both relationships and trust to grow (Birchall & Giambona, 2007; Lewicki & Bunker, 2008). Trust requires an environment which is tailored to the needs of learners, rather than trainers, because an environment designed for trainers may suggest an assumption that learners need constant supervision and therefore does not encourage learners to feel involved in the process (Birchall & Giambona, 2007; Ossiansson, 2010; Volchok, 2010). In a small business context, Susomrith and Coetzer’s (2015) research found that the critical role of managers in organising workplace learning gives them a particular responsibility for establishing an encouraging environment in which learning can occur and consequently they concluded that SME managers need to understand how individuals learn for this to be effective.

Trust is built through the demonstration of expertise and then through effective interpersonal relationships which involve mutual disclosure and a degree of intimacy (Farini, 2012) and openness and fairness (Blomqvist, 2002; Woolthuis, 1998), thus emphasising its importance in interpersonal learning. The extent to which employees enter into an effective working and learning relationship with their managers, including owner-managers, is proportional to the latter behaving in such a way as to build trust (Deluga, 1994). Sambrook’s research (2004; 2003) found trust to be an inhibitor in Welsh SMEs’ uptake of e-learning, due to employers distrusting their employees to use IT solely for learning.

This examination of trust in learning contexts also indicates the focal influence of owner-managers on learning within SMEs and so this will now be investigated in detail.

The Influence of the Owner-Manager on SME Learning

Bosma et al (2012) relate Bandura’s Social Learning and Social Cognitive Theories to people learning in social/workplace settings by identifying others who are performing well and then copying their behaviour thus learning by example. This ties in with interpersonal learning as discussed above, but has the added dimension of a specific person who is observed to perform well and consequently with whom the learner identifies. The behaviour is copied if the observed person’s behaviour is seen to lead to desired outcomes, not necessarily just accomplishing
specific work tasks, but also in respect of having an enviable life-style. Consequently, the learner models his/her behaviour on that person and thus acquires new skills (Bosma et al, 2012). This role-model could be an SME owner-manager, although it may also be any MKO (Vygotsky & Cole, 1978) such as a more experienced colleague.

SMEs often lack any formal HRD infrastructure so that the L&D role, if present, is carried out by owner-managers and consequently it is likely to be dependent on the management styles of the owner-managers and possibly their families/friends (Beaver & Hutchings, 2005; Devins & Gold, 2004). Higgins et al’s (2013) social constructionist analysis of the inter-relationship between power and politics in SME learning found that owner-managers may operate their businesses according to their own beliefs and assumptions in a “self-legitimising” (p474) way unless these methods cease to work. Consequently, they can use their power to influence learning within their businesses and “actively constitute social reality in which they operate” (p474), although this can impede the learning process by limiting employees’ exposure to alternative ways of working and learning (Higgins et al, 2013). Nevertheless, Devins and Gold (2000) indicate the importance of owner-managers in SME learning, warning that external attempts to formalise L&D in these organisations must not ignore their preferences.

Higgins and Aspinall’s (2011) social constructionist based qualitative research into how SME owner-managers learn found that in such organisations knowledge is distributed through social processes between individuals, often when they are undertaking joint enterprises. This is particularly so between owner-managers and employees as the former tend to have unique information through their intimate understanding of their business (Higgins & Aspinall, 2011). In this way, the owner-manager may fulfil the role of Vygotsky’s MKO and/or as Lave and Wenger’s more experienced colleague helping novices move from a state of legitimate peripheral participation to full involvement in the activities of the business.

However, as Sambrook (2004) observed, although in SMEs much knowledge is retained within individuals, particularly owner-managers, sometimes there is a reluctance to both share knowledge and use new ideas. This can be complicated by there not always being agreement between owner-managers and their employees regarding what is to be learnt and the methods
employed and, further, that, even though often knowledgeable and powerful, owner-managers are frequently still dependent upon others to carry out the day-to-day operations of their business and therefore need the co-operation of their employees (Higgins et al, 2013).

Additionally, SME owner-managers are typically independent and autonomous and so they are often reluctant to accept external advice (Anderson & Boocock, 2002), for example they may regard networking groups as “talking shops” (Clarke, Thorpe, Anderson & Gold, 2006, p452) and so consider it difficult to justify attendance at these, although it could be useful (Saunders et al, 2013).

SME owner-managers tend to regard learning as resulting from necessity, rather than being part of an ongoing skills development programme (Lange, Ottens & Taylor, 2000; Matlay, 2000). Furthermore, research suggests that many of them are unconvinced of the long-term advantages of learning vis-à-vis short-term time and money investments in it (Beaver & Hutchings, 2005), especially as SMEs are characterised by shortages of both time and money (Hamburg & Hall, 2008). Consequently, much learning in SMEs appears to occur in order to meet short-term needs (Anderson & Boocock, 2002) with concentration on the operational aspects of the business which may lead to the exclusion of learning opportunities. This is illustrated by the comments of a participant in Ahlgren and Engel’s (2011) research:-

“We are not a training establishment; we are a cylinder making company. I want to make our people better at what they do so that the company becomes better, but there’s not any point in training people so that they will have no benefit to the company especially if it's costing money” (p339).

Characteristic shortage of funds in SMEs may be responsible for owner-managers being reluctant for their employees to undertake learning activities, perhaps through fear that the organisation will incur the expense of giving L&D opportunities to staff who will then move to other jobs (Stanworth & Purdy, 2006). Consequently, Coetzer and Perry’s (2008) research indicates SME owner-managers’ preference for employing skilled, qualified individuals, rather than having to provide learning opportunities for employees. However, Coetzer and Perry (2008) also observe
that owner-managers are inclined to blame employees’ lack of learning on individuals having a poor work ethic and lack of career motivation, although this may be an attempt to justify the lack of learning opportunities which they provide. Furthermore, Ahlgren and Engel (2011) assert that much SME learning denies employees the chance to gain qualifications which would be recognised by other employers and also restricts individuals’ opportunities to take part in CoPs external to their workplace.

It is important that SME learning aligns with the values and aims of owner-managers (Devins & Gold, 2004) who are unlikely to spend valuable time on what they see as unnecessary and inappropriate tasks, such as strategic planning, evaluation and systematically assessing offerings (Anderson & Boocock, 2002). Additionally, owner-managers may themselves lack formal qualifications and therefore consider it unnecessary for their employees to obtain these either (Hill, 2004). This may also contribute to their reluctance to recruit new graduates, together with their concern that these will not have basic business skills and/or be too academic and consequently resign after a short time (Westhead, 1998). Consequently, Higgins et al (2013) suggest that owner-managers and their employees may disagree regarding what is learnt and, because much SME learning is on-the-job, it is possible that SME owner-managers are not necessarily aware of all the learning which takes place within their own organisation, much less the methods used or the depth of such learning. This potentially becomes more complicated when exploring e-learning within SMEs as owner-managers may have limited understanding of this (Raymond, Uwizeyemungu, Bergeron & Gauvin, 2012; Sambrook, 2004; Sambrook, 2003) and therefore they could have less awareness of the extent of such learning.

Management development is rarely used in SMEs, perhaps due to owner-managers’ unique attachment to their businesses (Devins & Gold, 2000) and/or costs, that is both the opportunity cost of time to participate and the monetary cost of buying or designing a suitable product (Garavan, McCarthy, McMahon & Gubbins, 2004). Management development that does take place in SMEs is, like much else of their learning, informal and specific to the businesses’ circumstances (Thomson, Gray, Iles, Storey & Mabey, 2001). Staff performance appraisals which can contribute towards employee learning, are rare in SMEs (Gilbert & Jones, 2000),
although this may be due to owner-managers considering that such reviews are unnecessary due to the frequent interaction between themselves and their employees (Coetzer & Perry, 2008).

Susomrith and Coetzer (2015) suggest that research into how SME employees learn could be a useful contribution towards a clearer picture of SME learning as a whole. Most research into SMEs, including that relating to learning, focuses on the owner-manager with scant attention being given to employees’ perspectives, particularly learning undertaken by them (Higgins and Mirza, 2011; Higgins et al, 2013; Saunders et al, 2013; Susomrith & Coetzer, 2015; Thorpe et al, 2005). For example, Admiraal and Lockhorst’s (2009) research into e-learning in European SMEs gathered questionnaire data from 402 SME owner-managers and interviewed 105 of them, but only interviewed 35 employees. Susomrith and Coetzer’s (2015) qualitative research in Australian engineering SMEs with between 15 and 30 employees is one of the few studies of SME employees’ attitudes towards learning. Consequently, Susomrith and Coetzer (2015) indicate that it is possible that owner-managers are seen as influential in SME learning because most research into learning in SMEs is undertaken from the perspective of owner-managers, although further research into this is required.

Generally, SME owner-managers prefer on-the-job learning and/or learning which has a visible link between costs and benefits (Hill, 2004; Webster et al, 2005), although they may feel that this style of learning is forced upon them through cost constraints, rather than them controlling its choice (Higgins et al, 2013). However, the ad hoc nature of such learning can quickly solve operational problems (Anderson & Boocock, 2002; Webster et al, 2005) and consequently such learning, which involves social interaction through joint enterprise and mutual engagement, is common throughout SMEs, usually with active encouragement from the owner-manager (Higgins et al, 2013; Lervik et al, 2010). Therefore, on-the-job learning will now be further explored.

**On-the-job Learning**

Ahlgren and Engel’s (2011) case-study research, which drew upon Lave and Wenger’s Situated Learning Theory (1991), found that SME learning is “*mainly social and situated*” (p337) with
employees acquiring the ability to carry out their role through on-the-job learning. This qualitative research, which included 36 interviews with owner-managers, line-managers and employees, suggested that much learning in their research locations occurred through either observation, as advocated by Bandura’s role-modelling, or working with an experienced peer/manager, who may be seen as Vygotsky’s MKO. Consequently, although SME learning may be tied to the workplace, this allows it to address operational needs which can offer employees new learning opportunities (Gibb, 1997; Roy, 2009; Webster et al, 2005). This is illustrated by Geldenhuys and Cilliers’ (2012) case-study research in a South African SME which indicates that social interaction through on-the-job learning can be an important part of learning in SMEs. Much of what is learnt in this context is through individuals’ own experiences and consequently what they observe and their practical experiences can convert theoretical knowledge and concepts, perhaps learnt in formal/academic settings, into reality (Davies, 2008), which recognises Bandura’s view of the importance of observation during the learning process.

Although there is little academic research into how employees regard on-the-job learning, practitioner research from the CIPD in 2008 reported that 82% of the 751 interviewees received learning opportunities of some sort, 64% experienced classroom learning and 51% on-the-job learning (CIPD, 2008). However, learners’ preferred learning method appeared to be on-the-job:

“Learners prefer active to passive methods of learning. On-the-job training is the favoured method of learning for all categories of employee. This could be seen as a mismatch to the amount of classroom-based learning that is taking place” (CIPD, 2008, p11).

By 2014, the CIPD’s L&D Survey (CIPD, 2014a) reported a trend away from external formal education courses to internal on-the-job learning, although there was no indication of whether this was due to employer or employee preferences for informal learning or of the reasons for such preferences. Additionally, it must be noted that participants in this research were from a mixture of different sized organisations with no clear indication of the number of SMEs involved.
Although much of the process of learning in SMEs takes place through practice (Higgins & Aspinall, 2011), it is more likely to be effective if employees have access to a wide range of work activities as low-skilled work offers few opportunities for employees to learn (Billett, 2001; Coetzer & Perry, 2008). Also, while on-the-job learning can maximise knowledge transfer, the expertise and inclination of the trainer are important components of this process (Webster et al, 2005) and it would be naïve to assume that all employees are motivated by the good of the organisation and so are willing to share all their knowledge (Yanow, 2004).

To summarise the findings from the literature review so far, literature related to learning in SMEs suggests that more learning occurs in these organisations than is commonly thought (Nolan & Garavan, 2011; Rigg & Trehan, 2002). However, no indication of the of such learning has emerged so far and therefore this will now be investigated.

**Depth of Learning in SMEs**

Research literature about SME learning offers very little evidence of Vygotsky’s second stage of socio-cultural learning, that is the intra-psychological level, which, as discussed above (p13), is the stage in which the interaction becomes internalised within individuals to become deep, transformational or double-loop learning (Senge, 1990; Turuk, 2008; Vygotsky & Cole, 1978). Saunders et al’s (2013) mixed-method research involving 1,181 UK SMEs, and which investigated the relationship between innovation and learning in SMEs, suggested that both single and double loop learning were needed in SMEs if learning was to be achieved and they argued the necessity of time to reflect, particularly if SMEs are to learn from “crisis events” (p146). However, Anderson and Boocock’s (2002) analysis of learning in organisations employing fewer than 50 people found little evidence of anything but single-loop learning in those SMEs, and perhaps within workplace organisations in general. Similarly, Poell (2014) considers that it is difficult to achieve double-loop learning in workplace learning, although Susomrith and Coetzer (2015) argue that this is necessary if the possibilities of the workplace as a learning environment are to be fully realised.
Adaptive, rather than generative, learning may be more common in SMEs because their learning often occurs naturally as a result of needing to solve problems as they are encountered and usually occurs through the desire to survive (Clarke et al, 2006; Devins & Gold, 2004; Senge, 1990). Additionally, the depth of learning in SMEs may be influenced by both the time-constraints in such organisations which result in much of their learning concentrating on meeting short-term needs, and owner-managers’ reluctance to spend valuable time on anything they view as unnecessary (Anderson & Boocock, 2002). Ahlgren and Engel’s (2011) research indicates that SMEs focus on job-oriented, in-house learning, with the wider objectives of lifelong learning being largely ignored. However, Chaston, Badger, and Sadler-Smith (2001) found that entrepreneurial SME owner-managers were more likely to undertake double-loop learning.

One area which arose from the theories but which literature rarely acknowledges in the context of SMEs, is SDL which Bandura (2012) suggests is important for individual’s life-long learning. Literature indicates that, in the context of general workplace learning, there is a positive relationship between SDL and job performance (Guglielmino, Guglielmino & Long, 1987; Guglielmino & Guglielmino, 2006). Accordingly, because SDL is typically mentioned in the context of career development in larger organisations (Ellinger, 2004; Yankovenko & Hatala, 2014), it does not fit comfortably with my social constructivist perspective. However, because of indications of its importance in general workplace learning, SDL will be retained in the proposed theoretical framework for learning in SMEs so that I will be alert to possibilities of such learning in my primary research.
This review of literature, particularly research literature, has found that much learning in SMEs is socially situated, being largely informal and on-the-job and much-influenced by owner-managers, although it has also highlighted that more research is needed into the full extent and depth of these processes. The findings so far have led to the development of Figure 2.5 which shows how learning in SMEs fits the proposed theoretical framework as shown in Figure 2.3. This will be further developed into a conceptual model for workers’ e-learning in SMEs (Figure 2.6).

This chapter will now examine e-learning, firstly in general, with particular reference to the workplace, and then in relation to SMEs. Although e-learning appears to preclude personal interaction, the review explores how it may relate to socially situated learning theories and whether e-learning, like learning in general, is more widespread in small businesses than usually considered.
E-learning

This section will examine e-learning, relating it wherever possible to workplace organisations, although, as will be shown, there is a shortage of relevant academic literature regarding this, specifically in relation to SMEs. Most e-learning research is sited in educational establishments, with little academic research investigating the use of e-learning in the workplace and even less specifically in the context of SMEs. However, practitioner literature, particularly from the CIPD, is available and is included within this review. It is important to note that with regard to e-learning, this research is not concerned with theories about instructional or technical design, rather it focusses on the learning processes that occur in e-learning. No specific theory exists regarding this although there are assertions that one is needed (Anderson, 2004; Nolan & Garavan, 2016). Firstly, in this section, e-learning is defined, followed by a brief historical overview and a discussion of the interpersonal aspects of e-learning before the final part of this chapter examines e-learning in SMEs.

A particular challenge with consideration of the literature about e-learning concerns definition of the term ‘e-learning’. Definitions continue to be elusive as technological developments lead to new online learning tools emerging at an increasingly swift pace (CIPD, 2014b). Complications arise as terminology changes in this dynamic environment so that the term ‘e-learning’ is often used synonymously with other expressions including, ‘virtual learning’, ‘distance learning’ and ‘Technology Enhanced Learning’ (TEL) (Jenkins, Browne, Walker & Hewitt, 2011). Originally this thesis used the latter expression particularly because the word ‘enhanced’ implies an enrichment which is not suggested by the other terminologies (Price & Kirkwood, 2010). However, although TEL is an accepted and generally understood term in academia (Price & Kirkwood, 2010), discussions with practitioners, while seeking suitable research organisations, found limited awareness of this term and so the more generally accepted term of ‘e-learning’ is now used in this thesis together with the following definition:-

“any online facility or system that directly supports learning and teaching” (Jenkins et al, 2011, p447).
Although this definition arises from TEL being used in an academic context, it was considered because it was used in the 2008 survey of e-learning in UK Higher Education Institutions as part of the Joint Information Systems Council (JISC) e-learning project and appeared to assist participants’ understanding of the term. Subsequent discussions with SME practitioners confirmed they too understood it, although only the first part of Jenkins et al’s original definition is used as the full definition appeared to confuse practitioners. Another feature of the literature is a categorisation of e-learning as formal, informal or ‘blended’ so each of these will now be examined.

Formal e-learning uses technology to deliver L&D courses to learners without any significant support from, or interaction with, a trainer. It is often, but not exclusively, asynchronous, and can include courses which can be downloaded/streamed or available on DVDs/CDs (CIPD, 2014b; Hrastinski, 2008a). For the purpose of this research, the term ‘formal e-learning’ will include online courses.

Informal e-learning exploits the increasing opportunities for technology to support informal learning, in both the workplace and academic settings. It is often, but not exclusively, synchronous and its collaborative approach encourages knowledge-sharing within communities. It is a social learning method which encourages participation and consequently its community context helps to alleviate feelings of isolation in learners and enables questions to be answered in real time (CIPD, 2014b; Hrastinski, 2008a). In this way, it is feasible to find a form of a CoP in e-learning (Lave & Wenger, 1991). For the purpose of this research, the term ‘informal e-learning’ is considered to include use of the internet, Google, forums, videos including YouTube and TED, and 3D and game-based learning.

Blended learning, which is also known as supported or hybrid learning, occurs when e-learning, formal or informal, is combined with other types of learning, such as delivering content through face-to-face lectures (CIPD, 2014b; Hrastinski, 2008a). As will be discussed in the Findings chapter (page 163), some research participants used the expression when referring to a combination of various non-e-learning approaches, such as using both on-the-job and classroom learning, and yet others mentioned blended learning and meant a mix of e-learning methods.
Having these different conceptualisations of terminology was another manifestation of the different ways in which individuals within the research SMEs conceptualised terms. These instances were particularly confusing as, at times, different meanings of blended learning were used interchangeably. However, unless stated otherwise, throughout this research the term ‘blended learning’ will be used to mean a combination of e-learning and non-e-learning. By combining face-to-face learning with e-learning, blended learning appears to have relevance to this thesis’ social constructivist framework.

The term ‘e-learning’ was first used around 1900, although its roots stretch back many decades before then. More recently it has evolved from Computer Based Training (CBT) to include active use of the internet and interactive applications, such as webinars and on-line forums, so that e-learning could be viewed as the latest stage of a journey during which both technology and student-participation levels have changed (Hrastinski, 2008b; Jordan, 2012; Welsh, Wanberg, Brown & Simmering, 2003). As indicated above, e-learning has developed so that it now encompasses a broad spectrum ranging from formal online courses to more informal techniques which include sharing knowledge via social media sites, taking part in webinars and podcasts and blogging. Other recent trends include the use of both gaming technology and cloud computing to support learning, which can potentially deliver learning to suit learners’ requirements via the internet rather than by using in-house computing systems (CIPD, 2014b; Squire, 2008). This suggests that this research’s socially situated theories of learning may be relevant to informal e-learning and blended learning and therefore the interpersonal aspects of e-learning will now be reviewed.

**Interpersonal aspects of e-learning**

At first sight there is a difficulty in relating the learning theories used in this research to e-learning, due to its essentially remote nature and its implicit lack of people which suggest a lack of interaction. Although many definitions of interaction exist, they share two important features, namely information exchange and participation (Ha & James, 1998; Steuer, 1992). Stephens (2002) contends that virtual learning concentrates on information exchange to the detriment of participation, which supports the assertion that technology is more appropriate for task goals than
relational ones (Stork & Sproull, 1995). Furthermore, Daft and Lengel’s (1986) and Krauss and Bricker’s (1966) research found that virtual communication discouraged social interaction, but was more successful in task-oriented contexts. However, Stephens and Mottet’s (2008) research involving communications workers in a USA university found that, although technology favours information exchange over participation, it does offer trainer-controlled tools which give opportunities for interaction, such as trainers facilitating and encouraging students to answer questions, take part in surveys and ‘text-chat’ with both the trainer and fellow-students. This facility has been extended by the introduction of e-learning methods such as webinars and forums, with the internet allowing live interaction and the introduction of social media into workplace learning, as shown by practitioners such as Beagrie (2013) and Morabito (n.d.) as well as research undertaken by Roberts and Sambrook (2014).

Arbaugh (2000), Frymier and Houser (2000) and Stocks and Freddolino (2000) all suggest that interaction during e-learning increases the effectiveness of learning, with Frymier and Houser highlighting that it can also positively influences students’ motivation. However, all that research took place in the USA with Stocks and Freddolino’s involving graduate social workers while the others’ participants were university students and so the research findings may not be typical of what occurs in the workplace. Garavan, Carbery, O’Malley and O’Donnell’s (2010) research was situated in the workplace, surveying 557 employees, including managers, in 275 Irish organisations which provide e-learning for their employees. Although they found that the design characteristics of such learning were more complex than anticipated, their research suggested that employees’ motivation to learn is key to e-learning’s success. However, not only did this quantitatively-analysed study use a survey and so could not investigate why and wherefore, but also its participants were from organisations of all sizes, not just SMEs.

Both McCroskey and Teven’s (1999) and Myers and Martin’s (2006) research indicates that trainers’ credibility is enhanced by the degree to which they encourage interaction with, and among, their students during online learning which can result in the formation of online communities. Attwell (2003) asserts that online communities, such as networks and partnerships, can support informal learning, particularly when this is in conjunction with face-to-face activities, and therefore he suggests that global CoPs could be built through the use of
technology in learning. Kostner (2001) researched how large USA-based companies built successful teams who only met electronically and, although this was not in an exclusively learning context, her research suggested that both productivity and learning could be improved through increased social interaction online. This also highlighted the contribution of joint enterprise and mutual engagement when interacting virtually in making participants feel they are part of a community. Dewberry (2008) explored ‘e-tribes’ who are groups of individuals who interact through electronic media such as social networking sites and he compared these to Lave and Wenger’s (1991) CoPs. This USA-based research explored “gossiping among friends and acquaintances as a form of learning” (p80) in these relationally-based e-tribes, observing that the community evolved as individuals moved between its periphery and more central roles. Dewberry asserted that, although this research was not situated in a typical learning environment, learning was achieved through social interaction with knowledge being gained through joint enterprise, interaction, participation and assimilation of information gained through conversation. Both Thomas and Brown (2011) and Tynjälä, Häkkinen and Hämäläinen (2014) further indicate social interaction can influence e-learning by suggesting that workplace organisations can develop and share resources through the exchange of ideas by using technologically-based communities of interest and learning networks.

Online courses, for example Massive Open Online Courses (MOOCs), and learning through gaming, whereby learners immerse themselves in experiences within games to learn how to solve problems, are “emerging as a new model for situated learning environments” (Squire, 2008, p9). This indicates possibilities for learning resulting from mutual engagement in the virtual environment. Squire’s (2008) case-study research, which compares the use of game-based learning in three USA SMEs, indicates that gaming is based on an understanding of human psychology which is often missing in more traditional learning. Consequently, he suggests that gaming encourages learners to work with information, developing it into knowledge, rather than just storing it. Furthermore, he argues that gaming could result in deeper learning because it stimulates learning pathways in human brains, which other e-learning appears unable to do. This indicates that interactional learning occurs during learning which uses gaming and that learning using gaming can involve individuals observing both the behaviours of online characters and/or
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more knowledgeable gamers and the outcomes that result from this leading to them modelling their own behaviour accordingly (Squire, 2008).

Roberts and Sambrook (2014) highlight that the use of social media in workplace learning remains under-researched and unreported by academia, particularly citing a “dearth of academic literature and research” (p586) into the use of social networking sites (SNSs) in HR practices. Their research in two UK organisations and review of practitioner literature relating to other such workplaces indicates that there is some provision of training regarding the appropriate use of social media in the workplace, with e-learning often being used for such training. Roberts and Sambrook (2014) suggest that this training tends to concentrate on minimising the misuse of social media in the workplace, perhaps with a view to reducing disciplinary cases and dismissals, which leads them to recommend “targetted training to raise awareness and appropriate uses of SNSs, as well as enhancing HR practice, embracing social media to improve learning” (p586). However, the practitioner literature they reviewed indicates a trend of increasing use of e-learning in the workplace, while the CIPD (2014) asserts that “Conventional e-learning may be in decline, but the power of technology to enhance social learning or facilitate content curation is yet to be fully realised”. The CIPD (2011) maintains that social media can support and enhance e-learning in this context, suggesting that connecting with other learners to share ideas and thoughts could increase knowledge. The CIPD (2012) gives an example of Ford Motor engineers using Twitter for on-the-job learning which involves discussing technical issues to address workplace problems, leading the CIPD to suggest that this form of social networking may be particularly suitable in such contexts as it is “content-light but context-rich” (p6). Other practitioner literature also reports this trend, for example claiming that 20-25% of Dixons Retail’s and PepsiCo’s learning is e-learning, with social media in particular being using in this respect, although the latter organisations vows not to “try any gimmick just for the sake of it” in respect of learning (Crush, 2012).

However, two other theories have relevance to interaction in the context of e-learning, namely Rhetorical and Relational Goal Theory of Instructional Communication (Mottet, Frymier & Beebe, 2006) and Social Presence Theory (Short, Williams & Christie, 1976). The former shows learning having both task and social elements, as both students and teachers have rhetorical
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needs to achieve a task, for example for a student to achieve a particular level of competency, and they also each have relational needs, such as to be liked and affirmed in learning situations (Stephens & Mottet, 2008). These rhetorical and relationship goals can relate to e-learning, particularly that which involves interpersonal interaction, such as through the use of forums or social media. Although Frymier (2007) and Mottet et al (2006) suggest that greater learning occurs when both goals are met and therefore student needs are satisfied. Mottet et al (2006) indicate that teachers juggle both these goals simultaneously and choose their behaviours in order to meet them. Frisby, Limperos, Record, Downs and Kercsmar’s (2013) research reports that teachers’ “conscious decisions about pedagogical strategies and uses of technology” (p469) affect students’ perceived and actual learning as well as the relationships between students and teachers and students’ perceptions of social presence. Historically, ‘social presence’ has been viewed as an impression that another person/people is/are present and more generally this belief can apply even in virtual situations as it can be perceived through a sense of warmth, connection, or closeness, when people interact electronically (Frisby et al, 2013; Short et al, 1976; Steinfield, 1992). However, technology may be seen as more suitable for task (rhetorical) goals than social (relationship) ones (Stork & Sproull, 1995). Social Presence Theory has been shown to have applicability in various contexts to increase understanding of how technology, particularly different media, can add richness to virtual learning experiences (Frisby et al, 2013; Short, Williams & Christie, 1976). By explaining how media differ in their ability to convey social presence this theory may also be applicable to my research.

The scant examples of e-learning in the workplace reviewed here have suggested possibilities for social interaction during e-learning which can positively influence learners’ motivation and lead to the formation of online communities; there are suggestions that both of these could increase the effectiveness of e-learning. Although there are indications that some forms of e-learning may result in intra-psychological cognition, the research reviewed so far has been situated in large companies, with neither academic nor practitioner research and literature giving much consideration of SMEs. Therefore, e-learning in SMEs will now be explored.
e-learning in SMEs

As discussed briefly in the Introduction chapter, practitioners argue that e-learning is informal, flexible and often easily-accessible with advantages over face-to-face learning in respect of saving time, money and travel (Bersin & Associates, 2009; CIPD 2015; Citrix Online, n.d.; Hamburg & Hall, 2008; HRZone, ACAS & CIPD, 2015; Mitchell, 2010) Understood in this way, e-learning appears to be a good match for SMEs’ learning requirements (Roy, 2009). However, in addition to concerns about issues of trust in the context of e-learning to the general workplace (Gignac, 2004; Handy, 1995; Rintala, 2008), Hardaker, Dockery and Sabki (2007) highlight particular concerns about e-learning in SMEs, suggesting that it could be incompatible with the learning styles of employees in small and micro firms. Their questionnaire, which was part of the EU-funded regional elearn2work project and was responded to by 412 employees in small and micro organisations in Yorkshire and Humber, indicated a gap between employees’ preferred learning styles, particularly hands-on, and the e-learning provided for them. This led to Hardaker et al (2007) concluding that such workers were “being socially excluded from e-learning provision through pedagogy inequity” (p126). Additionally, there are concerns that SMEs often lack expertise and resources to explore the opportunities presented by new technologies and so may be unlikely to use e-learning effectively (Beaver & Hutchings, 2005; Hamburg & Hall, 2008; Matlay, 2014).

A particular difficulty encountered when examining e-learning in SMEs concerns how such organisations define e-learning, as they are each likely to have their own language and customs to some extent (Devins & Gold, 2002). In an early pan-European study, Attwell (2003) argued that definitions of e-learning were too narrow and so could preclude some learning being undertaken by SMEs who typically carry out their learning in operational contexts, using tools and materials which are used in their day-to-day work. He cited the example of email which is used every day within business to share information, but which could be regarded as an e-learning tool if such information results in the creation of knowledge, suggesting that, in future, learning materials “may be the products of employees’ documented and shared enquiry into their own practice” (p7). However, he acknowledged that individuals could interpret using digital media to access learning manuals and to facilitate web searches as ‘e-learning’ which he
suggested would not automatically constitute learning, rather it could be seen as simply storing and retrieving information electronically, as there is not necessarily any development of the knowledge obtained in this way, either tacitly or explicitly. It is possible that confusion regarding terminology may have contributed to Sambrook’s (2004; 2003) difficulties in finding many SMEs to take part in her research from 1998 to 2000 into e-learning in SMEs in North Wales. Having contacted 146 organisations, only 9 SMEs who were using e-learning were willing to take part and only two of these were not training providers. However, other organisations may have interpreted the term ‘e-learning’ in a different way to that intended by Sambrook and so would not realise that they were eligible participants. Similarly, the 2005 ARIEL project (see Glossary) found insufficient SMEs with practical e-learning experience (Beer, Hamburg & Paul, 2006) and again this may have been due to different conceptualisations of the term ‘e-learning’.

Attwell (2003) suggested that social aspects of learning, which are particularly important within SMEs, could be achieved through e-learning, commenting that “learning and working must be located as social interactions and the so-called new paradigm of flexible ICT-based learning must be examined within the complex and changing social relations of work and society” (p28). Hamburg and Hall (2008) also acknowledged that interpersonal aspects of learning in SMEs were important, proposing that, through technology, such organisations could function as “virtual Communities of Practice” (p8). They suggested that forming networks with other SMEs with whom they have a shared repertoire could allow employees to learn from, and with, others who have similar problems, experiences and interests, so that they could develop a “knowledge base of best practices” (p7). Hamburg and Hall’s (2008) research as part of SIMPEL set up two CoPs, one pan-European and one German, both of which comprised SMEs and e-learning experts, in order to investigate effective strategies for e-learning within SMEs, which included joint enterprise and mutual engagement during the learning process. Their investigation indicated the importance of engaging employees in the learning process which could be facilitated through encouraging communication between community members. They suggested that such communication could be formal or informal and could be facilitated by technology, thus allowing the formation of online communities.
Moon et al’s (2005) research, which involved 37 SME managers in six focus groups across UK, Denmark, Czech Republic, Cyprus and Malta, indicated similar conclusions. It suggested that encouragement from others with similar backgrounds could contribute to successful e-learning in SMEs, particularly highlighting that SME owner-managers who had access to a virtual network of similar managers were more likely to undertake effective e-learning. Goggins (2014) suggests that SME employees could also benefit from social interaction during their e-learning. His ethnographic study of a USA technology organisation with 51 employees spread across three remote sites found that their use of technology in learning situations led to the formation of informal socio-technical units which he refers to as “networks of practice” (p1078), “virtual community” (p1069) and “virtual organizations” (p1069). He indicates that their learning is enabled by joint enterprise and mutual engagement, noting particularly that “social interaction, learning and play through social media and other technology remove physical location as a limiting factor” (p1069), although the short-term nature of their work-groups indicate less complexity than Lave and Wenger’s (1991) original conceptualisation of CoPs. Ley et al’s (2014) case-study research investigates how apprentices learn through an online community in a regional training centre and SME network in the German construction industry. They compare this to a CoP, suggesting that technology can enable informal, interpersonal learning within, and amongst, small organisations to achieve specific goals with apprentices moving from the periphery of an organisation to positions of expertise and involvement.

Raymond et al’s (2012) review of literature indicates that organisational factors are critical to the adoption and assimilation of e-learning within SMEs. Similarly, Admiraal and Lockhorst (2009), Attwell (2003), Hamburg and Hall (2008) and Sambrook (2004; 2003) all suggest that effective e-learning in SMEs needs adequate infrastructure, highlighting the importance of owner-managers in providing both this and a suitable culture to encourage such learning. Raymond et al (2012) indicate that e-learning in SMEs is, partly at least, dependent on owner-managers’ orientation towards, and capability with, technology, although Admiraal and Lockhorst (2009) argue that owner-managers generally have negative attitudes towards technology, as well as towards learning. However, Attwell (2003) argues that the support of owner-managers and the underlying learning culture they engender are more important than technological aspects of e-learning. Furthermore, he suggests that owner-managers’ attitudes are strongly related to their
Literature Review

organisations’ technological infrastructure and so are likely to vary between SMEs of different size and from different industries/sectors, highlighting that SMEs are not homogenous.

Although this review of research literature relating to e-learning in SMEs has highlighted its paucity, there are indications that e-learning could meet at least some of the requirements for learning in these organisations. Previous research highlights the importance of matching e-learning to SMEs’ learning requirements, context and capabilities, while recognising that SMEs are not homogenous. SMEs’ preference for learning which is hands-on and/or includes interpersonal interaction needs to be recognised in their e-learning, and there are suggestions that the latter could be achieved through online CoPs which could allow individuals to learn with, and from, others with whom they have joint enterprise, mutual engagement and shared repertoire. There are also indications that SME owner-managers influence e-learning just as they do other forms of learning, with SME culture appearing to be more important than technological factors and suggestions that issues of trust are also influential. However, there are indications that the extent of e-learning which occurs in SMEs may be hidden by the terminology used. This chapter will now draw conclusions from the literature examined so far.

Conclusions

This chapter reviews a wide range of literature relating to learning and e-learning in SMEs in order to address the research question: How is e-learning understood and undertaken in SMEs? It has done this through exploring the context of learning in SMEs and how e-learning is understood, conceptualised and used in such organisations, thus addressing the first three research objectives. The review has highlighted the paucity of literature, and more particularly of research literature, concerning learning in SMEs, with the shortage being even more apparent in the area of e-learning in such organisations. However, sufficient literature has been found to draw some conclusions which will now be discussed.

Firstly, this chapter has shown the importance of not regarding SMEs as a homogenous body; rather they may be seen to have some shared characteristics. To varying degrees, SMEs may have their own language and customs, with each potentially having a unique view of learning (Devins & Gold, 2002; Gold & Thorpe, 2008; Nolan & Garavan, 2011), which may mean that
their requirements of the outcomes of learning and the ways in which they achieve these requirements will also vary between organisations. These potentially unique views of learning complicate investigation into their learning; this is particularly so in respect of e-learning where occurrences have been found of frequently changing definitions of the term ‘e-learning’ itself. Although there are suggestions that this individuality in practice and language may be a fundamental characteristic of SMEs and consequently could be critical to any exploration of their learning, it has been little explored (Nolan & Garavan, 2011). Furthermore, review of literature has highlighted indications that this and the everyday context in which much SME learning occurs may be responsible for the belief that little learning exists in such organisations and that generally it may be shallow (Attwell, 2003; Rigg & Trehan, 2002). The little research into SME learning that does take place often uses methods better-suited to larger organisations where the majority of workplace learning research is situated and the limitations of these research methods in the context of SMEs may have contributed to the second conclusion which is that the extent and depth of learning and e-learning in SMEs may be obscured.

Thirdly, this chapter has found some support for the argument that a social constructivist theoretical framework could be a suitable basis for considering workers’ learning, including e-learning, in SMEs as it could recognise that individuals, through their interpretation of the world and their experiences, construct their own meanings which enable their learning. It could also recognise that interpersonal interaction, which appears to be an important aspect of SME workers’ learning, is facilitated through the establishment of common meaning based on shared values, histories and circumstances. Therefore, it could allow insights into how learning, particularly e-learning, occurs in SMEs which have not been evident in previous research. This framework has evolved from an exploration of Vygotsky’s Socio-Cultural Theory of Human Learning (Turuk, 2008; Vygotsky & Cole, 1978), Bandura’s Social Learning and Social Cognition Theories, (Bandura, 1977; Bandura, 2012) and Lave and Wenger’s Situated Learning Theory (Lave & Wenger, 1991; Lervik et al, 2010). This review has suggested that Vygotsky’s, Bandura’s and Lave and Wenger’s socially situated learning theories may be relevant to e-learning in SMEs, with suggestions that Lave and Wenger’s Situated Learning Theory, with its concepts of CoPs and Legitimate Peripheral Participation, may be particularly relevant. This is supported by indications that learning and e-learning in SMEs can occur through joint enterprise,
mutual engagement and shared repertoire. The resulting theoretical framework for learning is shown in Figure 2.3 (page 19) and suggests that SME workers’ learning can take place on three levels, through social and legitimate interaction; from interaction with and/or observation of an MKO which may be superficial learning and intra-psychological cognition which may grow the Zone of Proximal Development. This framework has formed the basis for discussion of research focusing specifically on workers’ learning and e-learning in SMEs, leading to Figure 2.5 (page 42) which illustrates how learning in such organisations fit the proposed framework.

Review of literature has led to a fourth conclusion, namely that much of the research and literature base suggests that there is a prevalence of interpersonal, informal, on-the-job learning in SME workers’ learning, in both their general learning and e-learning. Furthermore, there are indications that interpersonal learning may be particularly important in SMEs and can occur at two levels: through collective participation, for example in CoPs, and through interactional learning. Also there are suggestions that both learning and e-learning relating to workers in SMEs are influenced by many factors and that these may include resource constraints and issues of trust.

There are indications that learning in SMEs, like many other aspects of such organisations, may be highly influenced by owner-managers. These individuals could be seen as Vygotsky’s MKO, as they appear to be responsible for, or at least influence, much learning in their organisations, or Bandura’s role-model, as there are suggestions that their behaviour may be observed and emulated by employees, though this may be because employees aspire to the owner-managers’ life-styles, rather than because a learning outcome is sought. This influence appears to extend to e-learning, although this is complicated by indications that at least some owner-managers may have limited technical knowledge and so do not understand such learning and therefore may be unaware of its extent, again adding to the under-reporting of the extent of learning/e-learning in SMEs. However, there are some emerging views in literature that the apparent extent of owner-managers’ influence may result from the preponderance of research from the perspective of owner-managers, although this requires further research. This leads to a further conclusion that research from the perspective of employees is needed to give a more holistic view of learning in SMEs.
These conclusions have led to the suggested theoretical frameworks in Figures 2.3 and 2.5 being developed into a conceptual model, as shown in Figure 2.6. This highlights concepts arising from the theoretical basis which may explain how workers’ e-learning occurs in SMEs. Key elements from Vygotsky’s, Bandura’s and Lave and Wenger’s theories are shown with arrows from each of these indicating how these fit the main elements of workers’ e-learning in SMEs which have been suggested in this literature review (shown in the third column), namely depth of learning, influence of owner-managers, observation/role-modelling, practice and, perhaps most important of all, social interaction. Self-directed learning has been retained in the model, but is indicated, in the ‘e-learning in SMEs’ box, by a question mark (?) as there is scant mention of it in research literature relating to learning in SMEs and none in that which concerns e-learning in such organisations, although much of the research and literature base suggests its importance in learning, including e-learning, in larger organisations and so occurrences of such learning should be looked for during the primary research. The fourth column of the model gives the three levels of learning suggested in the theoretical framework (see Figure 2.5), namely learning through social and legitimate participation, interactional learning and intra-psychological cognition with arrows showing how these connect to the elements of ‘e-learning in SMEs’. It should be noted that self-directed learning (indicated by ‘?’) appears to potentially connect to all three levels of learning. The model will form the basis for the rest of this thesis.
This review of literature has also highlighted the different research methods used when researching learning and e-learning in SMEs (Nolan & Garavan, 2016), as shown in Table 2.1 (pages 25-28). This has suggested the limitations of some methods in this context, for example, although questionnaires can collect information from a large number of sources and their findings can indicate patterns, they are, through necessity, formal and structured and so may not be well-suited to the informal nature of SMEs and their learning (Johnson and Devins, 2008; Nolan & Garavan, 2011). Therefore, through its examination of learning and e-learning in SMEs, this chapter has indicated where this research could be situated and consequently the next chapter will examine the research methodology.
Chapter 3 Research Methodology

Introduction

This chapter explains the research methodology chosen for my primary research. It does this by examining my research philosophy which leads to the research method and data analysis method undertaken to address the research question: How is e-learning understood and undertaken in SMEs? It works towards producing a methodology which gives in-depth data in order to address the research’s first three objectives, which are to:-

- Explore the context of learning that takes place in SMEs;
- Examine how e-learning is understood and conceptualised in SMEs and
- Examine the use of e-learning in such organisations.

The data resulting from this research are discussed in the Findings chapter and the limitations of the research methodology and recommendations for improvements are explored in the Conclusions chapter.

This section précises the research methodology before outlining the chapter’s structure.

Research Methodology Summary

Research methodology may be seen as the strategies which describe how research should be done, thus linking the research objectives to the types and sequence of methods used while noting the theoretical and philosophical underlying assumptions and the effects of these upon the chosen method(s) (Lee & Lings, 2008; Lindlof & Taylor, 2002). Consequently, the literature reviewed, the nature of the research question and the research’s social constructivist basis determine my chosen research methodology.

As discussed in the Literature Review chapter, my research, based on a social constructivist philosophy (Berger & Luckmann, 1971), analyses how individuals interpret the world and their
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experiences through the systems they create. It is grounded in a conceptual model based on Vygotsky’s Socio-Cultural Theory of Human Learning (Vygotsky & Cole, 1978), Bandura’s Social Learning and Social Cognitive Theories (Bandura, 2012; Bandura, 1977) and Lave and Wenger’s Situated Learning Theory (Lave & Wenger, 1991), as shown in Figure 2.6.

My project needed in-depth, experience-based research and so a qualitative approach was adopted, based on interpretivist theoretical and methodological principles, in order to provide data about intentions, behaviours, actions and meanings. This chapter shows why ethnography was used, arguing that its inductive approach allowed me, through exploration of workplace social interactions, to obtain rich data contextualised in SMEs which suggested how such organisations learn, particularly in a virtual environment. I explain how thematic analysis of the resultant data allowed me to discover commonalities, relationships and differences leading to clear indications of factors affecting such learning. An ethnographic approach allowed the research participants freedom to articulate their conceptualisations and experiences and this combined with thematic analysis allowed me to explore perceptions and experiences.

Chapter structure

This chapter explores the research methodology, including its philosophy and approach, the selection and recruitment of research organisations, and participants within those organisations, and the data analysis method. It consists of six main parts plus a final section which summaries the conclusions from those sections. The main sections are the research philosophy which discusses ontology, epistemology and axiology; research approach and design which leads to an in-depth examination of ethnography and its application to this research, including an exploration of participant-observation, interviews and photographs; data analysis methodology which argues why I use thematic analysis and qualitative data analysis software; the research locations which includes a discussion of my sampling and selection strategies; data quality which discusses how this is achieved and finally a brief discussion of other considerations concerning the research methodology. An exploration of how the methodology worked in practice is given in Appendix A.
Having outlined the rationale for, and structure of, this chapter, the first major area, the research philosophy, will now be explored.

**Research Philosophy**

Research philosophy addresses ontological, epistemological and axiological issues and so indicates the researcher’s view of the world, for example a preference for facts or for feelings, and his/her approach to reality and knowledge (Denzin & Lincoln, 2011; Lindlof & Taylor, 2002; Savin-Baden & Major, 2013). As discussed in the Literature Review chapter, I believe that meanings are not objective, but are created through social interaction, changing according to context and therefore leading to new realities. In the specific context of learning, I believe that social interaction allows learners to develop their knowledge and so my research design needs to be able to investigate and analyse such interaction.

Ontology is the branch of philosophy which seeks to examine the nature of reality, particularly what it is and what can be known about it (Lee & Lings, 2008; Savin-Baden & Major, 2013). For research purposes, it is a set of beliefs about what is being studied and consequently Bryman and Bell (2015) assert that “Ontological assumptions and commitments will feed into the ways in which research questions are formulated and research is carried out” (p23). Consequently, my ontological perspective is subjectivist, not objectivist, as I believe that there is more than one reality which is constructed from individuals’ perceptions and actions (Lee & Lings, 2008; Savin-Baden & Major, 2013). Subjectivism arises from interaction between researchers and their research subject (Cunliffe & Karunanayake, 2013; Denzin & Lincoln, 2011; Savin-Baden & Major, 2013). Bryman and Bell (2015) suggest that social phenomena and their meanings are not only constructed by social interaction, but also constantly revised by it, as shown by organisations’ cultures being regularly reconstructed due to the activities of people therein. Additionally, subjectivism can help to not only formulate the correct research question(s), perhaps thereby increasing confidence in the research’s conclusions, but also increase the research’s value by allowing the researcher to become fully immersed in social phenomena (Slavin, 1992). Constructivism is the part of the subjectivism continuum which suggests that individuals construct knowledge based on their experiences so that research using this approach
tries to understand how individuals construct meaning which leads to an understanding of how they construct knowledge (Savin-Baden & Major, 2013). Consequently, my research’s ontological approach is constructivist as it seeks to understand how individuals understand e-learning through their experiences in SMEs.

Epistemology explores how an individual knows something and is the part of philosophy which examines the nature of knowledge, particularly what is “acceptable knowledge” (Bryman & Bell, 2015, p727; Saunders, Lewis & Thornhill, 2012, p16) in the field of research (Creswell, 2013; Lee & Lings, 2008). My research seeks to draw out the feelings and anxieties of the research participants so its methodology is based on theoretical and methodological principles of interpretivism, rather than positivism (Kelliher & Henderson, 2006; Lee & Lings, 2008; Lindlof & Taylor, 2002). Although early social research was based in positivism, being concerned with “correct answers” and “consistent and accurate” measurements (Savin-Baden & Major, 2013, p4), its expectation that researchers do not directly interact with research subjects, tendency to isolate research subjects from their social context and lack of recognition of the changing nature of the social world has led to increased use of interpretivism in social research, through appreciation of the latter’s ability to give greater contextual understanding of research subjects’ experiences (Bryman & Bell, 2015; Marshall & Rossman, 1989; Robson, 2011; Ryan, 2006; Savin-Bader & Major, 2013; Silverman, 2011). Interpretive approaches seek to achieve as much richness as possible in the data, for example by observing participants in their natural working environment and by asking predominately open-ended questions in semi-structured interviews thereby giving individuals opportunities to give their genuine opinions as fully as possible (Cunliffe & Karunanayake, 2013; Kelliher & Henderson, 2006). My subjectivist study allows recognition of people’s individuality and understanding of how they perceive the world and interpret the actions of themselves and of others (Lee & Lings, 2008; Lindlof & Taylor, 2002). Through this, and my belief that knowledge of reality is context-specific and gained through social construction, for example language and shared meanings, the resultant in-depth investigation addresses the research question by providing data about intentions, behaviours, actions and meanings (Goldkuhl, 2012; Lee & Lings, 2008; Lindlof & Taylor, 2002; Myers, 1997; Walsham, 1995).
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Axiology develops from a research’s ontology, and, being concerned with researchers’ values, seeks to answer what the research is trying to do (Lee & Lings, 2008). I believe that research should be useful in practice and my commitment to research is grounded in a business context. Consequently, my research is concerned with trying to understand how learning, particularly e-learning, occurs in SMEs which I hope will have practical application. It is, therefore, important to me that my research examines how individuals in such organisations interpret the world and their experiences through the systems they create. This needs richness in both data and their context so my overall research philosophy is based in social constructivism (Berger & Luckmann, 1971; Savin-Baden & Major, 2013). Although my ontological and epistemological groundings indicate the sensibility of this, there are limitations, specifically concerning generalisation and positionality, which will now be discussed.

Although researchers such as Saunders et al (2012) and Rodham (1998) voice concerns about the extent to which data which is obtained from a small sample can be representative of what happens generally, Watson (2001) argues that such studies can generalise about processes in which people are involved, rather than discovering what happens to “‘all managers’ or ‘all organisations’” (p7). Furthermore, Sayer (1984) asserts that “Providing there is no pretence that the whole population is represented, there is no reason why an intensive study should be less objective about its particular subject than an extensive study” (p83). My research aims to result in contextual findings which might be transferable to different situations.

Another potential limitation of my research is positionality as, through being part of the research environment, I am likely to influence what happens and my personal biases, pre-conceived ideas and experience as an SME owner-manager are likely to affect the resultant data, as well as my perception of it (Bryman & Bell, 2015; Gold, 1958; Yin, 2011). However, Watson (2011) and Coffey (1999) suggest that being situated in the research gives opportunities to obtain rich insights into people’s lives which should add to both the sensitivity and credibility of the research and the understanding of how processes, such as learning in SMEs, occur. Reflexivity, that is the “process of reflecting on the role of the researcher in the construction of meaning and, critically, of data” (Gibson & Brown, 2009, p8), is a key part of socially-based research with Brown (2010) arguing the importance of “making explicit the researcher’s own assumptions and
experience of the subject” (p232). Gilmore and Kenny (2015) suggest the importance of the ethnographer appearing to be “writing from home” (citing Behar & Gordon, 1995, p59) which, as an SME-owner, I am able to do in this research. Furthermore, the guiding principle behind my research is my desire to improve practice within SMEs and so my research deliberately sets out to change the research environment (Brannan, Pearson & Worthington, 2007), like Gilmore’s (2009) four-year ethnographic study of an English Premier League football club, which aims to show “how sustained performance might be achieved through a more effective deployment of valued human resources” (p466). My research aims to result in actionable knowledge which could be directly applied within SMEs and I consider that this and the richness of data likely to be obtained outweigh the limitations. My research approach and design will now be explored.

**Research Approach and Design**

Based on my research philosophy and the research subject, an inductive approach is adopted in order to discover and interpret social behaviour to understand how people learn in SMEs (Creswell, 2013; Yin, 2011). Such an approach is common in qualitative research and analysis and employs methodical processes to analyse, describe and understand the behaviour of individuals or groups leading to the emergence of concepts, conclusions and theories, rather than a deductive approach which would assess hypotheses and theories (Lee & Lings, 2008; Myers, 1997; Orlikowski & Baroudi, 1991; Strauss & Corbin, 2015; Thomas, 2006; Yin, 2011).

Many authors distinguish between qualitative and quantitative research, but agree that differentiating them is often problematic with the difference frequently being not in the data, but in the uses to which it is put (Brown, 2010; Gibson & Brown, 2009; Silverman, 2011). Literature reviewed in the previous chapter uses various research and analysis methods (see Table 2.1, pages 25-28) and some of that literature highlights limitations of some methods when researching learning in SMEs, including an over-reliance on questionnaires, which Nolan and Garavan (2016; 2011) argue tend to raise more questions than they answer. Garavan’s viewpoint may arise from limitations found in his earlier joint research into e-learning in Irish organisations of all sizes which used a questionnaire (Garavan et al, 2010); although this gathered information
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from a large number and wide-range of sources, this information was self-reported and may reflect the perceptions and biases of the participants (Bryman & Bell, 2015).

However, an advantage of quantitative research is that the information which it can gather from a large number of sources can often, through appropriate sampling and adequate sample size, be said to apply beyond the research’s context to other parts of the research population (Bryman & Bell, 2015; Silverman, 2011). Another advantage is that this research approach generates numerical data which can be shown to be rigorous, reliable and valid thus demonstrating the data’s quality (Bryman & Bell, 2015; Denzin & Lincoln, 2011; Savin-Baden & Major, 2013; Silverman, 2011; Tashakkori & Teddlie, 2010; Yin, 2011). This data can also be transformed into useable statistics, graphs and diagrams (Denzin & Lincoln, 2011; Krivokapic-Skoko & O’Neill, 2011). The measurable data generated quantifies what is being researched, for example attitudes, opinions and behaviours and so can be used to formulate statements and to uncover patterns in the research topic (Krivokapic-Skoko & O’Neill, 2011; Silverman, 2011).

Therefore, although quantitative research could give findings from a large number of sources, methods such as questionnaires are, through necessity, formal and structured, and so do not appear to be well-suited to the informal nature of SMEs and their learning (Johnson & Devins, 2008; Nolan & Garavan, 2011). However, qualitative studies, such as Ahlgren and Engel’s (2011) case-study and interviews and Gold and Thorpe’s (2008) case-study, give valuable insights into learning within SMEs, which suggests that such methods may be particularly appropriate to SMEs’ unique, informal and potentially complex learning environments. Consequently, because my research in such organisations aims to produce rich, in-depth data, a qualitative approach is adopted.

The decision to use qualitative research is strengthened by Tucker, Powell and Meyer’s (1995) assertion that it is particularly suitable for business research, because it “can answer numerous questions about the who, what, when, where, why, and how of communication” (p395) and give opportunities “to get in touch with the feelings, concerns and needs of the business community” (p 396). Qualitative methods are suitable where in-depth and experience-based research is needed (Orr & Menzies, 2012), being particularly appropriate to the investigation of interactions
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in a social context (Fossey, Harvey, McDermott & Davidson, 2002). Both Hynes (2012) and Yin (2011) suggest that qualitative research can draw out feelings and anxieties and, as evidenced through its long tradition within organisational and management research, it can be powerful and flexible (Cassell & Symon, 2006). Although there are concerns that it lacks quantitative methods’ rigour, reliability and validity (Tashakkori & Teddlie, 2010; Yin, 2011), qualitative research’s trustworthiness and credibility can be increased through triangulation, that is the use of two or more, ideally at least three, independent sources of data or data collection methods to examine the results (Gibson & Brown, 2009; Lincoln & Guba, 1985; O’Donoghue & Punch, 2003; Yin, 2011). Cohen and Manion (2011) argue that triangulation is an “attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint” (p254), although Yin (2011) suggests that it is less important when using primary data. My research uses triangulation, for example there are three research sites and in each setting multiple methods, including observation, semi-structured interviews and photographs, are used to allow the different forms of resultant data to be compared, as this could lead to more trustworthy results (Gibson & Brown, 2009).

Consideration of Qualitative Methods

Having decided upon a qualitative approach, I evaluated various methods against my need for the research to be contextualised in business settings and to produce trustworthy, rich data (Gibson & Brown, 2009). Initially, I favoured a case-study approach as this “in-depth study of a single example” (Cottrell, 2013, p272) appeared to allow investigation of social processes in the context of SMEs, which could result in detailed, wide-ranging data and allow further investigation into small details while opening up new areas for investigation (Cottrell, 2013; Gummesson, 2003; Hartley, 2004; Moll, 2012; Yin, 2011). Although time-consuming, case-studies can result in in-depth data (Yin, 2014), the complexity of which can be evidence of the rich issues which have been unearthed (Silverman, 2011), giving thick descriptions of what is happening in the context of practice so that the meanings understood by those involved in the practice become clearer (Gibson & Brown, 2009; Savin-Baden & Major, 2013). Therefore, a case-study approach appeared appropriate as it would allow in-depth research into how individuals, that is workers in SMEs, interpret the world and their experiences through the social
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systems they create with language being used to establish a common reality. However, as already mentioned, case-studies, like other qualitative research, have limitations regarding generalisation, although Yin (2014) argues that they can “expand and generalize theories” (p15), rather than proving their applicability to entire populations. Yin (2011) argues that case-studies are on a spectrum ranging from intrinsic, where it is a “unique case, deserving to be studied on its own right” (p18) to instrumental, where although a specific situation is represented, it is “intended to inform other situations or cases” (p18); my research tends to be instrumental.

Kervin (1999) argues that case-studies’ usefulness is dependent upon having good insight into research organisations. Being a self-employed owner-manager of an SME which had already featured in my previous research (Short, 2012), insider research (Brannick & Coghlan, 2007) was not available to me. Therefore, although it appeared that a case-study approach could result in the depth and richness of data which I required, I needed a methodology which would also allow me to gain the required insights into learning and e-learning in SMEs. There were suggestions in the Literature Review chapter that this could be achieved through ethnography with Nolan and Garavan (2016; 2011) proposing its use in future research into learning in SMEs. They suggested that its informal, in-depth approach could result in new insights into such learning: “Building relationships with small firms... is therefore a perquisite to forming respectful and trusting partnerships that will enhance the understanding of HRD from multiple perspectives” (Nolan & Garavan, 2011, p11). Context is particularly important in SME research where, as discussed in the Literature Review, the organisations are not homogenous, but may, to varying extents, have their own language, practice and customs (Devins & Gold, 2002).

Furthermore, Lave and Wenger (1991) conceptualised their Situated Learning Theory through ethnographic research, while Zicker and Carter (2010) observed a

“growing realization that typical quantitative studies may suffer from a lack of context and cultural understanding. Ethnographic studies by their nature are more likely to be sensitive to important contextual and cultural variables” (p312).
My research sought to understand how learning occurs in SMEs and so needed to be able to adapt to their practices and language, with recognition of their conceptualisation of learning/e-learning. Ethnography, through its very nature, not only acknowledges, but also emphasises, the research context (Nolan & Garavan, 2011), which is shown by researchers such as Goggins (2014) whose research indicated that ethnography could contribute to greater understanding of how SMEs learn. Therefore, ethnography will now be explored.

**Ethnography**

Ethnography uses a number of qualitative approaches, including observation and interviews, to study naturally occurring phenomena and so it usually needs the researcher to live in the environment being studied (Brewer, 2000). Watson (2011) suggests that, as ethnography is chiefly concerned with “how things work” (p202) in context, research using it may be more relevant than other research. Furthermore, he argues that individuals are more likely to be honest with someone they know, or at least see regularly, than with a researcher who they see only once, for example for an interview. Yin (2014) suggests that an ethnographic approach could result in trustworthy data by arguing that, by observing individuals over time, it may be possible to authenticate their comments in interviews with their observed behaviour, particularly if this can be evidenced by photographs.

Ethnography appears able to bridge the gap between academic research and industry practice (Coffey, 1999; Hertog & Verkerk, 2007; Higgins, 2007; Schoneboom, 2007; Van Maanen, 2006; Watson, 2011). Brannan et al (2007) argue that it may be particularly relevant to the contemporary workplace, asserting that sectors such as the service industry are demanding and constantly changing so that the “subjective, sensuous and corporeal domains of the organization” (p396) are only fully understandable through ethnography. Coffey (1999) even contends that ethnography has much to contribute to the understanding of modern-day society as a whole.

Consequently, the following sections explore the ethnographic approach further. Firstly, it examines the history and use of ethnography, before exploring ethnography in the workplace,
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researcher-researched relationships, reflexivity and revelations about self before discussing ethnographic challenges. Then the application of ethnography to my research will be investigated.

**History and Use of Ethnography**

Although Atkinson and Hammersley (1994) contend that ethnography has been used since ancient times, citing Herodotus using it, they concede that it was formally recognised and labelled in the late nineteenth century by social anthropologists, who were typically obtaining data first-hand by living amongst tribes in colonial countries. Watson (2011) examines the word’s origins, that is from “cultured being” (ethno) and “write about them” (graphy) (p206), to show that it is a way of writing about and analysing situations’ social aspects. However, both he and Van Maanen (2006) affirm that it has roots in both the sciences and humanities, with the latter calling it the “most scientific of the humanities and most humanistic of the sciences” (p13). Watson (2011) argues that, through its scientific basis, ethnography contributes to knowledge by enabling theoretical generalisations, whilst its humanistic aspect adds sensitivity to research, thus increasing its credibility.

Ethnography is a research strategy which uses a variety of methods including case studies, observation, intensive involvement, interviews, perusal of documents and questionnaires, all of which require analysis, which can be quantitative as well as qualitative (Atkinson & Hammersley, 1994; Kenny, 2010; Watson, 2011). Watson (2011) argues that its pragmatic and realistic nature allows several methods to be used which can add relevancy and criticality. This multi-method approach is evidenced by Kenny’s research (2010) in an ethically-based contemporary development organisation which included participant observation, semi-structured interviews, meeting minutes, emails, photographs and intranet pages. Also Hine (2000) used websites, emails and online newsgroups in her ethnographic research into the media surrounding the 1997 USA murder trial of British nanny Louise Woodward.
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<table>
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<th>Method’s Advantages</th>
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<td>Researcher has first-hand experience with other participants</td>
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<td>Researcher may be seen as intrusive / influential. Possibly unethical</td>
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<td><strong>Participant as Observer: role as observer is known</strong></td>
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**Table 3.1 Advantages and Limitations of Observation Roles** (based on Gold, 1958 and Bryman & Bell, 2015)

Although ethnographic data collection commonly uses multiple methods, Kenny (2010) and Watson (2011) suggest that these usually include observation, ideally participant-observation, in order to obtain rich data. Hammersley and Atkinson (2007) argue that, to some extent, all social research involves participant-observation so that every researcher is at some point on Gold’s (1958) spectrum of possible roles in participant observation (Bryman & Bell, 2015). These roles range from involvement (Complete Participation) through to detachment (Complete Observation), via Participant as Observer and Observer as Participant. The advantages and limitations of each role are shown in Table 3.1.
Ethnography in the Workplace

Observational research is well-suited to studying how organisations and people within them perform, especially as it may reveal instinctive behaviours of which the participants themselves are unaware (Mays & Pope, 2005) and ethnography can add context and depth to this, allowing views of “the emergent subtle life of organizations” (Hodson, 2001, p52). Alvesson, Hardy and Harley (2008) argue the importance of the “situated nature of knowledge” (p 486) in ethnography while Brewer (2000) suggests that researchers must become part of the research environment to fully capture “ordinary activities” (p10). Atkinson and Hammersley (1994) and Watson (2011) agree that context is very important, with the latter arguing that ethnography rigorously grounds and contextualises activities through observations and accounts from people within organisations. He emphasises the need to analyse organisational patterns and management processes while getting inside people’s minds, but warns against pretending to know what people are thinking.

Delbridge (1998) illustrated how ethnography contextualises research in his observations of people’s working-lives and experiences when working on the shop floor of two manufacturing companies, spending three months in a USA-based, European-owned automotive component supplier and a month in a Japanese-owned television factory. The former used traditional techniques, but wanted to implement some of the more progressive ways of working, such as Just in Time and Total Quality Management, which the latter was already employing. Having never worked in a factory before, Delbridge found the work harder and more mundane and repetitive than he had imagined; in the evenings he was almost too exhausted to record his observations of social relations in the changing world of manufacturing. However, it allowed him to see, at first-hand, the role of workers in modern (in 1991) manufacturing and the influence of Japanese management on this then-new workplace, thus contributing to a better understanding of the complexities and dynamics of manufacturing organisations. He noted particularly that each organisation was a complex combination of social and technical features which highlighted the need for compatibility between them. Similarly, Watson (2001) worked with middle managers in British manufacturing for a year, observing how management affects the managers and how those managers shape both themselves and the organisations they work
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for. During his ethnographic study, he noticed several similarities between research and management, in that both require skills in listening, watching and building relationships as well as the ability to be critical. He argued that both managers and researchers need to be aware of the effect of their role on themselves as well as on others and to exercise care in their use of language.

Kenny’s (2010) ethnographical study of ethical practices in a development organisation shows that ethnography’s in-depth approach can give richer insights into the workplace, particularly in her case of the operation of power and identification. Her account shows an organisation which is open and inclusive, although, surprisingly, this is upheld by exclusive and punitive policing. Such counter-intuitive conclusions are very important in ethnography (Watson, 2011), as shown in Whittle’s (2005) ethnographic study of consultants; the rich data from this research gave a very different picture to that obtained from previous researchers’ interviews, but it did appear to be more realistic. Whittle contends that an instance of an organisation not following its own advice regarding cancelling team meetings is an example of consultants balancing the “ideals” they espouse to clients with the “practicalities” they encounter in their workplace (p1314). She suggests that ethnographic research will not automatically unearth reality and that interviews do not definitely preclude obtaining in-depth data, rather that an ethnographic approach gives opportunities to “gather a richer data-set from a wider range of contexts” (p1307) that interviewers are rarely able to access (Alvesson & Wilmott, 2012; Goffman, 1959). Whittle argues that the in-depth data likely to be obtained from ethnographic research should be weighed against broader insights which may be obtained from interviewing a large number of people.

Researcher-Researched Relationships

Watson (2011) argues that research participants are more likely to interact with researchers and share information with them in a “natural setting” (p206) than they would when being interviewed or completing a survey, suggesting that both of the latter may give limited data. Similarly, Delbridge (1998) noticed that, whilst working on the production line during his ethnographic research, his co-workers grew to respect him when they saw that he was actually working. Realising the importance of appearing normal, he could neither take notes (in an
obvious way) nor keep asking questions, beyond showing a sincere interest in people in order to engage with them. He could only write brief prompts during the working-day, which included scribbling short reminders to himself while in the toilet. Every evening he wrote up these scraps of paper, and the thoughts which they prompted, although this was also difficult as his hands ached from the taxing physical work on the factory-line. However, through his appearing to be a ‘normal’ worker, his co-workers “had learned to accept and trust me” (p20), becoming more open with their comments, although they often qualified these as being off-the-record.

Eventually, as he became more accepted, Delbridge could shadow some workers and undertake more formal interviews. Contrastingly Tracy (2000) deliberately wrote up her notes publicly in order to keep some distance from her fellow cruise-ship workers as she was aware of the dangers of “going native”, such as “losing analytical detachment” (p101).

Hughes (2006) argues the importance of trust and rapport between researchers and research participants. Gilmore (2009) found that being an outsider in a research setting, in her case a female investigating HR practices in an English Premier League football club, made developing trust potentially difficult, although, with effort, a trusting relationship developed which was important for the research. She argues that in building and maintaining such trust, researchers experience difficulties when deciding how much information to reveal in their writing. In trying to balance loyalty and objectivity, researchers can feel they are betraying the trust of research participants, although research participants’ awareness of the research may be used to justify potential betrayals. Hammersley and Atkinson (2007) argue the importance of researchers being seen as people who “can be trusted to be discreet” (p57) while building trust with ‘gatekeepers’ through whom they can access potential research participants. They suggest that, to gain maximum benefit, trust must be built early in relationships with gatekeepers. They argue that research participants’ attitudes towards the research depends upon how far they perceive they can trust researchers, thus highlighting the importance of “impression management” (p83), which is discussed more fully below in the Revelations about Self section (pages 75-76). Yin (2011) argues that researchers should behave in a manner appropriate to the research organisation, emphasising the importance of personal demeanour by being respectful, friendly and attentive, although they must be comfortable with such behaviour and remain true to their own beliefs (Coffey, 1999; Hammersley & Atkinson, 2007; Lofland & Lofland, 1995).
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Brannan et al (2007), Coffey (1999) and Watson (2011) argue that researchers need to get to know research participants over time and in various situations to understand more fully the implications of human actions and social interactions, while Atkinson and Hammersley (1994) suggest that the relationship between researcher and research participants can even be confessional. Watson (2011) contends that a good ethnographer must “learn the ropes” (p209) by joining in and talking in the same way as research participants in order to fully appreciate what happens and he emphasises the importance of long-term involvement, citing Bate’s (1997) warning against “jet plane ethnography” (p1150) whereby researchers swoop in and out of research settings. This echoes Degerando’s opinion from the early days of ethnography (1800, translated 1969):

“The first fault we notice in the observation of explorers on savages is their incompleteness; it is only to be expected, given the shortness of their stay, the division of their attention, and the absence of any regular tabulation of their findings” (p65).

Kenny (2010) cites her own nine months of close contact with a research organisation as an example of how the researcher/researched relationship inevitably changes over time with the researcher becoming less detached and dominant. She evidences this through changes in the use of language, as highlighted by Wray-Bliss (2003), for example Kenny’s research “subjects” (p863) became “colleagues” (p864). However, Dutton and Ragins (2007) argue that the workplace itself is subject to constant changes which themselves influence workplace relationships.

**Reflexivity**

Hammersley and Atkinson (2007) suggest that reflexivity is the guiding principle of ethnographic research with Atkinson (2006) arguing that ethnographers should always have some personal engagement, being involved, rather than disengaged, observers, while Hammersley (1992) suggests that ethnographers’ own perceptions and feelings inevitably colour what happens during both the research and its write-up. Brown (2010) argues the importance of “making explicit the researcher’s own assumptions and experience of the subject” (p232) and
Brannan et al (2007) expand this by suggesting that researchers inevitably bring some moral judgement which may conflict with the research area, arguing that, traditionally, reflexivity has been used to counteract the problems of research, including its inevitable limitations and associated politics. Watson (2011) suggests that, because the researcher is an “ethno” (that is a ‘cultured being’ as mentioned earlier), the research must be written reflexively so that it can be read in context. Van Maanen (1988) explores the experiential and interpretive aspects of ethnography which are concerned with the researcher’s identity, arguing that researchers are in positions of power, either implicitly or explicitly, as they control how research participants are represented. While observing that researchers are often absent from their research accounts, he argues that their presence or absence should depend upon the nature of the account, suggesting that generally researchers should be detached and objective, although in practice such a stance may be, partly at least, due to researchers’ fear of appearing to have gone native.

The 1980’s were a time of change for ethnography as researchers moved from being neutral and detached from their research participants to being interested in building relationships with them (Cunliffe & Karunanayake, 2013). Taylor and Lindlof (2013) call this time a “crisis in representation” (p12), although Hine (2000) views it as not a crisis, but an opportunity to explore more creative and strategic uses for ethnography. Clifford (1986) discusses how some view ethnographic writings as fiction, which he concedes may be true to the extent that they are “made or fashioned” (p6), often being written in a literary style not usually found in research literature. Furthermore, he argues that ethnographies are often economical with the truth, with researchers exercising their power when deciding what to share with readers. Similarly, Clifford and Marcus (1986) and Van Maanen (1988) recognise the controlling way in which ethnographers represent research participants, with Clifford (1983) challenging this colonial style of ethnography, questioning what entitles researchers to represent research participants and particularly probing whether, and by what means, researchers have mastered their research participants’ culture, language and meanings. Gilmore and Kenny (2015) discuss how views such as Clifford’s (1983) gained popularity in the 1980’s, moving ethnographers away from a position of assumed power to one which has a more reflexive approach with greater regard for their research participants. They argue that self-reflexivity is vital in ethnography and other qualitative research where researchers need to be immersed in the research setting, although they
warn of the limitations of current self-reflexivity, which still includes down-playing researchers’ emotions in research literature and undertaking a superficial exploration of reflexivity.

Tracy (2000) suggests that emotion has typically been seen as feminine, private, and irrational and so has been largely ignored in the masculine world of work, although it is now increasingly being seen as relevant to the workplace. Similarly, Brannan (2011) argues that research became more reflexive in the late twentieth century as researchers became more aware of their active role in their own research and therefore were mindful of the impact of themselves and their research on their relationship with research participants. He refers to reflexivity as bending “knowledge back on itself” (p324) and examines it both from an epistemological viewpoint, investigating the impact of researchers’ theories and assumptions particularly on data, and from a personal angle, by analysing the research process and how it produces data. Hughes (1998) argues that accounts of the same event vary depending upon the viewpoint from which they are written, which she suggests shows that reflexivity raises more questions than answers. This has particular relevance to my research which will consider the perspective of SME employees, whereas previous research into learning in SMEs has been largely from the viewpoint of owner-managers (Higgins & Mirza, 2011; Higgins et al, 2013; Saunders et al, 2013; Susomrith & Coetzer, 2015; Thorpe et al, 2005).

Revelations about Self

Coffey (1999) argues that ethnography reveals much about the researcher’s self. Although she suggests that personalising research is “fashionable” (p1), she argues the importance of the relationship between self and ethnographic fieldwork, particularly in its personal, emotional and identity dimensions. Kenny (2010) relates the notion of self through reference to Hegel’s notion of Ek-stasis which suggests that the self is always outside of itself in the wider social environment. Kenny argues that ‘self” consists of identity and how it is viewed by other individuals and society as a whole, thus linking individuals to those around them and to power through emotion. Consequently, she suggests that identity relies on recognition from others and therefore can include “self-beratement” (p860). Through references to Butler (1997), Kenny (2010) explains how the ek-static self is constantly changing through interactions with others.
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which contribute to, but don’t decide, the future and therefore she argues that self is not dominant. She relates this to workplace ethnography by likening the relationship between self and society/others to that between researchers and research participants.

However, Watson (2011) sees identity as the way in which an individual is seen through his/her own eyes as well as those of others. In discussing ethnographic fieldwork as biographical, Coffey (1999) suggests that while self should not necessarily be research’s explicit focus, it is inevitably shaped by relationships, interactions and experiences during research, as it would be in other situations. While she argues against seeing events solely in terms of the impact on self, she acknowledges that research cannot be separated from its social and intellectual context and therefore she suggests a self-conscious and self-critical approach. However, she asserts that effective ethnography must include emotional connections as neutrality will hinder the researcher’s understanding. She emphasises that ethnography requires two-way commitment, that is by research participants (to take part in the research) and to research participants, for example through sharing research findings, and consequently she argues that this, and the sharing of experiences, may be both stressful and challenging. She contends that researchers need personal commitment to sustain the long-term, personal involvement which ethnography requires, suggesting that ethnographers need clear commitments to themselves regarding their own ethics in order to ensure that the research reflects their own needs and emotions and allows some personal development.

Coffey (1999) argues that, to integrate with the research organisation, a researcher needs a specific research identity, perhaps even several ‘selves’. This echoes Hammersley and Atkinson’s (2007) discussion of “impression management” (p83) whereby they suggest that, within ethical limits, researchers adopt the personas which are most likely to allow them to fit into the research environment, thus minimising obstacles to their research. Although Lofland and Lofland (1995) also suggest that ethnographers adopt behaviours appropriate to research settings, they argue that personas should match researchers’ beliefs, with different behaviours and personas only being adopted where necessary to the research.
Ethnographic Challenges

The discussion so far suggests that ethnography’s challenges include balancing participation and observation, finding opportunities to record observations, establishing an appropriate writing style and minimising researchers’ physical and emotional stress. Each of these is now explored.

As discussed earlier in this chapter (page 65), ethnographic research is positioned on a spectrum ranging from complete participation to complete observation. Bate (1997) and Watson (2011) argue the dangers of either lofty pontificating from a distance or spending more time writing about the research than participating in the research environment, while Atkinson (2013) draws on his own experience in a glass-making class, where “concentration is almost exclusively on the practical accomplishment of the task in hand” (p399), to suggest that complete participant precludes opportunities to make notes, take photographs or record the activity in any other way. Delbridge (1998), as already discussed (page 68), was reduced to scribbling brief notes in the toilet during ethnographic research on a production line which further illustrates the importance of balancing participation and observation.

Another challenge is that ethnographic techniques are usually implicit, but are often unclear and not backed up by theory (Delamont & Atkinson, 1980). Writing up ethnography can be particularly challenging as, although not fiction, it uses techniques from literary craft (Clifford, 1986; Watson 2011) with some parallels between anthropological ethnography and travel writing, necessitating ethnographers to write what is relevant to practice while being truthful and reflecting reality as they see it (Atkinson & Hammersley, 1994; Watson, 2011). Lofland and Lofland (1995) argue that such reports should not be self-indulgent, boring or inaccurate, while Coffey (1999) warns against allowing oneself to suffuse the whole text. This will be discussed more fully in the Recording Observations section (page 80).

Watson (2011) admits to being a “reluctant ethnographer” (p204), fearing what he perceives as enormous difficulties, including the need for great physical resilience arising from needing to work long hours in unfamiliar settings before spending additional time writing up and analysing the data. This is clearly illustrated by Delbridge (1998)’s experience of deciphering his scribbled
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aide-memoires into coherent notes each night after a taxing day on the factory production line. Hammersley and Atkinson (2007) and Kenny (2010) also acknowledge the physical stresses of ethnographic research, with the latter citing her ethnographic investigation during which, for nine months, she worked long hours and then wrote up her findings in the evenings. Coffey (1999) and Gilmore (2009) show that sharing experiences can be emotionally stressful to both researchers and research participants, while Gilmore and Kenny (2015) acknowledge the difficulties and feelings of discomfort of “being immersed in an unfamiliar social setting” (p58). Hammersley and Atkinson (2007) and Lofland and Lofland (1995) argue that ethnographers may experience emotional stress through feelings of marginality or exclusion, with the latter possibly occurring when researchers practice complete participation and therefore conceal their research role (Gold, 1958) and so fear discovery. Although Coffey (1999) argues that marginality can be important in gaining a critical perspective, Kenny (2010) discusses an employee at her apparently ethical research location who did not adhere to the unstated, but rigorously applied, requirement to lunch communally and consequently was marginalised to such an extent that the resultant stress caused the employee to resign.

Despite these challenges, ethnography appears suitable for my study as it affords opportunities to experience SME workplaces first-hand with possibilities for resultant rich data concerning learning and e-learning occurring there and therefore its application to my research is now discussed.

**Application of Ethnography to this Research**

As discussed above, an ethnographic approach can include several different research methods, although observation is likely to be present. To achieve triangulation, I included other methods and, based on reviewed research literature, used two other methods, namely interviews and photographs, as suggested by researchers including Watson (2011) and used by Kenny (2010). This section will examine observations, interviews and photographs, including a discussion of the recording of findings. The interview section will explore types of interviews, interview questions and the use of an interview protocol.
Observations

Table 3.1 (page 69) shows the four observation roles and their advantages and limitations (Bryman & Bell, 2015; Gold, 1958). Complete participation was discounted as University of Portsmouth ethical research guidelines do not allow researchers to conceal their roles. I disregarded complete observation as this seemed unlikely to allow me to establish rapport with research participants and so would probably preclude obtaining in-depth, trustworthy data. Consequently, I chose participant observation which combines the participant as an observer and the observer as a participant. Although acknowledging ethnography’s anthropological origins, Yin (2014) argues that its use within organisations can give unparalleled opportunities for data collection, particularly where no prior information exists. He suggests that non-passive observation can involve adopting various roles within research locations. Examples pertinent to my research include:

- Being a “resident” (Yin, 2014, p111), for example being a student on a course attended by research participants;
- Adopting a functional role, for example providing administrative support during such a course;
- Working as an employee, for example being a trainer on a course.

He suggests that observations can vary from casual to formal, with the latter including writing notes, for example recording the number of times certain behaviours occur over a specific time-period. He argues that observations can occur in many settings including meetings, classrooms, offices and factories and can happen, very informally, at times of other research, for example, when conducting interviews. “Manipulation” (Yin, 2014, p112) is also possible, for example by the researcher arranging a meeting at a specific point in the research, and although this could be seen to influence the findings, it can allow particular situations to be tested.

However, Yin (2014) acknowledges ethnography’s disadvantages, including the possibility of the researcher “going native” (Yin, 2011, p118), which may be more likely during participant observation, whereby the researcher becomes over-involved in the views of those being
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observed, thus losing the perspective of being a researcher and so potentially invalidating the research (Tracy, 2000; van Maanen, 1988). Additionally, the work involved in being a participant may preclude the researcher from recording much information immediately (Atkinson, 2013; Delbridge, 1998). However, by immersing researchers in research settings this method is well-suited to studying how organisations and the people within them perform, with Tracy (2000) arguing that by participating she “was able to gain access to inside motivations and behaviors” (p101). This seems particularly relevant to my research where learning could be implicit, rather than explicit, in accordance with Lave and Chaiklin’s (1993) view that learning is not always obvious as it is often hidden by its ubiquity. Consequently, despite its limitations, I chose participation-observation as it appeared likely to give me opportunities to collect in-depth rich data. Recording observations will now be explored.

Recording Observations

Ethnography’s humanistic roots have led to its users employing creative writing techniques, although Watson (2011) argues that ethnographers must remember that they are not novelists but writers showing what they have observed during their research through applying the epistemological principle of pragmatism, so that, when appropriate, they use “relative rather than absolute truths” (p208). Ellis (2007) discusses how, as a young student, she deliberately did not share her research findings with her research community as she assumed that they wouldn’t see her research, or indeed understand it, being mostly illiterate fisher-folk (Ellis, 1986). Also she had formed friendships with her research participants and therefore thought that it was unnecessary to remind them of her role as a researcher. However, this research was subsequently published in a book and, as her attempts to change people’s names were amateurish, people easily recognised themselves and were angered by her unflattering descriptions and her use of their conversations for personal gain without their permission. Consequently, she now recommends allowing people to read what has been written about them.

Although ethnographers need to be immersed in the scenario being researched, they must also record data so that it is meaningful to people outside of that setting. This can be particularly
problematic for insider researchers who should stand back and remember that what they, and others within their organisation, regard as ‘normal’ may not be seen as such by people who are outside their organisation (Brannan et al, 2007). Documenting ethnography moves the experience from the personal to the public domain, which can reconstruct not only the setting, but also the ethnographer’s self-image, as already discussed in the Revelations about Self section (pages 75-76). Coffey (1999) argues that it is important to acknowledge that documentation, such as observation notes and interview transcripts, however thorough, can never record everything and so ethnographers should recognise that memories evoked by such documentation are an important part of the ethnographic process, contributing to a more holistic view of the research.

Cunliffe (2010) discusses the writer being absent or as a character in the narrative, as a co-constructor or the main storyteller, highlighting the uncertainty regarding whether to write in the first or third person during the ethnographic write-up. Consequently, based on an investigation of reviewed literature (see Appendix B) and Van Maanen’s (1988) observation of the trend for ethnographers to be less likely “to hide in the third party conventions” (p126), I decided to write myself into my thesis, although this may not align with academic tradition. However, I have heeded Hammersley and Atkinson’s (2007) warning regarding the danger of making the author more important than what is being researched when writing in the first person.

Kenny (2010) recommends recording observations and transferring these to a computer as quickly as possible, based on her own ethnographical research, during which she usually wrote field-notes in notebooks while in the organisation and then typed these up at night. However, Brannan (2011) wrote up his observations on a desktop computer unobtrusively during quiet times during the working-day, although he also wrote in a notebook when he was taking part in activities away from his desk, such as at social events and during community volunteering, which he then transcribed later. Consequently, I planned that, at each research location, I would make field-notes during the working-day which would reflect how I saw what was occurring (Brown, 2010; Watson, 2011). Wherever possible I intended to make these notes directly onto a laptop/iPad as minimising the need to transcribe hand-written notes to digital format would reduce physical stress (Hammersley & Atkinson, 2007; Kenny, 2010; Lofland & Lofland, 1995).
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When it was not possible to record notes electronically, I planned to write notes, which would include comments regarding my feelings, in a dedicated notebook (Tracy, 2000). Anderson (1987) suggests keeping a separate book for reflections while Hughes (2006) recommends separating notes into four parts, namely observational notes recorded during the working-day; methodological notes relating to how the methodology worked in practice; theoretical notes which started to give meaning to the data and analytical notes which brought it all together through identifying themes. However, having noted the comments of Atkinson (2013) and Delbridge (1998) regarding the physical difficulty of making notes during the working-day, I intended to keep the process as simple as possible by using one notebook, with the data being analysed later.

The second research methods, interviews, will now be examined.

*Interviews*

Watson (2011) argues that ethnography’s lack of restriction to a particular method, allows it to be more critical, and although he suggests that interviews are a suitable method, he argues that those conducted without “*close observation and workplace interaction with research ‘subjects’*” (p204) are likely to give limited results. However, interviews can be useful as they can give data which directly answer the research question(s) while providing opportunities to explore interviewees’ responses (Savin-Baden & Major, 2013). Lindlof and Taylor (2002) suggest that interviews help researchers to “*understand the social actor’s experience and perspective*” (p173) and to “*elicit the language forms used by social actors in natural settings*” (p174), both of which are particularly pertinent to my research as it is situated in SMEs which potentially each have their own language and practices to varying extents (Devins & Gold, 2002). Interviews can result in in-depth data, focus on specific topics and/or be insightful through perceived casual interferences (Howitt & Cramer, 2010; Marczyk, DeMatteo & Festinger, 2005; Thomas, Nelson & Silverman, 2011; Yin, 2014). Additionally, they can explore different levels of meaning, perhaps being a face-to-face verbal interchange during which a researcher tries to extract information, opinions or beliefs from the interviewee (Cassell & Symon, 2006; Denzin, 2002).
Nevertheless, Yin (2014) suggests that interviewees may give answers which either they think researchers want to hear and/or make themselves look more impressive than they are. Watson (2011) agrees with this latter point, adding that interviewees may also see themselves as acting as representatives of their organisation and so give ‘corporate’ answers and/or they may simply want to complete the interview quickly, all of which could result in superficial responses. Additionally, researchers may not be able to grasp what interviewees say or interviewees may perceive that and therefore over-simplify their answers (Yin, 2014). Gathering data from interviews, including preparation and analysis, can be a lengthy process (Cottrell, 2013), although Easterby-Smith, Jackson and Thorpe (2012) argue that interviewees must be given reasonable time to develop their responses, while interviewers should avoid projecting their own views. Despite these limitations, the likelihood of interviews producing rich, in-depth data suggested they would be suitable to complement participant-observation in my research and consequently, as discussed below, I examined different types of interview, interview questions and interview protocols.

Types of interview

My research uses semi-structured and informal interviews, rather than more formal structured or less focused unstructured ones (Savin-Baden & Major, 2013), as “complex and ambiguous issues can be penetrated” (Gummesson, 2005, p309) through these. Yin (2011) argues that a conversational interview style with open-ended questions allows interviewees to answer freely using their own words and phrases, illuminating “how they make meaning of their own lives, experiences, and cognitive processes” (Brenner, 2006, p357). Interviews should follow a fluid, consistent line of questioning, with questions guiding conversations, rather than providing a rigid framework (Rubin & Rubin, 2012; Savin-Baden & Major, 2013; Yin, 2011). However, as is common with semi-structured interviews, I used an interview protocol which allowed flexibility to vary the order of questions and/or include additional questions, depending upon interviewees’ responses. I aimed to allow interviewees some freedom both to “express their perspectives” (Savin-Baden & Major, 2013, p359) and to clarify their understanding of questions, within a framework which encompasses both the subject area and any time restrictions (Ghauri &
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Gronhaug, 2010; Savin-Baden & Major, 2013; Yin, 2014; Yin, 2011); my interview protocol is discussed further below.

My research is situated in SMEs, which, as discussed in the Literature Review chapter, have limited time, and therefore unstructured interviews which could require much time, perhaps needing to interview the same person several times, would be unsuitable (Savin-Baden & Major, 2013). In addition to semi-structured interviews, I used informal interviews in a variety of settings, for example while travelling in cars or while eating lunch, as these appeared likely to help me build relationships with research participants and encourage them to speak freely, although I was aware that recording informal interviews relies on jottings and memory which may lead to inaccuracies and so I wrote notes about these as soon as I could after they occurred (Savin-Baden & Major, 2013).

I decided not to use group interviews as participants can potentially influence each other, possibly leading to some individuals being unwilling or afraid to speak and/or narrowing the topics discussed, so that “naturally occurring data” (Silverman, 2007, p9) are unlikely to be obtained. Also, although Yin (2011) indicates that some people may express themselves more readily in a group, he suggests that some will remain silent in such settings and so need to be interviewed individually. The number of participants in group interviews combined with inevitable time constraints are likely to limit the number of questions asked and the depth of data resulting from these (Savin-Baden & Major, 2013). Additionally, assembling sufficient people at the same time to take part in group interviews appeared unlikely to be possible in time-poor SMEs.

There is no optimum number of interviews (Yin, 2011), although Savin-Baden and Major (2013) suggest that these continue until saturation point is reached, that is when no new themes are discovered. O’Reilly and Parker (2013) argue that pinpointing saturation point may be more complex than expected, depending upon the richness and depth of data required, although analysing interview data during the research using qualitative data analysis software, which is examined later in this chapter (page 94), may help to pinpoint this.
Interview Questions

Interviews must be viewed from interviewees’ perspectives if valuable data is to be obtained (Savin-Baden & Major, 2013). Yin (2014) argues that asking open-ended questions allows facts to be established and opinions gathered, although a friendly interviewing style is essential to ensure that interviewees do not feel threatened. However, it is important to obtain relevant information so Yin (2014) suggests asking a ‘how’ question, with which the interviewee may feel more comfortable, while seeking the answer to a ‘why’ question which is pivotal to the research. He warns against asking leading questions, citing bias arising from poorly constructed questions and suggesting that skillful interviewing can lead not only to useful data, but also to suggestions of other possible interviewees and/or additional sources of information.

I did not give interview questions to interviewees before interviews, as this could have allowed participants to formulate responses in advance, based on either what they thought they should be saying, for example as representatives of their organisation, or what they believed I wanted to hear (Yin, 2014). However, before every interview, I gave each interviewee a verbal overview of the research’s objectives and a written summary of my research (see Appendix C). Also I used an interview protocol which ensured consistency by providing enough structure to allow meaningful comparison of replies, but also allowed flexibility in the ordering of questions to investigate interviewees’ comments as fully as possible (Cassell & Symon, 2006; Rubin & Rubin, 2012; Savin-Baden & Major, 2013; Yin, 2011). This will now be examined.

Interview Protocol

An interview protocol, also known as an interview guide, can be used to guide conversations, thus maximising the use of available time whilst interviewing different people in a comprehensive, systematic manner by listing questions and/or issues to ensure that data from interviews help to address the research objectives (Cassell & Symon, 2006; Patton, 2015). Yin (2011) suggests that a protocol should be brief, perhaps being a “mental framework” (p139), although each topic should have additional, optional questions which can be used to gain more information on specific, relevant issues raised by interviewees (Cassell & Symon, 2006). In my
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research, interviews took place during work-time with the research organisations only allowing interviewees limited time away from their job and so it was important to maximise the usefulness of such time. I constructed my interview protocol using Bryman and Bell’s (2015) framework (see Figure 3.1), the result of which is given in Appendix D.

Figure 3.1 Framework showing the steps involved in devising an interview protocol/guide
(Bryman & Bell, 2015, p485)
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Recording and Transcribing Interviews

Yin (2014) suggests using equipment to record interviews in order to avoid poor recall and inaccurate and/or biased memories, although this is “a matter of personal preference” (p109). However, he argues that recording devices should not be used as alternatives to listening attentively during the interviews as responding appropriately to interviewees’ responses is vital. I sought written permission to electronically record interviews prior to each interview (see Appendices C and E), in line with the University of Portsmouth’s ethical guidelines and Yin’s (2011) suggestion that interviewees should be comfortable with their interviews being recorded. Yin (2011) advises that interviewers should be proficient in using the recording equipment so as not to distract interviewees, while Brannan (2011) suggests that the presence of obvious recording equipment could constantly remind interviewees of the researcher’s role, resulting in more measured responses. Consequently, I audio-recorded each interview to increase precision, using an app (Recorder) on my iPad, with a back-up app (Smart Voice Recorder) on my mobile phone. Both were relatively easy to use, but I practiced using each of them until proficient in their usage so that I could concentrate on what interviewees said and on observing them throughout. My iPad and mobile phone were small and fitted in with other equipment used in the research locations and so were unlikely to have distracted interviewees.

Researchers should allow sufficient time to review and edit recordings, especially as this may lead to additional details being remembered (Yin, 2011) and I planned my time accordingly. Interviews were transcribed using a method I devised to ensure accuracy, which is given in Appendix F. Interview transcripts were sent to interviewees for approval/correction to try to ensure that they represented what we both agreed happened; some interviewees sent me corrections which added information that I had inadvertently missed (Atkinson, 2006).

Having examined the use of observation and interviews in my research, the next section examines why photographs were chosen as an additional research method.
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Photographs

My research’s interpretive approach sought resultant data which was as rich as possible by observing participants in their natural working environment and asking predominately open-ended questions in semi-structured interviews. This aimed to give research participants opportunities to give their genuine opinions as fully as possible and therefore to result in thick data. However, to facilitate triangulation, I used a third research method, namely photographs as suggested by Yin (2011) and used by Kenny (2010). Photographs also helped to ensure that as much data as possible was captured, by evoking memories and reminding me of information I had omitted from my documentation (Coffey, 1999).

Photographs provide easily-available, but rich, information adding to the understanding of both research participants and context and therefore are particularly appropriate in ethnographic research (Gibson & Brown, 2009; Savin-Baden & Major, 2013; Yin, 2011). Although photographs have long been used in qualitative research in the arts and humanities (Savin-Baden & Major, 2013), the proliferation of electronic devices which allow them to be taken and used more easily may have led to them being accepted in more disciplines this century (Prosser, 2011). Seeing my research participants in context was valuable, especially as photographs can show important factors to outside observers (Dabbs, 1982; Yin, 2011), and therefore photographs are used throughout my Findings chapter. Gibson and Brown (2009) acknowledge that using photographs fits well with interpretivist approaches and that researchers, though using reflexivity and developing awareness of their research environment, can use photographs to add richness to their data. However, they suggest that photographs “show the world from a particular angle and visual perspective” (p82) and so argue that their context must not be misrepresented. Consequently, I have tried to ensure that I have always used photographs in their appropriate contexts.

Having discussed the research methodology, the data analysis methodology will now be investigated.
Data Analysis Methodology

Data analysis should pull together all parts of a research project by addressing the research question, while being aware of all interpretations through knowledge of relevant literature (Yin, 2014). Rigorous analysis, involving checking and rechecking data and continuous awareness of personal biases, should lead to clear conclusions, although there is no set formula to achieve this (Patton, 2015; Yin, 2011). Analysis of ethnographic data should give explicit interpretations of the meanings and functions of human actions, mostly through verbal descriptions and explanations (Hammersley & Atkinson, 2007).

Atkinson (2013) and Kenny (2010) argue that identifying themes to analyse ethnographic research data will make sense of the pedagogy and learning experience, with the latter suggesting reading the data and then undertaking an open coding process before identifying common themes, as recommended by Strauss and Corbin (2015). Additionally, Kenny suggests analysing data on an on-going basis and viewing it from different perspectives to understand all aspects of what has been observed as she did throughout her own ethnographic research, moving between the data and various theories. However, Tracy (2000) waited several months after completing her ethnographic research on a cruise-ship before analysing the data to give her the perspective, time and space to critically reflect on her observations. She used Glaser and Strauss’s (1967) grounded theory methods and consequently read her notes several times, seeking recurring themes. She then assigned her data to categories, continually checking whether the categories were adequate and adjusting them as necessary. However, she noted that, as production of knowledge is socially constructed, her analysis was not attempting to reflect reality.

Initially the analysis methods used in literature reviewed in this thesis (see Table 2.1, pages 25-28, and Appendix G) were considered. Qualitative data analysis was chosen because "words are the way that most people come to understand their situations; we create our world with words; we explain ourselves with words; we defend and hide ourselves with words" (Maykut & Morehouse, 1994, p18). This results in patterns being found within the data which remains close to the construction of the world as it is experienced by the research participants, but can also be
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presented meaningfully to others external to the research. Miles and Huberman (1994) argue that all such methods follow a common pattern, namely:-

- Codes are attached to data from interviews, observations, etc.
- Relevant notes are made alongside these.
- The codes are sorted to identify similar phrases, themes, etc.
- Patterns are drawn out from these and may be used in further data collection.
- A small set of generalisations evolve from this.
- Constructs and theories may be developed from these generalisations.

They contended that data analysis is an interactive model in which data is reduced, as summarised above, and displayed, for example as graphs and/or charts. This leads to the research’s conclusions, which themselves feedback into informing and improving future data collection, as shown in Figure 3.2.

![Figure 3.2 Components of Data Analysis: Interactive Model (from Miles & Huberman, 1994, p12)](image)

Initially I considered keyword analysis which seeks words which have specific meaning in the data’s larger context (Bernard & Ryan, 2010; Savin-Baden & Major, 2013) as this appeared relevant to my research as it could highlight use of language which maybe unique to each SME and could also have relevance to small businesses as communities of practice based on common meaning and practice (Devins & Gold, 2002; Lave & Wenger, 1991). However, this method,
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which is frequently used when analysing documents (Savin-Baden & Major, 2013), appeared to have little applicability to my research’s non-language based observations and so was discounted.

I also considered constant comparison, which was developed by Glaser and Strauss and therefore is strongly associated with their Grounded Theory. This allows the development of themes leading to theory generation (Gibson & Brown, 2009; Savin-Baden & Major, 2013). This systematic inductive approach is one of the most frequently used methods of qualitative data analysis, having been adapted and adopted by several qualitative approaches, including narrative analysis (Savin-Baden & Major, 2013; Silverman, 2011). It can be used to analyse both photographs and documents (Margolis & Rowe, 2011) and allows the formulation and testing of hypotheses based on concepts and therefore the emergence of theories (Savin-Baden & Major, 2013). My research sought to explore how e-learning is understood and undertaken in SMEs, not to formulate a theory, and this method did not seem suitable for analysing and interpreting the feelings and meanings expressed by individuals in SMEs.

I next considered content analysis which examines text to find the frequency of words/phrases and patterns of their usage (Silverman, 2011) and has a “reflexive stance towards the production of meaning” (Gibson & Brown, 2009, p179). This examines text in its entirety to establish properties and emphases and to decide categories and then the themes that emerge from these and can be used with photographs and documents (Margolis & Rowe, 2011; Savin-Baden & Major, 2013). Despite often being used to analyse ethnographic data, a limitation of content analysis is its concentration on frequency of words which would be likely to ignore events that rarely occur or are seldom discussed, even though such events might add to my understanding of learning and e-learning in SMEs. Therefore, this, too, was discounted. However, my exploration of thematic analysis suggested that it could address other methods’ limitations and this will now be examined.
Thematic Analysis

I chose thematic analysis because it has a systematic approach to data collection and analysis, concentrating on commonalities, relationships and differences (Braun & Clarke, 2006; Gibson & Brown, 2009). In recognising the need for research participants to articulate their perceptions and experiences freely, it does not use pre-defined categories to analyse data, but derives categories of meaning, and relationships between those categories, from the data itself through a process of inductive reasoning, known as coding, in order to explain the social processes being researched (Lofland & Lofland, 1995). Silverman (2011) suggests it should “give access to how the social world is lived, not simply how people talk about it to researchers” (p214) while Major (Savin-Baden & Major, 2013) argues that it is “one of the most complex and compelling approaches to data analysis” which allows her “to use the skills that I had gained in examining texts for examining life experiences instead” (p440). Consequently, it appeared to fit well with my research which aims to investigate how individuals in SMEs learn, especially virtually, through observing their behaviour and talking with them in social settings.

Thematic analysis identifies and describes topics, both implicit and explicit, which arise from data, that is, themes (Guest, MacQueen & Namey, 2012) and analyses and reports patterns in data (Braun & Clarke, 2006; Howitt & Cramer, 2010; Pope, Mays & Popay, 2007) and is “the process of recovering the theme or themes that are embodied and dramatized in the evolving meanings and imagery of the work” (van Manen, 1997, p78). Repeated handling of data and constant cross-referencing give the researcher a “feel for the whole text” (Savin-Baden & Major, 2013, p440), with subgroups or unrelated items being constantly refined or discarded until core categories remain in the form of emergent themes (Holloway, 2001; Robson, 2011). Thematic analysis’s suitability for my research was particularly suggested by Savin-Baden and Major’s (2013) argument that, although it is not scientific, its immersion in data makes it very effective in identifying several related and constructed categories and thus appropriate for research based on social constructivism and which includes interviews as it considers “a general sense of what the speaker is saying, the meaning of the whole in context” (p446).
Thematic analysis involves breaking data down into discrete incidents (Glaser & Strauss, 1967) or units (Lincoln & Guba, 1985) which are then coded to categories. This results in two types of category, namely those that are derived from the participants’ customs and language, and those identified, by the researcher, as significant to the project’s objectives. The former seeks to reconstruct words and phrases used by research participants to conceptualise their own experiences and views of the world. However, the latter endeavours to assist in allowing theoretical insights through developing themes that illuminate social processes that occur. Consequently “the process of comparative analysis stimulates thought that leads to both descriptive and explanatory categories” (Lincoln & Guba, 1985, p334). The content and definition of categories change as units and incidents are compared and classified, and as understandings of categories’ properties, and the relationships between categories, are developed and refined during the analytical process (Taylor & Bogdan, 1984), which is explored further in the discussion of Qualitative Data Analysis Software below.

Although Braun and Clarke (2006) argue that thematic analysis can “acknowledge the ways individuals make meaning of their experience, and, in turn, the ways the broader social context impinges on those meanings” (p81), Silverman (2011) contends that, although thematic analysis can result in rich data, it may lose its social context. Gibson and Brown (2009) agree with this, arguing that it “can result in an impoverished view of complex lived features of social life as the categories can potentially hide rather than reveal” (p129). Despite these limitations, thematic analysis, through its emphasis on whole data and its ability to explore the social world seemed the most likely to address my research question. Therefore, I sought to minimise instances of data becoming separated from its context by repeatedly checking the context of data and considering Gibson and Brown’s (2009) question throughout: “What is distinctive about this piece of data and why might that matter in relation to this category?” (p130). Consequently, data frequently moved between codes/categories/themes so that new themes emerged while other themes were shown to be less relevant than originally considered. Undertaking the analysis in this way required me to be immersed in both data and context, but provided an holistic view of the data whilst maintaining robust and systematic analysis.
Gibson and Brown (2009) suggest that “analysis is not analysis until it is written down” (p194) and argue that thematic analysis’ particular difficulty lies in the large amount of data it is likely to need to analyse, recommending structuring the analysis around a number of key themes. Consequently, I decided to use software to assist my analysis of the large amount of data which was likely to result and this is now explored.

**Qualitative Data Analysis Software**

Fielding and Lee (1998) suggest that qualitative researchers “want tools which support analysis, but leave the analyst firmly in charge” (p167) and therefore I used Computer Assisted Qualitative Data Analysis Software (CAQDAS), not to delegate the tasks of analysis and drawing conclusions to the logic of the computer, but to use the computer as an aid to efficiency (Gibson & Brown, 2009; Yin, 2011). Through logging data movements and coding patterns and mapping conceptual categories and thought progression, CAQDAS made all stages of analysis traceable and transparent thus producing a more detailed and comprehensive audit trail, or “chain of evidence” (Yin, 2014, p122), than manual mapping of this complicated process can allow, and so adds to the research’s trustworthiness and plausibility (Gibson & Brown, 2009; Yin, 2011). The tool chosen for this was NVivo (QSR International Pty Ltd. Version 10, 2014).

The cycles of analysis used in this study have eight distinct phases, although, in practice, this will be an iterative process. These phases are spread across the six stages of data analysis suggested by Bazeley (2009) and Braun and Clarke (2006) and each is now considered.

- **Phase 1**  Familiarisation with the data involves transcribing, reading and re-reading the data, noting down initial ideas. Then the observation notes, interview transcripts and photographs are imported into NVivo.

- **Phase 2**  Open Coding involves allocating codes to the data and defining those codes so that the data are deconstructed from their original chronological order into segments of data with initial non-hierarchical codes. Clear labels and definitions are given to each code which act as rules for inclusion (Maykut & Morehouse, 1994).
• **Phase 3** Categorisation of codes involves re-ordering the initial codes into categories of codes by grouping related codes into a category. This reconstructs the data by organising the open codes into a framework of categories that allow further analysis. This phase includes distilling, re-labelling and merging similar codes, ensuring that labels and rules for inclusion accurately reflect the coded content. Categories could be described as half-way between initial codes and themes.

• **Phase 4** ‘Coding on’ involves breaking down the now restructured categories into sub-categories thus showing a deeper understanding of the highly qualitative aspects, such as divergent views, negative cases, attitudes, beliefs and behaviours, which have been coded to these categories which consequently offers clearer insights into the meanings embedded within them.

• **Phase 5** Data Reduction involves consolidating the codes from the three coding cycles (Phases 2, 3 and 4) into more abstract and literature-based themes to create a final framework of themes and exploring the relationships between them.

• **Phase 6** Generating Analytical Memos involves writing analytical memos against the higher level themes from Phase 5 to accurately summarise the content of each theme and its codes and propose empirical findings against such themes. These memos consider five key areas:-

1. The content of the cluster of codes on which it is reporting (what was observed/said/photographed);
2. The coding patterns where relevant, for example levels of coding to identify both exceptional cases and shared experiences;
3. The consideration of background information relating to participants and then any patterns that may exist in relation to this;

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4. The investigation of relationships between themes and their relevance to the research question and the sequencing of disparate codes and clusters of codes into a structured, coherent and cohesive narrative;

5. The consideration of primary sources in the context of relationships with the literature, as well as identifying gaps in the literature

- **Phase 7** Testing and Validation involves testing, validating and revising analytical memos in order to self-audit the proposed findings by seeking evidence in the data to support such findings and to expand the deeper meanings embedded in the data. This process involves interrogation of the data, forcing consideration of elements beyond the theme itself and drawing upon relationships within and between themes and cross-tabulation with the data and literature. This phase results in evidence-based findings as each finding is validated by being rooted in the data itself and is substantiated by the creation of reports showing this.

- **Phase 8** Amalgamating Analytical Memos involves amalgamating the analytical memos into a coherent, cohesive and well-supported findings report. This phase will produce much of the content for the Findings and Discussion chapters. In the Findings chapter, I will give an example of some data from my research being allocated to a code and then moving from a category to a theme (pages 116-117).

Figure 3.3 maps these eight phases (column two) against Braun and Clarke’s (2006) six step approach to conducting thematic analysis (column one). Column three shows the strategic elements of the process, from the initial open coding (data management) through the more-interpretive secondary coding (descriptive accounts) to the final abstraction to themes and the reporting of this (explanatory accounts). The fourth column shows the iterative nature of the tasks as the coding, analysis and reporting processes result in the conclusions.
Figure 3.3 Stages and Process involved in Qualitative Analysis (adapted from Braun & Clarke, 2006)
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This section has explored the research design, arguing why a qualitative approach, namely ethnographic case-studies including participant-observations, semi-structured interviews and photographs, was chosen with thematic analysis being used for the data analysis. The choosing of research locations is now explored.

Research Locations

When choosing research locations, Brannan et al (2007) argue that the purpose of any ethnographic study must be clear, for example, to accurately represent the workplace or to expose “illegal, exploitative and corrupt practices” (p401). Watson (2011) favours the first approach, illustrating how ethnography can give readers insights into either places they cannot access, such as prison, or possible careers, for example being a doctor. Having decided on the approach, current or previous experiences may indicate research areas, for example, Kenny (2010) decided to research an ethically-based organisation because her previous employers (software and engineering firms) did not have this basis. Tracy’s (2000) research, while working as a cruise-ship’s Activities Director for eight months arose because she could see that this was an unprecedented opportunity to investigate a usually difficult-to-access area, in a similar way to Hochschild’s (1983) “ground-breaking study of Delta flight attendants” (Tracy, 2000, p91). Cruise-ships are little-researched and Tracy’s was the first to examine workers in this highly pressurised situation; all cruise-ship staff work long hours, but Activities employees are effectively on show at all times and also have two bosses; their line-manager and customers. Usually cruise companies are unwilling to allow researchers access to their staff and it is possible that Tracy was allowed to conduct this research because she was already in her role when she sought permission, although the cruise company may have been, perhaps naively, seeking some positive publicity. Tracy’s research provides invaluable insights into emotion labour, self-subordination, construction of identity and concepts of power and identity, as well as reviewing social theories of both emotion and emotion work. Tracy suggests that a cruise-ship is a “total institution” (p92), as defined by Goffman (1969), in that it has complete control of its members with a blurring of public and private boundaries and little or no opportunity for escape. Therefore, she argues that her findings have implications for those in other total institutions, such as military units, mental health institutions and prisons.
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My research seeks to investigate how e-learning is understood and undertaken in SMEs and so, based on literature already examined in this chapter, I aimed to work in different SMEs for mutually agreed time-periods, during which time I would observe workers’ behaviour, during both learning situations and everyday work activities. My research activities would include participant-observations, audio-recorded semi-structured interviews, informal interviews and photographs, all of which would be undertaken with research participants’ express knowledge and specific consent using my participant invitation and information sheet, consent form and organisation information sheet (see Appendices C, E and H). Working alongside SME workers should contribute towards building workplace relationships with them which could result in rich data which reflect what happens within each organisation (Delbridge, 1998; Kenny, 2010). To encourage SMEs to participate in the research, I offered to work unpaid and to share the results of my research within that organisation, for example presenting a summary of those research findings, which could also confirm the accuracy of my findings and perhaps lead to additional material being offered (Brown, 2010; Coffey, 1999). University commitments, including courses and studentship work, would allow me to spend three days each week at a research site, with some flexibility regarding which days.

My search for suitable organisations will now be explored, firstly examining my sampling strategy.

Sampling

My research population comprised any SME which uses e-learning. Obviously it would not be possible to examine all of these and therefore a sample was chosen, that is part of the research population selected using either a probability or non-probability method to give confidence in the research (Silverman, 2011). In qualitative research, samples are not designed to be statistically representative of the research population and capable of generalisation; rather they should lead to “‘authentic’ understanding of people’s experiences” (Silverman, 2011, p44), with rich data and “nuanced understandings of social practices and situations” (Gibson & Brown, 2009, p57; Lindlof & Taylor, 2002). Consequently, only non-probability sampling methods, where the chance of each case being selected is unknown (Bryman & Bell, 2015), were considered.
Choosing a sample because of its availability was likely to be biased and therefore I discounted convenience sampling (Robson, 2011) as this was unlikely to be “the most informative source” (Yin, 2011, p88). I chose not to use snowball sampling whereby research participants suggest other possible participants as, although this approach appeared appropriate when examining inter-personal relationships, the resultant sample was unlikely to be representative of the population (Robson, 2011). Although quota sampling can be undertaken relatively cheaply and quickly, and so is used extensively commercially, for example in market research, the resultant sample is based on specified characteristics such as age, gender and/or race and therefore may be biased (Robson, 2011). As discussed later in this chapter (pages 101-103), self-selection sampling which allowed individuals or organisations to identify their own interest in taking part in my research (Robson, 2011) led to organisations which did not meet my criteria suggesting themselves. Purposive sampling which is commonly used in case-studies and occurs when researchers use their judgement to select samples (Robson, 2011; Silverman, 2011; Yin, 2011) was chosen as, using my experience and contacts gained through being an SME owner-manager, this appeared most likely to result in relevant, rich data. Therefore, I used purposive sampling to select research sites which met the following criteria:-

- Be an SME (as defined in the Introduction chapter, page 2)
- Undertake some e-learning
- Be within one hour’s driving commute of my home. This was included because of warnings about ethnographic research being tiring and stressful (Coffey, 1999; Gilmore, 2009; Hammersley & Atkinson, 2007; Kenny, 2010).

Additionally, I wanted, if possible, to investigate various sized SMEs in different industries/sectors and, within each organisation, to interview a mixture of people based on:-

- age
- gender
- e-learning roles, for example user, producer, seller
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to see whether any of these factors influenced how e-learning is understood and undertaken in SMEs.

In qualitative research there is no formula to decide the optimum sample size (Lindlof & Taylor, 2002; Yin, 2011; Yin, 2014). Yin (2014) argues that, although case-study research often only considers researching a single site, two or more instances can increase confidence in the findings, as well as allowing findings from the initial setting to be developed. Furthermore, allowing research in different settings to be evaluated could help answer ‘What’, ‘How’ and ‘Why’ questions in order to produce in-depth data in order to address the research question (Gerring, 2010). Consequently, up to three research sites were sought and the strategy to find suitable ones will now be explored.

Finding suitable organisations

Finding suitable research organisations is likely to be a lengthy process involving hard work, much planning and some luck (Bryman & Bell, 2015; Van Maanen & Kolb, 1985; Yin, 2011). As noted earlier in this chapter (page 62), insider research (Brannick & Coghlan, 2007) was not available to me and, although this meant that the research organisations and I would have little or no knowledge of each other prior to the research, lack of familiarity might encourage research participants to share information with me and/or senior managers to be interviewed, while potentially reducing bias and allowing me to see issues clearly and objectively (Brannick & Coghlan, 2007; Savin-Baden & Major, 2013; Yin, 2011). My search for suitable organisations, as summarised in Table 3.2, initially allowed self-selection and took several forms, including making friends, colleagues, former colleagues and acquaintances aware of my quest and interrogating a business directory (www.hantsbusinessdirectory.co.uk). I also undertook extensive networking, both online, by posting requests on social media including LinkedIn and Twitter, and face-to-face, which included attending business networking breakfasts/meetings and business exhibitions. The search started in October 2012, gradually building to a concentrated search from October 2013 until April 2014.
Table 3.2 To show the methods used to find research organisations and their results

<table>
<thead>
<tr>
<th>Method</th>
<th>Results</th>
<th>Follow-on Action</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends, colleagues, etc.</td>
<td>3 suggestions</td>
<td>3 telephone conversations 2 meetings</td>
<td>2 possible organisations found</td>
</tr>
<tr>
<td>Directory search</td>
<td>List of 32 possible organisations</td>
<td>Arranged to meet 11 organisations at networking events. Approached contacts who are/were employees in 9 specific organisations. Telephoned 21 organisations</td>
<td>No suitable organisations agreed to participate</td>
</tr>
<tr>
<td>Online networking</td>
<td>Requests placed on LinkedIn, including in 10 groups, with 1 forwarded to a further group, and on Twitter, which was forwarded by 1 group and 1 individual</td>
<td>1 telephone discussion – organisation too small</td>
<td>No suitable organisations found</td>
</tr>
<tr>
<td>Face-to-face networking</td>
<td>50+ face-to-face discussions 6 referrals to other organisations</td>
<td>1 email “conversation” 3 meetings</td>
<td>2 possible organisations found</td>
</tr>
</tbody>
</table>

Many organisations found during the initial search were not SMEs, were too small, professed to undertake no e-learning or did not want to take part in research. Whenever a seemingly suitable organisation was suggested, I telephoned the apparent gatekeeper, typically the managing director or a senior manager (Savin-Baden & Major, 2013; Yin, 2011), ascertaining:

1. The organisation’s size and turnover/balance sheet total to ensure that it was an SME of sufficient size (for example not a sole trader);
2. The type and amount of e-learning undertaken;
3. Future L&D plans, including the timeframe for these.
When the answers indicated a suitable organisation, I emailed the gatekeeper, giving brief details of me and my research (see Appendix I). If s/he agreed, we had a face-to-face meeting which confirmed the three points given above and discussed:-

1. How the ethnographic research would work in practice, for example:-
   - numbers of days/hours per week I could work there
   - maximum length of research period
   - type of work I could undertake
   - amount of likely disruption to employees’ work, for example being interviewed

2. Ethics and anonymity

3. Sharing my research findings with the organisation.

These conversations revealed that, despite earlier assurances, some organisations were either the wrong size or not yet using e-learning. From this, four possible organisations were found, as summarised in Table 3.3.

<table>
<thead>
<tr>
<th>Organisation</th>
<th>A / XRN</th>
<th>B / ImageCo</th>
<th>C / HelpingPeople</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of employees</strong></td>
<td>150</td>
<td>8 + contractors and associates</td>
<td>248</td>
<td>25</td>
</tr>
<tr>
<td><strong>Type of employees</strong></td>
<td>Mostly male and ex-public sector</td>
<td>Mostly female</td>
<td>Mixed (see Appendix J)</td>
<td>Mostly female</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td>Private with strong public links</td>
<td>Private with some public links</td>
<td>Third sector</td>
<td>Private</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>Nuclear engineering</td>
<td>L&amp;D and Management Consultancy</td>
<td>Care and housing charity</td>
<td>Marine publishing and events</td>
</tr>
<tr>
<td><strong>e-learning undertaken</strong></td>
<td>Limited, but growing</td>
<td>Some</td>
<td>Extensive</td>
<td>Very little</td>
</tr>
<tr>
<td><strong>e-learning development</strong></td>
<td>Limited, but growing</td>
<td>Access to</td>
<td>Extensive</td>
<td>Future plans</td>
</tr>
<tr>
<td><strong>e-learning seller</strong></td>
<td>Limited, but hopes for growth</td>
<td>Yes</td>
<td>Yes</td>
<td>Future plans</td>
</tr>
<tr>
<td><strong>Within 1 hour’s drive of my home</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 3.3 Comparison of possible research organisations
Research Methodology

I then visited each organisation to obtain a more holistic view of it, particularly in respect of e-learning (Savin-Baden & Major, 2013) and to have a meeting with owner-managers and/or managers, to each of whom I gave my Research Organisation Information sheet (Appendix H). My findings are outlined below.

Organisation A was a private sector SME in the nuclear engineering industry with 150, predominantly ex-public sector and male, employees. Its site was both a manufacturing location and offices, with staff split fairly evenly between these two functions. It provided specialist nuclear support to civil and defence sectors through a team specialising in nuclear safety management, nuclear engineering and L&D. The research opportunity was in this team which was based in an open-plan office where employees’ responsibilities included developing, delivering and selling L&D, which purported to be blended, but was mostly face-to-face. Management said that staff undertook a limited amount of e-learning, but that this should grow.

Organisation B was a private sector SME comprising eight people, mostly female and related to, or close friends of, the Managing Director and based in an office. Several individuals, mostly trainers, also worked for B on a freelance basis. The business was split between L&D, management consultancy and business services such as bid writing; the focus was very much on survival. The L&D was both face-to-face, which B developed, delivered and sold, and e-learning, which it sold and which was developed by an associate SME. The research opportunity included access to the SME which developed the e-learning and various clients, who were in the private, public and third sectors. The Managing Director claimed all employees and freelance trainers had access to extensive e-learning.

Organisation C was a third-sector SME with a workforce of 248 people who were a mixture of genders, ages, salary bands and educational standards (see Appendix J). It provided care, housing and advice to individuals and families, particularly those with disabilities, either physical or mental, across Hampshire and neighbouring counties. The research opportunity was based initially in its L&D department with opportunities to work in other areas. The L&D department developed and delivered learning, both face-to-face and e-learning, which, since 2014, was sold
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to external organisations, as well as being available to employees. Management said that staff undertook much e-learning.

Organisation D was a private sector publishing and event management SME with 25 predominantly female employees. Its markets were mostly in the marine industry. It hoped to move into developing and selling L&D, chiefly e-learning. The staff seemed to undertake very little e-learning, although the Managing Director was confident that this would increase greatly over the next year.

Selecting research organisations

Having investigated the four organisations, Organisation D was discounted as, despite the Managing Director’s assurances, little or no e-learning seemed to be undertaken by the employees and I felt that the organisation wanted me to spearhead its move into the e-learning market, which potentially required substantial time which was likely to compromise my opportunities to undertake research activities. However, in case another organisation could not participate, Organisation D was retained as a reserve, subject to further investigation.

As this was my first attempt at ethnography, the research included a pilot-study to test the research design’s robustness (Yin, 2011). This allowed me opportunities to practice observation, interview and photography techniques as well as checking the appropriateness of plans, processes and time-frames (Gibson & Brown, 2009; Yin, 2011). It focused particularly on writing up observation notes because little guidance existed regarding issues such as how to represent what is seen and what style to use (Van Maanen, 1988). Organisation A appeared to undertake the least amount of e-learning, which suggested there might not be enough relevant activity for a full study, and its management suggested the shortest length of time for me to undertake my research there (“about a month”) and therefore it was selected as the pilot-study. From now on Organisation A is referred to as XRN.

Although small, Organisation B offered opportunities to meet, and perhaps work with, e-learning developers and clients, while its small number of employees allowed concentrated observation of
Research Methodology

learning/e-learning undertaken by individuals. Consequently, Organisation B was chosen as the first full research site. From now on it is called ImageCo.

Organisation C appeared to undertake much e-learning and developed and delivered learning, both face-to-face and e-learning, to its employees and external customers and offered me opportunities to work in the L&D department and other areas. Therefore, there appeared to be opportunities for rich findings and so C was chosen as the second full research site. C being the second full research site appeared to be advantageous as this would allow my research methodology to be refined as a result of my research in XRN and ImageCo. From now on Organisation C is called HelpingPeople.

The chosen SMEs covered a range of sizes and industries/sectors and employed a variety of individuals (see Table 3.3) and therefore appeared to satisfy my wish to investigate diverse organisations. Having explored the selection of research sites, the selection and recruitment of participants will now be discussed.

**Selection and recruitment of participants within the research organisations**

Although XRN, ImageCo and HelpingPeople had agreed to take part in my research, the challenge of selecting and recruiting participants within each organisation remained (Savin-Baden & Major, 2013). My research design aimed to ensure integrity, quality and transparency with participation being voluntary, thus adhering to the University of Portsmouth’s ethics policy. During my research, all participants were made aware of my research’s purpose, methods and intended possible uses and were advised of what their participation entailed and assured that their anonymity would be respected. In each organisation, I approached everyone in the immediate research area, briefly explaining my research, inviting questions and giving him/her a short information sheet (Appendix C) and a form which would needed to be completed if s/he agreed to participate through being observed and possibly photographed and/or interviewed (Appendix E) (Savin-Baden & Major, 2013).
Additionally, during the research, I requested interviews with specific people. Yin (2014) argued against choosing interviewees who have similar views, either to each other or the interviewers, and/or who appear likely to give answers which they think interviewers or their organisation want them to give. He also warned against relying too much on any one interviewee and consequently this research sought to interview a variety of people with their selection based mainly on role, but also on gender and age (Savin-Baden & Major, 2013). Table 3.4. gives details of the interviewees. Individuals’ roles included managers and administrators as well as L&D developers, with some having more than one role, for example XRN2 developed L&D material and presented such material as a trainer. Age-range was divided into Under 35 and 35+ because Prensky (2001) indicated that ‘digital natives’, that is people more likely to be

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Role</th>
<th>Age</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>XRN1</td>
<td>Manager</td>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>XRN2</td>
<td>Admin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XRN3</td>
<td>Developer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC1</td>
<td>Trainer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC2</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC3*</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC4</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC5*</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC6</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IC7*</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP1</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP2</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP3</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP4</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP5</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP6</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP7</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP8</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP9</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP10</td>
<td>Under</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.4 Interviewee profiles
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conversant with technology, were born after 1980. Interviewees were referred to by a unique alphanumeric combination showing their organisational affiliation, for example XRN1 works for XRN, IC1 for ImageCo and HP1 for HelpingPeople. A further selection criterion for interviewees was used at pilot-site XRN where I would spend the least time and consequently could conduct fewer interviews; therefore, individuals with whom I had most day-to-day contact and opportunities to talk with informally were excluded in order to gather data from as many people as possible (Savin-Baden & Major, 2013). In Table 3.4 asterisks (*) indicate interviewees who are not ImageCo employees, but work in SMEs which are ImageCo customers, that is IC3, IC5 and IC7. Also IC4 is the owner-manager of the SME which develops the in-house e-learning system used and sold by ImageCo.

Having discussed the selection and recruitment of the research locations and the research participants within them, the quality of the data resulting from this research will now be discussed.

**Data Quality**

As this thesis concerns a qualitative ethnographic research design, my evaluation of data quality issues focuses on the extent to which a trustworthy approach has been adopted (Lincoln & Guba, 2013; Lincoln & Guba, 1985; Savin-Baden & Major, 2013). Lincoln and Guba (2013; 1985) argue that data trustworthiness has four elements: credibility, transferability, dependability and confirmability. Credible research produces convincing, believable data in which individuals can have confidence; such confidence results from how the data represent reality, although this research acknowledges that individuals each have their own perception of reality (Lincoln & Guba, 2013; Lincoln & Guba, 1985; Savin-Baden & Major, 2013; Silverman, 2011). In respect of transferability, this research’s interpretivist approach does not seek generalisation, rather it aims, through the richness of its data, to make its findings applicable to different settings (Lincoln & Guba, 2013; Lincoln & Guba, 1985; Savin-Baden & Major, 2013; Silverman, 2011). Dependability indicates that data and its analysis result from consistent processes (Lincoln & Guba, 2013; Lincoln & Guba, 1985; Savin-Baden & Major, 2013; Silverman, 2011). Confirmability indicates that data result from dependable data collection and analysis processes, which suggests the
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importance of the researcher’s positionality and hence of opportunities for others to confirm the
data and/or their analysis (Lincoln & Guba, 2013; Lincoln & Guba, 1985; Savin-Baden & Major,
2013). The application of these criteria in my research will now be discussed.

Firstly, I tried to ensure that there was agreement between my research question and the methods
I adopted for both the research and the analysis, so that they had “methodological coherence”
(Savin-Baden & Major, 2013, p477). The nature of the research question and my social
constructivist research philosophy determined the research objectives and the resultant research
methodology. One feature of the methodological coherence was the use of triangulation of
different data forms, namely from observation, interviews and photographs and from three
different fieldwork sites (Gibson & Brown, 2009; Lincoln & Guba, 2013; Lincoln & Guba,
1985; O’Donoghue & Punch, 2003; Yin, 2011). Although a limitation of triangulation is a
tendency to ignore data which does not fit into categories (Savin-Baden & Major, 2013), I sought
to minimise this during my data analysis, as discussed in the Findings chapter (pages 116-117),
through the use of a ‘miscellaneous’ category for data which did not initially appear to fit into a
category/theme (Braun and Clarke, 2006). This ensured that all potentially useful data continued
to be considered and when data in that category were examined in context, their relevance and
where they fitted became clear.

I also kept an audit trail of my research, meticulously recording raw data, for example keeping
detailed notebooks and audio-recording the semi-structured interviews and then writing online
transcripts of these, while NVivo enabled me to keep thorough records of my data analysis
(Gibson & Brown, 2009; Lincoln & Guba, 2013; Lincoln & Guba, 1985; Yin, 2014). Although
an audit trail does not verify the quality of the data, it does enable the resultant record of the
research process to be checked easily for possible inaccuracies and/or omissions (Savin-Baden &
Major, 2013).

Additionally, in order to confirm my data and make it more credible, I asked each interviewee to
check whether the transcript of his/her interviewee reflected what s/he had said and I presented a
summary of my findings at each research location shortly after my research there ended during
which I actively sought comments from the participants. This allowed participants to correct
anything I had misinterpreted, although I am aware that their perception of reality is different to mine (Lee & Lings, 2008; Lincoln & Guba, 2013; Savin-Baden & Major, 2013). Creswell (2013) considers that this approach and the use of triangulation are particularly suited to ethnographic research.

Finally, documentation of the data, that is this thesis, must reflect the quality of the research. Consequently, I have endeavoured to use precise terminology throughout, particularly making the research process clear, and to give rich descriptions of my findings and their context (Savin-Baden & Major, 2013). I also make my positionality in the research environment clear, while being aware of the potential influence of my personal biases, pre-conceived ideas and experience as an SME owner-manager (Bryman and Bell, 2015; Gold, 1958; Lincoln & Guba, 2013; Yin, 2011).

This brief consideration of data quality issues will be developed further in the Conclusions chapter where the limitations of the study are also discussed. Other considerations relating to the research will now be explored.

**Other Considerations**

There is no formula to calculate how long should be spent in research settings, although it should be long enough for useful data to be found (Bate, 1997; Kenny, 2010; Watson, 2011). As this research took place within organisations the time-frame was largely dependent upon their views. During initial discussions with ImageCo and HelpingPeople “about three months” or “three to four months” were suggested so approximately three months or until saturation point was reached (O’Reilly & Parker, 2013; Savin-Baden & Major, 2013) was planned in each of them, with one month being planned for the pilot study in XRN, in line with the time suggested by its management.

Research participants’ expectations can be many and varied as well as explicit and implicit, ranging across several areas including “where, when, how and to whom the study findings are reported” (Moll, 2012, p10). If expectations are not met, considerable damage may result,
Research Methodology

affecting many areas including the researcher’s reputation and the relationship between the researcher and the research participants (Yin, 2011) and possibly limiting use of the results with participants being unlikely to engage in future research (Buchanan & Bryman, 2007). The importance of accountability and “moral responsibility” (Moll, 2012, p10) are additional reasons for sharing results with participants and seeking feedback (Coffey, 1999; Hartley, 2004; Moll, 2012). These points were not only reflected in the information and consent sheets (Appendices C, E and H), but also influenced my behaviour throughout the research.

An evaluation of how the research design worked in practice is given in Appendix A. This shows that an ethnographical approach added context to my findings and allowed me to gather much rich data which may not have been apparent if other approaches had been used. The quality of the data, which I have discussed above, will be demonstrated in the Findings and Discussion chapters and the limitations of my research methodology will be explored in the Conclusions chapter. However, conclusions from this chapter will now be given.

**Conclusions**

This chapter has explored the research methodology including its philosophy, design and approach, the data analysis method, the research location and participants and the data quality, all of which has led to the conclusions given below.

Firstly, an ethnographic approach appears to fit well with my research’s social constructivist basis, as it has allowed insights into how individuals in SMEs construct meaning through their interpretation of the world and their learning experiences. This has allowed discovery and interpretation of social patterns and themes which have given me an understanding of the people and environment being researched. Examination of the interaction between individuals and their learning environment has drawn out the feelings and anxieties of research participants to give rich data about intentions, behaviours, actions and meanings. Therefore, although previous literature and research has largely overlooked SME employees’ e-learning, ethnology has allowed me to add to the understanding of both this and their general learning.
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Secondly, ethnography suited my belief that knowledge of reality is context-specific and gained through social construction, allowing my research to recognise people’s individuality and therefore has given me opportunities to explore and gain an understanding of their perceptions, conceptualisations and experiences in order to address my research question. In practice, ethnography gave me access to micro-interactions between SME employees which were key to understanding how their learning occurred and how it was influenced by context and interpersonal interaction; such fine-grained detail seemed unlikely to be obtained from other methodologies.

Additionally, thematic analysis has enabled systematic scrutiny of the large amount of data resulting from my ethnographic research. This has drawn out key themes about how learning and e-learning is understood and undertaken in SMEs and highlighted areas which were not immediately apparent and which have been overlooked by much previous research and literature. Qualitative data analysis software assisted this.

Fourthly, purposive sampling has enabled me to select research locations which matched my requirements and led to the selection of research participants within them who enabled me to address the research question. My experience and contacts gained through being an SME owner-manager assisted this selection, but the selection process appears to have been complicated by the interpretation of the term ‘e-learning’ by both owner-managers and workers within their SMEs; not only did this interpretation seem to vary between SMEs, but was different between owner-managers and employees. This is discussed further in the Discussion and Conclusions chapter.

A final conclusion is that all of this allowed me to carry out research capable of investigating areas in my conceptual model for e-learning in SMEs. Having examined the research methodology in detail, the next chapter will explore the Findings arising from this, with reference to that conceptual model.
Chapter 4 Findings

Introduction

This chapter investigates the findings from the primary research, showing how these address the research question, namely: How is e-learning understood and undertaken in SMEs? The research objectives addressed by this chapter are to:

- Explore the context of learning that takes place in SMEs;
- Examine how e-learning is understood and conceptualised in SMEs and
- Examine the use of e-learning in such organisations.

The findings are from my ethnographic research which took place between May 2014 and January 2015 while working in three SMEs in Southern England, which are summarised in Table 3.3 (page 103) with more details given on pages 104-105. Table 3.4 (page 107) summarises the interviewees’ profiles. My findings include observations, semi-structured interviews and photographs as shown in Table 4.1, which also shows the length of time spent in each research location. Observations are not enumerated as they range from a few scribbled words to several pages of typed description.

<table>
<thead>
<tr>
<th></th>
<th>XRN</th>
<th>ImageCo</th>
<th>HelpingPeople</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
<td>Numerous</td>
<td>Numerous</td>
<td>Numerous</td>
</tr>
<tr>
<td>Interviews</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Photographs</td>
<td>182</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>Time spent at site</td>
<td>4 weeks</td>
<td>12 weeks</td>
<td>10 weeks</td>
</tr>
</tbody>
</table>

Table 4.1 Summary of artefacts from, and time spent at, the research sites

As discussed previously (pages 11-18), this research is grounded in socially situated learning theories namely Vygotsky’s Socio-Cultural Theory of Human Learning, otherwise known as his Social Development Theory (Vygotsky & Cole, 1978), Bandura’s Social Learning Theory (Bandura, 1977), which became his Social Cognition Theory (Bandura, 2012) and Lave and Wenger’s Situated Learning Theory (Lave & Wenger, 1991). The findings are considered in
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respect of these theories, with areas of particular relevance being highlighted, for example Vygotsky’s More Knowledgeable Other (MKO) who helps to develop other people’s Zones of Proximal Development (ZPD) – that is the distance between an individual’s actual developmental level and his/her higher potential developmental level, which needs support, such as social interaction, to become fully developed, - and Lave and Wenger’s Communities of Practice (CoPs) which are groups of people brought together through mutual engagement, joint enterprise and a shared repertoire so that relationships can be built and members can learn from each other and share practice through sustained interaction (Wenger, 1998; Lave & Wenger, 1991). Although these theories initially appear to have limited applicability to e-learning, my findings suggest that they are relevant through the existence of online opportunities for social interaction.

This chapter outlines how the findings were analysed before exploring how SMEs learn, particularly examining their conceptualisation and use of e-learning which leads to its conclusions. It suggests that more learning, particularly e-learning, occurs in SMEs than commonly thought, although this is often hidden by its ubiquity as well as employees’ language when describing it, and their view that it is part of the organisations’ day-to-day activities. SMEs’ learning is predominantly informal, on-the-job and interpersonal, and, although there are suggestions that this is due to time and budget shortages, participants consider these methods to be both enjoyable and effective. Consequently, they prefer e-learning which is also informal, on-the-job and, wherever possible, interpersonal; this contributes to employees and employers having different conceptualisations of e-learning. This chapter shows that a significant part of SME employees’ learning appears to be self-directed, with opportunities to undertake such learning being seen as compensation for apparent disadvantages of working in smaller organisations, notably lack of time and budget. However, such ‘opportunities’ often appear to necessitate employees learning in their own time which owner-managers/managers and some employees regard as normal. Managers’ expectation that learning should be undertaken ‘out of hours’ is a manifestation of their non-pro-active, suppressive behaviour towards employees’ learning, with other instances emerging throughout the findings, notably when their influence as role-models and issues of trust are examined. These individuals are not as well-meaning as Vygotsky’s MKOs and Bandura’s role-models, appearing sometimes to purposely stop learning occurring.
Findings

Although my ethnographic approach gave opportunities to observe what happened in detail and at close quarters, it was difficult to gauge the extent/depth of learning, estimates of which were based on research subject’s comments. There was more awareness of the need for deep learning than I expected, although little seemed to occur, which was often blamed on time restrictions, although, again, managers’ non-pro-active behaviour appeared to influence this. Several instances that might be likened to CoPs arose, but these appeared to be less intense than those discovered by Lave and Wenger. There was no obvious encouragement for them by managers despite CoPs appearing to offer free learning opportunities. Interestingly CoPs seemed more common online, perhaps because they could occur away from owner-managers’ discouraging, negative attitudes.

These lines of argument will be explored throughout this chapter. The first major area, namely the analytical process, will now be examined.

Analytical Process

The findings were thematically analysed ‘to find repeated patterns of meaning’ (Braun & Clarke, 2006, p86) with the help of NVivo, as detailed in pages 94-96 and summarised in Figure 3.3. I was mindful not to let my literature review limit my consideration of possible themes, although I think it is inevitable that it made me aware of more aspects of my data than might have happened otherwise (Tuckett, 2005). Codes, categories and themes are explained below, at the end of which I give an example of a specific part of my research data progressing through each of these stages.

The initial open coding resulted in fifty-one codes as shown in Appendix K. In this and Appendices L and M, ‘Source’ refers to either the transcript of an interview, an observation or a photograph and ‘Reference’ is each instance of a code occurring; such instances are called discrete incidents by Glaser and Strauss (1967) or units by Lincoln and Guba (1985). A code identifies something interesting in the data, which Boyatzis (1998) calls “the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon” (p63).

I then began looking for patterns/themes, initially examining each code and assigning it to what seemed an appropriate category; this led to eight categories being generated (see
Appendix L). Categorisation of codes involved grouping related codes into a framework of categories to allow further analysis. Some researchers use the terms ‘category’ and ‘theme’ interchangeably (Bazeley, 2009), but I differentiate between them, using categories to describe a stage between initial codes and themes; themes arise after this when codes, which have been allocated to categories, are examined in context. At this stage, one category was “miscellaneous” (Braun & Clarke, 2006, p90) as I could find no common category for four codes. Additionally, I used the code ‘mentor’ twice, as it seemed to fit both Interpersonal Learning and Role-Model.

Next I examined every code within each category in context, going back to the original interview/observation note/photograph to check that it really was relevant to its assigned category and that it “reflects the meanings evident in the data set as a whole” (Braun & Clarke, 2006). I was mindful of aspects, such as divergent views, negative cases, attitudes, beliefs and behaviours, in order to give clearer insights into the meanings embedded within codes and the relationships between them. This drilling down resulted in ten themes being selected, as shown in Appendix M. A theme highlights something important found in my data in relation to the research question. All codes could be assigned to a theme and there were four themes which had not been categories: Responses to learning, Self-directed learning, Time and Budget, and Trust. Detailed examination showed that all codes within the reasons for learning/not learning category could be assigned to themes. It also led to two codes being divided: Mentor became Mentor, referring to learning from mentors/mentees within the interpersonal learning theme, and Mentor-influence, which related to mentors influencing how/whether learning occurred in the role-model theme, and Cost-saving which became Cost-saving, specifically relevant to the e-learning theme, and Budget, part of the Time and Budget theme. The process from initial codes to categories and then to themes is shown in Appendix N.

An example of this from my research data is from the transcript of my interview with HP5:-

“I will go home and I will research and I will read”.

I identified this as a discrete incident (Glaser & Strauss, 1967) or unit (Lincoln & Guba, 1985), one of the 36 references from 11 sources which fitted the ‘In own time’ code. Next, looking for patterns in my data, I assigned the ‘In own time’ code into the ‘Miscellaneous’
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category as it did not seem to have any commonality with other codes. Then, looking at each reference in the ‘In own time’ code in context, I confirmed that HP5’s quotation was relevant to this code and that the ‘In own time’ code fitted into the ‘Self-directed learning’ theme. This theme had not existed as a category, but by examining the context of data within the codes, I moved the ‘Lack of training’, ‘Difficulty finding training’, ‘Learn about self’, ‘Learning styles’, ‘Responsibility’ and ‘Self-learning’ codes, as well as the ‘In own time’ code, to this theme.

In Appendices K - N the items are sorted alphabetically. However, further examination of the themes suggested it would be logical to divide them into types and features of learning. Within each type/feature, I decided to present the most-prevalent data first as this may indicate significance. The nature of the research question indicated that I should examine e-learning separately which is done in this chapter’s third major section (e-learning in SMEs). Consequently, the next section, How learning occurs in SMEs, investigates the themes in the following order:

- Types of learning
  - Interpersonal
  - Informal/Formal
  - On-the-job
  - Self-directed

- Features of learning
  - Trust
  - Role-models
  - Time and budget
  - Depth of learning
  - Responses to learning.

**How Learning occurs in SMEs**

**Interpersonal Learning**

As shown in Appendix M, thematic analysis showed that references to interpersonal learning made in the interviews, observations and photographs encompassed, in order of prevalence,
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learning from people, interaction, face-to-face, group work, learning through teaching, mentor, residential courses and customer input and these are now explored. All three research sites had numerous examples of learning from people, including colleagues, managers and people external to the organisation such as customers, members of professional networks and former colleagues. Individuals also mentioned learning from their students and mentees, as well as from teachers and mentors. Mentors are examined in this section only in the specific context of learning from them; references to mentors influencing how/whether learning occurred are explored in The Influence of Role-Models on Learning section (pages 147-148). There is a separate section for role-models because they appear particularly relevant to my research.

As I was undertaking ethnographic research as a participant-observer, I worked alongside research subjects and, as time progressed, we became more relaxed with each other so that my involvement in their work and learning grew. I felt more comfortable when I was included in their activities; I thought my work and academic experiences could contribute to their learning, though I was careful only to do so when I felt this would be welcomed. Although I thought the research sites would inevitably be changed by my presence, I wanted research subjects to desire, not resent, this. Over time, I was increasingly invited to help, for example in my third week at XRN I was asked to review customer offerings at a management meeting and from week four at ImageCo I was invited to meetings with customers, initially to contribute specific knowledge and then more generally. Being someone they learnt from enabled me to feel part of the team.

Throughout the organisations, people appeared willing to help others learn. Photograph 4.1 shows that the person kneeling was so keen to help his colleague that he hadn’t even waited to get a chair to sit on; as soon as his colleague had asked the office in general for help, he leapt up to share his expertise. I saw no instance of help being refused, although occasionally there were requests to “hang on a minute” or similar until a piece of work was completed, allowing the person who had been asked to help to then concentrate on assisting their colleague. Nevertheless, in both ImageCo and HelpingPeople I observed occasions when someone would ask a colleague, typically the person they sat next to, for help and received either no response, a muttered “oh” or a grunt. However, this did not appear to stem from reluctance to help, rather it was because the person being asked was totally engrossed in his/her work, perhaps computer programming or accounting. The person asking never
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seemed to be offended and either asked someone else or waited a while and then asked again. Sometimes, the problem seemed to resolve itself, perhaps due to the questioners trying solutions themselves. Frequently the person who had been asked didn’t seem to notice the original question, responding to later requests with something like “Sorry, mate, I didn’t realise. I was rushing to finish that... bit” (HP4).

Photograph 4.1 Interpersonal learning at HelpingPeople

I observed several instances of people not even having to ask for help as their colleagues could see that they were struggling with a problem, perhaps by hearing their sighing and observing their body language, which included individuals literally holding his/her head or stretching while twisting his/her face into puzzled expressions. This empathy was particularly common at ImageCo, perhaps because the workforce was so small and had worked together for longer than that in either XRN or HelpingPeople. For example, an ImageCo employee
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commented that IC2 looked “very fed-up” and IC2 replied that she was struggling with a document written by an absent colleague. Immediately everyone present, including me, proffered ideas, with one walking round to IC2’s desk to demonstrate possible solutions. Sometimes a simple question would lead to someone jumping up to write a possible solution on a whiteboard, particularly at HelpingPeople (see Photograph 4.2).

Photograph 4.2 Using a whiteboard to help colleagues learn at HelpingPeople

Many people appeared proud of their ability to help colleagues. Occasionally their enthusiasm to share their knowledge and expertise meant they tried to contribute to colleagues’ phone-calls, while they were happening. This occurred at HelpingPeople when HP3 was talking to someone who had phoned to ask for her password to be changed. HP5 attempted to give what he obviously thought was useful advice, seemingly oblivious of HP3 possibly being disconcerted. He said "She’s had that done twice already" and proceeded to advise what HP3 should do. HP3 had to continue the phone conversation, although appearing distracted by HP5’s interruption. HP5 seemed to think he had been helpful and HP3 did not say anything to him about it when she had finished the call.
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Generally, help seemed to be expected; it was not seen as a favour, perhaps because it was anticipated that it would be reciprocated at some point, which often happened. This is illustrated by “he was a really good graphic designer so I tapped into him and said ‘Hey, how do you do this on photo-shop?’ and... he’d asked me ‘How do you do this on an audiobook station?’ and it kind of worked as a team” (HP2), “I learn a lot from HP1 because HP1’s got the learning side and I’ve got the health and social care side and I think that's probably why we work well. He learns a lot from me and I learn a lot from him” (HP3) and “HP8 has got a speciality in this, and HP4’s got it in that and they sort of cross together and HP5’s learnt a lot from HP8 and vice versa” (HP2). Similarly, as people at all research sites could see that I wanted to share my knowledge, skills and experience, I was increasingly asked for help, which seemed to be seen as a fair exchange for being allowed to research there. Despite expectations that help would be given, many people acknowledged the generosity of the extent of the help given and the depth of experience that many of their colleagues had. They appeared to see their helpers as MKOs, for example “HP8 has been very helpful and obviously I have been able to pull from his experience because he's got 10 years’ experience in the industry on top of me... he’s very generous with that” (HP4).

I saw people at all three sites asking peers, subordinates and superiors for help and advice regarding something outside their own area of expertise, with many, including XRN3 and HP6, expressing a strong preference for “human-interaction” in their learning, which relates to the social cognitive theories underpinning my research. I observed only two examples of individuals not wanting to acknowledge that they learnt from more junior colleagues. For example, a XRN employee spoke at length about how she and her more senior colleague learned from, and helped, each other to the extent that if one of them was busy, but urgently needed to know something which was outside their joint knowledge, the other would investigate and share what he/she learned. However, the other person did not mention this, even with (subtle) prompting, but professed to have learnt everything through his own endeavours, mostly through hands-on learning. The other instance was HelpingPeople’s L&D Manager who claimed to want to learn from his team, but seemed to want to ‘knowledge match’ so that whenever one of his subordinates showed him how to do something or passed on information which he needed, he invariably demonstrated something else which he did know, regardless of its relevance.
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Despite this, opinions were expressed in all three SMEs that sharing information benefitted everyone, with learning outcomes greater than could be achieved individually because “we all think differently” (HP8). For example, “if you put HP5, HP8, HP10 and I in a room, we'd come up with a solution pretty quickly, just based on what we already know” (HP4).

Initially this interpersonal learning suggested that CoPs existed, because individuals were keen to engage in, and contribute to, the community, were working and learning together and had a shared repertoire and sustained interaction over time (Wenger, 1998). Learning from each other also allowed new employees to move to positions of knowledge through legitimate peripheral participation (Lave & Wenger, 1991), for example I observed managers/employees showing more junior colleagues how to undertake specific activities, such as uploading modules to the e-learning system at HelpingPeople which, for example, led to HP4 saying “I’m learning as I go and adding to my specialist skill set”. However, CoPs within my research sites seemed to be less intense than those discovered by Lave and Wenger. The office layout appeared to influence this, for example XRN’s desks were laid out so that teams of four could easily see and talk to each other (see Photograph 4.3). This often led to people joining in each other's conversations if they thought they could contribute some knowledge. However, HelpingPeople’s L&D department’s desks, although also grouped in fours, were laid out very differently, with each desk having two large computer screens (see Photograph 4.4). Consequently, people could only talk to each other around, or over, these, which precluded eye-contact/interaction unless one or both people stood up (see Photograph 4.4). Christensen and Mark’s (2007) research in a deliberately-planned open office environment where staff were within easy visual and hearing range of each other suggested such environments encouraged knowledge sharing.

Initially I thought that HelpingPeople’s office layout, which discouraged personal interaction, was due to budget restrictions, but, despite being a charity, its L&D department seemed to have a sizeable budget, for example being the only SME to use tablets (see Photograph 4.19).
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Photograph 4.3 Sitting in fours at XRN

Photograph 4.4 Sitting in fours at HelpingPeople
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However, I learned that the L&D Manager had planned the layout and he seemed to want to discourage interaction between some individuals, for example while the Programmers’ Team-leader was on holiday, the L&D Manager had moved him away from the team he led “so I learned about that on my return”. The L&D Manager appeared to want to retain control of that team, frequently calling its members individually out of the office for “a little chat”, deliberately excluding the team-leader. His behaviour lacked the benevolence of Vygotsky’s MKO and Bandura’s role-model. Conversely, XRN and ImageCo’s office layouts appeared to deliberately encourage interpersonal learning (see Photographs 4.3 and 4.5).

Photograph 4.5 Sitting in fours at ImageCo

Learning from people outside the organisations also occurred, for example “I use a network of contacts from previous employments” (XRN2). I witnessed telephone-calls to such people at XRN and ImageCo, usually to resolve urgent problems beyond the SME’s resources. Some XRN and ImageCo employees belonged to outside organisations/networks such as the Institution of Electrical Engineers (IEE) and the Federation of Small Businesses, regularly
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attending meetings. XRN3 said “I'm a member of several working groups... you get like-minded people together... and discuss, challenge ideas, opinions... and from that you end up learning about best practice”. There were suggestions that these networks were CoPs as there was mutual engagement, shared repertoire and perhaps joint enterprise. However, these appeared to be lighter versions than those Lave and Wenger found, because attendance at them was sporadic with no evident accountability. HelpingPeople’s L&D Manager did not encourage “my people” to join external networks, again perhaps fearing loss of power over them.

Employees in all three organisations mentioned mentoring, often seeing it as facilitating two-way learning, with both parties potentially being MKOs. Even people who had not taken part in mentoring stressed its advantages, particularly for new joiners who could learn much about the business quickly. Although never personally involved in mentoring, IC3 expressed enthusiasm: “A lot of the work is done by... mentoring... a new person would be allocated to somebody in a similar role... they would constantly work together and end up as a team”.

Some people attributed their success, at least partly, to having been mentored, as in “I was associated with a mentor for twelve months and that... really did make me into the person I am today” (HP1) and “I really responded to mentoring... it made me want to work even harder” (HP6). Mentors were both internal and external to the organisation, with external ones perceived as more valuable because they had knowledge which could not be accessed internally, although such people could be expensive and potentially beyond SME budgets. Some people claimed that being trained to mentor effectively had been useful to their own development: “we’d take it in turns to be the mentee and the mentor... we discussed it afterwards and reviewed it and gave each other feedback” (XRN2).

Although interpersonal learning had many forms, for example, the best ways to carry out specific tasks were frequently debated at XRN (see Photograph 4.6), it was generally informal and typically on-the-job. However, it also occurred in formal settings, for example in classrooms, where learning was “a two-way process” (HP5) with trainers often saying that they learnt from students: XRN3 “learnt a hell of a lot more actually doing the teaching... because all of a sudden you’ve got to explain something... so that’s when real learning comes in.” This suggests relevance to Vygotsky’s Socio-Cultural Theory of Human Learning whereby a second stage of learning occurs when individuals assimilate and internalise what
they have experienced/observed to transform it into information or true learning (Turuk, 2008; Vygotsky & Cole, 1978); this is investigated further in the Depth of Learning section (pages 155-159).

Interpersonal learning was seen as occurring more naturally in informal settings, with ImageCo and HelpingPeople employees expressing awareness of the need to encourage people to learn from them in formal/classroom settings. For example, “you've got to get people to buy into you... if people don't trust you, respect you and believe in you, you might as well just sit down and have a cup of tea” (HP3); a trainer “has to have a desire to impart their knowledge” (HP5) and “the relationship of trainer to student is vital” (IC6). Several trainers said that classroom-students were less interested in learning than those in on-the-job situations, perhaps because the latter were mostly trying to solve immediate operational problems. IC2 referred to teaching classroom courses as “like trying to hold the attention of people who just didn’t really care what they were learning” while HP5 said “the learner has to have a desire to take as much of that knowledge in as is possible and learn from it”. IC6 admitted “there’s always going to be... people who just won't engage with you”. This desire for engagement and social interaction while learning is fundamental to this research’s social constructivist theories.
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Although prevalent throughout the SMEs, interpersonal learning was often hidden by its informality and ubiquity. It seldom seemed to be evaluated and often appeared superficial. Opportunities for learning CoPs appeared to exist in the SMEs as there was some evidence of mutual engagement, joint enterprise and shared repertoire as well as opportunities for learning from each other and sharing practice, but these seldom seemed to develop, possibly due to time constraints and/or managers’ negative influence, and so appeared pale imitations of those reported by Lave and Wenger (1991), which will be explored further in the Discussion chapter. The areas discovered so far will be explored further in the next most prevalent theme, Informal/Formal Learning.

Informal/Formal Learning

As Appendix M shows, references to this, in order of prevalence, were academic learning, professional learning, informality, statutory learning, certificates, anecdotes, structured learning, safety and flexible learning. This section explores these which encompass both informal and formal learning.

Much of the learning I observed or heard about during my research was informal, and frequently interpersonal, occurring at desks, around photocopiers/kettles and while travelling: “I spend like four hours in a car with HP1 just drip-feeding me information so I get constant on-the-job training” (HP2). Typically, people walked round to each other’s desks, or stopped where people were gathered, and asked questions, although there were instances of people calling out queries across an office. Sometimes, in response to such calls, someone would walk round to a colleague’s desk to help him/her to resolve a problem, as shown in Photographs 4.1 and 4.7. This type of learning was unplanned, occurring as and when needed to address immediate business needs and often appeared superficial as those involved did not seem to reflect on it, although I appreciate that this was difficult to gauge unless anyone mentioned this, which they did not, despite gentle probing.
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Photograph 4.7 XRN colleagues learning around a desk

Informal learning was often regarded as more useful than formal, for example “that’s something I learned as an experience, rather than from any kind of training that I was given formally” (HP6). Although many research participants had university degrees and/or professional qualifications, they had little respect for formal learning, typically commenting “I don’t think I learnt anything at university at all” (HP7), “I think generally that I’ve learned more in… six months here than what I learnt in three years at university” (HP4) and “I got put off formal learning when I… did my, what I called the Master of Bugger All… two of us who actually had work experience, both got very poor marks” (IC7). Only IC5 spoke glowingly about formal education, saying he “was happy to go to boarding school… it was an ideal place for me to grow up … and then they put me on a sandwich degree course, which suited me well”.

There was more enthusiasm for professional training and qualifications, despite these involving formal learning. XRN3, IC1, IC3, HP6 and HP7 said they only realised they needed professional qualifications when they started work in areas such as accountancy, social work and management. At least 80% of interviewees had professional qualifications
Findings

and others wanted “more official qualifications” (HP2), but confessed they were too lazy/busy/poor to obtain them. However, some people claimed that lack of opportunities to learn formally forced them to rely on informal learning: “I've had no formal learning and development training so that (informal learning) was really good” (HP3) and “I haven't done very much formal learning. I went to school, I went to college; I didn't do terribly well... now I learn all the time (informally)” (IC6).

Despite unanimous acclaim for informal learning, some people downplayed its importance, distinguishing it from what they termed “official training” (HP2). Another HelpingPeople employee spoke of her learning being classroom, e-learning and books, but did not acknowledge informal methods, such as interpersonal or on-the-job, as being learning. Some people dismissed informal learning’s importance because they perceived other people having a low opinion of it: “that's another interesting delineation that people have... they think of learning as sitting in a classroom” (IC6). Some people seemed unaware of the extent of their informal learning: “when I say to HP1 ‘I want to know the stuff that you know’ he says ‘You do. You just don't know the proper titles for it’” (HP3).

HelpingPeople ran three one-day classroom courses for employees during my research, allowing me to attend the first-aid one. The morning session was fairly formal with PowerPoint presentations to disseminate information needed for both practical and legal reasons as the other attendees were dealing directly with vulnerable members of society. However, the afternoon session was predominantly practical and informal (see Photograph 4.8). Both the trainer and learners, including me, appeared more relaxed during this session, possibly because we had had time to become acquainted and/or preferred informal, interactive learning. The majority of learners told me they had learned more during the afternoon and that the course would have been of limited value without the practical session.
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Photograph 4.8 Practical, informal session on HelpingPeople First-Aid Course

I also attended a half-day in-house course at ImageCo which was delivered by a freelance trainer, with other attendees being two employees and a customer. The course atmosphere was informal: the trainer sat with us learners (see Photograph 4.9) and it started ten minutes late to allow one participant to complete a business phone-call. Students asked questions whenever we wanted and ImageCo employees interrupted the course twice, knocking the door and then walking in, without waiting for an invitation to enter. One interruption was to ask an attendee to resolve a client’s telephone enquiry and the other was to offer attendees refreshments. When I discussed the course afterwards with the other attendees, they unanimously professed to like its interpersonal, informal style which gave them opportunities to ask questions and exchange views with others.
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Despite employees at all three organisations claiming to enjoy and benefit from informal learning, it was organisational policy to design and deliver predominantly formal courses to their customers, without any apparent research into whether this met the latter’s requirements. This highlighted tensions between what the participants said and what they did as many employees claimed that formal learning could be boring and fails to engage learners (“fifteen minutes of someone talking at me and... I just switch off” - IC2).

XRN and HelpingPeople were in the nuclear engineering and care sectors respectively, so XRN1, XRN2, HP1, HP2, HP3, HP4, HP5 and HP9 recognised the necessity for some formal learning: “I... accept the fact that... any statutory organisation has to... have evidence that you understand data protection, confidentiality... safe-guarding issues” (HP6) and “in the care sector if you lounge around and don’t pay any attention to training, you could kill someone” (HP2). Nevertheless, there was concern that some formal courses promised to deliver such learning, but did not test whether “real learning” had taken place: “you just had
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*a certificate of attendance; there wasn't any sort of knowledge check or anything to say I'd taken any sort of information in*” (HP3). This is investigated further in the Depth of Learning section (pages 155-159). However, HP3 and several XRN employees considered that on-the-job learning was tested by whether it solved workplace problems and this evidence of learning might be another reason why they preferred informal, on-the-job learning.

Much of the learning I observed was informal, occurring as it was needed as part of day-to-day business. Although research subjects claimed to enjoy and benefit from such learning, some of them would not even acknowledge it as “real learning”, perhaps because it was part of their normal workplace. Little, if any, analysis of this learning seemed to occur, which is explored further in the Depth of Learning section. The issues raised in this section will now be investigated further in the next section, On-the-Job Learning.

**On-the-Job Learning**

As shown in Appendix M, instances of the next most prevalent type of learning, on-the-job learning, included, in order of commonality, hand-on, on-the-job, practical and real world learning which are now examined.

I observed on-the-job learning at all three sites. Even when individuals took part in classroom learning, they were mostly keen to apply this in the workplace: “OK, I’ve learned these things, but how do I actually put this into practice? I can read so much, but then I actually need to get on and do and practice and experiment” (HP5). HelpingPeople employees often discussed the importance of applying learning to workplace situations, especially where legislation required this: “that’s what’s so nice about the changes that are coming out now in the care certificate; you can't just do a piece of learning or just attend a workshop... application of learning in the workplace is going to make things a lot better” (HP3). I observed an ImageCo employee return to work from a financial software classroom-based course, keen to apply her learning which was urgently needed at that time. An exception was a XRN employee who said little about a classroom course which did not seem applicable to his day-to-day work; the only manifestations of it were a certificate displayed on his pin-board and a course binder which joined others on a shelf.
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There was widespread agreement at ImageCo and HelpingPeople that “You couldn’t do certain things” (HP2) in any way other than hands-on, for example first-aid training (see Photographs 4.8 and 4.10). Medication training needed to be validated by demonstrating that classroom learning had been transferred to the workplace: “you went on the course but to actually be signed off, it was a practical assessment” (HP2). IC2, HP2 and HP9 had previously worked in call-centres and were adamant that learning there had to be on-the-job “because someone can give you the right answer to every question, but putting it into practice is different” (IC2). It was clear that, far from being seen solely as a cheap way of learning, on-the-job learning was regarded as effective and important: “It was very hands-on, they take it very seriously” (HP2).

Photograph 4.10 Practical First-aid Learning at HelpingPeople

Much of the learning I observed was on-the-job, which many people claimed was an effective way of learning. HP6’s comment was typical: “I need to actually be in the situation doing it to be able to internalise it”, which indicates some attempt to reflect on and develop her learning, which is investigated further in Depth of Learning below. On-the-job learning was thought particularly effective for new employees, allowing them to be legitimate peripheral participants, settling in quickly and picking up knowledge needed for their role: “most of my knowledge came from actually... getting to know how they work” (IC3). Such learning
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appeared to boost self-confidence, for example “the kind of cases I’d been involved with... I learned so much and it gave me a lot of confidence” (HP6). HP7 professed that “everything I’ve ever learned is on-the-job” so that she was confident that she knew “how to do a bit of everything”.

Sometimes on-the-job learning resulted from a lack of any alternative L&D, as in “there was no training, literally just learning as I went along” (HP3). Many people, including IC7 and HP3, referred to being “thrown in the deep end” so they had to put much effort into learning which they were very proud of.

Throughout the SMEs people claimed to have learned more “in the real world” than in classrooms or similar settings, for example

“my social work course was very difficult learning because it was very... theoretical... but when... someone is screaming at me, how am I going to apply that?... That’s something that tutors always say they struggle with in social work training, applying that theory into practice because they don’t necessarily give you the skills to be able to deal with a confrontational client... whereas I think I had that grounding in my previous experience in bars and pubs” (HP6).

Similarly, HP7 claimed “I’d been out in the big bad world managing people... so I could draw on some of that experience”.

Although there was agreement that some learning could only be achieved on-the-job, it was seldom planned, often occurring to resolve operational problems and so, like interpersonal and informal learning, it was often hidden through being contextualised in the SMEs’ day-to-day business. This led to it not always being regarded as real/proper learning with some people saying that they had not considered it as learning until I asked. Although there were instances of it resulting from lack of anything else being available, this type of learning could make learners proud, with suggestions that some individuals undertook it through their own initiative. This will be explored in more detail in the next section, Self-directed Learning.
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Self-Directed Learning

The next most common type of learning was self-directed, as shown in Appendix M. References to it, in order of prevalence, were self-learning, lack of training, in own time, learning about self, learning styles, responsibility and difficulty finding learning opportunities, which are now examined.

People in all three SMEs attributed at least part of their learning to seeking it themselves, for example “completely self-taught... I've always sort of learned things as I've gone along” (HP5). Many took intense pride in their self-directed learning, with HP5 drawing himself up in height while speaking about it. Other examples include “I pretty much trained myself... I just sort of picked it up” (XRN1); “within about four days... I’d found my way round and was pressing buttons left, right and centre to see what it did” (HP3); “I was self-taught, pretty much” (HP4) and “I can learn about nuts and bolts, the same as I can learn about anything” (IC6). HP2 stressed that self-directed learning was not always easy: “sometimes you’ve got to... force yourself to learn things... you have to keep motivating yourself”.

Reasons for undertaking self-directed learning varied, with participants making statements such as “I felt like I was meeting a need in myself” (HP6) while IC6 said “you have a responsibility to learn” which she felt could be best-achieved by self-directed learning. In his previous organisation, HP5 had wanted to gain access to a computer programmers’ CoP: “I wanted to learn those things myself so I could be in the gang”. He undertook extensive self-directed learning which gained their respect and allowed him to move from a position of legitimate peripheral participation to one of such expertise that he joined HelpingPeople as a senior programmer. Although this allowed career progression from his clerical job, HP5 claimed that he mostly wanted the socialisation opportunities afforded by membership of the CoP and consequently he had been keen to develop a CoP within HelpingPeople, although he told me that HP1 had prevented this.

Self-directed learning methods varied, seemingly based on preferred learning styles, and involved different types of learning, including on-the-job and interpersonal: “I spoke to other business coaches... to find out what they were doing” (IC1); “I have learnt (by)... researching online” (HP1); “I’ll do things and (ask) ‘Is this how it should be done?’” (IC2); “using documentation... reading... picked up from people who worked there” (HP10) and
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“on-the-job” (HP7). Whatever method they used, people seemed convinced that self-directed learning was effective and so were keen to encourage others to learn this way; XRN2 mentioned developing a course which would “leave... some gaps that they’ve got to complete... (so) the student is engaged”. There was much belief that anyone could direct their own learning: “human beings have most of the resources that they need, it’s just that you need an usher to go round and shine a light on them and go ‘Oh, look’... so you get them aware of their own abilities” (IC6).

Although reasons for self-directed learning varied, often it arose from (previous) employers failing to provide learning opportunities: “we were kind of left to our own devices” (HP6), “(there was) no training, literally just learning as I went along, because the manager was really not there a lot” (HP3) and “I never had any training for anything I did, I just learned” (HP7). These comments show learning occurring despite, rather than because of, their employer, challenging the concept of SME owner-managers as benevolent MKOs and role-models who want to develop their employees. However, lack of learning opportunities in their current organisations appeared to be deliberately ignored, with some stressing that finding their own learning gave them freedom: “self-learning... for me is the best way” (HP2). HP8 claimed self-directed learning enabled him to learn at his own pace, mentioning “learn-as-you-go” whereby he researched topics and took part in webinars at home and in lunch-breaks. All managers encouraged what they called “self-directed learning”, although in reality they appeared to be directing their employees to do it, for example HelpingPeople’s L&D Manager HP1 frequently mentioned his own (“there’ll be a TED video on while I’m in the bath”) and expected similar behaviour from his staff: “I’m getting him to do some self-study”. When I asked about this, many employees attributed such encouragement, partly at least, to time and money shortages, coupled with managers wishing to develop them.

However, some self-directed learning appeared to be directed by managers, rather than the employees themselves. This was particularly evident in HelpingPeople’s L&D department, although XRN’s department-manager’s and ImageCo’s owner-manager’s suggestions regarding learning also appeared to be followed unquestioningly with employees often adopting such suggestions as their own. Accordingly, employees at all three SMEs accepted the need for self-directed learning to be undertaken in their own time: “I've done a lot of home-study... it was down to us to research” (IC3), “I was doing some self-learning at home... my choice... you don't get time to get training from your employer” (HP2) and “the
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*majority of training courses, workshops, are in our own time after work*” (XRN3). Learning in one’s own time is discussed more in the Time and Budget section (pages 151-153).

Self-directed learning, using a plethora of styles and methods, occurred at all research sites, with many employees being proud of learning this way. Although aware that it had arisen from lack of other learning opportunities in previous employment, research subjects ignored the fact that such opportunities were often also lacking in their current organisations. They claimed to like the freedom and independence it gave them, although in reality it often appeared to be directed by their managers, rather than themselves. Managers wholeheartedly supported self-directed learning, although their behaviour did not always seem to arise from the altruistic intentions assumed by Vygotsky’s MKO and Bandura’s role-models.

**Summary from Types of Learning**

This exploration of the types of learning in the research SMEs has found much of it to be interpersonal, informal and on-the-job, although there is lack of awareness of its extent, perhaps due to it being contextualised in the organisations’ operational activities, as well as being hindered by language used to describe it. The learning appears mostly superficial and seldom evaluated or reflected on, which may be due to time pressures. There are many suggestions that owner-managers/managers are not the kindly enablers of learning expounded by Vygotsky and Bandura, but pragmatic individuals who influence their employees’ learning according to the needs and resources of their business and perhaps their own desire to retain power. Although there is some evidence of CoPs, these seem less complex than Lave and Wenger’s examples, with managers doing little to encourage them, despite suggestions that they could be cheap/free sources of learning. These issues will be examined further in the exploration of themes relating to features of learning, namely trust, role-models, time and budget, depth of learning and responses to learning, which follows.

**Trust**

This theme came from in-depth contextual examination of codes, having previously been in the Reasons for learning or not learning category. It comprises, in order of prevalence, trust, comfortable, accuracy confidence and fear.
Trust arose as an issue in all the SMEs, being interpreted in various ways and often mentioned in relation to e-learning. However, at XRN it was initially raised regarding whether employees could be trusted to work, much less learn, at home. Nevertheless, XRN did not consider this important enough to devote time to investigating. Although this issue was not mentioned at ImageCo, there was much concern at HelpingPeople as to whether people could be trusted to undertake e-learning. Some employees were using elaborate methods to avoid such learning, which apparently required more effort than the learning itself. It was not apparent whether they were avoiding learning or avoiding evaluation/assessment of it. HP2 mentioned possibilities of “the brother-in-law or a friend” doing the e-learning instead of the employee and the discovery of “crib sheets... circulating that people... sell to others with the answers to the e-learning”. Randomising the order of questions foiled cheating, but there was much speculation regarding why it had happened:

“more importantly for me, I want to find out why that happened. Why has there been a need for that crib-sheet? What is their barrier? What is their motivation to work in that way? Is it time? Isn’t the platform user-friendly? Is it just that they don't like e-learning? What is it that's caused them to behave in that way?” (HP3).

Initially this was freely mentioned to me, though often in one-to-one situations, typically while making tea together. Then suddenly no-one wanted to talk about it anymore, typically responding “I think HP1’s dealing with it” and HP1 would not discuss it, although, until then, he had stressed his openness and approachability. However, I could understand that he would not want me seeing HelpingPeople’s employees as untrustworthy because the organisation was a charity helping disadvantaged people so that employees were in “a position of responsibility and trust” (HP3).

Employees at both XRN and ImageCo suggested that “trust comes from credibility” (XRN2). XRN1 thought that people learnt from their line-manager because he was “credible with relevant experience”. IC1 was concerned that ImageCo’s e-learning system appeared credible so that people would trust, and therefore buy, it: “emailing it through to someone, just saying ‘This is great’, has no credibility”. IC4 explained that ImageCo was considering using “validating organisations” to give accreditation to its e-learning “to build up our good name”.

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Many XRN employees thought that the importance of trust would grow as e-learning became more common. XRN2 thought that, as much of their information came from “accredited official websites”, it could be trusted. XRN1 mentioned the complexities of trust in e-learning, particularly complaining about items posted on websites/forums which “completely pointed you in the wrong direction”, although he claimed to usually avoid this “through experience”. Similarly, HP5 trusted forums by “trying out suggestions and seeing what worked”.

Trust was much mentioned at HelpingPeople: apparently many customers were concerned about it so it “crops up every day” (HP1; HP2). HP1 told me that customers often asked him “How do I trust that somebody who's doing the e-learning has done it... that they have understood it? How do I trust the quality of what you're delivering?” He thought that such concerns should apply to all learning, not just online, and that asking these questions suggested a lack of relationship and “proper management” between the questioners and their employees. I thought this was ironic as HelpingPeople employees were cheating during e-learning, as mentioned above,

I felt that people within all three SMEs were increasingly willing to learn from me as they grew to trust me and we felt comfortable with each other. IC6, a trainer, stressed the importance of feeling comfortable in learning situations: “I don't just walk in and say 'Right! Here, you learn this, learn that, learn the other’... I'd never find that comfortable so I... engage people in conversation and get them to tell me about things”. IC6 was the most concerned of all my research subjects that her students felt comfortable: “I help to make people feel more comfortable... I give them a common mistake that you can make, but I will always give them an example of when I did that.... So, I'm not talking about what your mistake is; I'm talking about my mistake was”. I observed her and other ImageCo trainers trying to make students feel comfortable by behaving informally and sharing anecdotes (see Photograph 4.11). Despite developing and delivering learning to many different audiences for fifteen years, IC6 had

“never been asked to (develop) any e-learning... It would be an interesting place to... think about because when I am training, I give a lot of myself. I engage... to make people feel comfortable... that's a very important part of the process to me so I would
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“find it... quite troubling to try and develop e-learning without that verbal interaction because I rely on that so heavily”.

Feeling comfortable was highlighted during my feedback session at XRN when employees told me that, following my research there, a customer mentioned the importance of “feeling comfortable” while learning which led to me adding a question about this to the Interview Protocol (see Appendix D).

Photograph 4.11: ImageCo trainer putting students at ease during a course

HP6 spoke of feeling uncomfortable in learning situations in previous employment: “I felt a bit out of my depth because I’d had no real training”. She contrasted this with another situation which “was a really valuable learning experience because... we worked very closely together... and there was a lovely atmosphere”. IC2 said “I definitely feel uncomfortable having to train people that are a lot older than me because I can tell also that they don't feel comfortable with it” but further discussion suggested that IC2 had received inadequate training to cope with such situations. Sometimes feeling uncomfortable apparently led to learning: HP7 claimed that “the most stressful experience of my life... was absolutely
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horrendous and I learnt more... from that course than anything else”. Also HP3 told me that when she started delivering first-aid training she initially felt “out of my comfort zone”, but persevered because she considered that this training was important as lives could depend on it. Her courses were well-received, increasing her confidence so that she began to enjoy running them.

XRN2, IC1, IC6 and HP9 thought that accuracy of information affected trust in learning, so were concerned that the material they were developing/delivering was accurate: “I don’t assume… I'll always look for confirmation that it’s correct” (XRN2) and HP9 mentioned not trusting websites “if the graphics are a bit sketchy or it doesn’t look professional or if there are spelling mistakes”. XRN’s line-manager wouldn’t use actors in technical videos, citing one where mispronunciation of a technical term led, he thought, to “knowledgeable people” being unlikely to trust the rest of the material. However, while acknowledging that the internet contained inaccurate/incomplete information, ImageCo employees saw this as a minor inconvenience compared to the advantage of being able to retrieve large amounts of potentially relevant information easily and speedily: “I know it’s full of misconceptions, but it's also got a huge amount of data that you've never been able to access” (IC1) and “I love the internet. It is magnificent. Although there is always that caveat of beware the source... part of learning is... understanding that the source changes the message” (IC6).

There were suggestions that fear was connected to trust: IC6 mentioned students who were “frightened of looking like idiots” so she felt it was her responsibility to try to build trust by making them feel comfortable. IC5 cited people who “don't want to risk their reputation by” undertaking e-learning and failing tests within it; he had tried reassuring them that no-one else would see their results, but they did not believe him. Another manifestation of fear occurred at HelpingPeople where L&D staff considered their role was important and valued and that employees across the organisation regarded them highly. However, at times this “high regard” seemed to invoke fear with HelpingPeople employees cheating in order to meet learning objectives, as mentioned previously.

Examination of trust in the context of SME learning has highlighted that the research subjects conceptualised it in many different ways. For example, it can be interpersonal, for example teachers and students needing to trust each other, and it can be manifested in objects, such as learning material. Accuracy and feeling comfortable and confident appear important in
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building trust, while lack of trust often leads to fear. The next most prevalent theme, the Influence of Role-Models, will now be explored.

The Influence of Role-Models on Learning

Appendix M shows that references to this, in order of commonality, were role-models in general, organisational attitudes, mentor-influence and parental influence which are now explored.

Throughout my research, there were instances of individuals acting as proxies for owner-managers, for example, department managers in both XRN and HelpingPeople. Instances of proxies acting as owner-managers will be indicated, with the use of the term ‘owner-manager’ referring to the proxy in this context.

Both academic and practitioner literature suggests that SME owner-managers influence learning and so could be regarded as role-models (Bosma et al, 2012; CIPD, 2015a). HelpingPeople’s Chief Executive Officer (CEO) and XRN’s Managing Director are considered as owner-managers in my research. ImageCo’s owner-manager appeared to have more direct influence on employees, than her counterparts in XRN and HelpingPeople. This might be because ImageCo was the smallest organisation and so had a tighter span of control or because the owner-manager sat with her employees: she was immediately available to them for learning opportunities, and could also observe their learning first-hand and influence it accordingly. This ease of monitoring may have allowed her to feel more in control of her employees’ actions. XRN’s and HelpingPeople’s size and structure precluded such direct contact, although line-managers who sat with (HelpingPeople), or close to (XRN), employees were influential. This suggests that the size of the organisation, which is likely to affect the physical distance between owner-managers and employees, may affect the former’s influence on employee learning.

Owner-managers’ personal styles also appeared relevant. XRN’s owner-manager was a distant figure who I never met as he had delegated responsibility for me to the line-manager of the department in which I was based. The owner-manager appeared similarly remote to XRN employees, except the other managers; other employees knew his name and what he looked like, but only met him briefly and infrequently, with some even referring to him as
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‘Mr. (surname)’, rather than by his first-name. Communication was through line-managers, but no-one seemed to expect closer contact with him as they perceived his role as primarily customer-facing.

\[12\] Identically-dressed XRN employees on Dress-Down-Friday

My department’s line-manager appeared influential, perhaps being a proxy for the owner-manager; his expertise was recognised and his hands-on approach appreciated. His behaviour set the tone for the office, with employees even imitating his dress style; everyone wore identical company polo shirts on ‘Dress Down Friday’ which they told me he liked and expected (see Photograph 4.12). He seemed to influence employees’ learning, appearing to be Vygotsky’s MKO and Bandura’s role-model, although XRN3 emphasised “it’s not mimicry, it’s just understanding that’s what he does”. Team-leaders tried to introduce new ways of working, including Agile Project Management (APM) and using balanced scorecards, but these were not widely adopted, seemingly because the line-manager did not endorse them. For example, APM daily scrum meetings were badly attended with the few attendees appearing disinterested (see Photograph 4.13). Similarly, a balanced scorecard was prominently displayed, but had not been completed for seven months.
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Photograph 4.13 XRN’s badly attended daily scrum meeting

XRN3 said he had volunteered to run L&D for colleagues a year earlier, but the line-manager had not encouraged this and so it never happened; it appeared unthinkable for anyone to arrange internal L&D, however informal, without the line-manager’s express approval. The line-manager apparently considered that it could be more efficient for knowledge to be retained by one person, rather than investing time in disseminating it. I observed an employee asking him whether he thought that free seminars being run by professional bodies were worth attending and his decision (“No”) was adhered to, even though these events took place outside of work-hours.

This type of influence is not pro-active but effectively suppresses initiatives of which owner-managers do not approve. I also observed it at HelpingPeople where the L&D Manager (HP1) consciously assumed the owner-manager’s role regarding employees’ learning. During his absences, there were frequent debates regarding whether anyone was willing to discuss with him aspects of their approach to learning with which they disagreed. During one
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absence, several L&D employees discussed how to include specific items in e-learning material and someone suggested using a pdf which was instantly met with “I don't think HP1 would like a pdf”. The debate continued, but I was not aware of pdfs being raised with HP1 when he returned.

Initially I was unaware of such influence occurring at ImageCo. Owner-manager IC1 and employees sat together in an open-plan office and long-term personal/familial relationships meant use of first-names and close involvement in each other’s lives. This constant day-to-day contact seemed to add to respect for IC1 and her abilities: “IC1 has far, far more knowledge... I’ve had a lot of help ... because she’s got lots of expertise” (IC2). Although employees acknowledged her short-comings, such as occasional lack of organisational and time-management abilities, they regarded her as an MKO and role-model, often following her unquestioningly, particularly regarding learning, without apparent consideration of alternatives. IC1 told me she expected employees to be independent and take responsibility, particularly for their own learning and she encouraged on-the-job and interpersonal learning, for example taking IC2 with her to client meetings. However, IC1’s long-term aims for the business were heavily influenced by the short-term need for survival, with both she and her employees being aware of ImageCo’s limited budget. Therefore, IC1 was keen to exploit free/reasonably-priced learning opportunities and her employees accepted her guidance unquestioningly. They constantly sought her advice and guidance, regularly interrupting her, unless she was with clients. In Photograph 4.14 she was busy preparing bid applications, but an employee felt free to interrupt, asking her to help compose a letter.

During my research, IC1 went on holiday for six working days which caused her employees much concern as they seemed nervous of carrying out specific activities without her being there. In reality, prior to her departure, IC1 advised clients of her absence and when two clients contacted ImageCo for advice during her absence, employees dealt with the queries, although they appeared uncomfortable doing so. Employees seemed to lack confidence to operate without constant reassurance from IC1 and, despite her assertions otherwise, she appeared to do little to discourage this behaviour. Although IC1 networked extensively, she never suggested that employees attended such events, possibly to discourage their exposure to other potential role-models and/or to prevent them forming their own networks. Also, despite everyone having access to ImageCo’s e-learning and IC1 frequently saying how useful this was, she seldom used it herself and did not allow specific time during work-hours
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for employees to use it. Therefore, IC1 also seemed to have a negative influence on her employees’ learning.

Photograph 4.14 An ImageCo employee interrupting owner-manager to ask for help

Only two research subjects referred to themselves as role-models. One was IC7, an ImageCo client, who, with her husband, owner-managed an SME and said their fifteen employees “have 2 role-models to follow, husband and wife.” However, although IC7 believed that she and her husband had many skills and abilities which their staff could learn from, she did not want employees to copy their “bad habits” and realised that they often acted instinctively so that employees found their behaviour difficult to replicate. Consequently, she had hired ImageCo to teach her employees skills to improve their workplace practices and appeared genuinely to want her employees to learn, even if this necessitated someone else becoming their role-model. Interestingly, this seemed to add to her employees regarding her as an MKO as her choice of trainer met their learning requirements.

HelpingPeople’s L&D Manager, also referred to himself as a role-model, rather than just a superior/colleague from whom people could learn. Despite claiming to encourage
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informality, he frequently emphasised his job title and hierarchical position, referring to himself repeatedly as “Boss” and talking about people being his “shadow”. Although he said “I’ll ask him for feedback on my performance, ask him how he would’ve tackled it and what his vibe was” he was keen to emphasise his status in relationships between himself and others: “I demand excellence from my guys” and “I have a nickname of Darth Vader, because I... sack people or ... shake it up”. His department had a high staff turnover, few HelpingPeople employees phoned him directly to ask for assistance and during his absences, the office atmosphere felt less formal. HelpingPeople employees appeared to regard him with less warmth than they did the CEO, who seemed to know, and be known by, all 248 employees. Employees used her first-name and she communicated regularly by email, visited each location as often as she could and kept up-to-date with key happenings throughout HelpingPeople. Having benefitted from on-the-job learning, she expressed surprise at the high proportion of HelpingPeople’s learning which, HP1 told her, was e-learning rather than on-the-job. However, she appreciated the value of different types of learning and had encouraged this by restructuring the L&D department. This led to each employee having a personalised L&D programme, encompassing face-to-face and e-learning, which was taken very seriously, for example it was a key part of staff appraisals. Although not keen to undertake e-learning herself, she acknowledged its benefits to HelpingPeople, allocating a large proportion of HelpingPeople’s budget to e-learning development and being careful to publicly support it. I heard no negative comments about her during my research: she appeared popular and admired, being regarded as an MKO/role-model by many and seeming to positively influence employees’ attitudes to learning.

Mentors were also seen as role-models and examination of them in this context specifically relates to mentors influencing how/whether learning occurs, rather than learning from mentors/mentees as discussed in the Interpersonal Learning section (page 117). Mentors in this context guided mentees “in terms of an approach and the way to do things” (HP1), often giving mentees the confidence to discuss their learning aspirations with their managers. XRN2’s mentor urged him to set up a “personal development plan” and encouraged him to develop it into actions. IC5 emphasised the advantages of a mentor being “somebody that you wouldn’t know” so that he/she could recommend learning opportunities impartially: as HP1 said “to be the right kind of mentor, you’ve got to have that honesty, you can't put confines around what you do”. Other role-models were family members, often parents. IC6, HP2, HP7 and HP8 mentioned their parents influencing their learning, including choosing suitable
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schools (HP2), being “taught to read by my parents” (HP7) and wanting “to make Dad proud” (HP8). XRN2 spoke about his father-in-law being “the one I’ve pretty well taken my lead from” while HP7 said her husband “used to sit there and help me understand what it really means to think about something and to explore... how to learn”. IC1 was IC2’s aunt and so could also be seen as a familial role-model. Several mentors were external to the organisations and so their influence on mentees’ workplace learning, like that of family-members, was limited.

Exploration of the influence of role-models on SME learning has suggested that owner-managers/ their proxies are often role-models, sometimes due to physical proximity and/or personal styles. People in positions of power were frequently seen as MKOs/role-models, and they seemed to encourage employees to blindly follow them. As also observed earlier in this chapter, few managers actively encouraged employees to join/develop CoPs or to learn from anyone other than themselves. However, when such encouragement was given it seemed to enhance views of the encourager as an MKO. Nevertheless, such behaviour was unusual and managers’ non-pro-active, suppressive behaviour, which I observed in all three SMEs, was far-removed from the benevolence of Vygotsky’s MKOs and Bandura’s role-models.

Although other role-models, notably mentors and family members, were mentioned, these were generally external to the organisation and so their spheres of influence regarding workplace learning were limited. The next most prevalent theme, Time and Budget, will now be investigated.

Time and Budget

I decided to combine time and budget into one theme as they often arose together in interviews and casual conversations. References to time and budget, as shown in Appendix M, in order of prevalence, were time in general, in one’s own time, keeping up-to-date, SME-relevant factors and budget; these will now be examined.

Time in respect of learning was referred to in many different contexts during interviews and conversations in which I participated or overheard. Some instances have already been discussed, for example, HP3 wondered whether it was lack of time which made employees cheat in online learning tests and XRN’s line-manager considered that one person retaining knowledge was more efficient than investing time disseminating it. People at all three
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research sites thought that working in SMEs presented specific challenges regarding learning, for example “that’s the nature of SMEs... you have to sacrifice certain things to get the current day job done” (XRN3) which may be the reason for some self-directed learning. XRN employees mentioned being taken out of training courses because, being in a small organisation, they were the only people who could solve specific operational problems.

Employees at all research sites considered they had insufficient time to carry out their roles in normal working hours, for example HP5 spoke of hardly having time to type in queries, while sometimes two XRN employees worked as a team, with one inputting questions to Google while the other tried out its suggestions. Consequently, skills in finding information quickly were valued: “I would have to search quickly... so obviously that meant that I had to know what to put in because... if you put rubbish in, you get rubbish out” (HP5). Similarly, people were proud of being able to learn quickly, as in “I do pick it up quite quickly but I think a lot of that is self-driven” (HP3) and “I work on the assumption that if there is something I need to know then, of course, I can learn it quickly and apply it” (IC6). Some felt that they could learn anything given sufficient time: “if you show me things that are abstract and give me lots of time to think about them, I’ll be able to put the pieces together” (IC6).

Working under such time pressures inevitably meant that most people considered they had little, if any, time during the working day for learning activities, unless necessitated by operational demands, which, when they did arise, required fast resolution: “you need it just about yesterday” (XRN1). Photograph 4.15 shows a XRN employee responding to a colleague’s request for urgent help by showing him the information online. Several people, across the SMEs, acknowledged that there was rarely time to undertake e-learning courses during work-time. Previous attempts had shown that interruptions were inevitable, even if a Do Not Disturb sign was displayed and/or the learner moved to a room where he/she could close the door: “you’re not really given time to do it. If you’re sat at your computer with your headphones on, people will go ‘Why are you not working?’” (XRN3). XRN employees discussed this at length as a dedicated e-learning room was being considered, despite misgivings: “You then have to go through the whole rigmarole to get logged in at a separate e-learning site in which case what’s the point of e-learning because you now have to go somewhere else to do it?” (XRN3).
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Photograph 4.15 XRN employees learning online how to resolve an urgent problem

Time constraints encouraged some people to use e-learning which they perceived saved time: “I see the benefits of e-learning; it’s quicker” (XRN3) and “I wanted to use as much technology in learning as possible to save myself time” (HP2). The advantages of informal e-learning methods, such as Googling, which required little time, were mentioned: “Sometimes you can be stuck on a problem for days and you do a quick Google and... it's solved your problem” (HP4). Time-saving aspects of e-learning appeared particularly important to some sectors: “financial services want to be out doing sales, they don't want to be spending too much time learning, so we’ll give them links to resources so they can read up what they need” (IC1).

Time and budget restrictions might explain why much learning I observed was on-the-job, supplied by colleagues or e-learning as all were available quickly and cheaply. IC3, HR Manager in one of ImageCo’s client SMEs, discussed how her organisation had tried to implement ImageCo’s e-learning system, explaining that, although most employees said they liked the content, few used it after an initial flurry of enthusiasm. However, IC3 felt that, although people blamed this on time constraints, the directors’ attitude influenced the take-up as they neither used it themselves nor publicly endorsed it. Additionally, they restricted e-learning usage, not giving employees “access unless they agree to do whole certificate
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courses”. This precluded employees from using the system’s bite-sized learning which IC3 considered was potentially more useful as individuals could not only use it to resolve immediate problems, but could also fit it around their jobs, rather than needing to take “hours off from their day-jobs” to attend courses. However, the directors would not change their decision and the e-learning was abandoned.

Attitudes to time and learning in the context of ‘work-time’ and ‘own-time’ varied considerably between the SMEs. In XRN, those who considered themselves to be management had a very different attitude towards time than other workers. They asserted that they were not ruled by the bells which marked the start and end of work-shifts; they arrived earlier than the 8am start-time and stayed after the finishing-time, which was usually 4:30pm, but 12:30pm on Fridays. ImageCo workers were usually in the office until at least 6pm, despite starting work by 9am and rarely taking lunch-breaks. By contrast, HelpingPeople’s L&D employees kept precisely to their contracted hours which were 8:30am until 5pm (4:30pm on Fridays), although they, too, seldom took lunch-breaks. If I arrived before 8:25am, I rarely found anyone to admit me to the badge-locked office and yet if someone had not arrived by 8:35am, HP1 would ask if anyone was aware why s/he was absent and would then contact him/her via Whatsapp (see Glossary). One morning HP10 arrived 30 minutes late, having informed the department via Whatsapp that his son had been ill during the night and he had subsequently missed his bus; HP10 had to work after 5pm to make the time up. HelpingPeople’s employees’ eagerness to leave at exactly 5pm meant they began locking work away (in line with the strict clear desk policy) from 4:50pm. One afternoon I was having a telephone conversation with a software developer on the USA West Coast in connection with work I was undertaking for HelpingPeople. The eight-hour time difference meant that there was a narrow window in which we could talk so I was still on the phone at 5pm. From 4:50pm people were gesticulating that I should finish the call and when I did so at 5:10pm I was alone in the office.

However, several HelpingPeople employees, including HP1, HP2, HP4 and HP10, professed to like e-learning because its flexibility allowed it to be done in their own time, usually at home: “e-learning allows learners to do the learning they want at any time, place, when it suits you” (HP10). HP2 thought he needed to learn in his own time because of his role: “within the IT sector ... you’re working 40, 50 hours a week or whatever, you don’t get time to get training from your employer so you have to keep motivating yourself to do (e-
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HelpingPeople employees often mentioned work-related learning they had undertaken the previous evening, although when they referred to “reading” something to keep up-to-date, this material was usually online. Although HelpingPeople had its own small library of physical books, HP1 said “it's down the end of the corridor; it’s never really used” and so he wanted to “put in e-books so they don't physically have to come to a location to read a book; they can just click on it and read it”. Initially this appeared to help employees, but it also fitted with HP1’s belief that employees should undertake some learning in their own time. Literature acknowledges the role of employees’ Organisational Citizenship Behaviour, that is “contributions not contractually rewarded nor practicably enforceable by supervision or a job description” (Konovsky & Organ, 1996, p253; Organ, Podsakoff & Mackenzie 2006) which Yan and Yan (2013) show is positively influenced by the behaviour of SME owners. European researchers more commonly use the terms ‘discretionary effort’ or ‘discretionary work effort’ to describe “extra-role performance” (Frenkel, Restubog & Bednall, 2012, p4193).

Although both XRN and ImageCo employees regularly worked longer than their contracted hours in the office, I was not aware of any of them working or undertaking work-related learning when they were at home, although some of them felt they should, for example “There are many (online) courses that I look at and go ‘That would be ideal. I should do that’ but then I don't get round to doing it… I guess (I need) time management outside of work” (IC2). IC2 also attributed her not undertaking e-learning to the temporary nature of her role, although she had been working at ImageCo for three years. I was surprised that IC2 earned the minimum wage and regularly worked longer than her contracted hours and yet she considered it normal that she was expected to undertake work-related learning in her own time. This was further evidence of her blindly following IC1 and of IC1’s predominately negative attitude towards employees’ learning, as discussed in the Influence of Role-models on Learning section above. Managers’ expectations that employees would undertake learning, particularly e-learning, in their own time was apparent in ImageCo and HelpingPeople. IC5 told me about e-learning in his previous employment as a charity SME manager:

“for volunteers, it was ideal because they could do it when they finished their day jobs and for the paid staff… if they were busy, they could do in the evenings… the workload is really fierce so e-learning is an ideal way of giving people an opportunity
Despite severe time constraints in all three SMEs, a few employees took time out for learning that they considered crucial, for example XRN2 told me it was “important to give yourself time to review things. It can be a bit of a luxury, but I think it’s very important and actually I don’t think I do it enough.” He also spent time observing others, as expounded by Bandura’s Social Learning Theory, looking for good and bad behaviour: “one of the things I’ve always done is look at bad examples... I’ve learnt as much from the bad examples as I have from the good examples”.

Employees at ImageCo and Helping People were emphatic that time constraints should not prevent them helping others to learn, for example “You've got to have time for people to reflect on what you're telling them” (HP3). IC6 stressed the importance of “giving (learners) time (which shows) you’re really interested in them” which she thought helped trust to develop. The courses which I observed at ImageCo and HelpingPeople had unhurried atmospheres: during a practical, informal session on a first-aid course, HP3 allowed people to repeatedly practice tying slings until they were confident in their abilities (see Photograph 4.8).

Another temporal issue concerned the importance of currency of information, both when learning and teaching. There was particular awareness of this at XRN, perhaps because it was in the nuclear engineering industry: “in 6 months’ time it could be out of date... the changes may only be slight, but they may be important” (XRN2) and “students needed that we could maintain currency” (XRN3). This was seen as particularly vital when accessing information online, for example “I’m after the latest version so I know it’s the most up-to-date piece of information... things move on so quickly” (XRN2) and “(I’m) keeping an eye on what's happening... to ensure I'm up-to-date with everything” (HP1). Awareness of legal requirements to keep up-to-date was widespread, with HelpingPeople being particularly conscious of new legislation which would soon regulate their sector more strictly. All three SMEs stayed abreast of such changes using ‘e-learning’, in reality reading emails and accessing relevant websites. However, there were also more formal processes in XRN and HelpingPeople, both of which had dedicated HR/health and safety managers/departments. HelpingPeople’s employees’ individual learning plans were reviewed annually by line-
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managers and included awareness of legislative changes. IC6 had previously worked at an insurance company and told me how e-learning had allowed speedy implementation of legally-required changes: “it was at a very low level, but they had to tick the box which meant that we had to do an online course to back that up... it wasn't a substantial piece of e-learning but it was a jolly useful exercise done in a very neat way because there were 250 of us”.

SME size seemed proportional to their training budgets with ImageCo’s being very small. Shortage of money was assumed as a way of life within all the SMEs with little resentment being expressed about lack of funds for learning purposes, although there was general optimism that this would improve, for example IC2 said “if we were to develop the business, ICI’d be happy to pay for me to do some ... qualifications”. Additionally, HP1 and HP8 both said that they wanted to gain further professional qualifications, but accepted that HelpingPeople could not fund this. In HelpingPeople in particular, several employees had left university within the last two years and/or, like many ImageCo employees, earned the minimum wage and so were accustomed to having little money themselves which seemed to help them accept their employer having a limited budget. Some employees, notably IC2, HP4 and HP10, also considered that financial restrictions were outweighed by the advantages of working for an SME, such as being able to undertake more varied work and have more responsibility than they might in larger organisations. I realised that enthusiasm for me to research in their organisations partly arose from seeing me as free labour. This was particularly apparent in HelpingPeople where on day one HR1 gave me a large project to complete during my time there, adding more work to this as time progressed and trying at times to interrupt my research to ensure that his project was completed.

Exploration of time and budget issues relating to learning has shown that SME employees work under time and budget constraints, with some considering that these pressures are greater in SMEs than larger organisations. There is considerable pride in coping with such pressures, but it leads to little resource being available for learning. Many see e-learning as, partly at least, a solution, particularly as this could help keep knowledge current, the importance of which was widely acknowledged. Despite employees having varying enthusiasm for learning in their own time, employers seemed to automatically expect it and influenced employees accordingly. There was dissonance between employees’ apparent preference for interpersonal learning and employers’ expectations that employees would
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undertake learning activities at home and therefore away from colleagues. This may further explain some employees’ reluctance to learn at home. However, employers seemed to ignore this discord and, although I realised that this was at least partly due to time and budget restrictions, it furthered my view that they were manipulative and suppressed their employees’ learning needs, bearing little resemblance to theoretical kindly MKOs/role-models. The next theme, Depth of Learning, will now be examined.

Depth of Learning

Appendix M shows that references to this, in order of commonality, were by absorption, deep learning in general, Neuro Linguistic Programming (NLP), creativity, recording learning and understanding, and these will now be examined. There have been several references to depth of learning already in this chapter, for example in the examination of Interpersonal Learning XRN3 mentioned how having “to explain something” to students made him think more and in the Informal/Formal Learning section HP3 expressed regret that some formal courses did not require any evidence of deep thinking.

It was difficult to ascertain whether deep learning took place as I had to rely on research subjects’ comments about it, which were rare even when I subtly prompted them. However, little evaluation of, or reflection on, workplace learning seemed to occur, perhaps because individuals considered these activities were more relevant to formal/classroom learning. Although they claimed to enjoy and benefit more from informal learning, some of them would not even acknowledge it as “real learning”. Consequently, much of the learning I observed seemed to be shallow; it was needed to address an immediate problem with no subsequent analysis of learning appearing to take place, that is Kolb’s first stage of the learning process (‘doing’) occurred with no evidence of the other drivers of learning occurring (see Figure 2.4). As discussed previously (pages 12-14), Vygotsky’s Socio-Cultural Theory of Human Learning contends that learning takes place on two levels, firstly the inter-psychological level through social interaction and then the intra-psychological level in which an individual assimilates and internalises that learning so that it is transformed into information or true learning in the ZPD (Turuk, 2008; Vygotsky & Cole, 1978). It was difficult to know whether this occurred, unless anyone mentioned it, which they did not, despite gentle probing. Similarly, it was not possible to know the extent to which individuals retained information, although I was not aware of research subjects repeatedly requesting the
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same information. However, HelpingPeople’s L&D employees occasionally complained that other people within the organisation asked them for the same or similar information several times. The L&D employees said that they could not understand why these people did not “just stop and think back” to previous times, extracting the information they had already been given. This links with Kolb’s Experiential Theory of Learning (see Figure 2.4), indicating that those repeatedly requesting similar information had not undertaken any of Kolb’s four stages of learning other than ‘doing’ (see Figure 2.4) with the outcome being foreshortened learning. No-one admitted to forgetting things they had been taught, apart from one XRN employee who spoke at length about attending courses he now couldn’t remember anything about, although he felt that those with interactive content were more memorable. IC6 claimed that being relaxed and happy while learning, could lead to reflection and expansion of knowledge: “the happier they were..., the more they remember afterwards. It's just that your brain is engaged in a different way, you're enjoying every minute therefore (it) becomes meaningful and memorable”.

There were suggestions that deep learning might be occurring when learners were totally engrossed, for example being so involved in learning that they were oblivious to what happened around them, but this was not conclusive. Photograph 4.16 shows a XRN employee teaching a colleague how to carry out a procedure in video production; they were both so engrossed that they ignored a colleague asking whether they would like coffees. Some people professed to be unaware that they were learning and only realised it later when they needed the information, as in “I had a lot of resources around me at the time, a lot of creative people, and I just sort of picked it up” (XRN1). Similarly, there were references to learning “by absorption... you sit and learn by osmosis” (XRN3) which HP2 thought was a “much more immersive, more memorable” way of learning. IC1 talked excitedly about how she wanted to “give people learning without them actually really realising it. It’s more effective because it’s already embedded in their subconscious... through drip feeds”. This implicit, rather than explicit, learning fits with Lave and Chaiklin’s (1993) view that learning is not always obvious as it is often hidden by its ubiquity.
The need for deep learning was recognised to some extent in all three organisations, for example “learning is being able to use and understand something new, it isn’t just saying that I’ve done something” (XRN3). XRN2 stressed “I think it’s the review process which is important”, although, as discussed in the Time section above, he felt that time constraints prevented him doing this as much as he considered necessary. Similar views included “you think ‘OK, I’ve learned these things, but how can I improve that? How can I make it more efficient?’ Because that’s what you’re looking for” (HP4) and “it’s all about piecing together bits... suddenly something will go... ping in my head. And I’ll think ’Oh, yes, why didn't I think of that? Let’s try it’” (HP5). Consequently a few people highlighted the need for all learning experiences, including classroom courses, to have time for reflection: “you've got to have time for people to reflect on what you're telling them... to enable that person to reflect and find their own answers” (HP3) and “it’s about engaging with people and getting them to think about what they know” (IC6). These mentions of the need for review/reflection accord with the second and possibly third stages of Kolb’s Experiential Learning Theory (see Figure 2.4), indicating that XRN2, XRN3, IC6, HP3, HP4 and HP5 have awareness of such actions as drivers of learning. However, the realities of the SME workplace, particularly time
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constraints as discussed above, meant that little reflection, much less any new thinking resulting from it, seemed to take place, due to the absence of Kolb’s second and third stages as driving learning forward (see Figure 2.4). HP3 and HP7 in particular complained about courses/situations where deep learning was not expected so that they were frustrated at not being stretched enough: “it was more about showing the assessor the bits of paper than how I met a certain outcome” (HP3). This suggests that those responsible for the courses had not fully considered the drivers of learning and how these could meet specific learning outcomes as shown by Kolb in his Experiential Learning Theory (see pages 19-21). XRN employees had similar concerns that having training records was seen as more important than testing whether learning had occurred and, although each employee had his/her own Skills Assessment and Training Record book, I did not see one which had anything written in it.

A few people mentioned colleagues/superiors encouraging them to think about what they had learned and then convert it into embedded information. HP6’s previous manager “would always say ‘Why did you use that approach? What theory were you using? What do you think the outcome is going to be? Why is that? ’ She was very probing”. Those who had received such encouragement were adamant that others should be encouraged to learn this way too and consequently tried to influence their employees/colleagues, for example “we’d have a big discussion about ‘Why do you think I asked them that question?’ and ‘Why do you think I didn’t push them on that issue?’ ” (HP6). However, I observed managers neither allowing employees time to reflect on their learning nor suggesting it to them, seemingly oblivious that without reflection employees were merely gaining experience, not necessarily learning, as shown in Kolb’s Experiential Learning Theory. Ostensibly this was because of time pressures, but it may be further evidence of managers’ negative influence on employees’ learning, perhaps due to not wishing to lose their position as MKOs.

Dislike of a particular learning style was thought by some to result in their learning lacking depth, for example,

“(e-learning) doesn’t make any kind of deep connection... I need to relate to a person, so (I) learn from people, that’s how I internalise things... I’m connecting with them so... therefore it sinks in a bit more whereas I think when I’m doing it on a computer screen, there’s no connection there” (HP6).
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Others mentioned techniques and processes which they thought encouraged deep learning: IC1, IC6 and HP3 cited how NLP and even hypnosis training (IC6 only) had helped them to learn more deeply. All asserted that NLP could also help others learn deeply because “it works with someone’s brain to get the process right... encouraging them to (use) a slightly different part of their brain and then the world goes ‘Dada!’ and changes” (IC6). HP7 had learned on KaosPilots’ courses (see Glossary) which “made you think differently”; she said KaosPilots looked for “shining eyes” which they considered showed that deep learning was happening. This is further evidence of some research participants being aware of the importance of at least some of Kolb’s ‘observing’, ‘thinking’ and ‘experimenting’ stages occurring, as well as the ‘doing’ stage if learning is to be the outcome.

Although there was more awareness of the importance of depth of learning than literature suggested, little of it seemed to occur or be expected. It appeared to be affected by other themes, for example, lack of it was attributed to time restrictions, although there were suggestions that it was due, at least partly, to managers’ negative influence. Issues raised in this section will be explored in the next part, Responses to Learning.

Responses to Learning

References to this, in order of prevalence, were enjoyable and boring, as shown in Appendix M and these will now be explored. Although this is a small theme, it appears to be important because responses to learning occurred throughout my observations and interviews.

Enjoyment of learning has already been mentioned in the exploration of informal, on-the-job and interpersonal learning, and references to it have often been combined with participants considering such learning to also be effective/beneficial and/or increasing their pride and self-confidence. For example, employees in all three SMEs claimed to enjoy on-the-job learning, referring to it as “fun” (HP3) and comparing it to playing: “a lot of it is getting your hands dirty, getting in there with the software, playing, mucking about with things” (XRN1). HP6 willingly undertook formal learning to gain professional qualifications “because it was things I was learning which I had a real passion for”. IC6 thought that enjoyment helped people learn: “you’re enjoying every minute so your brain is engaged in a different way, every minute therefore becomes meaningful and memorable”. Also, when employees were totally engrossed in their learning, as discussed in Depth of Learning above, they also appeared to be
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enjoying it (see Photograph 4.16). However, there were suggestions that when employees enjoyed their learning they did not regard it as “real learning”, although IC6 considered that enjoyment of learning could make it more memorable and possibly deeper. Some trainers, notably HP3, mentioned enjoying facilitating others’ learning.

XRN1, XRN3, IC2, IC7, HP2 and HP3 cited examples of being bored when learning, with some blaming this for failing to learn, for example “It bored me... I didn't learn anything at all” (HP3). IC2 thought that formal learning was often boring, while XRN3 and HP2 mentioned particular instances of boring e-learning. IC7 thought that the “interactive” aspects of blended learning and bite-sized learning’s “short, sharp bursts of learning” could lessen the chances of learning being boring.

The findings from exploration of the Responses to Learning theme together with the other themes relating to types and features of learning will now be summarised.

Summary of Learning in SMEs

This section has investigated how learning takes place in SMEs by examining themes coming from analysis of my findings. Informal, interpersonal and on-the-job learning occurred at all the research sites, although it was often hidden by its ubiquity and the fact that few research subjects considered it to be “real learning”. Although there were suggestions that such learning resulted from lack of time and money, many employees thought that these methods were the most enjoyable and effective ways of learning/teaching. However, it was recognised that some formal learning was necessary due to the sectors in which XRN and HelpingPeople operated which required forms of certified learning.

Self-directed learning occurred in all three SMEs, partly due to time and budget restrictions, although many employees clearly enjoyed it as it gave them pride and self-confidence. Opinions were divided between managers and employees regarding whether the latter should learn in their own time: managers unanimously expected this, while there was less certainty among employees. Although HelpingPeople’s L&D employees usually only worked their contracted hours, many expected to learn in their own time. However, ImageCo employees, and some at XRN, regularly worked extra hours unpaid, but did not appear to undertake any learning in their own time, although some felt they should. Managers exerted varying degrees
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of pressure on employees to learn outside of working-hours, ignoring the fact that, as this learning inevitably happened at home, it precluded opportunities for human interaction, although employees expressed a universal preference for interaction in their learning.

Managers, through their positions of power, were often automatically regarded as MKOs/role-models, but their influence on employee learning often seemed negative, with much evidence of non-pro-active, suppressive behaviour which bore little resemblance to the benevolence of Vygotsky’s MKO and Bandura’s role-model. Organisation size appeared proportional to the physical distance between owner-managers and employees and consequently the degree of their influence, for example IC1 sat with her employees and was slavishly followed. Office layout affected not only managers’ influence, but also interaction between employees and consequent opportunities for interpersonal learning.

Trust emerged as an important factor in SME learning, though from many different perspectives, ranging from whether employees could be trusted to learn unsupervised to whether the material was accurate.

There was more awareness of the importance of depth of learning than I expected, but opportunities for it were scarce. Many employees attributed this and other limited learning opportunities to shortages of time and money which they thought were exacerbated in SMEs. However, again, there were suggestions that managers negatively influenced their employees’ depth of learning in order to retain their positions as MKOs/role-models.

Although there were some suggestions that employees could, or would like to, be part of external CoPs, this appeared to be discouraged by managers, even when this could provide free/cheap learning opportunities and/or could aid the development of employee networks. Consequently, such CoPs that were found appeared shallow and sporadic and therefore lighter versions of those encountered by Lave and Wenger (1991).

The insights gained from this exploration of general learning in SMEs will now be used to investigate e-learning within such organisations, specifically examining how they conceptualise and use such learning.
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e-learning in SMEs

This section will explore how the three research organisations conceptualised and used e-learning and the types of e-learning employed, based on observations, semi-structured interviews and photographs. The extent and depth of learning and the influence of (owner-)managers, time and trust are explored in the context of e-learning, as are blended and bite-sized learning. The findings are examined through the lens of the social cognitive theories underpinning this research, discovering, perhaps surprisingly, relevance in the virtual environment, particularly regarding CoPs which seem more common online.

This section has few photographs because, although they may show people using laptops, mobile-phones, etc., due to the nature of e-learning, it was often difficult to distinguish between e-learning and general computer usage. Therefore, sometimes I had to make assumptions, although, whenever possible, I asked questions to clarify this. However, sometimes, e-learning was obviously occurring, for example someone would exclaim that they had found a solution to a specific problem online or that extensive online searches hadn’t found a solution. It was easier to ascertain that online learning was occurring when two or more people undertook this together, as I could hear them discussing what they were doing (see Photograph 4.17). Learning online in pairs or small teams seemed popular, perhaps because it added an interpersonal dimension to such learning.

Photograph 4.17 XRN employees learning online
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Conceptualisation of e-learning

Prior to my research starting, XRN management said that employees undertook a limited amount of e-learning but that this should grow, ImageCo’s owner-manager stated that that all employees had access to extensive e-learning and HelpingPeople’s CEO professed that employees undertook much of their learning electronically. During these discussions I cited online courses, webinars and learning using media such as Skype (see Glossary) as examples of e-learning and no-one disagreed with this or suggested alternatives. Therefore, we appeared to share a common understanding of e-learning in the workplace.

However, when I started work at each organisation, it quickly became clear that employees translated e-learning very differently. Throughout the research I observed no-one undertaking online courses or webinars or using Skype for learning purposes, although IC1 told me that three employees planned to undertake a course “completely by e-learning” within the following six months and XRN2 enrolled on Strathclyde University’s part-time MSc, due to start that autumn, which included “a lot of e-learning type stuff”. Many HelpingPeople employees had undertaken online courses which were a compulsory part of their annual reviews, although none expressed enthusiasm for them. However, HP8 enjoyed being part of a community of people interacting across geographies by taking part in “online webinars and online conferences” which “keep me up-to-date and relevant” and which he claimed solved the problems of different time zones, paces of learning and abilities. This included “Mongo DB University”, an online course with seven weekly webinars. HP1 encouraged HP8 to learn this way, particularly as he did it at home and in his lunch-break. Otherwise no-one used webinars or Skype, except IC4 who used them to demonstrate e-learning to potential customers, although the e-learning itself included neither webinars nor Skype. XRN3 viewed both of these with suspicion, saying “the problem with webinars is you can’t see the whites of their eyes”.

Despite this disparity between management’s claims and employees’ apparent usage of e-learning, the majority of research subjects professed to be “fans” of e-learning. I soon realised this meant informal e-learning methods, which aligns with their preference for informal learning, discussed earlier in this chapter. Employees who were reluctant to use e-learning often attributed this to a preference for interpersonal interaction in their learning, for example “e-learning is a completely different ball game, because there’s no chemistry there” (IC1) and
“I like the human-interaction side of things” (XRN3). Although a few people, notably HP5 and HP8, talked about the people they had “met” on forums, e-learning’s lack of interpersonal interaction was seen by many as its major drawback, particularly as they assumed that there was no feedback facility in e-learning as “at some stage you need to talk to somebody” (IC5). However, the feedback regularly given in forums was an important benefit for regular users and ImageCo’s in-house e-learning system gave feedback, which IC3 found useful. IC4 attributed her company’s in-house e-learning system’s “very high completion rate of modules” to awareness of the importance of interpersonal interaction in learning. If someone didn’t complete a module, they automatically received an e-mail saying “We notice you started and wondered if you wanted to complete the module” and offering help; the email was purposely written as if it had come from a person in an effort to establish a relationship with the learner. If no action was taken, regular “personal email reminders” followed, which apparently often led to module completion.

It was apparent throughout my research that some terms, particularly e-learning and blended learning, were interpreted in different ways by research participants, with some people periodically changing their own definitions. For example, some people professed to dislike e-learning (which appeared to mean formal e-learning, such as online courses) while happily undertaking informal e-learning, for example Googling on their mobile phone. Two research subjects were particularly negative about e-learning, repeatedly asserting “I’m not a big fan” (XRN3) and “it’s just not my style of learning” (HP6), although both acknowledged the necessity for it in their workplace as it saved time and money. XRN3’s dislike stemmed from a bad e-learning experience several years earlier which he still spoke about at length. In his previous job face-to-face courses were preceded by compulsory e-learning, regardless of students’ knowledge. XRN3 resented being “asked to do an awareness level course when I’ve already got practitioner level status” and this continued to influence his opinion of e-learning. However, both XRN3 and HP6 used informal e-learning methods uncomplainingly: XRN3 regularly used the internet to investigate competitors’ offerings, Googled possible solutions to workplace problems and utilised online help within software packages, while HP6 automatically used the in-house e-learning system, agreeing that it was “a form of e-learning” but saying that she used it because it enabled her “to get the knowledge” needed to do her job. Although HP2 enthusiastically used e-learning, he said that HelpingPeople’s initial e-learning courses were “Shocking. It was terrible. I didn't like it because it was awful. It was just click and read”. Additionally, their original e-learning system failed to record
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courses HP2 had completed which he found “really annoying, especially when you know you’ve really done it”. However, he acknowledged that the system had improved and now enjoyed using it.

This confusing language used by research subjects initially suggested that little e-learning occurred at the research sites. This was exacerbated by the fact that, prior to starting this research, I had not considered that workplace learning could include some of the informal e-learning methods which research subjects professed it did. However, they often qualified their comments by saying that e-learning didn’t seem like “real learning”, echoing comments about on-the-job learning, mentioned above. Furthermore, these methods were seldom obvious due to their ubiquity.

Using this wider definition, all three organisations used e-learning to varying extents. Research subjects under 35 years of age appeared to embrace it more wholeheartedly, actively seeking new e-learning methods, whilst there was some resistance in people older than this, which fits the profile of digital natives (Prensky, 2001). Most research subjects under 35 took e-learning for granted while some older ones, including IC1, IC5 and IC7, appeared to still regard it as innovative. IC4 considered that age did not affect people’s enthusiasm for, or competence with, e-learning or to influence course completion rates. A few people, irrespective of age, notably HP6, seemed astonished by the rapidity of e-learning adoption. Some technical staff assumed that their job made choosing “technology-based learning” (HP2) an obvious choice. Regular users of technology were markedly more enthusiastic about e-learning than infrequent users. However, there was universal acceptance, if not always enthusiasm, that e-learning in the workplace was here to stay, with comments including “obviously I go on the internet (to resolve task-related problems)” (XRN2) and “we’re starting to do all sorts of e-learning stuff now. It’s becoming more popular” (IC5).

It was widely acknowledged that “e-learning is cost-effective” (HP10), needing minimal financial outlay and so well-suited to cash-strapped SMEs. As IC5 said, e-learning was “a way of getting in training for a number of people at a relatively inexpensive cost”. Discussions suggested that e-learning usage was influenced by the availability of free/reasonably priced material coupled with the ability to access it using already-available, easy-to-use equipment, such as laptops and mobile-phones. The SMEs already had computers and internet connections for their day-to-day business which could also be used
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for learning purposes and many employees had their own computers which they were willing
to use for e-learning at home. Additionally, most employees were proficient in using
computers and so needed no additional training to use them in e-learning, saving money and
time.

Having explored the SMEs’ conceptualisation of e-learning, the types they used will now be
examined.

Types of e-learning

Appendix M show that the research organisations used a plethora of informal e-learning
methods including, in order of prevalence, learning using (mobile) phones, videos, in-house
e-learning systems, the internet and websites in general, Google, YouTube, forums, specific
websites, mobile learning, TED (Technology, Entertainment and Design) and using
Wikipedia. These will now be examined.

When I asked people whether they undertook e-learning, reactions in all three organisations
were similar to XRN1’s “Yeah, I use a lot of online resources”. Words which frequently
occurred included general terms such as “the internet” and “the web” with enthusiasm being
expressed for their usefulness as learning tools: “the internet, it's heaven really... you kind of
look at the problem and you sort of analyse it (using information from the internet)” (HP4).
The word “obviously” was often used/inferred when referring to the internet as an e-learning
tool: “the internet’s how developers and software engineers solve problems” (HP8) and
“obviously I go on the internet and there’s a wealth of information” (XRN2), although XRN2
acknowledged the importance of “checking it’s the latest version”.

Specific websites, pertinent to individuals’ roles, were mentioned, for example
“Businessballs is a good website to look at. I love that because it gets more detailed as you
go through” (HP3). Managers at ImageCo and HelpingPeople often suggested suitable
websites to their employees, for example “I've pointed him in directions of websites where
I've learnt information about the sector because that’s where he needs to improve” (HP1). I
saw XRN and HelpingPeople employees learning how to improve their own offerings by
examining competitors' and potential customers’ websites, although less-technical employees
seemed nervous to experiment with “things on the web” (IC3). XRN3 frequently used online
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help within software packages, such as Microsoft Excel, and expressed surprise that few other XRN employees appeared to do so. He and XRN2 told me that using software packages and trying out different techniques were the best and most memorable ways of learning how to use them and they seemed frustrated that other people seldom did this. Only one person said he used Wikipedia for learning purposes and surprisingly this was a senior technical person, (HP5): “I know some people would say, (it) is not a 100% reliable source, but certainly in the times that I've used it... articles have been written by somebody who knows what they are talking about”.

Less-technical research participants, particularly at ImageCo, were enthusiastic about how much they learned from smartphones: “you just speak to it and it answers you back and it tells you so much” (IC1) and “aren't smartphones wonderful? All these things I never knew” (IC6). IC6 even demonstrated smart-phones’ voice-activated help to students (see Photograph 4.18). More technical people seemed to think that using smartphones to find/check information was so normal that it did not warrant mentioning.

Photograph 4.18 ImageCo trainer demonstrating the usefulness of smartphone voice-activated help
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The increasing need for mobile devices in learning situations was acknowledged in all three organisations, together with the view that their use would become more commonplace in courses they developed, for example, “some of the material we'd like to do would be on handsets, on iPads... bring-your-own-devices” (XRN2). All research sites had desk-top computers and laptops, although the latter, particularly at ImageCo, were generally several years old due to budget restrictions. Only HelpingPeople’s L&D employees had tablet computers which, although primarily for marketing use, could be used for learning, as shown in Photograph 4.19, where an employee took his tablet to a colleague to show appropriate online help.

Photograph 4.19 HelpingPeople employees learning using a tablet

All three SMEs had videos imbedded in their e-learning offerings. XRN1, HP2 and HP4 had produced videos and consequently had high standards for videos they watched. XRN1, IC4, HP1 and HP2 mentioned using videos in their own learning, for example “I do use a lot of video demos, video help... sort of online training” (XRN1). Apparently XRN1 found it difficult to learn a technique unless he could see it being carried out so, if no-one in the office could show him, he searched the internet specifically for videos showing step-by-step instructions, stopping it frequently to try the procedure in steps. He justified the time this took: “it’ll be a quarter of an hour but it'll actually be someone... talking you through it and... you can see him physically click on this and do that”. This showed not only his
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preference for interpersonal learning, but also that the role of MKO could be assigned to an online stranger. IC4 also appreciated the ability to refer back to material in videos: “you can never (say) ‘Oh, did I miss that?’ because you can go back to something that was pertinent to you”. However, XRN1 warned that some videos showed “a previous revision of the software and it’s not always compatible with later versions”. One XRN employee claimed to have learnt how to use graphic design packages from watching YouTube videos which she said was helped by the presenters who “spoke my language”.

HP1 highlighted learning from TED videos, claiming “I watch TED all the time... typically whilst I'm on the loo... in the bath”. He encouraged other HelpingPeople employees to learn using TED videos, stressing that they could do so at home. HP2, HP3 and HP4 professed to do so, praising the fact that it gave them access to speakers they would not be able to afford to learn from “in real life” (HP3). However, HP7 cited videos as a reason why she didn’t like e-learning: “I don’t watch TED lectures. I don’t watch much on YouTube. That kind of visual sitting and learning isn’t for me”. Similarly, HP6 attributed her dislike of e-learning to being introduced to it through an in-house system which used videos: “I can’t say that I actually retained any of that information. It just wasn’t my style at all (so) I have struggled with e-learning”. This indicates that, like other forms of learning, e-learning is more likely to be effective if it matches learners’ preferred learning styles. However, some people liked the interpersonal aspects offered by videos, while some managers saw them as another opportunity to encourage employees to learn in their own time.

Both ImageCo and HelpingPeople had in-house e-learning systems which were not only available to all employees, but also sold to clients. Non-technical staff, particularly those over 35, were typically “very reluctant to put any information on things that are out in the public arena” (IC3) although they seemed happier to use in-house e-learning systems. HelpingPeople’s e-learning system was quite basic comprising a list of organisation/industry definitions plus a collection of externally-developed online courses. I observed employees accessing the definitions list, although this was usually to meet performance review requirements or when developing learning material. However, like much e-learning, it was difficult to ascertain the degree to which the in-house learning system was used, especially as people rarely mentioned using it. Twice I was aware of HelpingPeople employees phoning the L&D department to ask for help when accessing/using the in-house e-learning system,
although their questions suggested lack of familiarity with computers, rather than difficulties with the system itself.

ImageCo’s e-learning system, which was developed in the SME owned by IC4 with whom they had a partnership agreement, covered areas such as sales, office administration and marketing and comprised online courses and bite-sized modules. Each course typically needed several weeks elapsed time to complete and consisted of units, each lasting approximately two hours. Each bite-sized module typically took 15 minutes to complete. IC1 and IC2 spoke enthusiastically about it: IC1 mentioned “having a quick look” if she needed to know about particular topics for a client meeting and IC2 said “I’ll use (it) as a sort of reference... picking up things that are useful or are going to help me do things”. However, I was allowed access to records which showed that no-one at ImageCo had used any of the e-learning system for several months, despite it appearing to be a convenient free learning resource. This may be due to the owner-manager’s influence, as discussed previously, and/or time issues: IC2 said that accessing information using this system could take “ten minutes or more... so... I’d Google it rather than going onto (the in-house e-learning system) because there I’d have to find the relevant tutorial”.

All three SMEs’ employees mentioned, and were seen, using Google to find information, usually to address immediate operational problems, for example “I Google things a lot” (IC2). Users ranged from junior admin employees through to senior technical staff and managers. Experienced trainer HP3 confessed that she hadn’t even know what “Learning and Development” was when applying for a job in the function several years earlier and so had to Google it prior to her interview. Googling was used in several ways, sometimes to verify information gathered elsewhere. Material from Google was usually cross-checked against other sources. HP2 extolled the virtues of Google as a free information source, although others claimed to use it because “I can get the answers more quickly” (IC2), it was “so much easier” (HP2) and/or it was convenient to use (“I’ll just pick my phone up and I’ll Google it” - IC6). Although the ease of Googling was widely acknowledged, some people, particularly technical staff, seemed rather ashamed to be using Google, for example “It is always Google; it sounds really bad” (HP2). However, others were proud of having skills which enabled them to interrogate Google to find solutions to workplace problems, such as HP4, who had a senior technical role: “you’ve got a piece of code which doesn't work and you’re thinking ‘Why doesn’t this work?’ and you Google it and it turns out to be like a browser quirk or
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something”. Several people, including XRN1 and HP5, said Google searches led them to forums so these will now be explored.

Although no-one at ImageCo mentioned forums, they were used extensively by technical staff at XRN and HelpingPeople. Forum-users told me that forums provided effective ways of e-learning because they “build up knowledge” (HP4) and had made an “impact in the lives of developers (through being) encyclopedias for any technical problems” (HP8). Regularly-used forums were usually found through recommendations from colleagues and others whose opinions were respected, including “user ratings and reviews” (HP10). Consequently, little anxiety was expressed regarding the accuracy and authenticity of material on forums, with ones “policed by seasoned developers and software engineers” (HP8) automatically trusted. XRN1 and HP8 explained that they could test solutions suggested by forums with the success or otherwise of such experiments colouring their view of those forums.

Forums were particularly liked because they allowed interpersonal interaction, for example “you can pose a question and... several people come along with various answers” (HP5), “(it’s for) developers where there are other developers” (HP4) and “(it’s like) a social networking platform... for developers and software engineers” (HP8). HP5, HP4 and HP10 were proud to contribute to forums by posting blogs and answering questions, feeling this gave something back to the developer community. HP5 said forums had contributed significantly to his own learning, although “the first thing I do is search to see if the answer is already there”. He also frequently answered other people’s questions, which, he said, allowed him to learn as he meticulously checked information before posting it. HP5 often looked diffident, but appeared keen to be “one of the gang” which was why he had undertaken self-directed learning, as discussed earlier. His attempts to form a CoP at HelpingPeople were thwarted by HP1 who seemed to see it as a threat to his own power-base. Consequently, HP5 sought other communities online, away from HP1’s influence and had found these in forums. He and other forum-users seemed to like forums’ exclusivity as their complexity and content deterred less-technical people. Also, they equated forums with interpersonal learning, mentioning people they had “met” and “knew” through forums.

Although three dimensional (3D) and game-based learning were not used at any of the SMEs, both were discussed in all three, usually aspirationally. IC1, IC2, IC6, HP2 and HP4 wanted to use 3D, virtual reality and/or avatars to make learning “more interactive... much more...
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*immersive, more memorable*” (HP2), thinking this could compensate for e-learning’s lack of interpersonal contact, although they realised it was beyond their budget. HP2, HP4, HP8 and HP10 had used 3D graphics/models when producing e-learning material at university, but had not had opportunities to use it in the workplace, also due to budget restrictions. XRN had recently bid for a contract to produce “a 3D virtual world and embedded in that were lots of e-learning modules” (XRN3), although they were unsuccessful, apparently due to limited imagination and innovation.

The ways in which e-learning was used in the three SMEs will now be investigated.

**Use of e-learning**

The research organisations used e-learning for several different purposes. In addition to using it to solve operational problems, as already discussed, it was also part of their induction and Continuous Personal Development (CPD) learning and supplemented other learning; these will now be examined.

HelpingPeople used e-learning for induction purposes: according to HP1, new starters “*learn primarily online*” with “*a series of e-learning courses to complete... policies and procedures to read and acknowledge*”. None of the organisations had new starters during my research, but seven HelpingPeople interviewees had started there during the previous six months. They mentioned “*doing online what is necessary regarding training*” (HP9) which included “*all the basic ones... display screen equipment, COSHH, fire, all those*” (HP5) as well as some legally-required, industry-specific learning. No-one was willing to express an opinion as to whether they had enjoyed this experience or had subsequently found it useful, although HP9 remarked that she had never done any e-learning previously and so initially found it “*quite strange*”. The general opinion seemed to be that it was something they had to do, although there was some resentment if such learning concerned a topic about which they were already knowledgeable. Neither XRN nor ImageCo had any online induction material, although ImageCo made its in-house e-learning system available to all staff, but without any guidance regarding the best way to use it.

Research subjects in all three SMEs mentioned the need to undertake CPD, often adding that this was restricted by time and budget. Consequently, they welcomed e-learning
opportunities because “it’s a great way of maintaining CPD points without having to spend huge amounts of money going off to courses” (IC1).

XRN employees discussed the usefulness of having “some material on our website in an e-learning format” (XRN2) so that before students attended classroom courses, they could “refresh the material they’ve covered previously” (XRN2). However, they thought that access to such material would need to be carefully controlled because “like anything on the internet, you don’t want to give too much away because somebody will try and copy it” (XRN1). XRN was developing a course for customers which necessitated completing three days of e-learning before undertaking two days of classroom learning. Similarly, HelpingPeople provided e-learning as pre-course work for some classroom courses.

All three organisations were involved in producing learning material for clients as well as their employees. HelpingPeople produced and sold a mixture of classroom and e-learning, all of which had originally been developed for employees’ use. ImageCo sold e-learning, developed by the SME owned by IC4 with whom they had a partnership agreement, alongside their own classroom-based offerings. I felt that this made ImageCo’s non-use of their online learning system even odder because it was difficult for employees to talk knowledgeably to clients about it. Indeed, once I was asked to speak to a client about my experience of using it. IC2 spoke at length about needing to contact the e-learning developers with a client’s frequent, detailed questions: “so that was a challenge… every time she asked me I had to go ‘Give me a day’”; if she had used the e-learning system herself, she could probably have addressed the queries personally.

XRN only produced classroom courses, although they planned to develop these “to an online e-learning format” (XRN1). However, XRN employees lacked confidence that anyone would actually want their e-learning offerings. This may have arisen from many XRN employees having undertaken formal e-learning courses in previous employment which generally they had not enjoyed. Furthermore, their bid to produce “a 3D virtual world and embedded in that were lots of e-learning modules” (XRN3) was unsuccessful; their potential client commented "you should let your 18-year-old loose more" as XRN’s teenage graphic designer’s work had shown imagination and innovation. Despite many employees mentioning that XRN’s graphics team had “really transformed things… by translating developers’ ideas into reality plus adding expertise of their own” and claims that “the feedback from unsuccessful bids is
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*crucial to my learning*"(XRN2), nothing seemed to have been done to change the e-learning they produced.

Technology did not hinder e-learning usage in any research organisation. All of them had super-fast broadband which was used for both operational and L&D activities. Due to the nature of XRN’s work, their IT was surrounded by a high security firewall, but this did not appear to slow down internet access, provided individuals had correct passwords and access authority. Only HelpingPeople employees mentioned technology failure, albeit briefly, citing short-term losses of connectivity as “annoying rather than complete show-stoppers”. However, some HelpingPeople employees did not have a home telephone, much less a mobile one or any sort of computer at home and consequently did not use any IT outside of work. Therefore, they seemed afraid of technology which manifested itself as a strong dislike and led to problems whenever they had to undertake e-learning. Occasionally such employees phoned the L&D department asking for assistance and twice I witnessed people phoning on behalf of colleagues who were apparently too embarrassed to ask themselves. However, within the L&D department, the staff were fairly “tech-savvy” and consequently assumed that other people were similarly proficient in using technology, for example HP9 was amazed that people asked for help with e-learning, saying “*But that’s the point with e-learning, isn’t it? That they do it themselves*?” HP5 spoke about other employees asking him to help them with their e-learning, although he believed that they should only be given limited help or it was “really cheating”.

**Blended and Bite-sized Learning**

When I asked people about e-learning, many replies mentioned blended learning, for example “*I strongly believe in a blended learning approach*” (HP1). Usually this meant a mix of e-learning and non-e-learning, but some people used the expression when referring to a combination of non-e-learning approaches, such as using both on-the-job and classroom learning, and yet others meant a mix of e-learning methods. This was further complicated by some people using the term ‘blended learning’ to mean different things at different times and although I attempted to clarify which definition was being used, this was sometimes met with impatience. Having these differing definitions was another manifestation of the different ways in which the research subjects conceptualised any sort of learning.
Employees in all three organisations expressed a preference for blended learning, mostly taking it for granted that e-learning could not be used as the sole learning method: “I think it’s very much a supporting tool for learning... I don’t think you could do a course in complete e-learning” (XRN2). A blended approach was seen to allow learning to take place “as and when needed” (IC7) with suggestions that it could occur at home, thus fitting well with managers’ preference for employee learning to occur, at least partly, in their own time.

IC3 had undertaken a part-time year-long course which initially was “purely e-learning” but became a “really good experience” when regular face-to-face sessions with a tutor were introduced. There were discussions, particularly at HelpingPeople, regarding how blended learning could cater for different learning styles which was seen as beneficial. When HP1 became L&D Manager, he had been keen to introduce a blended approach (combining e-learning and non-e-learning), believing that people should be offered a combination of learning methods “because everyone learns in a different way”. However, in practice, HelpingPeople employees had no choice of methods when they undertook compulsory L&D: it was predominately e-learning, despite several employees repeatedly stating their dislike of it, for example “I find it quite impersonal... for me it doesn’t make any kind of deep connection” (HP6). HelpingPeople’s lack of flexibility was apparent when a partially-sighted employee could not easily take part in e-learning. The most effective solution was deemed to be putting him on night-shifts with a colleague who could help him complete his compulsory e-learning: apparently night-shifts were usually quiet and so would allow time for this. However, no-one suggested that he used a non-e-learning method; e-learning was the agreed company approach for particular subjects and no-one was willing to challenge HP1 about this.

Preferences for combinations of different learning methods varied considerably for example, “learning by doing and by e-learning” (IC7), “both online and in the classroom” (HP8), “learning from experience, learning from doing, learning from books... Google... the internet” (IC6) and “a lot of hands-on, a bit of learning from other people, a bit of e-learning” (IC2). IC5 suggested that e-learning would be “beneficial” if combined with “a mentoring programme” which allowed discussion of its usage and results. HP1 liked “to cherry-pick bits” and he encouraged this varied approach within HelpingPeople, although his recommended methods could mostly be undertaken at home. HP7 said her two most effective learning experiences were the Diploma in Management Studies (DMS) where she
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had “been doing all sorts of things and left knowing broadly, knowing how to do a bit of everything” and a management training course which “was a combination of Big Brother, Brat Camp and a bit of a university degree all thrown into one”. While some blended learning seemed to arise from preferred personal learning styles, in ImageCo in particular, there were suggestions that it arose from financial constraints which meant that free/cheap learning methods were often used.

When discussing blended learning, some people referred enthusiastically to bite-sized learning, which has already been mentioned in the context of ImageCo’s and HelpingPeople’s in-house e-learning systems. IC2 mentioned positive learning experiences in her previous job where she was “picking up little bits here and there... that would help my role” and HP4 said that the most useful part of his degree course was when “we sort of dabbled a bit into animation, a bit into photo-editing, a lot into web development”. All of ImageCo’s customers I spoke with apparently chose ImageCo’s e-learning system because it offered bite-sized learning which could be slotted into gaps in the working-day. However, as discussed above, in practice IC3’s organisation did not allow bite-sized learning to be used which IC3 attributed to its failure. XRN3 considered that bite-sized learning’s biggest advantage was that “you can pick and choose which chunks you want to do” while IC7 highlighted similarities between this approach and the way in which SMEs operate where employees “have to do a bit of everything every day”.

**Summary of e-learning in SMEs**

Although more e-learning appeared to take place at the research sites than literature had suggested, it was difficult to ascertain the extent of such learning, often due to the blurred boundaries between day-to-day computer work and online learning.

Exploration of e-learning in the research SMEs has shown that the words ‘e-learning’ and ‘blended learning’ were understood in various ways. Their meaning varied not only between people, but also according to their context. Consequently, it was not uncommon for people to appear to have apparently conflicting views of e-learning at different times, for example both XRN3 and HP8 said they disliked e-learning while happily using informal e-learning methods. Also XRN employees said they were developing courses which contained no e-learning, but, when I examined these, I found they contained items which, during
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conversations, employees had referred to as e-learning, such as videos. This dichotomy continued with XRN employees mentioning the internet and YouTube videos as part of their own e-learning, but saying that inclusion of these in courses they were developing for customers did not make it e-learning, seemingly because the course was classroom-based. They were adamant that e-learning could only take place away from the classroom.

Research subjects sought informality and social interaction in their e-learning, for example, people undertook e-learning together and used forums and videos. They liked variety in their learning, favouring a blended approach and bite-sized learning. The e-learning methods they used most were very different to the formal ones which owner-managers/managers thought they used, as much e-learning, like their other learning, was informal, imbedded in day-to-day office life and involved personal interaction whenever possible. People ‘met’ virtually, usually on forums, were regarded as MKOs, possibly even role-models. However, e-learning’s perceived lack of opportunities for social interaction led to some reluctance to use it. Forums appeared to be forms of CoPs as individuals joined like-minded people in their quest for learning, perhaps starting with low levels of knowledge and progressing through legitimate peripheral participation to become MKOs. Forums, like other e-learning tools, seemed to be used without owner-managers’/managers’ knowledge and so virtual CoPs were more likely to occur than physical ones, as they could develop away from negative influences. Nevertheless, forums were only accessed by technically-aware employees so less-technical ones continued to have no opportunities to join CoPs.

Managers expressed support for e-learning, for example HP1 said approvingly that one employee “learns by doing lots of research online” and IC7 observed “e-learning for me ticked all the boxes of if the person wanted to improve themselves then they can”. However, few managers, notably IC1, allowed much, if any, time for e-learning to occur during working-hours.

A preference for variety in learning, online or otherwise, was evidenced by a liking for blended and bite-sized learning. However, this also suggested a lack of depth in learning; indeed, much of the e-learning undertaken seemed to be knowledge acquisition, rather than learning, with no evidence of reflection or depth.
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Having summarised my findings in respect of e-learning in SMEs, the conclusions from my findings follow.

Conclusions

This chapter has examined my primary ethnographic research’s findings in three SMEs, exploring both learning in general and e-learning in particular, to ascertain the role that e-learning plays in them. The findings were thematically analysed to allow comparison of the discoveries in each of them, drawing out common strands, as well as highlighting factors which do not occur in all of them. My analysis resulted in several themes including interpersonal, on-the-job, informal and self-directed types of learning as well as features of learning including trust, the influence of role-models, time and budget, depth of learning and responses to learning. E-learning was explored separately. Investigation of these has led to several conclusions which are given below.

The first conclusion is that more learning appears to take place in the SMEs in my research organisations than some literature suggests. This may arise from it often being hidden by its ubiquity, being imbedded in the SMEs’ day-to-day business; this may be inevitable in SMEs where context appears to be an important part of the learning process. Accordingly, this appears to be further complicated by my research subjects’ language when discussing learning and e-learning, with meaning changing according to context. This confusion is reinforced by research participants’ assertion that much of their learning isn’t “real” or “official”, seemingly because it is informal, which is discussed more fully in the third conclusion below.

Secondly, workers in my research SMEs appear to have a strong preference for interpersonal learning, with help frequently sought, expected and generally willingly given, from peers, superiors and subordinates, sometimes even when not expressly requested. Only one person appeared reluctant to be seen to learn from junior colleagues. Although much of the previous research and literature has indicated that, in SMEs, individuals’ learning may come from external sources, including customers, ex-colleagues and professional networks, my research has highlighted the two-way aspect of such learning as several research subjects claimed to have learnt from those they had taught/mentored. This preference for interpersonal learning is evident in e-learning where interactive tools/methods, such as forums, learning together and
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blending learning are popular and users of these stress the interpersonal aspects which these allow, for example referring to people they ‘met’ in virtual learning situations. Consequently, there was some interest in joining/forming CoPs, but, perhaps due to managers’ negative influence, these were mostly sporadic with little accountability and so appear less intense than those discovered by Lave and Wenger. Interestingly e-CoPs, which often arose through forums, seem more substantial, perhaps because, in my research, owner-managers, through their apparent limited technical knowledge, appeared to have less influence online where they seemed largely unaware of employees’ activities. This appears to accord with the social constructivist theories underpinning this research.

A third conclusion is that, although much interpersonal, on-the-job and informal learning in SMEs may result from limited budgets, such learning is not seen by my research participants as inferior to more formal methods as it can resolve operational problems while providing learning opportunities; even though, as discussed in the first conclusion above, some research participants claim that such learning isn’t “real” or “official”, they invariably chose such learning when they have freedom of choice. This is evidenced by the proliferation of informal media chosen in their largely self-directed e-learning. Additionally, these methods appeared to give learners pride and confidence, as well as allowing them to enjoy their learning. This combination of methods has similarities with how SMEs operate where employees typically undertake a wide variety of activities.

Fourthly, interpersonal, on-the-job and informal learning appear well-suited to my research SME’s workers’ requirement for immediacy in their learning, which often arises from the need to address operational problems.

A further conclusion is that the owner-managers in my research appear to influence SME learning. They/their proxies may often be seen as MKOs/role-models as they provide, or at least influence, the learning within their organisations and/or their employees observe and perhaps emulate their behaviour. However, their behaviour frequently appears to be negative and suppressive, for example, during my research there were instances of them generally discouraging anything, including CoPs, that could detract from their position of power, so they appear far removed from the benevolent individuals envisaged by Vygotsky and Bandura.
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Another conclusion is that, during my research, SME workers appeared to have greater awareness of the need for depth in their learning than literature and previous research suggests, although little of it seems to occur, possibly due to time constraints and/or managers’ negative influence. There appears to be some belief in my research SMEs that depth of learning is more likely to happen if learners are happy and relaxed, which may connect with preferences for informal learning, and that techniques, such as NLP and even hypnosis training, could lead to deeper learning. Although none of my research participants, not even those who had undertaken ‘train the trainer’ training, referred to conceptualisations of learning, such as Kolb’s (1984), there was some awareness that (deep) learning requires ‘observing’, ‘thinking’ and ‘experimenting’ stages, as well as the ‘doing’ stage (see Figure 2.4).

Another issue which my research has highlighted is that many SME employees at my research sites undertake self-directed learning, sometimes apparently through their desire to network and to belong to communities, perhaps addressing lack of opportunities for this in their physical workplace. However, although, during my research, some employees claim this gives them some autonomy in their learning, they often appear to be greatly influenced by owner-managers/managers.

Additionally, employees in my research SMEs demonstrate great commitment to their employers, with many apparently learning in their own time and/or working extra hours unpaid. They appear happy to work/learn in their own/unpaid time as they claim that the limited learning opportunities/methods available to them are compensated by exposure to a broader range of activities from which they could learn than would be usual in a larger company. My research SMEs seem to rely on employees’ discretionary effort for their survival/success, even though the owner-managers in my research rarely seem to acknowledge this.

Finally, during my research, SME employees’ learning appears to have a sequence, with many trying on-the-job learning and if that does not lead to the desired learning outcome, moving onto interpersonal learning, for example “I’d be given tasks and I might not know how to do half of them but I’d sit and work out what I could do, try and find solutions to what I couldn’t do and then I’d take to IC1 whatever I really couldn’t do and she’d then sit and show me” (IC2).
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The findings from my research SMEs discussed in this chapter have been used to extend the Conceptual Model for workers’ e-learning in SMEs, as shown in Figure 4.1. Depth of learning, influence of owner-managers (and other role-models), social interaction and practice appear to be influential factors, as also suggested in the literature review. Although literature indicated that SME workers’ learning could occur through observation, there was little evidence of this in my primary research, although conversely much more self-directed learning appeared to happen than literature implied. Much of the learning in my research SMEs appeared to be hidden by ubiquity, influenced by lack of time and budget and affected by trust, although none of these had arisen as significant factors in the literature. Informal e-learning and responses to learning also emerged from my research as potentially significant.

This chapter has addressed its three research objectives as it has explored the context of learning that took place in the research SMEs, particularly examining how e-learning was understood, conceptualised and used there. Having examined the findings of the primary ethnographic research in detail, the next chapter will discuss these in relation to the Literature Review, seeking to further develop the Conceptual Model for e-learning in SMEs, thereby addressing the research question: How is e-learning understood and undertaken in SMEs?
Figure 4.1 Conceptual Model for workers’ e-learning in SMEs including Primary Research findings
Chapter 5 Discussion

Introduction

This chapter discusses the context in which e-learning takes place in SMEs and the factors which affect such learning. This discussion provides the basis for this research’s major contribution: a model of e-learning for workers in SMEs which is given in Figure 6.1 (Page 222). So far, this thesis has examined general learning and e-learning in SMEs in roughly equal parts, but the focus of this chapter is e-learning in SMEs, with general learning in those organisations only being discussed where appropriate in this context.

Learning and e-learning in an SME Context

The argument developed here is that the extent of e-learning in SMEs is under-reported because it is affected by, and moderated through, specific and unique contexts, ‘histories’ and terminology of the different organisations. The use of e-learning is ubiquitous within SMEs; it is hard to identify when it starts and when it stops. At the same time, as a result of the linguistic norms of SMEs, employees rarely articulate that they are undertaking learning generally or e-learning specifically. Additionally, participants’ interpretation of the term ‘e-learning’ was much wider and more informal than that generally accepted academically and so its occurrences would have been overlooked if this research had not used an ethnographic approach.

Ubiquity of (e-)learning

Much learning in my research SMEs appeared to be situated in their everyday, operational business. Wenger (1998) said “learning is an integral part of our everyday lives” (p8), a view which was shared by some research participants who professed to “learn all the time” (IC6, HP1). Although, these comments seemed to include learning in their non-working time, much of the workplace learning I observed was so closely entwined with the SMEs’ day-to-day business, that it was seldom obvious. Perhaps it is not surprising that researchers, and even sometimes owner-managers, fail to acknowledge that this informal learning happens as many participants
themselves often dismissed it as not “real learning”, inferring that it was less important because “it's not official training” (HP2), echoing a view in Coetzer and Perry’s (2008) research that “only formal training is ‘real’ training” (p649). This was particularly apparent in the context of e-learning where employees used predominantly informal methods, such as Google, videos and forums, which led to several of them saying that this also didn’t seem like “real learning”.

Although research in this domain suggested that workplace learning can be overlooked because of its ubiquity and on-going nature (Geldenhuys & Cilliers, 2012; Hamilton, 2011; Higgins & Aspinall, 2011; Lervik et al, 2010; Matlay, 2005), I was unprepared for the extent of this. During my research, nearly all the learning I observed was informal, with much of it being on-the-job, occurring through trying to solve operational problems. In line with Lave and Chaiklin’s (1993) view that “Learning is ubiquitous in ongoing activity though often unrecognised as such” (p5), this appeared to contribute to the general lack of awareness of the extent of e-learning taking place in SMEs. Furthermore, because much of the e-learning I observed was part of day-to-day work-life, I think it may have been inevitable that participants adopted media/methods with which they were familiar through usage in their non-working lives and/or in non-learning contexts in the workplace, such as the internet, Google and email.

It became evident that e-learning was also imbedded in employees’ everyday actions; I soon realised, during my observations, that it was very difficult to differentiate between general internet surfing and e-learning. Sometimes it was evident that e-learning – as the participants saw it - was occurring, for example when someone exclaimed that they had found what they were seeking online or if I saw someone trying out steps of a demonstrated procedure in between stopping and starting a video. However, often I had to rely on participants telling me that they were “doing e-learning”. As I, who was looking for e-learning, often had difficulty discerning whether it was happening, it was almost impossible for colleagues/owner-managers, who were too busy for such observation, to ascertain whether others were learning online. Employees’ awareness of owner-managers’ limited technical knowledge – although they often pretended it was greater than it really was – led to some employees deliberately misleading managers regarding the extent of their e-learning. This all contributed to its under-reporting. This was further complicated by terminology, which can change between SMEs and/or according to context, and this will now be discussed.
Discussion

Problems of terminology relating to e-learning

A social constructivist approach allowed my research to concentrate on how individuals interpret their learning, specifically regarding solving work-related problems. This approach’s emphasis on use of language to create a common reality where meaning arises from participants’ shared values, histories and circumstances enabled participants to express their view of e-learning. This was particularly appropriate in SMEs, each of which may have their own language and customs to some extent and consequently interpretation of terms, such as ‘e-learning’, are likely to vary between SMEs (Devins & Gold, 2002; Nolan & Garavan, 2011), which adds to the under-reporting of e-learning in smaller organisations.

The term ‘e-learning’ has been complicated by the pace at which technology develops so that its definition has widened considerably over recent years as more methods/media are eligible for inclusion. This has led to literature and researchers, both academic and practitioner, appearing to have problems defining e-learning, for example in 2011 the CIPD and not-for-profit organisation Towards Maturity both ran surveys into e-learning, but had only two terms in common (CIPD, 2011; Overton, 2011). If survey originators had difficulties defining e-learning, participants were likely to also have problems and therefore were unlikely to share the survey originators’ definition. This would also have resulted in under-reporting of e-learning, particularly in SMEs which may each have their own conceptualisation of e-learning, (Admiraal & Lockhorst, 2009; CIPD, 2015a; Hamburg & Hall, 2008; Mote, 2012; Roffe, 2004; Sambrook, 2004).

As indicated in the Research Methodology, it was difficult to find suitable research organisations because of terminology interpretations. Originally I used the term Technology Enhanced Learning (TEL), but changed this to e-learning when possible research participants seemed ignorant of TEL’s meaning. Although using the term ‘e-learning’ initially appeared to minimise problems of terminology, research within each SME showed disparities between owner-managers’ and employees’ interpretations of that term; this appeared to have hidden the extent of their e-learning in previous research, although it became obvious using an ethnographic approach. This suggests that using ethnography may have enabled other researchers to find more e-learning in SMEs, for example, sufficient SMEs with practical e-learning experience for
ARIEL’s 2005 project (Beer et al, 2006) and enough SMEs in North Wales using e-learning (Sambrook, 2004; Sambrook, 2003).

The width of SME employees’ conceptualisation of e-learning highlighted gulfs which existed both between literature and what I observed, and between owner-managers and employees. This was so marked that initially my questions about e-learning appeared badly phrased, but observations showed that participants’ actions largely matched their comments; they were using informal e-learning (as they understood it), much of which academic research and owner-managers seemed unaware of.

Research participants changed their conceptualisation of e-learning according to context, which led to new realities evolving. Although Vygotsky and Cole (1978) contended that this led to the “development of more advanced forms of understanding” (p389), in practice, apparent inconsistencies in the use of terminology, which frequently changed, not only contributed to under-reporting of e-learning in SMEs, but also complicated my research. Participants even changed their conceptualisation of e-learning within a conversation. Initially I often sought clarification, but this was sometimes met with impatience and emphasised that I was an outsider so I decided to do this as infrequently as possible. Although, this may have led to me missing some potentially important findings, it appeared to make me less obtrusive and allowed me to become more accepted which gave me more opportunities to observe what occurred.

During my research differing interpretations of terms led to participants appearing confused during our conversations/interviews. Conversations/interviews became very complex when participants used different interpretations of e-learning within the same discussion. For example, participants who mentioned disliking e-learning seemed to mean formal e-learning as they used informal methods uncomplainingly (XRN3 and HP6), although they did not acknowledge this. However, observations indicated that participants were not confused when they spoke with each other. This may be because each SME had developed a language and customs which allowed them to form a shared meaning.
I reviewed more literature to see whether it acknowledged the extent of informal e-learning I witnessed. Roberts and Sambrook (2014) assert that this is an under-researched area, with reporting of it being predominantly in practitioner literature, for example, mentioning e-learning using gaming and social media, particularly Twitter, in workplace contexts, although not specifically SMEs, where e-learning continues to be under-reported (Carr, 2011; CIPD, 2014b; CMI, 2013; Crush, 2012; McGonigal, 2011; Martin, Reddington & Kneafsey, 2009). Some practitioner literature has added complexity by referring to learning using social media as “social learning” (Beagrie, 2013), although traditionally, and in this research, this term refers to learning arising from social processes as expounded by the social cognitive theories underpinning this research. My research SMEs did not use any of the emerging e-learning methods mentioned above, apparently because of resource constraints.

Having discussed how e-learning in SMEs is often hidden, and consequently unacknowledged, because of its everyday context and the terminology used by practitioners, it appears to be further complicated by the extent of employees’ shared history which will now be explored.

**Effect of Shared History**

Shared history appeared to influence the methods chosen for learning, including e-learning. Many employees in my pilot-organisation, XRN, had shared history having previously worked in the Royal Navy. This influenced their approach to work in general, with a preference for formal structure and respect for authority, and gave them a common language; they sometimes appeared to communicate in a form of verbal short-hand. Their common history also affected their approach to learning; there was widespread dislike of formal classroom courses which had allowed little interaction and which they had “endured” for many years; they seemed to revel in what they perceived as the freedom of informal learning at XRN where very little learning took place in classrooms, - some participants even cited the prevalence of informal learning as a reason for working in an SME. However, some of their learning in the Navy had been informal, namely on-the-job - there was no real alternative to solve operational problems on-board a ship in the middle of the ocean – and consequently they respected this method and continued to use it. Their preference for informal, on-the-job learning also applied to e-learning; videos were
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particularly common there. Shared history at ImageCo arose from participants being related and/or having known each other for many years which seemed to result in their learning, both e-learning and otherwise, being informal and interpersonal.

Lack of shared history appeared to influence e-learning at HelpingPeople. In the L&D department where I was based, most employees had worked there for less than six months, only two people had known each other previously and there appeared to be little commonality in their backgrounds. Consequently, there was little common terminology, except between some technical staff, and even less shared experiences. Friendships between colleagues inevitably appeared superficial, having had little time to develop, which will be discussed further in the Resource Constraints section. The department manager (HP1) also discouraged any form of community developing in the office, for reasons which I will discuss in the Owner-Manager and Communities of Practice (CoPs) sections, and I suggest that lack of shared history helped him in this regard. Reflecting on my findings indicates that the lack of community within that office encouraged technical employees to seek online learning networks through forums. They were able to do this without HP1’s knowledge, because of e-learning’s ubiquity and the ease of access to these online spaces, for technical staff at least. The forums focused on specific methods/media/products, arising from changes in technology which inevitably meant that they were relatively new and so forum-users had limited shared history, apart from general technical backgrounds and experience of technological changes. This seemed to encourage informal e-learning which mimicked interpersonal interaction.

Summary

As is well established in the literature about learning generally in SMEs, their specific and unique context is an important feature of any explanation of their adoption and use of e-learning. The context affects not only the extent to which e-learning is utilised, but also the recognition (or non-recognition) of forms of activity which comprise e-learning. Whereas quantitative surveys, that rely on reporting from within SMEs about the utilisation of e-learning, suggest that very little occurs, this research, grounded as it is in an ethnographic approach, highlights that e-learning is ubiquitous but rarely acknowledged as occurring. It is further hidden by terminology
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which differs, to varying extents, between SMEs and, within SMEs, between owner-managers and employees and according to context. Shared history – or lack of it – appears to influence the methods of learning which SME employees use and profess to prefer; these seem similar in general learning and e-learning. Although the incidence of learning in SMEs may be ubiquitous, the forms in which it is utilised are, nevertheless, influenced by a range of further factors which are discussed below. Particularly important features within the SME context are the influence of owner-managers, resource constraints of the organisation and the extent to which trust is developed. Reflection on my findings indicates that the concept of CoPs may also be influential. All these will now be discussed.

The factors which influence learning/e-learning in SMEs

This section discusses owner-managers, resource constraints, trust and CoPs and their influence on learning within SMEs, highlighting similarities and differences which arise depending upon whether or not such learning is virtual. It also discusses how these influences interact with each other, for example whether owner-managers are willing to forsake some of their influence if this leads to resources being required. Similarly, resource constraints appear to affect trust as limited time is available for the trust to form; this in turn affects both learning/e-learning and CoPs. This discussion highlights that, although owner-managers are influential, their lack of technical expertise allows e-learning to occur without their awareness which further adds to the under-reporting of e-learning. This lack of managerial awareness also appears to enable employees to join online CoPs, although owner-managers tend to actively discourage membership of non-virtual networks. These factors are particularly apparent because my research, unlike most previous studies, allows learning/e-learning to be viewed from employees’ perspectives. The factors will now be discussed more fully.

Owner-managers

The argument developed here is that, in common with research findings relating to learning more generally in SMEs, the influence of the owner-manager is highly significant in the context of e-learning. Although the data presented in this thesis indicate occasions when the owner-manager’s
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influence promotes the use of e-learning, the data also highlight the inhibiting consequences of owner-manager behaviours on the adoption and utilisation of e-learning in their organisations.

The literature I reviewed indicated that L&D in SMEs is heavily influenced by owner-managers. However, I agree with Susomrith and Coetzer’s (2015) suggestion that this could arise from research concentrating on them, rather than employees and consequently contend that investigation into how SME employees learn should give a clearer picture of SME learning as a whole, including the extent of owner-managers’ influence. My research, like much literature, indicated that organisational size was proportional to the extent of formal HRD infrastructure, for example ImageCo, my research’s smallest SME, appeared to have no such structure. Some practices which could contribute to employee learning, such as performance appraisals, were only apparent in the largest SME, HelpingPeople, possibly because they were unnecessary in the smaller organisations, owing to frequent interactions between employees and owner-managers. Therefore, there are indications that the physical distance between owner-managers and employees may influence L&D in SMEs (Howell, Neufield & Avolio, 2005; Story, Youssef, Luthans, Barbuto & Bovaird, 2013).

As shown in my Findings chapter and echoing my literature review, L&D, if carried out at all, was undertaken/initiated by owner-managers and so was dependent on their beliefs, assumptions, management styles and willingness to share information. Research in this domain suggests that SME owner-managers could resemble Vygotsky’s MKOs who expand employees’ ZPDs and Bandura’s (2012) role-models with whom employees could identify and therefore learn from by example (Bosma et al, 2012; Bosumafi, Trasler & Gold, 2006; Gold & Thorpe, 2008; Turuk, 2008). However, owner-managers/proxies in my research rarely exhibited the benevolence of these figures, with some of them appearing purposely to stop learning occurring. Much of this suppressive behaviour was non-proactive and not always apparent. While it was perhaps more immediately apparent in respect of non-virtual learning, for example XRN’s line-manager ignoring XRN3’s offers to run lunch-time learning sessions for his colleagues, it was evidenced by them not usually encouraging e-learning, unless it occurred in employees’ own time. Previous research has found similar behaviour leading Annamary, Consalvo, Schallert and Elias (2015) to note that Vygotsky did not acknowledge that learners’ needs could be ignored while Kaptein
(2011) indicates that role-models may exhibit negative behaviour due to resource constraints. Furthermore, Rogers and Fuller (2007) note that CoPs may have “conflicting goals” (p80).

There were suggestions in owner-managers’ comments that they were reluctant to offer learning opportunities to their employees because they wanted to retain them; the owner-managers seemed to think that L&D might result in employees becoming bored by the work available to them in the SME and/or becoming more attractive to other employers. No-one left any of the SMEs during my research, but XRN3, HP3 and HP5 all told me that they had left previous employment because they had not felt stretched enough by the work offered to them owing to none of them receiving any significant L&D while there. There was a high staff turnover at HelpingPeople, particularly in the ten-person L&D department where “myself, HP3 and HP2 are the only people who have got more than six months’ service” (HP1), but there was no evidence as to whether this was because of L&D issues. Reflecting further on this, many managers appeared to want to be regarded as MKOs/role-models and so were reluctant to give their employees access to other people, that is trainers, who could usurp these positions. Consequently, this restricted employees’ learning, for example IC1 seemed keen for her employees to continue to need to ask her for guidance several times each day and so offered them few learning opportunities and HP1 appeared to want to prevent HP5 being regarded as an MKO by deliberately seating him away from his team. HP1’s keenness to be regarded as a role-model led to him behaving autocratically and generating fear which seemed to inhibit learning (Bauer and Mulder, 2013) and prevented trust being built, which is discussed in the Trust section below. Interestingly, the only owner-manager who intentionally introduced employees to another potential MKO was IC7 who then appeared to be regarded more positively by her employees as the learning opportunities which this afforded matched their requirements.

This reluctance to develop employees’ learning was particularly evident in respect of external networking. I saw/heard no managers suggesting that employees took part in external networking, even though such events were free/reasonably-priced and usually occurred outside of work-hours; indeed, I even observed XRN’s line-manager advising an employee not to attend such events. The more technically-competent employees were able to circumvent their employers’ disapproval of networking by joining online networks, for example through forums,
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which, as discussed below, may have some of the more important features of CoPs. Joining such networks was possible because owner-managers mostly had limited technical knowledge and it adds to the view that more e-learning occurs in SMEs than previously reported because it occurs without the awareness of owner-managers, from whose perspective research has traditionally been undertaken.

Another example of owner-managers’ negative influence on L&D during my research was their unanimous expectation that employees would undertake at least part of their learning in their own time which resulted in owner-managers encouraging some e-learning, as they perceived this would save some of the SME’s scant resources. This will be discussed more fully in the Resource Constraints section below, but was further evidence of owner-managers diverging from well-meaning theoretical models.

A further feature of owner-managers’ lack of engagement in the e-learning available to their staff was their apparent lack of knowledge concerning what and how their employees learned. This was particularly evident in respect of e-learning, where owner-managers exhibited widespread lack of awareness of the types of e-learning being used and the extent of their usage. Although their exaggeration of the formal e-learning undertaken, during my preliminary discussions to find suitable SMEs, may be explained by their enthusiasm to acquire free labour, I was very surprised by their ignorance of the e-learning which did occur. XRN’s owner-manager was physically distant from his work-force and so oblivious of how they worked and his proxies, department managers, seemed more concerned that deadlines were met than how this was accomplished. Although ImageCo’s owner-manager used some e-learning herself, for example via websites, and sat with her employees, she too appeared largely uninterested in their exact methods, provided that she was regularly asked for advice. HelpingPeople’s CEO, although supportive of her staff, told me that she did not like using e-learning herself and so delegated responsibility for its use within the organisation to the L&D Manager (HP1). As already discussed, HP1’s behaviour was very controlling, - he even tried to direct who I interviewed for my research – but, despite trying to appear all-knowledgeable, his technical expertise appeared to be limited; from listening to conversations he had with members of his team, he did not seem to understand much of the online work/learning that employees, particularly technical ones, undertook. This may
explain why he did not investigate the e-learning which occurred in his department too closely; he appeared afraid of ‘losing face’ and potentially his position as an MKO/role-model by revealing his technical short-comings.

Owner-managers’ limited technical ability coupled with their determination to be regarded as MKOs/role-models was apparent throughout my research organisations; for example, despite extolling the virtues of their in-house e-learning system, ImageCo’s owner-manager never seemed to use it herself. She attributed this to time constraints, but conversations with her revealed that, although she said she was “really interested in technology”, she had very little technical knowledge and I am not sure that she knew how to use the system. Only one of her staff had much technical knowledge and she appeared unwilling to highlight her shortcomings to him and potentially the rest of her employees. Consequently, because her employees tended to mirror her behaviour, the in-house learning system remained largely unused. Similarly, IC3’s SME’s directors had failed to publicly endorse, much less use, their online learning system which led to few employees using it so that it was subsequently abandoned. The main reason for the lack of use seemed to be that employees wanted to use the system’s bite-sized learning, which they thought could be fitted into their busy schedules, whereas the directors forbade the use of these elements and insisted that only full courses could be accessed. This, coupled with the fact that the directors did not use the system themselves, suggests that the directors had little, if any, knowledge of how the system worked, although they would not admit this to IC3.

Consideration of IC3’s SME’s abandonment of their e-learning system also illustrates the chasm that seems to exist between what owner-managers and employees want employees to learn. In my research this never seemed to be discussed, much less agreed, echoing Higgins et al’s (2013) findings. Lave and Wenger (1991) also found “conflict between the master’s desire for labor and the apprentice’s desire to learn” (p115) when researching CoPs among butchers. Although this would be likely to be part of performance reviews and setting objectives in larger organisations, these activities did not occur at XRN or ImageCo, apparently being superfluous as there was so much day-to-day contact between owner-managers/proxies and employees. However, XRN was considering investigating employees’ learning requirements, but no progress had been made. Although HelpingPeople had standardised learning requirements for each role,
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these appeared to have been set by the L&D Manager without consultation with relevant employees. Owner-managers and employees failing to discuss, much less agree, what the latter should learn in order to be able to undertake their job-role and/or to develop their skills, seemed to lead to lack of agreement regarding learning methods. Consequently, some employees seemed to take advantage of managers failing to understand how they worked, particularly online, so that they undertook e-learning, safe in the knowledge that, even if managers saw it occurring, they would not have sufficient knowledge to ask about it. This seemed to apply to even fairly basic e-learning, such as looking at websites or watching videos, such was the limited extent of owner-managers’ knowledge coupled with their great desire to appear all-knowing. More complex e-learning, for example involving forums, appeared totally beyond their knowledge and consequently employees, particularly HelpingPeople’s technical staff, used these, developing learning relationships with potential MKOs/role-models through these external networks, without owner-managers’ awareness.

It is possible that had owner-managers realised the types and extent of e-learning being undertaken, they could have encouraged it and so allowed their organisations to benefit more fully. The only e-learning they encouraged, or even seemed to be aware of, occurred in employees’ own time or solved urgent operational problems. However, the analysis of the data presented here indicates that much e-learning occurs in SMEs despite, not because of, owner-managers/proxies. Employees, particularly in HelpingPeople, undertook extensive e-learning, not only because it was easy for them to use, but also because it could occur without managerial interference, allowing participants to direct their own learning to some extent and to interact with other people freely, even joining online ‘communities’ via forums. Other factors which are well rehearsed in the literature about more general learning in SMEs, also influence e-learning in the context of SMEs. Therefore, resource constraints, which have been seen to be affected by, and to have impacts on, owner-managers will now be discussed.

**Resource constraints**

Reasons frequently given for lack of attention to e-learning by owner-managers were time and money constraints. However, this research suggests that such restrictions seem to have been used
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as proxies for other, well-hidden reasons. Therefore, this discussion continues by examining whether resource constraints are the barriers to learning which they are claimed to be.

Shortages of time, money and, in some cases, expertise were, as expected, common challenges. Owner-managers, in this study, were keen to encourage working/learning practices which were available at little/no cost, provided there was no obvious conflict with their retaining what they saw as their positions as MKOs/role-models. Most managers accepted, or even encouraged, some e-learning, assuming that it would save time and money and possibly expose employees to resources not otherwise available to them. However, many employees had to use their own equipment, particularly mobile phones, for working/learning purposes. An exception to this was XRN, which because of the nature of its work, had very high security restrictions. The other owner-managers seemed unaware of any dangers associated with this, for example customer details being available outside of the organisation and computer viruses being imported. Also, they failed to consider that employees might need training to use e-learning in a business-specific context (Roberts and Sambrook, 2014). This suggests that resource savings over-rule other risk factors except preserving owner-managers’ position in the hierarchy. Therefore, owner-managers encouraged employee learning which could be fitted around their jobs rather than necessitating taking “hours off from their day-jobs” (IC3), notably interpersonal and on-the-job learning and also e-learning; although they appeared to understand little about the latter, owner-managers seemed to accept unquestioningly that it would save resources. This view of e-learning influenced employees too; throughout my research no-one asked me whether I thought that e-learning would save them resources or even whether it was suitable for them. Their only questions focused on how they could implement it quickly and effectively. Owner-managers and employees accepted, seemingly unthinkingly, that “e-learning has the potential to be great” (HP2). This lack of enquiry, coupled with their resource-saving goals, was reinforced by the e-learning media chosen by employees, as immediacy, and possibly ease-of-use, seemed to be chosen over accuracy and/or reliability. For example, Google was much used, because as IC2 said “I can get the answers more quickly” and solutions were needed “just about yesterday” (XRN1), although some participants seemed ashamed to rely on it so heavily (“it sounds really bad”, HP2). Few people expressed pride in their learning, apart from HP5 who drew himself up to his full height when talking about his skills in interrogating websites and forums, although this
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revolved around being able to extract required information quickly, rather than the quality of that information.

A major finding of my research was the extent to which owner-managers expected employees to learn in their own time. In this respect e-learning appeared particularly attractive to owner-managers as it could be undertaken outside of work-time; “the reason it’s e-learning is that you can do it any time” (IC5). This expectation inferred that the learning was likely to occur not only away from the office but also away from work-colleagues. There was dissonance between this and the preference for interpersonal learning expressed by many employees; when they undertook e-learning in the office, this was often done in small groups, as shown in the Findings chapter. However, owner-managers chose to ignore this.

Owner-managers’ expectations that employees would undertake much learning, particularly e-learning, in their own time seems to add to the under-reporting of learning/e-learning occurring in SMEs; owner-managers expected it and so hardly acknowledged it happening. Therefore, because previous research was generally from owner-managers’ perspectives, it was likely to miss this learning/e-learning occurring. The lack of ethnographic research in this domain is likely to also contribute to the extent of non-reporting as much learning/e-learning only became apparent by working alongside employees. This close contact with employees also enabled me to see suggestions of lack of trust between owner-managers and employees, particularly regarding employees undertaking much learning/e-learning without their employers’ awareness and so issues of trust will now be discussed.

Trust

Although my research only considered trust in the context of L&D, it is a very complex issue which affects many areas; for example, it can relate to people, such as the relationships between manager and employee and between learners and trainers/teachers, and ‘objects’ including learning material and online security. Inter-personal trust appears relevant to many of the arguments being discussed, notably owner-managers’ awareness of learning/e-learning and
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consequent under-reporting of these. However, trust of learning/e-learning material underlines differences between general learning and e-learning so this will also be discussed in this section.

Initially I had intended my research to investigate trust as a component of e-learning in SMEs, but the paucity of literature pertinent to e-learning in SMEs indicated that the development of a model of such learning was needed before meaningful investigation into specific areas of it could be undertaken. Sambrook’s (2004; 2003) was one of the few studies into e-learning in SMEs, but its findings regarding trust have been largely overtaken by technological and social developments; it discussed employers’ reluctance to invest in IT equipment as they did not trust employees to use it solely for learning purposes, thinking it might also be used for personal reasons. However, nowadays not only do most workplaces have much IT equipment which is used for multiple purposes, but also employees often use their own equipment for business purposes. Therefore, my thesis concentrated on the wider issue of what influences e-learning in SMEs, but there are suggestions that future research into trust in this context could be valuable. Trust was discussed at all three SMEs, although, upon reflection, I think I probably influenced this, although unintentionally, because this is an area in which I am particularly interested.

Trust appears to affect other areas which influence learning/e-learning in SMEs, particularly owner-managers and time. In the Owner-managers section, I briefly mentioned that HP1’s desire to be regarded as a role-model led to behaviour which seemed to stop trust being established. Throughout the organisations, participants equated trust with “credibility” (XRN1; XRN2; IC1) and feeling “comfortable” (IC2, IC6; HP3; HP6), which were characteristics which some owner-managers/proxies, particularly HP1, failed to exhibit. HP1 tried to appear all-knowing, but much of his knowledge concerning e-learning was superficial and consequently exaggerated, for example he implied to me that he had found Mongo DB University, an online course including webinars, for HP9, but discussions with HP9, HP4 and HP5 revealed that HP9 had found this himself and had then had to convince HP1 of its relevance. Technical staff were particularly aware of this which did not encourage them to trust HP1. Little of HP1’s behaviour encouraged trust; he appeared determined to stop employees forming bonds either with each other or externally and he highlighted others’ shortcomings/lack of knowledge so employees seemed afraid to raise issues which they thought would be unpopular with him. Although HP1
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frequently offered advice unprompted, I observed no instances of anyone asking him for information or help, which accords with research findings which suggest that trust is crucial to information-sharing and therefore to interpersonal learning (Grover & Stewart, 2010; Mason & Rennie, 2008).

Attitudes towards trust appeared to emanate from owner-managers and were then adopted throughout the organisations. For example, managers at XRN appeared reluctant to trust employees to undertake any work or learning, online or otherwise, away from the office and this inclination to distrust seemed to spread downwards as XRN3 complained that colleagues had interrupted him while he was undertaking e-learning as they did not believe that he was “working”.

Similarly, time influenced the development of trust. For example, it took three weeks in XRN and four in ImageCo for me to be trusted to undertake anything apart from basic admin work, although in HelpingPeople I was given important work from day one. This may have been because I had been endorsed by two of the CEO’s friends, but it was more likely because of work needing to be done urgently, but HelpingPeople having no budget for it, and so resource constraints overrode trust concerns. Participants appeared to trust individuals whose expertise they had been able to ‘see’, whether this was face-to-face or virtually. For example, many ImageCo employees had worked together for several years and so had many opportunities both to see how individuals worked and to benefit from their expertise and therefore they appeared to trust each other. Similarly, there were mentions of trusting people met through online forums who had given useful advice. However, as mentioned, seven of the ten L&D employees at HelpingPeople had known each other for less than six months which may explain why there seemed to be limited amounts of trust between them; they seemed to share little personal information and there was a degree of formality apparent in many of their relationships. This may also have contributed to employees not trusting HP1. Reflection indicates some suggestion of participants appearing to trust people met virtually after shorter amounts of time than would be usual in face-to-face situations. However, such instances are fleeting and inconclusive, indicating that this may be an area for future research.
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Lack of trust between owner-managers and employees appeared to contribute to the extent of employees undertaking informal e-learning without owner-managers’ awareness; employees perceived (rightly) that owner-managers were keen to limit some employee learning and so employees did this covertly; e-learning allowed this. This ‘hidden’ e-learning included membership of CoPs, which will be discussed next. However, by e-learning in this underhand way, employees were themselves exhibiting untrustworthy behaviour which, combined with owner-managers’ untrustworthy behaviour, seemed likely to become part of a cyclic relationship of distrust. Owner-managers’ unawareness of so much e-learning occurring contributed to it being both under-reported and not discovered by researchers viewing it from owner-managers’ perspectives.

Although most non-virtual learning material seemed to be automatically trusted, much online learning matter appeared to require verification/endorsement before it was trusted. As discussed in the Resource Constraints section, participants appeared to prioritise resource savings over accuracy, and perhaps trust, of information acquired via Wikipedia, Google and websites. Although this e-learning was mostly undertaken to save time, I sometimes observed additional time being spent to check the accuracy of the information, for example XRN2 and HP5 regularly asked colleagues/ex-colleagues for verification, although they continued to use these resources because these put them “in the right ball-park” (XRN2). However, I saw no such checking of material obtained non-virtually. Similarly, IC1 and IC4 had concerns that customers might not trust ImageCo’s e-learning system and so were considering using “validating organisations” to give it accreditation, although they took no equivalent actions regarding their face-to-face L&D. Although only some non-technical staff over 35 specifically mentioned distrusting online security in general, few, if any, participants appeared to automatically trust information from virtual sources. Trust in e-learning materials, like trust between people, seemed to need time to develop, for example, participants said that they trusted information from forums and websites which they regularly used. Similarly, as participants saw that suggestions from such sites worked, they began to trust the website/forum as a whole, just as, in the non-virtual world, they grew to trust people whose expertise they observed/benefitted from. Participants also trusted material on forums/websites which had been recommended by individuals whose opinions they respected and/or ones which were “policed by seasoned developers and software engineers”
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(HP8). The need for others to recommend/endorse suitable learning sites seemed to arise from resource constraints which meant that participants could not explore and evaluate material themselves.

So far, discussion of the context in which e-learning in SMEs occurs and the factors which influence it have shown some similarities with general learning in those smaller organisations. It has also underlined the inter-related nature of those factors; the influence of owner-managers, resource constraints and trust appear to influence each other. However, it has indicated that, unlike non-virtual learning, owner-managers typically have little understanding of e-learning in general and how their employees use it in particular. This, coupled with resource constraints, indicates that employees could benefit from direction and support in respect of their e-learning; in non-virtual learning this is usually supplied by owner-managers/proxies, but is missing in e-learning which mostly occurs without owner-managers’ awareness. There were suggestions that CoPs could provide this support and so these will now be explored.

Communities of Practice

Lave and Wenger believed that “we all belong to communities of practice” (Wenger, 1998, p6) and manifestations of this were common in my literature review and, to some extent, in my research. As shown in Figure 2.2 (page 17), a CoP has three crucial elements, namely mutual engagement, joint enterprise and a shared repertoire (Lave & Wenger, 1991; Wenger, 1998). Much of Lave and Wenger’s (1991) and Wenger, McDermott and Snyder’s (2002) research took place in large (non-SME) organisations while Pattinson and Preece’s (2014) research in science-based SMEs led them to conclude that “it is unlikely… that SMEs can spare the resources required for constructing CoPs” (p108) while Roberts (2006) questioned whether SMEs are “able to spare the necessary resources to cultivate communities of practice?” (p633).

SMEs are often based on inter-dependent networks including relatives, friends and professional bodies (Chaston et al, 2000; Chaston & Baker, 1998; Devins & Gold, 2004; Gibb, 1997; Saunders et al, 2013; Tell, 2000). These joint enterprises, which offer opportunities for mutual learning, could be seen as CoPs as Lave and Wenger (1991) believe that the relationship between
practice and community is key in the context of learning, for example Hamburg and Hall’s (2008) two case-studies show SMEs innovating and growing through learning from, and with, others who have similar problems, experiences and interests. However, Devins and Gold (2002) suggest that an individual SME could also be seen as a community of practice, based on common meaning and practice. Irrespective of whether the CoP is internal or external to the organisation, the resultant communal learning does not belong to individuals, but is shared between members of the community (Devins & Gold, 2002; Rae, 2005).

I observed few definite examples of CoPs existing within my research organisations themselves, which initially I attributed to the negative influence of owner-managers who discouraged networking, both externally and within their organisations; owner-managers in my research didn’t acknowledge the value of “outsideness” (Bakhtin, 1986, cited by Devins & Gold, 2004, p261). This behaviour also diverged from that found by Rae (2005) who suggested that, through the social aspects of CoPs, SME owner-managers sublimated their individual identities to the identities of their organisations to achieve specific objectives, such as survival, growth or development of a particular business area.

What appeared to be CoPs in my research were much less robust than those encountered by Lave and Wenger, for example XRN3 and IC1 were part of external networks but attended these sporadically and appeared to have no accountability to the groups. There were suggestions of shared repertoire, for example XRN3 and other IEE members had undertaken similar work/study to gain their qualifications and IC1 was a small-business owner, like her fellow-FSB-members. However, neither XRN3 nor IC1 demonstrated much commitment to the groups; their attendance was irregular and I was not aware of any work which they undertook with fellow-members, so I could see little, if any, evidence of Lave and Wenger's (1991) mutual engagement and joint enterprise. XRN3 thought such groups were useful because “you get like-minded people together... and discuss, challenge ideas, opinions” but he seemed more interested in “learning about best practice” through attending them, than in contributing to them himself.

One of the few suggestions of an internal CoP was a ‘lite’ version in XRN where several employees had shared repertoire through their similar backgrounds and experience and usually
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worked together in small teams, sometimes informally rather than directed by managers, thus
displaying some mutual engagement and joint enterprise. However, these work-groups seemed
mostly short-lived, changing according to the work being undertaken, and consequently appeared
more shallow than those encountered by Lave and Wenger (1991).

HP5 seemed keen to establish a CoP within HelpingPeople’s L&D department, having seen the
advantages of these in previous employments. However, his attempts were thwarted, not only by
HP1 moving HP5 away from his team, but also by apparent reluctance in some colleagues. It was
difficult to ascertain the reasons for this reluctance as I don’t think I, as a newcomer, was trusted
enough for participants to share their feelings about this with me. However, research in this
domain suggests that CoPs require trust (Pattinson & Preece, 2014; Roberts, 2006) and, as
already discussed, trust needs time in which to grow; this accords with Lave and Wenger’s view
that CoPs need time to develop (Lave & Wenger, 1991; Wenger, 1998). HP5 had worked at
HelpingPeople for less than six months which was probably insufficient time for trust to develop,
particularly as he sat apart from his colleagues and so had little day-to-day contact with them.

More CoPs appeared to exist online than in non-virtual situations in my research, for example,
several technical staff at XRN and HelpingPeople were member of online forums. Participants
learnt from these forums and took great pride in contributing to them, posting blogs and
answering other forum-users’ questions, feeling they were giving something “back to the
community” (HP5). Forums had some features of CoPs, for example shared repertoire; their use
usually required a level of technical expertise so that users were inevitably programmers or had
other technical roles/experience. Forum-users helped each other, sometimes apparently working
in teams to answer queries, which indicated mutual engagement and joint enterprise, but the
forums had mostly existed for fairly short periods of time, typically less than a year and so had
little shared history. Forums generally developed in response to changes in technology and so
were usually relatively young, so they should probably be regarded as developing CoPs, rather
than fully-fledged ones. Goggins’ (2014) ethnographic study of learning in an isolated USA
SME found online “networks of practice” (p1078). However, he considered these to be less
complex than Lave and Wenger’s, because of their short-term nature, which has similarities with
my findings.
Discussion

During my research it became apparent that online CoPs, however transitory they may be, provide opportunities for participants to connect with, and learn from, and with, individuals external to the organisation; for example, HP5 and HP8 used forums which enabled them to resolve operational problems, as well as giving opportunities for self-development. This could happen without the awareness of owner-managers/proxies and so was not subject to their potentially inhibiting behaviour. HP5 told me that he thought HP1 had thwarted his attempts to form a community within the department and therefore he deliberately sought online communities away from HP1’s influence. Therefore, although owner-managers frequently act to inhibit contact outside of the organization, e-learning, as it is practiced in SMEs, has the potential to overcome this barrier, which probably explains why, in my research, CoPs appeared more common online than otherwise. Forum-use being largely hidden from owner-managers adds to the under-reporting of e-learning within SMEs. However, as mentioned previously, online forums through their apparent complexity precluded less-technical employees; my research found no evidence of non-technical employees belonging to CoPs.

Lave and Wenger (1991) expanded traditional ideas of apprenticeship and learning through mentoring with their concept of legitimate peripheral participation whereby novices learn within a CoP. There are similarities with Vygotsky’s MKO who provides “scaffolding” (p251) when needed and then gradually removes it as learners move through “expert-novice relationships in the everyday setting” (p252-253) towards their ZPDs (Turuk, 2008). Literature suggests that legitimate peripheral participation may be particularly relevant to SMEs, where novices typically acquire job-related skills from owner-managers to become competent workers and ultimately experts themselves, although owner-managers can be reluctant to share knowledge and/or use new ideas (Bishop, 2014; Higgins et al, 2013; Lave & Wenger, 1991; Lervik et al, 2010; London & Hall, 2011; Marsick & Watkins, 1999; Sambrook, 2004; Sambrook, 2003). Novices in my research appeared to move to positions of knowledge mostly through interpersonal and on-the-job learning, with some support and encouragement from owner-managers, for example “I'm learning as I go and adding to my specialist skill set” (HP4). On-the-job learning seemed considered particularly effective for new employees, allowing them to gather knowledge needed for their roles from managers/colleagues (IC3, HP6, HP7), although sometimes there were no opportunities to learn in any other way (HP3, IC7). This resulted in the formation of loosely-
formed learning groups which had some similarities to CoPs, but tended to be short-lived, perhaps because the majority of roles in my research SMEs involved low-level work which required limited amounts of L&D. HelpingPeople, unlike XRN and ImageCo, had a formal learning process for new learners, much of which involved e-learning, although it did not appear to involve any form of CoP or other (online) interaction.

The shallow nature of CoPs found in my research, online and otherwise, appears to result from the short time in which participants had known each other because of staff turnover and work-teams’ membership changing to meet business requirements. These are inevitable consequences of the modern workplace which is far removed from those studied by Lave and Wenger in the 1980’s and 1990’s (Lave & Wenger, 1991; Wenger, 1998; Wenger et al, 2002). ‘Jobs for life’, or at least the possibility of lengthier job tenures, which were common until the end of the twentieth century have in many cases been replaced by portfolio careers in which employees expect/need to change jobs/organisations every few years, perhaps for career progression or because of redundancy (Eyre, Mitchell, Milford, Vaswani & Moylan, 2014; Inkson, 2015). Therefore, nowadays people typically work for an organisation for shorter periods and they may work in several different departments/work-groups during that time as a result of rapidly changing business requirements and technological developments (Bredin & Söderlund, 2006; Notgrass, Conner & Bell, 2013). Those technological developments also lead to the formation of online forums whose lifespans are inevitably restricted as further changes occur. Therefore, opportunities for individuals to form long-term relationships with colleagues/those with similar interests seem to be decreasing (Ibrahim & Dickie, 2010; Sias, Gallagher, Kopaneva & Pedersen, 2012; Six, 2007). Roberts’ (2006) research led her to conclude that “communities within business organizations will have difficulty forming when the pace of change is accelerating” (p630) so that she believed swift trust (Meyerson, Weick & Kramer, 1996; see Glossary) was needed for the formation of CoPs. Similarly, Germain and McGuire (2014) advocate using “virtual icebreakers and socialization activities” (p364) to help establish swift trust during e-learning. Swift trust may, like the shallow versions of CoPs found in my research, result from the rapid changes now common in the workplace which dictate that when processes are no longer considered to be useful they are amended to suit the changed circumstances.
Discussion

This suggests that the concept of CoPs needs revising to reflect evolving workplace practices and technological developments. The comparative shallowness of the CoPs I encountered appears inevitable if individuals work in organisations and/or roles for limited periods and technology develops at an increasingly rapid rate, both of which allow little time for relationships to develop, either face-to-face or virtually. Gee (2005) recognised that participation in work-groups was often temporary, while Lindkvist (2005) acknowledged that work-groups frequently “have to engage in swift socialization and carry out a pre-specified task within set limits as to time and costs” (p1190) leading him to suggest that the idea of “collectivity-of-practice” (p1190) was more appropriate. These resource constraints must be recognised if CoPs are to remain relevant to the evolving workplace. Furthermore, e-learning was in its infancy when Lave and Wenger (1991) conducted their research and although Dubé, Bourhis and Jacob (2005) discussed possibilities of ‘VCoPs’ (Virtual Communities of Practice), they were mindful of Wenger et al’s (2002) warnings regarding difficulties in establishing these. However, we are now in a very different digital world than existed in the time of Lave and Wenger (1991) or Dubé et al (2005). Gee and Hayes’ (2011) concept of “passionate affinity spaces” (p70) offers not only a less intense version of CoPs based on individuals sharing in an enterprise, but also recognises that these could occur in virtual and non-virtual environments. Although Kietzman et al (2013) introduced the concept of ‘MCoPs’ (Mobile CoPs), more research is needed in this domain. Annamary et al (2015) argue that “the idea of communities has undergone change with online communities unheard of in 1991” (p15) with such online communities offering opportunities for novices to develop skills through being part of a virtual community (Chandler-Olcott & Mahar, 2003). Therefore, if the concept of CoPs is to remain relevant to the workplace, it must recognise these developments in a revised ‘e’-inclusive version of CoPs.

Summary

Discussion so far has shown that learning and e-learning within SMEs have common influences, namely owner-managers, resource constraints, trust and CoPs. Although there is frequently tension between these influences, their effect appears quite different in the virtual world. For example, although owner-managers are influential in both learning and e-learning, their typically limited technical knowledge results in them adopting superficial support for e-learning, based on
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assumptions of resource savings, but it also leads to employees undertaking much e-learning without owner-managers’ awareness. This adds to under-reporting of learning/e-learning in SMEs, including employees’ use of online forums. Discussion of forums highlights that technical employees may join these if their desire to network is thwarted by owner-managers as they can join online networks without owner-managers’ awareness. Exploration of CoPs suggests that these need revision to acknowledge changes in technology and work practices, particularly e-learning possibilities. This dichotomy between non-virtual and online learning will be further discussed in the next section, which looks at the learning methods and resulting media which are adopted in SMEs as a result of their contextual factors and influences.

**e-learning methods and media within SMEs**

This section discusses the e-learning observed during my research, exploring both the methods and media used. It shows that the same methods were chosen for e-learning and non-virtual learning, namely informal, on-the-job and interpersonal ones. Initially this seems surprising as these methods appear to be largely chosen in the non-virtual world due to no alternatives being available because of resource constraints, while much e-learning occurs without managerial awareness and so gives employees more freedom of choice, provided the methods chosen are free/cheap. However, further reflection suggests that e-learning itself is a big step into the unknown for many employees so they favour familiarity in their methods. Consequently, the e-learning media they choose are also informal, on-the-job and, as far as possible, interpersonal and so include Google, TED, YouTube, websites and forums, bearing little resemblance to the formal ones found in previous research. Previous research had also suggested that deep learning could occur in SMEs, so I was alert to possibilities of this throughout my research. Although I found some awareness of the need for deep learning, little seemed to occur, particularly in e-learning. All these issues will be discussed in more detail below.

**Media used in e-learning methods**

As mentioned, e-learning methods were similar to those found in general learning within SMEs. This may be partly because of SMEs’ ever-present resource constraints, although several employees asserted that informal methods were “more useful” and user-friendly than formal
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ones. Some of this may have been bravado to conceal the lack of alternatives available to them and hence their lack of control over their own learning, but the extent and evident depth of feeling concerning this suggest that at least some of this was genuinely felt, perhaps being part of the resistance to formal, standardised methods and techniques, often found in SMEs (Coetzer & Perry, 2008; Matlay, 1999; Stewart & Beaver, 2004). It is surprising, therefore, that owner-managers seemed to ignore their employees’ very evident preference for informal learning when considering e-learning in their organisations. Without exception, all owner-managers I spoke with while trying to find suitable research organisations, mentioned formal methods, such as online courses, ignoring the informal methods, including browsing websites and watching videos, which were used in practice. This may be because, as discussed, they were largely unaware of the methods their employees used, due to their own limited technical expertise and to employees’ deliberate exploitation of this. Roberts and Sambrook’ (2014) research also found little evidence of organisations recognising informal e-learning, specifically social media.

Despite resource constraints, employees had more freedom in their choice of media in e-learning than they had in general learning, as much e-learning could occur without owner-managers’ potentially negative influence. Consequently, media which were available at no extra monetary cost, through using existing equipment, were chosen. Therefore, e-learning media, as shown in Appendix M, ranged from the internet in general (XRN2, IC2, IC6, HP4; HP8), websites (XRN1, XRN2, HP1, HP3, HP9) and emails (if the subject-matter was conceptualised as learning) through to webinars (IC7; HP8). Some of the methods chosen were very informal, for example Wikipedia, which only the very technical HP5 admitted to using, and Google which seemed to be used by most people. Participants apparently thought that use of potentially inaccurate/incomplete information was justified by its time and money saving qualities. Some e-learning involved learning by observation through watching videos, notably on TED and YouTube (XRN1, IC1, IC4, HP1, HP2, HP4), which echoed some of their non-virtual on-the-job learning. Despite observation being part of my research’s social constructivist basis (Bandura, 2012; Bandura, 1977; Lave & Wenger, 1991; Rae, 2005; Schreiner, n.d.; Vygotsky & Cole, 1978), initially I considered that little learning occurred this way in my research; only XRN2 mentioned doing it and I attributed its absence to time constraints and owner-managers’ negative influence. However, further reflection indicates that more learning through observation occurred
in e-learning than in non-virtual situations, namely through watching videos. Although (predominantly practitioner) literature suggests that e-learning by observation can occur through Massive Open Online Course (MOOCs) (Smith, 2012) and gaming (CIPD, 2014b; Squire, 2008), neither of these were used during my research; the latter, as discussed, was because of resource constraints which may also have influenced non-use of MOOCs as time, and perhaps some technical knowledge, would be needed (or perceived to be needed) to utilise them. Some owner-managers/proxies, notably HP1, encouraged employees to learn through watching videos, which was seen to be particularly advantageous through giving access to speakers not otherwise available because of resource constraints. However, this seems to be another instance of owner-managers/proxies encouraging e-learning which could be done in employees’ own time. Nevertheless, more learning through observation occurring online than otherwise seems largely as a result of it being able to happen away from owner-managers’ potentially negative influence and so also contributes to e-learning being under-reported.

Strong preferences for “human-interaction” (XRN3 and HP6) in learning/e-learning were evident throughout my research which accords with my thesis’ social constructivist basis, particularly Lave and Wenger’s Situated Learning theory which recognises the importance of such learning which it views as not the acquisition of knowledge by individuals, but a process of social participation (Lave & Wenger, 1991). It also aligns with Bandura’s Social Learning Theory which stresses learning from one’s environment and by direct experience (Bandura, 2012; Bandura, 1977; Bosma et al, 2012). At first sight e-learning, with its essentially remote nature and implicit lack of interpersonal interaction, did not sit well with this framework, as indicated by earlier research in this area (Daft & Lengel, 1986; Krauss & Bricker, 1966; Stephens, 2002; Stork & Sproull, 1995). However, I discovered that, despite owner-manager’ assertions to the contrary but in accordance with some scant research in this domain, employees used interactive e-learning which seemed to mimic interpersonal environments, such as forums (Stephens & Mottet, 2008), live interaction via the internet (Morabito, n.d.) or videos showing people demonstrating processes. Some participants tended to personalise e-learning, mentioning people “met” or “known” on forums (HP5 and HP8). Other attempts to introduce interpersonal interaction to e-learning were apparent in some of it occurring in groups of two or more people, who were, for example, looking at forums/websites together and then debating their findings.
Discussion

Not only did this obviously involve other people, but it also mirrored non-virtual learning which often happened in small groups. There was awareness of the opportunities game-based learning and e-learning involving virtual reality and/or avatars afforded in compensating for e-learning’s lack of interpersonal contact by being “more interactive... much more immersive, more memorable” (HP2), although it was acknowledged that the cost of this was beyond most SMEs’ budgets. Although forums were used extensively by XRN and HelpingPeople technical staff, they did not seem to be accessed by anyone else, probably because, as HP5 observed, their apparent complexity deterred less-technically-able people. This might have contributed to several participants, who were all non-technical employees, saying that e-learning’s major weakness was its lack of interpersonal interaction; they particularly highlighted being discouraged by e-learning’s lack of feedback, although this was available in forums and ImageCo’s largely-unused in-house e-learning system.

Discussion so far of the e-learning media used during my research indicates more applicability to the social constructivist theories underpinning my research than perhaps initially suggested. There is also some relevance to the other two theories mentioned in my Literature Review in the context of interpersonal interaction in e-learning, namely Rhetorical and Relational Goal Theory of Instructional Communication (Mottet, Frymier & Beebe, 2006) and Social Presence Theory (Short, Williams & Christie, 1976) (see pages 48-49). Regarding the first of these theories, in my research there have been indications that relationship goals can be achieved in e-learning which involves interpersonal interaction, such as forums and interactive websites (XRN1; HP4; HP5). However, some of my research participants appeared to see e-learning as concentrating more on task (rhetorical) goals in order to enable individuals to reach necessary levels of competency, although they expressed concern that without some interpersonal interaction they were unable to learn effectively (XRN3; HP6). This indicates relevance to Social Presence Theory which indicates how media differ in their ability to convey social presence. Throughout my research the relevance of this theory has been shown by participants who wanted to build and develop relationships, perhaps communities, with people they had learnt from online, just as they would in face-to-face situations (XRN1, HP4), particularly HP5 and HP8 who spoke of people they had “met” or “known” on forums, which indicates a sense of warmth or closeness to such individuals. (Short, Williams & Christie, 1976).
Discussion

Less employee fear of technology, which would potentially inhibit use of e-learning, appeared to exist than previous research suggested (Hamburg & Hall, 2008; Sambrook, 2004; Sambrook, 2003; Stewart & Beaver, 2004). Notable exceptions found in my research were some HelpingPeople employees who had little or no access to technology in their working/personal lives and other employees who were in non-technical roles and/or were over 35. However, as already noted, much previous SME-relevant e-learning research is over ten years old; use of technology, both in the workplace and everyday life, has changed considerably since then so lack of technical skills and fear of technology are now less common. This may be a diminishing problem as ‘digital natives’ (Prensky, 2001) become an increasingly large part of the workforce. However, perceptions that fear of technology results in low use of e-learning may have contributed to less e-learning appearing to occur in SMEs than my research found.

Having discussed the e-learning methods and media found during my research, I will now reflect on whether deep learning was apparent within these

**Depth of Learning**

It was difficult to tell whether deep learning was happening so mostly I had to rely on participants telling me about it. There were suggestions that it might be occurring when learners appeared totally engrossed in learning, for example ignoring questions from colleagues, but this was not conclusively deep learning. Similarly, although I was not aware of participants repeatedly asking for the same/similar information which suggested they retained it, this was not necessarily deep learning either. HP7 advised me that KaosPilots looked for “shining eyes” as evidence of deep learning, but this was not apparent during my research; staring into participants’ eyes would have been inappropriate behaviour.

Difficulties in ascertaining whether deep learning was occurring in the non-virtual world were exacerbated in the context of e-learning; there was no behaviour to observe and therefore I was totally reliant on participants’ comments.
Discussion

Despite what the scant literature concerning depth of learning in SMEs suggests (Ahlgren & Engel, 2011; Anderson & Boocock, 2002), I found some evidence of awareness of the need for deep learning during my research (XRN2; XRN3; HP3; HP7). However, this always appeared to be in the context of non-virtual learning, for example disappointment that some classroom courses required no evidence of deep thinking (some XRN employees; HP3; HP7) and discussion of the need to reflect on the learning from such courses to benefit from it (XRN2; XRN3). Much learning, both virtual and otherwise, appeared shallow, typically being unplanned and occurring in response to immediate operational problems, with no apparent subsequent analysis of the learning, although XRN2 and XRN3 claimed to reflect on their learning, often in their own time, and IC1, IC6 and HP3 claimed to use NLP and/or hypnosis training for such reflection. These mentions of the need for review/reflection accord with the second and possibly third stages of Kolb’s Experiential Learning Theory (see Figure 2.4), indicating that some research participants, notably XRN2, XRN3, IC6, HP3, HP4 and HP5, have awareness of such actions as drivers of learning, even if there was little evidence of anything beyond Kolb’s first stage of ‘doing’ occurring.

Lack of depth in e-learning was suggested by many participants expressing strong preferences for bite-sized learning, which appears to be a shallow form of learning, adding to the impression that participants’ actions could be seen as knowledge acquisition, rather than learning. Time and support were required for shallow learning to develop into deeper learning through reflection and critique, - the latter stages of the experiential learning cycle - but these entities were constrained or under pressure in SMEs in both general and online learning modes. There were suggestions in literature that game-based learning could enable deep learning by converting information into knowledge, rather than just storing it, through stimulating learning pathways in human brains (CIPD, 2012; Johnson, 2006; McGonigal, 2011; Squire, 2008), but this form of e-learning was not used during my research because of cost constraints.

Therefore, although there appeared to be more awareness of the need for deep learning in SMEs than other research in this domain had indicated, little seemed to occur (and what did was solely based on participants’ comments). Although it is possible that less constrained resources could have allowed more generative learning to occur, much of the work I observed during my
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research required low levels of skills and so appeared to have little need for deep learning. Where the work required higher cognitive skills, there was some realisation of this need, and consequently of the need to progress beyond Kolb’s first stage of ‘doing’ (see Figure 2.4) if learning was to occur, but few resources available for its enactment. Despite the scant occurrences of deep learning exceeding literature’s suggestions, these were wholly in non-virtual situations so my research yielded no evidence of a connection between deep learning and e-learning.

Summary

Discussion of the learning methods used during my research indicates that employees, as they often asserted, prefer the ones they use; usage of informal, on-the-job and interpersonal methods may originate from necessity through lack of alternatives, but continue to be used in e-learning where employees have more freedom of choice as much of it occurs away from owner-managers’ frequently negative influence. However, when using e-learning, employees are still subject to resource constraints, just as they are in non-virtual learning, which limit their choice of media to some extent. Despite this, a great variety of media was used in participants’ conceptualisations of ‘e-learning’, most of which were far-removed from those found by earlier researchers. This is yet another manifestation of the under-reporting of e-learning in SMEs. Participants’ desire for interpersonal learning was particularly interesting in the context of e-learning, where attempts to find media which could mimic interpersonal interaction, which was common in non-virtual learning relationships, were evident and resulted in usage of media such as forums. Although my research found much greater usage of e-learning in SMEs than literature had indicated, it found no evidence of deep learning occurring in the context of e-learning and therefore it will not be considered any further in this thesis.

It is, perhaps, inevitable that the extent to which e-learning in my research SMEs exceeded that reported by previous search would lead to an unexpected consequence and this was the extent to which SDL also surpassed that suggested by literature in this domain and this will now be discussed.
Discussion

The consequence of context, influence, methods and media of e-learning in SMEs

Reflecting on my findings indicates that the cumulative effects of the context, influences, methods and media pertinent to e-learning led to much SDL occurring in my research SMEs. The preponderance of e-learning, which results from it being able to occur away from owner-managers’ non-benevolent influences, may itself be responsible for the amount of SDL which exceeds that commonly thought to occur in smaller organisations.

Self-directed learning

Like other terms in this study, Self-directed learning (SDL) has many interpretations; I am using Knowles’ (1975) definition:-

“a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (p. 18).

However, participants used their own definitions of this, just as they had for ‘learning’ and ‘e-learning’. SDL, or “self-learning” as several participants called it, occurred in all three research SMEs, usually being undertaken with much pride and commitment. I was surprised by the extent of this as I was unsure of its relevance to my research during my literature review. Although SDL “has become a major component of adult learning in the workplace” (Rana, Ardichvili & Polesello, 2015), it was largely conceptualised as part of career development, usually in large organisations (Ellinger, 2004; Guglielmino & Guglielmino, 2006; Guglielmino et al, 1987; Yamkovenko & Hatala, 2014) and this focus did not seem to fit my social constructivist lens, although Bandura (2012) argues that “self-directed learning was an essential means of academic self-development” (p360). However, the extent of SDL found in my research meant that I needed to work through this inductively, reflecting on my findings to make sense of this at an individual level. I began to realise that the SDL in my research was part of on-the-job learning, often being concerned with individual’s reactions to their roles.
Discussion

As discussed in the Ubiquity of (e-)learning section, some participants claimed to “learn all the time” (IC6, HP1), echoing Wenger (1998), and initially I considered that this on-going learning might be SDL. On reflection, it seemed too superficial; as Moore (1983) observes, SDL, or autonomous learning as it is also known, is often wrongly considered to be ubiquitous, but it is likely that it is carried out by learners who “plan, implement and evaluate their own learning” (p11). Similarly, Poell (2014) acknowledges that SDL requires intentional and conscious effort by learners.

Although literature seldom considers SDL in SME contexts, some of that relating to the general workplace appears applicable to my research. For example, Ellinger (2004) suggests that self-directed learners have a tendency to want to share information with others, often through learning networks, which is a characteristic evident in many of my research participants. As already discussed, owner-managers in my research typically discouraged employees from networking, so employees tended to do this online, away from owner-managers’ negative influences, often through forums. The majority of SDL in my research also occurred through e-learning, usually informal and often involving the more interpersonal media, such as forums (XRN1; HP4; HP5). Ellinger (2004) had wondered “How is technology impacting SDL?” (p171) and eleven years later my research showed that it had significant effects. For example, in previous employment, HP5 had successfully sought and undertaken e-learning in his own time to become a computer programmer so that he could join a technical CoP which he saw within his then employment. He chose e-learning for his SDL because apparently he felt not only that it was appropriate for research into technical matters, but also he could carry it out at his own pace, in his own time, for little cost and without the awareness of either his colleagues or the CoP which he aspired to join. However, despite HP5 claiming that the main motivation for his SDL was so he “could be in the gang”, it was also career enhancing, enabling him to move from clerical admin to a more senior technical role. Other examples of research participants undertaking SDL to progress their careers include XRN2 enrolling on a part-time, predominantly online MSc, although this was not needed for his current role and his department manager appeared to offer little encouragement and another XRN employee who had learnt graphic design from YouTube videos in her own time, while unemployed, which led to her role at XRN.
Discussion

Although these examples show some similarity with SDL in larger organisations, more commonly, during my research, SDL seemed to occur through desire to network.

Although e-learning appears to provide SME employees opportunities for SDL that would not otherwise be open to them, Bell and Kozlowski (2010), Kraiger (2014) and Kraiger and Jerden (2007) discourage self-directed e-learning, thinking that some support is necessary. Their research was in the context of general workplace learning, rather than that specific to SMEs, but echoes Vygotsky’s belief in the need for ‘scaffolding’ in learning which enables novices to acquire skills and knowledge and is then gradually removed as learners develop their ZPDs and Lave and Wenger’s legitimate peripheral participation. However, SME employees may have not only limited opportunities for SDL, but also little support for it, and so may seek support online when undertaking e-learning, for example through forums, interactive websites and watching instructional videos.

Like e-learning itself, much SDL appeared to happen in spite of, rather than because of, owner-managers as it occurred through e-learning and consequently away from their negative influence. However, some owner-managers encouraged SDL using e-learning, although this always seemed to be when it could occur in employees’ own time and so appears influenced by resource constraints. Examples include “I’ve pointed him in directions of websites” (HP1) and “we’re quite active on people developing… IC2’s going to do that through distance learning” (IC1). This matches Susomrith and Coetzer’s (2015) view that SDL, and other informal learning methods, can “provide a cost-effective approach to developing small business employees” (p564). Although some SDL appeared to occur because employers failed to provide learning opportunities or time in which to learn, it also allowed participants to learn at their own pace, as in HP5’s example above, and in accordance with their preferred learning styles. Mumford (2003) and Honey and Mumford (1992) suggest that e-learning can be tailored to individual learning styles and this was evidenced in my research by the variety of learning methods/media used, which also met learners’ other requirements.
Discussion

Summary

SDL emerged as happening more frequently through e-learning than in non-virtual environments, possibly because it could occur without owner-managers’ potentially negative influence and at little or no cost. However, the extent of SDL may also be because of owner-managers positively influencing it as they encouraged learning undertaken in employees’ own time. Consequently, it is unclear whether all so-called SDL is genuinely self-directed or is directed by owner-managers, although employees tended to stress the freedom and independence they had as SME employees which allowed them to direct (some of) their own learning. In this way SDL, like many other aspects of learning in SMEs, may be hindered/obscured by problems of terminology. However, SDL in SMEs seems to occur not just in a different format to that usually suggested by literature relating to larger organisations, namely online, but also with different intent; in non-SME contexts, SDL is usually part of career development, while in smaller organisations, the desire to be part of a network is more common. This is further evidence of tension between individual and collective expectations of, and requirements from, learning in SMEs. There are also suggestions that SDL in SMEs, like much learning there, is mostly more short-term than literature suggests it might be in large organisation contexts. These points indicate that further research into SDL in SMEs is needed.

All the issues discussed in this chapter will be brought together into a model of e-learning for workers in SMEs in Figure 6.1 (page 222).

Conclusions

This chapter has brought together all aspects of my research to show how it contributes to, and explains, the adoption and utilisation of e-learning in SMEs. Reflection and subsequent discussion of these has led to several conclusions which are given below.

Firstly, my research suggests that the context, influences and methods relating to SME workers’ general learning also apply to their e-learning. It is probably not surprising that employees continue to use familiar methods, namely interpersonal, informal and on-the-job, when the impact of changing to e-learning is realised; they are in a very different environment, which,
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initially at least, they may not trust and so they need some familiarity, which may be a further indication of the importance of trust in the context of learning.

Secondly, although previous research has concentrated on learning in SMEs from the perspective of owner-managers, the examination here from employees’ perspective indicates the inhibiting effect of owner-managers in relation to both e-learning and learning generally, which has been little-explored previously. This adds to an emerging picture of SME owner-managers/proxies which is far removed from benevolent Vygotskian MKOs or Bandura’s role-models as the owner-managers in my research seldom appear to consider employees’ interests in the context of learning and indeed fail to acknowledge efforts made by employees to undertake learning. Although in my research, some owner-managers encouraged some e-learning, this tended to be when it could occur in employees’ own time and so seemed to stem from owner-managers’ concern for cost-savings rather than concern for employees’ L&D. My research also highlights that viewing learning/e-learning in SMEs from owner-manager standpoints may have led to it being under-reported because owner-managers may be unaware of its extent, perhaps due to their apparent lack of interest in and/or understanding of their employees’ learning, as well as the time constraints under which they operate.

Thirdly, the under-reporting of workers’ learning, particularly e-learning, in SMEs has been evident throughout this study, in both the literature review and my primary research. This appears to be because both practitioner and academic research and literature in the domain of e-learning in organisational contexts have focussed on that which occurs in large (non-SME) concerns, perhaps because of the (mis)conception that such learning, or indeed any learning - rarely occurs in SMEs. One of the reasons for this is that the extent of such learning often appears to be hidden by terminology which seems to vary not only between SMEs, but also between organisations where it occurs and academic and practitioner literature which report it. During my research, SME workers’ conceptualisations of e-learning appeared much wider than those previously reported and these understandings of e-learning were also very different from owner-managers’ conceptualisations, which tended to be restricted by the owner-managers’ apparently limited technical knowledge. Historically research into SMEs has been predominantly from the viewpoint of owner-managers and so their apparent lack of realisation of the extent of
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e-learning happening within their own organisations has added to the under-reporting of e-learning in SMEs. My primary research also shows that the situated nature of e-learning in SMEs, which largely appears to occur in the context of everyday activities, makes it difficult to ascertain when it starts and when it stops. This is exacerbated when considering e-learning where my research found it impossible, through observation, to differentiate between e-learning and general internet surfing. Furthermore, some of my research participants seemed to deliberately exploit owner-managers’ lack of realisation of the extent and richness of e-learning which was occurring so that they, the employees, could undertake the self-directed learning which they professed to enjoy. This contributed to much e-learning occurring despite, not because of, owner-managers, and consequently added to the view that little e-learning occurs in SMEs.

My initial research findings indicated that some SME workers had greater awareness of the need for deep learning than the scant mentions of this in previous literature had suggested. Despite more of my research participants (although still few) claiming to undertake deep learning - that is progressing beyond Kolb’s Experiential Learning Theory’s first stage of ‘doing’ (see Figure 2.4) - than previous research suggested, there was little evidence of Kolb’s later stages of ‘observing’, ‘thinking’ and ‘experimenting’ occurring. However, despite much analysis and reflection, my findings indicate no direct relationship between deep learning and e-learning.

A particularly interesting conclusion arising from my research concerns the relationship between e-learning and SDL in SMEs. My findings in respect of SDL are similar to those for e-learning as not only does more of it seem to occur than previous research suggests, but also some owner-managers encourage SDL, seemingly because it can be done in employees’ own time. In my research much SDL in SMEs appears to occur because it can take place through e-learning and so away from owner-managers’ negative influence. It seems partly at least to arise from employees’ desire for interpersonal interaction in their learning, rather than being part of their plans for career progression, and, as such, it could be seen as perhaps a short-term ‘escape route’ to interact outside of their workplace, rather than being life-changing. Some of my research participants’ apparent desire for interpersonal interaction appears, at times, to lead to their SDL involving use of e-learning media which allow this, notably forums. Forums appear to have some of the more important features of CoPs, such as shared repertoire, and therefore might be seen as
online CoPs, albeit shallow versions of them. Learning through forums is two-way; employees contribute to, as well as learn from, these online networks. Therefore, my research suggests that through membership of forums (online CoPs), employees could influence CoPs, which themselves influence employees’ learning.

Another important conclusion concerns CoPs. The research in this study indicates that, in the context of SME learning, those found are mostly online and are more shallow and short-lived than Lave and Wenger’s conceptualisations. There is agreement in some academic literature that CoPs should acknowledge the increasingly short-term nature of workplace teams as well as possibilities which technology offers. Therefore, CoPs appear to need revision to reflect the changes in technology and general workplace practices that have not only limited the time in which they can develop, but also have presented online possibilities, through e-learning, which did not exist at the time of Lave and Wenger’s (1991) original studies.

Overall, ethnography was vital in allowing me to recognise instances of e-learning. There is a lack of ethnographic research in the domain of HRD, but my research indicates that it could add much to not only e-learning, but also learning in general. In particular, my research indicates that ethnography can allow an exploration of workplace social interactions and may result in rich data which allow new insights into learning and a greater understanding of how workers in SMEs learn.

Having discussed the implications arising from this research, the final chapter, Conclusions, will consider its contributions to academic knowledge, practice and research methodology, before examining the limitations of its research methodology and recommendations for future research.
Chapter 6 Conclusions

Introduction

This chapter discusses the contributions made by this research, regarding both learning/e-learning in SMEs and e-learning in general, to academic knowledge, to research methodology and to practice and policy relating to SMEs. It also examines the limitations of the research methodology before proposing suggestions for further research.

This study has examined the hidden world of e-learning in SMEs by addressing its main question - How is e-learning understood and undertaken in SMEs? – and its four research objectives which are discussed below.

The first objective is to explore the context of learning that takes place in SMEs and this research found that the learning in each SME in which this study’s fieldwork took place appears to be predominantly informal, on-the-job and interpersonal. Within those locations, both general learning and e-learning were influenced by the owner-manager and subject to resource-constraints.

The second objective is to examine how e-learning is understood and conceptualised in SMEs. In the fieldwork organisations, the owner-managers and the employees had very different understandings of e-learning; owner-managers considered that formal e-learning, such as online courses, was being undertaken, while the way e-learning was understood by the employees – and that which was observed to occur – was, like their general learning, informal, on-the-job and, whenever possible, involved some interpersonal interaction.

The third objective is to examine the use of e-learning in SMEs and in the research SMEs this included media mostly overlooked by previous academic research, for example Google, videos and online forums. These media demonstrate the width of employees’ conceptualisation of the term ‘e-learning’ and reflect the resources constraints inherent in SMEs. Therefore, all the e-learning observed during the ethnographic research was at the cheap/free, low-end of the
spectrum of available media; the expensive media occasionally referenced in academic and practitioner literature, such as 3D learning or that involving virtual reality and/or avatars, was, as my research participants realised, beyond SME budgets.

The fourth objective is to develop a model of e-learning for workers in SMEs and Figure 6.1 (page 222) addresses this objective. The next section explains this figure.

**A model of e-learning for workers in SMEs**

This section draws upon the synthesis of the Literature Review, Findings and Discussion chapters to highlight factors which this research has found which are relevant to a model of e-learning for workers in SMEs, thus addressing this research’s fourth objective. This model, which tries to give a simple explanation of a potentially complex and largely unexplored area, is shown in Figure 6.1. This is my research’s major contribution; it is an original contribution to academic knowledge as it is the first time that a model of e-learning for workers in SMEs is known to have been developed.

It is important to note that the top part of Figure 6.1, that is, above the dotted horizontal line, applies to all worker learning in SMEs, as found in my research; as discussed throughout the Discussion chapter, my research found that the context, influences and methods apparent in learning in SMEs do not appear to change when this learning becomes virtual. As literature indicates, and as noted in the Research Methodology, SMEs should not be regarded as a homogenous group so my findings cannot claim to apply to all SMEs. However, all three research SMEs had commonalities in learning context and influences, despite their disparities in size and industry. Consequently, context is shown as an unbounded, potentially fluid oval to suggest possible applicability to all SMEs. The shading within the oval indicates that contextual factors, namely terminology, ubiquity and history, affect learning in SMEs. My research indicates that learning in SMEs is dynamic, not static, so that the extent of contextual effect and influences varies not only between SMEs, but also as time progresses. Therefore, Figure 6.1 shows terminology, ubiquity and history ‘floating’ in the contextual oval, while time is indicated by the green arrows (annotated as Time) which surround the context and influencing factors.
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Figure 6.1 Model of e-learning for workers in SMEs (based on primary research)
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It should be noted that the contextual factors shown in Figure 6.1 are those which have arisen from my primary research and do not represent all possible factors. For example, it does not include employee motivation which may or may not be influential on learning and/or e-learning for workers in SMEs as this did not arise in this research. Similarly, there may be other methods, media and consequences of e-learning for workers in SMEs, but this model seeks only to show those which were evidenced in my research.

Figure 6.1 also shows that the research in this study found that the influences on learning, virtual and otherwise, in SMEs are owner-managers/their proxies, resource constraints, trust and CoPs. The overlaps between these indicate that each of them affect, and are affected by, the other influences. As mentioned, these overlaps and the relative extent of influences will vary over time, both between and within SMEs. Sometimes, three or all four factors will exert influence on learning, for example HP5 joined forums as he wanted to be part of a CoP, despite owner-manager-proxy HP1 discouraging learning through networks, and although HP5 needed to trust other forum-users, this was constrained by time. My research indicates that the biggest influence is likely to be owner-managers/their proxies. Resource constraints and trust may be lesser, though still important, influences, but, again, their relative influence/size is likely to change between SMEs and over time, for example HP3 and IC6 thought that the need for trust between students and trainers (in a workplace context) was paramount, but many managers/proxies, notably HP1 and IC5, favoured learning which needed few resources and they seemed to ignore trust issues. CoPs are shown with a dotted border as the research indicated that their influence seems the most likely to vary between and within SMEs and over time; owner-managers tended to discourage employees from forming/joining them and although several employees appeared to want to join these, - or networks of some sort, - through their desire for interpersonal interaction in their learning, membership of these, notably forums, appeared restricted to technical staff, although technical skills could be acquired over time. Furthermore, in my research, CoPs largely exist outside the SMEs and so may be less affected by the context and influences within those organisations, although they are subject to other, unexplored, external factors.

Still within the part of Figure 6.1 which relates to all learning in SMEs, the methods of learning, are shown to be interpersonal, informal and on-the-job, as found throughout this study. However,
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when this is looked at in the context of e-learning (by moving below Figure 6.1’s horizontal dotted line), employees’ exciting, and perhaps unexpected, conceptualisations of these methods into media appear, according to my research. Several, if not all, of these media could be said to fit two or all methods, for example, they are all, to varying degrees, informal. However, I have grouped them according to what I observed during the research to be their predominant use, for example videos were often used in on-the-job learning, while interactive websites appeared to meet, to some extent, employees’ desire for interpersonal interaction in their learning. The use of some e-learning media, as an interpersonal learning method, significantly forums, led to some of my research participants becoming part of a CoP/CoPs, as shown by the arrow from the interpersonal e-learning media to CoPs.

In this research, use of these e-learning media led to more SDL occurring than previous research/literature suggested, which arose predominantly from employees’ desire to be part of a CoP/network. The arrows linking the interpersonal media and SDL to CoPs are two-headed in Figure 6.1 as employees in the research locations, through being part of CoPs, not only learn from CoPs, but also contribute to them. Therefore, through CoPs, employees could influence learning within their SME and, potentially, other organisations. Employees’ influence on learning in SMEs has been largely ignored by literature (Susomrith and Coetzer, 2015) and so its extent is not only unacknowledged, but also unknown. Employees’ increased – or at least, more apparent, - influence could make the process of learning in SMEs more cyclic; this influence could lead to more e-learning and SDL which in turn could increase employees’ influence on learning and so on. However, this model is based on my research and therefore further research into employees’ influence is needed to reveal more about learning, both virtual and otherwise, in SMEs.
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The extent to which both learning and e-learning occurs in an SME context

A key issue addressed in this thesis relates to the extent to which both learning and e-learning occurs in an SME context. In tackling this question, I used Holman et al’s (1997) definition of learning as a:-

“responsive, rhetorical and argumentative process that has its origins in relationships with others” (p. 143).

As discussed in the Literature Review, this understanding of learning is grounded in critical evaluation of Kolb’s Experiential Learning Theory which itself draws on social constructionist and activity theory perspectives. There are suggestions that Kolb’s view of learning as “the process whereby knowledge is created through the transformation of experience” (1984, p38) aligns with the learning found in the SMEs taking part in this research. As shown in Figure 2.4, the four stages of Kolb’s Theory can be summarised as:-

1. Concrete Experience (‘doing’) where a new experience is undertaken or an existing experience is re-interpreted;
2. Reflective Observation (‘observing’) where the Concrete Experience is reviewed in order to understand it. Any inconsistencies between the experience and understanding of it are very important.
3. Abstract Conceptualisation (‘thinking’) where reflection and analysis result in a new idea or modification of an existing one and
4. Active Experimentation (‘experimenting’) where the new/modified idea is tested through application in the real world to see what happens (which leads to new Concrete Experiences).

If learning is understood in this way then it would be possible to argue that scant learning was observed in my research SMEs as in each of them there was evidence of high levels of ‘doing’ but limited evidence of ‘observing’, ‘thinking’ and ‘experimenting’. Even an ethnographic approach is limited somewhat in an examination of learning as a cyclic process; it is possible to
observe ‘doing’, but there is a necessary reliance in the data on participants’ comments about the extent to which they were engaged in Kolb’s other three stages. This difficulty may also explain why much of the existing research literature suggests that little learning takes place in SMEs (Rigg & Trehan, 2002), particularly as owner-managers encourage a focus on ‘doing’ and a prioritisation of task fulfilment over learning processes involving ‘observing’, ‘thinking’ and ‘experimenting’, as indicated in Chapter 2. Much SME research is undertaken using data from owner-managers or obtained from their perspective and this may have contributed to, and reinforced, under-reporting levels of learning in SMEs. As shown in the Findings and Discussion chapters, some research participants realised that the desired outcome of learning required more than ‘doing’, but there was limited evidence in my research of any of Kolb’s later stages of learning occurring. A rare example of all of Kolb’s stages occurring was related by XRN2 who told me that while he was learning to be a mentor, he took part in role-playing exercises (‘doing’), reflected on this in discussion with others (‘reviewing’), conceptualised what he had learnt (‘thinking’) and then, using ideas which arose from that, tried out possible other scenarios during the course (‘experimenting’). The outcome of this appeared to be learning as XRN2 apparently had become a successful and sought-after mentor. However, during my research I neither observed or heard about any other occurrences which included all of Kolb’s drivers of learning.

Building on the social constructionist approach of Devins and Gold (2002), my research approach enabled those in SMEs to express their own understanding of learning and e-learning (see also Nolan & Garavan, 2011). Although my analysis is grounded in a theoretically justified definition of learning, my analysis took seriously the conceptualisations of e-learning and learning that were meaningful to participants. This presented challenges, but it also illustrates how problems of terminology and context may have exacerbated a tendency in empirical studies to under-report learning, especially e-learning, that occurs in SMEs.
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Contribution

The analysis of e-learning in SMEs undertaken in this research contributes in eleven ways to academic knowledge, practice and policy, and research methodology, in the areas of both learning/e-learning in SMEs and e-learning in general and these will now be discussed.

Contribution to Academic Knowledge

First, drawing on the data collected in this research, the analysis presented here indicates that learning in SMEs is under-reported in research literature. Specifically, this research adds to knowledge about e-learning in SMEs. Despite acknowledgement of SMEs’ importance to the economy (CIPD, 2015a; FSB, 2015; Matlay, 2014), e-learning in an SME context has previously been overlooked in research literature which has been dominated by a focus on workplace learning from the perspective of large organisations (Kelliher & Henderson, 2006; Nolan & Garavan, 2016; Nolan & Garavan, 2011; Roberts & Sambrook, 2014; Susomrith & Coetzer, 2015).

Although some studies have considered e-learning in an SME context, this has usually been from the perspective of owner-managers. Therefore, the second contribution of the research is an analysis of the experiences and practices associated with e-learning that includes the perspective of employees. As such, it shows that owner-managers may be unaware of the extent of their employees’ learning and/or how it is undertaken. This is particularly true in respect of e-learning where owner-managers often have limited technical ability, which they appear reluctant to reveal and so risk losing their much-desired position as MKOs/role-models, and which therefore seems to allow employees to undertake such learning without owner-managers’ awareness. This has contributed to the under-reporting of learning, particularly e-learning, in smaller organisations. My research has examined learning and e-learning in SMEs from the perspective of employees, including managers, as well as owner-managers, and consequently provides a richer picture of the multi-dimensional and dynamic processes involved. Indeed, the employee perspective has, until now, been largely overlooked in research literature so that the extent of employees’ influence is not only unacknowledged, but arguably also unknown (Susomrith & Coetzer, 2015).
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Therefore, a third contribution to knowledge made by this thesis is the opportunity that e-learning provides for employees, where necessary, to undertake e-learning that appears to be unrecognised and unacknowledged by SME owner-managers, through which individuals can become part of online CoPs. Even in SMEs, therefore, the potential for self-directed learning (SDL) can be increased through e-learning, which can take place outside the controlling influence of owner-managers, with the potential effect that, through membership of CoPs, employees could have greater influence on their own learning.

A fourth contribution to academic knowledge arises from the research’s social constructivist basis (Bandura, 1977; Bandura, 2012; Lave & Wenger, 1991; Vygotsky & Cole, 1978) enacted through an ethnographic research design. This provided the opportunity for employees’ conceptualisations of learning and e-learning to be explored, something that has not been reported elsewhere in the SME research literature. By using an ethnographic approach, I was able to observe at close-quarters how learning, which is often hidden by being imbedded in SMEs’ day-to-day business, occurred in my research organisations. This approach involved the development of working relationships with participants who were encouraged to share their thoughts, beliefs and experiences in greater depth and detail than could have been obtained by reliance on qualitative interviews or questionnaires. This ethnographic approach revealed the extent to which work-experiences in SMEs are complicated, messy and dynamic where an appreciation of the individual context of each organisation is critical to research into their learning. This approach resulted in rich data which has identified aspects of learning, particularly e-learning, in SMEs which have not been previously evidenced, thus enabling the research question and objectives to be addressed, including the development of a model of e-learning for workers in SMEs.

Fifth, this research contributes to the knowledge base concerning e-learning in general, particularly in workplace settings. E-learning technologies have been subject to rapid change over time and the data reported here highlight that emergent forms and media of e-learning have been overlooked in studies undertaken in educational settings, in large organisational contexts or at the level of SMEs. My research highlights an important future research agenda to identify and
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examine the variety of e-learning media used in workplace organisations generally, not just in SMEs.

This research makes a further contribution to the development of conceptualisations of the Communities of Practice (CoPs) phenomenon (Lave & Wenger, 1991; Wenger, 1998; Wenger et al, 2002). It highlights the potential for CoPs, particularly online communities as an important learning approach, to be experienced in a more transitory and superficial way than originally described by Lave and Wenger. As labour market changes occur and mobility of people between organisations and job-roles is increased so shared repertoire tends to be developed more quickly, but in a less intense way, and opportunities for mutual engagement and joint enterprise may be limited (Borghans & Golsteyn, 2012; Gee, 2005; Kovalenko & Mortelmans, 2014; Lindkvist, 2005). The online nature of CoPs arising from digitally-based interaction (for example through forums) based on specific technologies may exacerbate this trend whereby limited time and opportunities for interaction become a feature of the CoP experience. The analysis presented here shows that learning through legitimate peripheral participation remains an important part of the experience of CoPs, giving novices opportunities to develop their skills; online CoPs offer exciting prospects for such learning through being part of a virtual community. However, the nature and purpose of those CoPs in such contexts may be more diverse than the original conceptualisation offered by Lave and Wenger (1991).

Finally, and most significantly, the analysis offered here provides the basis for a model of e-learning for workers in SMEs (see Figure 6.1, page 222). Further research is now required to examine its applicability to larger organisations.

Contribution to Research Methods

My research also makes two contributions to research methodology. Firstly, as mentioned in the Contribution to Academic Knowledge section, it adds to the few examples of ethnographic research into HRD, particularly e-learning, in SMEs. It has shown that an ethnographic approach is worthy of the considerable commitment and investment of time required. Therefore, it is hoped that this demonstration of the effectiveness of an ethnographic approach will encourage its
use in several contexts including SMEs, workplaces in general, learning, e-learning and doctoral research. My research has shown that this approach is both robust and sufficiently flexible to cope with the frequent changes inherent in technology and workplace practices, particularly in the highly individual environment of SMEs. Although ethnography is rarely used in HRD research, my research highlights the richness of data that can be obtained from research into e-learning in SMEs undertaken ethnographically which could also be applied in other contexts including general learning.

An additional, smaller contribution relates to the analysis process through the development of a method for transcribing interviews, including recommendations for equipment and apps (see Appendix F) that can address the challenges of coping with the time-consuming features of transcription in an efficient way without loss of opportunities for reflection and analysis on the words and meanings of research participants as an integrated part of the data analysis process.

**Contribution to Practice and Policy**

Acknowledging the axiological basis of my research, there are also two contributions to practice and policy that can be identified. As agreed prior to the commencement of each of the three ethnographic placements that I undertook, I was able to recommend improvements to learning and e-learning practice in each of the three research organisations; these occurred both during the data-gathering period and in a post-research presentation to each of them. The feedback opportunities afforded by the presentations enabled me to highlight to each organisation how and where its e-learning was taking place, the media used, and potential ways of enhancing this. As a result, at a local level, owner-managers and others have benefitted from a greater awareness of the ways in which e-learning can both solve operational problems and save resources. A summary of my recommendations, which encompassed both general learning and e-learning, to each of the three research organisations is given below. The different recommendations outlined here for each participating organization further highlight the important effects of context and influence on both learning and e-learning in SMEs that is indicated in Figure 6.1.
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My recommendations to XRN were mindful that its workers’ (then) current learning was flexible, informal, on-the-job and included much interpersonal interaction, which was reflected in their e-learning. I showed, through the use of photographs, that their current seating arrangements encouraged interaction between workers (see Photograph 4.3), but that several workers did not sit with other members of their work-team. I suggested that re-arranging this so that teams sat together could encourage increased interpersonal and on-the-job learning. Also, there was no area where workers could sit informally, even to eat their lunch, although I had observed learning occurring when employees gathered informally. No-one in the offices would use the canteen which appeared to be used solely by the factory staff. Therefore, the office-workers tended to eat lunch at their desks, often working through the half-hour allowed for lunch. There was an area used for storing items such as ladders and boxes which I was frequently told was going to be cleared and I suggested that this would make an ideal ‘breakout area’ where staff could eat lunch which would be likely to result in casual conversations which could increase interpersonal learning. I recommended that managers set up, or encouraged others to set up, ‘lunch and learn’ sessions to also add to interpersonal learning. These sessions could include sharing information about online resources, including use of specific websites and social media sites where applicable. I suggested that details of suitable online forums could be communicated throughout the department, with training regarding access and usage being given if necessary. I also recommended that workers check their customers’ requirements and preferences regarding e-learning and, where appropriate, became “more adventurous” with the e-learning aspects of their offerings, which would add to their own L&D. Suitable external free/cheap learning should also be encouraged to increased workers’ awareness of such events offered by bodies such as local universities and the IEE. Overall, I proposed that managers and team leaders gave more visible/vocal support to their staff’s e-learning and encouraged workers to share information about the media they used.

My recommendations regarding ImageCo workers’ learning bore in mind that such learning appeared to be informal and on-the-job, including interpersonal interaction, with only very low-end e-learning occurring, for example Google and use of some websites. The office area encouraged some interpersonal interaction (see Photograph 4.5), but I suggested that owner-manager IC1 moved into the empty office adjacent to this area so that employees were more
likely to ask each other for help and ideas, rather than always asking her. I explained that this could increase employees’ knowledge and confidence, while allowing IC1 to concentrate more on her work, although she would still be physically close enough to her employees to stay aware of what was happening. As at XRN, I encouraged IC1 to make part of the large kitchen into an area where staff could eat their lunch which would encourage more informal interaction between employees from the office’s two seating areas, potentially leading to increased informal learning opportunities. IC2 had mentioned how she had benefitted from mentoring from IC1 in her early days at ImageCo and I urged IC1 to continue this. I also suggested that, whenever appropriate, IC1 took one of her employees with her to FSB meetings and networking events to enable them to learn from a greater variety of sources. My major suggestion regarding e-learning was that everyone should be given time, encouragement and, where necessary, training to use ImageCo’s in-house e-learning system and that IC1 should lead by example and use it. I added that this would enable them to talk more knowledgeably about the system with clients, as well as enabling them to suggest improvements to the developers with whom ImageCo had an agreement. I further recommended that employees should be given basic training in the use of websites, search engines and learning through social media, ideally with workers who had knowledge sharing it with their colleagues.

My presentation to HelpingPeople was less candid than that to the other two organisations as I was aware that HP1, the L&D Manager, would not welcome anything which he perceived to be criticism. I discussed how much of HelpingPeople’s workers’ learning was on-the-job and/or included interpersonal interaction and suggested that changes to the office layout might encourage more of this, showing the desk layout at XRN as an example of what could be fairly easily achieved. I also suggested that mentoring could be useful, allowing new employees to learn from more experienced ones and letting newcomers share their expertise with others. I indicated that ‘lunch and learn’ sessions could facilitate this sharing of knowledge and might particularly appeal to employees who were keen on self-directed learning, while also being aware that it would accord with IC1’s belief that workers should carry out at least some of their learning in their own time. Regarding e-learning, I indicated that if workers were more aware of why they were being asked to access certain parts of the in-house e-learning system, they might be keener to use it so that their use of it wouldn’t be restricted to meeting their annual review
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requirements, but could contribute to their L&D. I also proposed that they introduce training to show employees throughout HelpingPeople how to use the various e-learning media used by members of the L&D department effectively, suggesting that this might also be developed into a customer offering.

Further implications for policy arise from my findings. Local Enterprise Partnerships (LEPs) are mandated to foster Education and Skills as key areas, but rarely consider e-learning (LEPs, n.d.). Similarly, the British Chambers of Commerce also lack policy in this area although they claim to offer "advice on all aspects of training" (British Chambers of Commerce, n.d.). The CIPD includes information specifically for SMEs on its website including factsheets, but its recommendations regarding e-learning, which include the use of gaming, show little awareness of SMEs’ resource constraints (CIPD, 2015c). Even the Federation of Small Businesses (FSB), which is aimed specifically at SMEs, has, as yet, no information about e-learning on its website (FSB, n.d.). Consequently, I plan to disseminate my findings through practitioner literature and events, as well as academic ones, as shown in Appendix O.

Many benefits of the ethnographic approach have been identified in this chapter, but it is important to acknowledge the limitations of this approach and these are discussed in the next section.

Limitations of the Research Methodology

This section builds on the description of the research design and methodology in Chapter 3 and offers a reflection on the ethnographic approach, the limitations outlined here and potential improvements to the process.

First, this qualitative research was carried out in three SMEs in Southern England between May 2014 and January 2015; it does not claim to be representative of the wider population of SMEs or to take into account change over time (Saunders et al, 2012). Nevertheless, the rich data obtained through this in-depth and experience-based study undertaken in SMEs of different sizes
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and in different sectors/industries, specifically the model of e-learning for workers in SMEs that has been developed, may be relevant to wider contexts (Hynes, 2012; Watson, 2001).

Second, as is the case with all ethnographic research, my presence throughout the fieldwork process provided many opportunities to gather detailed information unlikely to be generated by other methods (Van Maanen, 1988), but some limitations arising from data-recording processes must be acknowledged. Throughout the research, the data-recording processes, for example observations and taking photographs, were undertaken as unobtrusively as possible while I was participating in operational activities, but these processes may have influenced the behaviours and conversations of those in the organisations who were conscious of my presence as a researcher. The main technology used for data recording (an iPad) blended in with the devices in use in each of the SMEs (Brannan, 2011), but the act of taking photographs would have been hard to ignore.

Third, my relationship to the study and its participants presents another issue worth reflection. Throughout my research I was aware of my positionality and the consequent need for reflexivity; as the research process developed I endeavoured to recognise potential personal bias on my part and the need to suspend pre-conceived ideas interpreting and analysing the data (Brown, 2010; Bryman & Bell, 2015; Gibson & Brown, 2009; Gold, 1958; Yin, 2011). I was conscious that my presence and interest in e-learning was bound to influence participants at times; for example, my interest in trust may well have prompted some individuals to mention/consider it for the first time in relation to their learning experiences at work. However, my personal background as an SME owner-manager equipped me with an awareness of the SME context and enabled me to integrate into each field-work location more effectively than might otherwise have been possible (Behar & Gordon, 1995; Gilmore & Kenny, 2015). It is also important to note that my access to each organisation was predicated on the aspiration of each participating SME’s owner-manager (and at least some of the employees) to improve practice within that SME and so some changes in their practices and behaviours were to be expected (Brannan et al., 2007; Gilmore, 2009). As indicated already, the richness of the data obtained through being able to observe learning/e-learning at first-hand outweighed these disadvantages and has helped to bridge the gap between academic research and industry practice in contemporary workplaces (Brannan et al, 2007;
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Fourth, the relatively short length of time spent in each fieldwork location represents a limitation. Across the duration of a full-time PhD programme these time-periods were the longest that could be achieved, but longer time-periods may have generated further relevant findings. These time-periods were subject not just to my wishes as a researcher, but also to practical considerations at each research site and so were largely shaped by time-periods suggested by each SME. Reflecting on the ethnographic studies as a whole, I recognise that my inexperience in ethnographic research at the first fieldwork site (XRN) may have limited the richness of data gathered as subsequent experience and reflection then suggested that additional relevant behaviours may have been missed. Linked with this, the practical considerations of the ethnographic process are worth some reflection. I learned through experience that ethnography requires acute observation skills, a long attention span and a willing suspension of the researcher’s emotions as far as possible, all of which are tiring and can influence the time available for note-takings, transcription processes and data analysis (Bryman & Bell, 2015; Delbridge, 1998; Gilmore & Kenny, 2015; Gold, 1958; Hammersley & Atkinson, 2007; Kenny, 2010; Watson, 2011). This was particularly pertinent to my research where the SMEs tended to work long hours with no/short lunch-breaks.

A final point of reflection concerns the analysis of the data which was undertaken in an interpretivist way. Although thematic analysis can result in rich data which allows research participants to articulate their perceptions and experiences, it can lose social context and therefore hide potentially important findings (Braun & Clarke, 2006; Gibson & Brown, 2009; Silverman, 2011). I sought to minimise this by repeatedly checking the context of data so that data frequently moved between categories/codes and therefore new themes emerged while other themes were shown to be less relevant than originally considered. Undertaking the analysis in this way, however, required me to be willingly immersed in both data and context which provided a “feel for the whole text” (Savin-Baden & Major, 2013, p440) whilst maintaining robust and systematic analysis.
Conclusions

As a qualitative researcher, therefore, I did not seek broad generalisations; instead I sought to understand, in context, how learning, specifically e-learning, occurs in SMEs. The ethnographic approach and social constructivist lens enabled me to develop an understanding of how SME employees conceptualise and undertake such learning in their specific contexts. Several ideas for further research have arisen during this discussion and these will now be outlined.

Recommendations for Further Research

In this section I explore areas for further research which arise from the findings of this study. These areas include e-learning in larger workplace organisations and CoPs, but I strongly argue that research is particularly needed into learning, principally e-learning, in SMEs where little research has been undertaken previously. However, an overall, but important, recommendation, in terms of research design, is that increased use of ethnography in the general domain of HRD could lead to richer findings; this study highlights the benefits of ethnographic research to give voice to perspectives unlikely to be apparent through other methodologies.

At least some of the much-needed further research into both learning and e-learning in SMEs, should consider perspectives other than those of the SME owner-manager which is commonly found in existing literature. Additionally, further research, undertaken in this way, into e-learning in SMEs in contexts beyond the South of England and UK perspective would also be valuable. My analysis suggests that learning, particularly e-learning, in SMEs occurs much more frequently than has been estimated in previous practice-based and research literature. Building on the model of e-learning for workers in SMEs, further research to examine the different factors and outcomes that affect e-learning for workers in SMEs in a range of contexts would be valuable, providing the basis for comparisons to be made in relation to attributes such as size and/or industry/sector.

My original intention to research the effect of trust on e-learning in SMEs was revised, in part due to nascent stage of development of research into e-learning in SMEs and the need for a model of e-learning for workers in SMEs to provide a basis for meaningful investigation into specific features of such learning to be undertaken. My major contribution is the development of such a model which identifies trust as an influence on e-learning for workers in SMEs, although
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the extent of such influence is affected by factors including owner-managers and resource constraints. Consequently, research into these factors and their influence on e-learning in SMEs can now be undertaken to increase understanding of e-learning in those organisations, perhaps particularly considering Kolb’s (1984) conceptualisation of learning as a process and the drivers and outcomes in this process.

My research identified greater levels of SDL than the literature had suggested. This is further evidence of ambiguity between individual and collective expectations of, and requirements from, learning in SMEs. SDL observed in my research SMEs arose chiefly through desire to network, rather than because of career aspirations which previous research had found in larger (non-SME) organisations. SDL observed in my research often involved social learning through online forums. These forums could be viewed as CoPs, although different in form to Lave and Wenger’s (1991) conceptualisations. As CoPs appear to influence learning/e-learning in SMEs, membership of forums might allow SME employees to influence their own learning and possibly that which occurs elsewhere. Therefore, further research into SDL in SMEs could contribute to greater understanding of social learning in such organisations.

There are also indications in my research that research is needed regarding how the concept of CoPs can be revised to ensure that it remains relevant, for example through acknowledgement of technological developments and changes to workplace practices. Specifically, research into the development and ‘life-span’ of CoPs in different contexts is required.

Although my research found no evidence of a connection between depth of learning and e-learning, it did find more awareness of the need for, - and even some reported occurrences of - deep learning in SMEs than some previous research suggests (Anderson and Boocock, 2002). Therefore, although irrelevant to my thesis, future research into this area could contribute to the understanding of learning in SMEs, though not necessarily to e-learning in this domain.

This study also indicates that further research into e-learning outside the domain of SMEs is needed. A particular area for such research is e-learning in larger (non-SME) organisations which could illuminate the extent to which the model of e-learning for workers developed here is
Conclusions

applicable beyond the SME context. A clear finding from this research is that informal e-learning, specifically involving the use of social media, warrants further investigation and this is required in relation to large, as well as small, organisations.

My research has suggested several areas for further research, but, implicit within these suggestions, is the understanding that such research should be ethnographically-based and that research into e-learning in SMEs is prioritised over other suggestions as scarcity of previous research has been evident throughout this study.

Summary

This doctoral thesis has examined the incidence and conceptualisations of e-learning in SMEs, making use of a social constructivist approach and an ethnographic research design. The data generated from this study indicates that more learning, e-learning and self-directed learning takes place in SMEs than previous research has suggested. The research also reveals the use of a wider range of e-learning media in these organisations than is indicated in other studies of e-learning and SMEs, although these are at the low-end of available media due to SMEs’ resource constraints. Analysis of the data suggests that the concept of Communities of Practice is relevant to the experience of e-learning in SMEs, but that some re-conceptualisation of the CoP model first developed by Lave and Wenger (1991) is required. In addressing its research question and objectives, this study has not only added to scant research in this domain, but also indicated exciting possibilities for both further research and the future of e-learning in SMEs, with its main contribution being the development of a model of e-learning for workers in SMEs. In summary, this research challenges the prevailing view in practitioner studies and the scholarly knowledge base that there is a ‘learning deficit’ in SMEs, rather it contends that learning and e-learning both occur there, but have been hidden through a mixture of their everyday context, confusing terminology and unsuitable research methodologies which have concentrated on the perspective of owner-managers. Consequently, it shows that, unlike suggestions from previous research and existing literature, through a diverse range of hitherto unconsidered media, SMEs are indeed undertaking, and benefiting from, e-learning.


References


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Appendix A Evaluation of How the Research Design worked in Practice

This appendix discusses how the research methodology worked in the research locations. Some of the issues and challenges which emerged arose in at least two of the locations while others were unique to one. The artefacts from, and time spent in, each research location are summarised in Table 4.1 (page 113), with more details given in the Findings chapter.

The research methodology did not acknowledge the extent of likely difficulties in finding suitable research organisations and consequently the length of time involved. Fortunately, I began an informal search at the beginning of my PhD study, but finding suitable organisations took significantly longer than I expected. More probing, tailored questioning of SME owner-managers and less ready-acceptance of their replies might have indicated a greater number of suitable SMEs earlier, although practice found that much of the e-learning undertaken was very different to that claimed by owner-managers.

My four-week pilot-study indicated that more time would be needed at the other research sites to obtain the rich data required; by the time I was accepted at XRN and familiar with its culture, it was time to leave. Consequently, my research at ImageCo lasted three months and although I left HelpingPeople after ten weeks, due to the increasingly unacceptable volume of work and amount of responsibility given to me, through perseverance I amassed much rich data there. Initially I was concerned that spending only three days each week in a research location might emphasise that I was not a ‘normal’ employee. However, in practice, employees were frequently away from the workplace, for example meeting prospective customers or running L&D, and so my working pattern fitted well. Nevertheless, I had not considered which days to spend in each research site. Therefore, I asked “Is there anything happening here in the next few weeks which might be relevant to me?” when starting at ImageCo and HelpingPeople. Neither had I considered the importance of the period between each research setting; this was not only needed to organise my observation notes and photographs, complete interview transcripts and continue analysis of my findings, as I had originally intended, but it was also needed to delineate each site.
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Delineation was needed to allow me to clearly remember what happened at each location; even very detailed notes could not record everything, - rather they were useful reminders to evoke memories so I needed to be able to clearly differentiate between each location (Coffey, 1999).

My rough plan of how I would spend my time at the research sites mostly worked in practice. The first two weeks involved me trying to fit in by firstly determining office norms and then adapting my behaviour to these. Next I tried to combine my research with work I was doing on behalf of the SME. There were many observation opportunities; I wrote these directly onto my laptop/iPad which blended in with ‘normal’ workplace practice and the IT equipment commonly used there.

My plan to conduct one interview each week from week two or three mostly happened, although I interviewed only seven people at ImageCo due to lack of variety of roles, coupled with people’s lack of availability, partly due to holidays as I was there during the summer. However, I had allowed insufficient time for transcribing interviews so this was not completed until after I had left each research location. I had also allowed insufficient time to analyse my findings during the research (some of which, of course, needed those interview transcripts). On reflection, this was a major limitation as although thematic analysis completed during the research was useful, for example indicating areas needing further exploration, such as self-directed learning, more, and earlier, analysis might have resulted in even richer data. However, a particularly important finding which emerged early in my research, evident from the small amount of analysis I had undertaken by then, was the gulf between the types of e-learning, and consequently the media, used in practice, which were informal, and the formal ones, which, prior to my research, owner-managers had told me were used in their SMEs. This finding also diverged from previous academic researchers’ findings in workplace organisations (including SMEs). My research participants’ conceptualisations of e-learning included the internet, Google, online forums and videos, but there is scant mention of these in research literature. This is discussed fully in the Findings chapter.

Transcripts of the first interviews I conducted highlighted the importance of me saying very little; remembering this in later interviews gave interviewees more freedom to express
themselves which resulted in rich data. Reflecting on my pilot-study showed I had assumed non-interviewees would be relieved not to have to ‘waste’ time being interviewed, whereas some individuals appeared to feel flattered when asked for an interview and those not asked seemed to feel slighted. Therefore, at ImageCo and HelpingPeople I explained to everyone that, due to time constraints, only a limited number of interviews could be conducted. However, during informal conversations, for example while making coffee or travelling together, I asked non-interviewees what they would have mentioned if they had been interviewed and this added to my data.

Another challenge which arose from the interviews was that, although semi-structured questions allowed interviewees reasonable time in which to develop their responses (Easterby-Smith et al, 2012), they also enabled participants to digress from the questions. This allowed in-depth exploration of issues and raised some unexpected items (Saunders et al, 2012), but it used much time (both during the interview and in transcription). This was particularly pertinent as the interviewees were employees from time-constrained SMEs and so the length of time allowable for each interview was restricted. Techniques/guidance regarding keeping interviewees on-subject would be useful when conducting future interviews.

Being new to ethnography, initially I found it very difficult to decide what to write up as little advice exists, beyond recommendations to adhere to principles of truth, reality and relevance to practice (Atkinson & Hammersley, 1994; Clifford, 1986; Coffey, 1999; Delamont & Atkinson, 1980; Lofland & Lofland, 1995; Watson, 2011). I developed a technique whereby typically in the evening I typed up hand-written notes, combining these with notes typed during the day. I then read the combined notes, highlighting facts in red, then read them again, highlighting feelings in green and anything not highlighted was ignored/treated with caution during the analysis. This helped me develop a more succinct style which still recorded much detail.

I took more photographs at XRN (182) than at the other locations as I was concerned that participants would see me photographing them and stop what they were doing and pose so I practiced taking photographs as unobtrusively as possible. Within a short time, those being photographed appeared oblivious, although this may have been due to familiarity rather than improved technique. Unobtrusive photography was more difficult at ImageCo due to the small
office-space and few people, and some HelpingPeople employees found it amusing to photo-

bomb or pull faces. Consequently, I found ethnographic photography more difficult than I had

anticipated, but some photographs have been invaluable in evoking memories (Coffey, 1999) and

I use several in my Findings chapter to illustrate specific points.

I was keen to undertake useful work for each organisation; not only did this fit my belief that

research should benefit SMEs, but it also allowed me to blend in. Initially XRN and ImageCo

were reluctant to give me anything but basic admin work, despite my requests, although this

changed from week 3 at XRN and week 4 at ImageCo. Gilmore (2009), cited by Gilmore and

Kenny (2015, p64), also found this leading her to conclude that research participants need to

trust researchers before allocating ‘responsible’ work to them; such trust may develop through

observation of researchers’ abilities. Undertaking more useful work helped me to be accepted

and so led to participants being less guarded in their speech and behaviour which added to my

data’s richness. It also indicated that the organisations wanted to be changed by my research;

they sought my experience and knowledge as both an SME owner and an academic.

Contrastingly, HelpingPeople’s L&D Manager (HP1) gave me ‘useful’ work from day one.

Initially I attributed this to two of HelpingPeople’s CEO’s friends having endorsed me, but on

reflection it probably stemmed mostly from urgent complex work which was needed, but could

not be afforded. While this hastened my acceptance by participants – and led to much in-depth

data - the work I was given increased in volume, complexity and responsibility throughout my

time there, restricting the amount of research I could undertake, with observations, much less

interviews, and even taking photographs, becoming increasingly difficult. Additionally, I needed

to undertake some HelpingPeople work during evenings, as I was communicating with software

developers in different time-zones, which reduced the time available for transcription and

analysis. HelpingPeople had many volunteer workers and I seemed to be regarded as one of

those, with no recognition of my research needs, which illustrated our different constructions of

reality. Because this was my first experience of ethnographic research, I was uncertain how to

cope with this and consequently I left HelpingPeople after ten weeks, slightly earlier than

planned, but working so closely with participants gave me rich insights into their learning.
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An unexpected finding during my research was the importance of where I sat. Initially at XRN I was allocated a desk in a remote corner of the office which made observations difficult, but I managed to move to various seats belonging to people who were absent, for example they were meeting clients. Sitting in different places gave me a more holistic view of office-life, allowing me opportunities to observe and hear casual conversations and impromptu meetings, as well as seeing working practices at close quarters. This demonstrated the importance of staying flexible and alert to changes taking place in the research settings. I was keen to build on this finding, but the compactness of ImageCo’s office limited opportunities to sit in different places, although absences due to holidays gave me some choice of seating. At HelpingPeople there was no opportunity to sit anywhere other than my allocated seat, which unfortunately had its back to much of the office and gave me a restricted view of the rest of it. I tried to circumvent this, by turning my chair round and using my iPad balanced on my knee, but I abandoned this when I realised that it made my presence as a researcher more obvious.

I had wanted to research in organisations of varying sizes, but only became aware of the difficulties of researching micro-SMEs when I was at ImageCo. The challenges arose from not just the tiny office space, as previously mentioned, but also the small number of employees, which was exacerbated by my research occurring in the summer so several employees were on holiday; one week only two other people were present. However, although I was concerned as to whether I would be able to gather sufficient data there, in practice I was able to study employees in depth, adding richness to my data.

Initially I had thought that presenting my findings to participants at each SME would be advantageous for them, not me. Mentioning this had encouraged SME owner-managers to participate in my research and, as stated previously, my research is grounded in the belief that it should be useful to the business community. However, these presentations were also valuable to me; preparation for them helped organisation and analysis of my findings and the presentations themselves added to my research’s richness, for example discussion following my presentation at XRN highlighted “feeling comfortable” as an important aspect of their learning which led to a question about this being added to the Interview Protocol (see Appendix D). Furthermore, these presentations allowed my findings to be confirmed and corrected where necessary.
I was surprised by the emotions I experienced during my research. Soyer (2014) suggested that I might feel vulnerable and isolated, but I never felt vulnerable at XRN or ImageCo; they were both informal, friendly organisations with inclusive, appreciative cultures which allowed me to fit in fairly quickly. Fleeting feelings of isolation occurred at XRN and ImageCo when there was no room for me to sit with/near people I had come to ‘know’ and/or I had no work to do. This was exacerbated by XRN’s security firewall which minimised online contact with the outside world. However, my research at HelpingPeople made me aware of the necessity for emotional strength in ethnographers. Initial investigation suggested that it was an ideal research organisation; it apparently undertook much e-learning and was of a different size and in a different sector to the other two research organisations. Nevertheless, despite feeling readily accepted by participants at XRN and ImageCo and many HelpingPeople employees being, superficially at least, friendly, I never felt fully accepted at HelpingPeople. For example, HP1 regularly called everyone else out from the office to tell them various pieces of information, very obviously excluding me which made me feel isolated. Also, sometimes my research at HelpingPeople seemed to be deliberately obstructed, for example, on several occasions HP1 apparently urgently needed rooms and individuals I had booked for interviews and although HelpingPeople’s CEO had indicated that I would start in the L&D department and then move to other areas, HP1 thwarted most opportunities even to visit other departments. Despite, or maybe because of, this, I gathered much rich data at HelpingPeople.

An unexpected emotion I experienced during the research was boredom, but this was short-lived, mostly arising from having little/low-level work to do initially at XRN and ImageCo. Although Yin (2011) and Tracy (2000) highlighted the dangers of ‘going native’, by week 3 of my pilot-study I found myself referring to XRN as ‘we’ and behaved similarly at ImageCo and even HelpingPeople. Gilmore (2009) and Kenny (2010), both cited by Gilmore and Kenny (2015; pp62-63), behaved similarly. I felt that this behaviour indicated my immersion in each organisation, which benefitted, rather than hindered, my research.

Several points arose from the pilot-study which I used to improve the research at ImageCo and HelpingPeople. Additional points arose at ImageCo which were used to modify my research at
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HelpingPeople and more points evolved at HelpingPeople which could help future research. These are listed in Appendix P.

Despite issues and concerns which arose during my research, the research methodology worked in practice; my ethnographical approach added context to my findings and allowed me to gather much in-depth data which may not have been possible using other approaches. The quality of the data is discussed in the Research Methodology chapter and is demonstrated in the Findings and Discussion chapters. The limitations of my research methodology are explored in the Conclusions chapter.
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**Appendix B: To show the use of the first and the third person in ethnographic research**

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<th>First Person (“I”/ “we”)</th>
<th>Third person (“the researcher”)</th>
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**Table Appendix B: To show the use of the first and the third person in ethnographic research**
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Appendix C: The Participant Invitation and Information sheet

Study Title: Investigating Trust as a factor in Technology Enhanced Learning (TEL) in Small and Medium Enterprises (SMEs)

REC Ref No: E294

Name of Researcher: Heather Short

Dear Potential Participant

I would like to invite you to participate in a research study to investigate e-learning in small and medium businesses, which looks at trust in particular.

Some information about this project and me

This research is part of my PhD at the University of Portsmouth. It aims to make e-learning a more effective and commercially viable training method within business, particularly in Small and Medium Enterprises (SMEs).

My research so far indicates that trust (both between trainer and students and among students) could be an important part of learning. However, this changes in e-learning when there is usually no face-to-face contact between the trainer and between students themselves. Therefore, I want to observe whether trust can be established and grow during e-learning and whether trust is a significant factor when SMEs decide whether or not to use e-learning.

While I am working in your organisation on a fixed term I will be doing some voluntary tasks provided by your organisation, which will be "additional" to the normal and paid processes of the organisation and there are no set hours. My primary role is as a researcher and so my participation in tasks will be marginal. While in your organisation I will be observing how learning takes place in your organisation, as well as specifically observing whether trust can be
established and grown during e-learning and whether trust is a significant factor when deciding whether or not to use e-learning, as mentioned above.

I have worked in business for many years, most recently starting and developing my own SME. My interest in e-learning grew while I was providing training within my SME, using various means, including Skype. Before that I worked for IBM for several years where my roles included project management, training and development, people management, communications leadership, event management and consultancy. I am a Member of the Chartered Management Institute.

**Why you have been asked to take part in this research**

You have been asked to take part in this research project as your employer has agreed that your organisation will take part in the research. However, there is no pressure for you personally to take part in this research.

**Further information and contact details**

A consent form is attached which shows what you will be agreeing to if you give consent to take part in this research.

If you would like any further information, please email me (heather.short@port.ac.uk).

**How to respond**

If you would like to take part in this research project, please complete and sign the attached consent form and return it to me.

If you would prefer not to take part, you need take no further action.

**What If you agree to take part, but then don’t want to carry on with the study?**

Even if you agree to take part in the research, you do not have to take part in any interviews, any photographs or any audio-recordings and you can withdraw from any of these while they are in progress.

Similarly, you can withdraw from the research at any time. However, you should be aware that it may not be possible to withdraw your contribution to the research if you make the request after the data have been analysed.

**Thank you**

Thank you for taking the time to read this, regardless of whether or not you decide to participate. If you do decide to participate, you will be given a copy of the information sheet to keep and your specific consent regarding interviews, photographs and / or audio-recordings will be sought if applicable.
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Appendix D: Interview Protocol

How do you learn?
   In this organisation?
   What training have you had?
   Where?
   How?
   Is any of it online?

What learning have you done elsewhere?
   How?
   Was any of it online?

What specific e-learning have you done?
   Where?
   When?
   How?

Comfort zone (NB This question was added during research at ImageCo and after research at XRN)
   How do you feel about being outside it?
   What did you learn from that?

How do you trust the training?
   The trainer?
   Your fellow-students?

How do you know that what you are developing / selling is what is needed by:
   the company?
   the students?

Do you think that trust is an important part of learning?

Is there a specific thing / person / way of learning that you’ve learned most from?

Supplementary questions
   What led to that?
   How did that start?
   Could you take me through that event?
   Who else was involved?
   How did that make you feel?
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Appendix E: Research Consent Form

Heather Short
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Heather.short@port.ac.uk

Director of Studies: Dr Sarah Gilmore
Sarah.gilmore@port.ac.uk

Consent Form

Study Title: Investigating Trust as a factor in Technology Enhanced Learning (TEL) in Small and Medium Enterprises (SMEs)

Ref No: E294

Name of Researcher: Heather Short

1. I confirm that I have read and understand the invitation and information sheet Dated May 2014 (version 1)/ October 2014 (version 2) for the above study. I have Had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. However, I am aware that it may not be possible to withdraw my contribution to the research if I request this after the data have been analysed. Any contribution I make will be anonymous.

3. I understand that data collected during the study, may be looked at by individuals from the University of Portsmouth and / or external PhD examiners. I give permission for these people to have access to my data.

4. If appropriate, I agree to being interviewed and to that interview being audio recorded.

Please initial box
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5. I agree to being quoted verbatim, although this will be anonymised.

6. If appropriate, I agree to being photographed in my normal workplace and / or when I am taking part in learning activities.

7. I agree to being audio-recorded in my normal workplace and / or when I am taking part in learning activities.

8. I agree to the data I contribute being retained for future Ethics Committee approved research

9. I agree to take part in the above study.

Name of Participant: Date: Signature:

When completed: 1 for participant; 1 for researcher’s file
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Appendix F: Interview transcription method

1. Listen to and observe the interviewee throughout the interview, while it is being audio-recorded.
2. Immediately following the interview, make brief written notes of the observations made.
3. Listen to the recording through headphones, speaking the words into a second iPad using Dragon software which converts the speech into written text.
4. Read the resultant written text, formatting it to differentiate the comments of the interviewee and the researcher and correcting obviously wrong phrases.
5. Listen to the recording, correcting the written text as necessary.
6. Listen to the recording again to ensure the accuracy of the written text.
7. Email the written text to the interviewee, asking for any changes to be sent back within two weeks (Atkinson, 2006).
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Appendix G Ethnographic research reviewed in the Research Methodology

Research literature examined during the ethnographic research reviewed in the Research Methodology chapter is shown in the table below. This is in addition to the research literature examined in the Literature Review which is summarised in Table 2.1 (pages 25-28). A chronological ordering is used in case this indicates trends in the research and analysis methods employed.

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<thead>
<tr>
<th>Authors and year</th>
<th>Research Method(s)</th>
<th>Analysis Method(s)</th>
<th>Research context</th>
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<td>Qualitative analysis</td>
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<td>Watson (1994) 2001</td>
<td>Participant-observation</td>
<td>Qualitative analysis</td>
<td>Middle managers in British manufacturing (1 year)</td>
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<tr>
<td>Delbridge (1998)</td>
<td>Participant-observation; shadowing; formal interviews</td>
<td>Thematic analysis</td>
<td>2 shop-floors (3 months in USA-based European-owned automotive component supplier; 1 month in Japanese-owned television factory)</td>
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<tr>
<td>Hine (2000)</td>
<td>Internet including websites, emails and online newsgroups</td>
<td>Qualitative analysis</td>
<td>Internet research into media surrounding 1997 USA murder trial of UK nanny</td>
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<td>Tracy (2000)</td>
<td>Participant-observation</td>
<td>Grounded theory</td>
<td>Activities Director on cruise-ship (8 months)</td>
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<tr>
<td>Whittle (2005)</td>
<td>Observation Semi-structured interviews</td>
<td>Discourse analysis</td>
<td>Consultants</td>
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<td>Higgins (2007)</td>
<td>Participant observation</td>
<td>Qualitative analysis</td>
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<td>Schoneboom (2007)</td>
<td>Online observations (of blogs) and interviews</td>
<td>Content analysis</td>
<td>White-collar workers in Manchester (UK) writing anonymous blogs about their workplaces</td>
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<td>Observation and semi-structured interviews</td>
<td>Grounded theory</td>
<td>Female investigating an English Premier League football club (4 years)</td>
</tr>
<tr>
<td>Kenny (2010)</td>
<td>Participant observation, semi-structured interviews, documents and photographs (some online)</td>
<td>Strauss and Corbin</td>
<td>UK-based ethically-based contemporary development organisation (9 months)</td>
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<tr>
<td>Atkinson (2013)</td>
<td>Fully-participant observation</td>
<td>Thematic analysis</td>
<td>Glass-making class</td>
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Table Appendix G: Ethnographic research reviewed in the Research Methodology
Appendices

Appendix H: The Research Organisation Information sheet

Study Title: Investigating Trust as a factor in Technology Enhanced Learning (TEL) in Small and Medium Enterprises (SMEs)

REC Ref No: E294
Name of Researcher: Heather Short

I would like to invite your organisation to take part in my research study. Before you decide, I think that it’s important for me to share information with you regarding why the research is being done and what it would involve for you. Do ask me if there is anything that is not clear. Below I answer questions which you may have.

What is the purpose of the study?

This study is part of a PhD at the University of Portsmouth which investigates e-learning in Small and Medium Enterprises (SMEs).

My research so far indicates that trust (both between trainer and students and among students) could be an important part of learning. However, this changes in e-learning when there is usually no face-to-face contact between the trainer and between students themselves. Therefore, I want to observe whether trust can be established and grow during e-learning and whether trust is a significant factor when SMEs decide whether or not to use e-learning.
Why has my organisation been invited to take part?

I would like your organisation to take part in this research as it is an SME which has a training strategy which includes e-learning.

Does the organisation have to take part?

It is up to you to decide whether to join the study. This information sheet describes the study to help you make that decision. Also I am available to answer any questions which you may have.

If you agree to take part, I will ask you to send me an email, from your organisational email address confirming this.

How will the research be done – and how will it affect the organisation if I agree to the research taking place?

As part of my research, I will be working on a voluntary basis within your organisation for approximately three months (one month for the pilot-study organisation), observing day-to-day work events, particularly those which involve learning. I will be doing some voluntary tasks provided by your organisation, which will be "additional" to the normal and paid processes of the organisation and there are no set hours. My primary role is as a researcher and so my participation in tasks will be marginal.

During this time, I will also carry out some interviews with people who agree to do so, as well as taking part in casual conversations, as part of normal day-to-day working-life. These interviews will be audio-recorded with the permission of each person involved. It is up to them whether or not they agree to this, even if they have already agreed to take part in the study. If they agree to a formal interview, their real name will not be used. I will show them my write-up of this and make any necessary corrections.

Also I may photograph and / or audio-record some conversations / training courses. Again, I will ask for permission.

In writing up my research the real name of the organisation will not be used. Neither your organisation nor the people within it will be referred to by their correct name in my notes, interview write-ups, my thesis or any other output.

When my research in your organisation is complete, I will share my research findings with your organisation via a presentation at a meeting which I will arrange in consultation with you.

Expenses and payments

I will not be making any payments to anyone who takes part in this research. No-one taking part in this research will incur any expenses as a result of it. My work in your organisation will be unpaid.
Appendices

What will I have to do?

You and your staff will not be asked to do anything other than your normal workplace duties and activities. The only exceptions to this are that, as mentioned above, you may be asked if you are willing to:

take part in an interview which will be audio-recorded. Each interview will be a maximum duration of one hour;
be photographed in your normal workplace and / or when you are taking part in learning activities;
be audio-recorded in your normal workplace and / or when you are taking part in learning activities.

You can refuse to take part in all or any of these.

What are the possible benefits of taking part?

This research aims to make e-learning more effective in SMEs and therefore it may improve the training which is offered in your organisation.

What will happen to the results of the research study?

The results of my research will be shared with the organisations who take part in it and I hope that each organisation will communicate this to its staff.

The findings of this research will be written up as part of my PhD thesis.

Also, the research is likely to be presented at academic conferences and published in academic papers. Neither the organisations nor individuals who have taken part in my research will be identified in any report/presentation / publication unless they have given their consent.

What are the possible disadvantages and risks of taking part?

There are no disadvantages or risks involved in taking part in this research.

Will my taking part in the study be kept confidential?

The real names of the organisations and the people within them will not be used, although some anonymised direct quotes may be used.

As mentioned above, participants have the right to check the accuracy of data held about them and correct any errors.

If your organisation joins the study, it is possible that some of the data collected will be looked at by authorised persons from the University of Portsmouth and / or external PhD examiners, perhaps to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant.
Appendices

How will information be stored?

Notes will be taken throughout the ethnographic research. These will be taken during and soon after working at the SME, typically on a daily basis. Some will be hand-written into project notebooks and then transposed onto my password-protected iPad; others will be typed directly onto that i-pad.

The data, including photographs and audio-recordings, will be stored on my password-protected area of the i-cloud. This will be backed-up to the University drive. When my paper records have been transferred to electronic media and backed up, as explained above, they will be shredded. This transference will take a maximum of one week and during their short existence, the paper records will be kept in a combination-locked safe.

Organisations and individuals within them which take part in this research will be referred to in the thesis and all other documents by a code developed by me to assure anonymity.

What will happen if I don’t want to carry on with the study?

Even if you agree to take part in the research, you do not have to take part in any interview or any photographs or any audio-recording and can withdraw from any of these while they are in progress.

Similarly, you can withdraw from the research at any time. However, you should be aware that it may not be possible to withdraw your contribution to the research if you request that after the data has been analysed.

What if there is a problem?

If you have a concern about any aspect of this study, you should contact me (heather.short@port.ac.uk) or, if still dissatisfied, my University supervisor, Dr Sarah Gilmore, (sarah.gilmore@port.ac.uk). We will both do our best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting Professor Charlotte Rayner, Subject Group Head, Portsmouth Business School (charlotte.rayner@port.ac.uk).

Who is organising and funding the research?

This research is sponsored by the University of Portsmouth.

Who has reviewed the study?

Research in the University of Portsmouth is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given a favourable opinion by the Portsmouth Business School Research Ethics Committee.

Further information and contact details

If you require any further information, please contact me, Heather Short, (heather.short@port.ac.uk).
Appendices

Thank you

Thank you for taking the time to read this information sheet, regardless of whether or not you decide to participate. If you do decide to participate, you will be given a copy of the information sheet to keep and your specific consent regarding interviews, photographs and / or audio-recordings will be sought if applicable.
Appendices

Appendix I: Information about researcher and research

Heather Short
heather.short@port.ac.uk
0780 2636 701
LinkedIn http://www.linkedin.com/in/heathershort
Twitter https://twitter.com/HeatherJShort

Current role

I am undertaking PhD research at the University of Portsmouth into Technology Enhanced Learning (TEL). My PhD aims to make TEL a more effective and commercially viable training method within business, especially in Small and Medium Enterprises (SMEs), an area which has been largely ignored in research, but which is fascinating. I am particularly researching issues of trust in this area.

This continues the work I did for my distinction-level MBA dissertation (A Critical Evaluation of Virtual Training in SMEs: A Case Study). It also ties in with my paper in the Scholarly Practitioner stream at the 13th International University Forum for Human Resource Development (UFHRD) Conference (2012) which was short-listed for the Alan Moon Memorial Prize (for the best paper at the conference).

I co-chaired the Technology Enhanced Learning at Work stream at the 14th International UFHRD Conference in June 2013 and am co-editing a special issue of the British Journal of Educational Technology (BJET) in conjunction with this. An article based on my presentation at this conference is to be published in BJET shortly.

What I am looking for in connection with my research

Currently I'm looking for an SME, based in southern England, whose training includes TEL, to take part in my research.

My research should be mutually beneficial, as, in return for the SME taking part in the research, I'll work (unpaid) in the SME for an agreed period, probably for three months. I will also share the results of my research and the experience I've gained from using TEL in businesses of various sizes.
Appendices

One organisation has already agreed to take part in this research as they can see the benefits for them, but I am looking for three more.

**My experience**

I have worked in business for many years, most recently starting and developing my own SME. This currently has six hundred associates worldwide and it was while I was providing their training, using various media including Skype, that my interest in TEL grew.

Prior to that I worked for IBM for several years where my roles included project management, training and development, people management, IT, communications leadership, finance, event management and consultancy. I am a Member of the Chartered Management Institute.
Appendices

Appendix J: Organisation C (HelpingPeople) Employee Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Age (years)</th>
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Table Appendix J: Organisation C (HelpingPeople) Employee Characteristics
Appendices

Appendix K Initial codes generated from open coding in thematic analysis using NVivo

A description of each code is given in Appendix M.
All codes occur in interviews, observations and photographs.
Source refers to either the transcript of an interview, an observation or a photograph.
Reference is each instance of a code occurring.

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<td>Informality / formality</td>
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<td>Interaction</td>
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<td>Keeping up-to-date</td>
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Appendices

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Table Appendix K: Initial codes generated from open coding in thematic analysis using NVivo
Appendices

Appendix L The Categorisation of Codes arising from thematic analysis using NVivo

A description of each code is given in Appendix M.

All codes occur in interviews, observations and/or photographs.

Source refers to either the transcript of an interview, an observation or a photograph.

Reference is each instance of a code occurring.

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<tr>
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<td>114</td>
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<td><strong>Miscellaneous</strong></td>
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Table Appendix L: The Categorisation of Codes arising from thematic analysis using NVivo
Appendices

**Appendix M Themes arising from drilling down in thematic analysis using NVivo**

In the table below, new codes are highlighted in **green**, that is:-

- Bite-sized learning
- Forum references
- General e-learning
- Google references
- In-house system references
- Mobile references
- Mongo DB references
- Phone references
- Skype references
- TED references
- Video references
- Web references
- Webinar references
- Website references
- Wikipedia references
- YouTube references
- General non-e-learning references
- Responses to learning
- Self-directed learning
- Time and budget
- Trust

Codes which have been moved are highlighted in **blue**, that is:-

- By absorption
- NLP
- Research papers
Appendices

Safety
Boring
Enjoyable
In own time
Lack of training
Difficulty finding
Learn about self
Learning styles
Responsibility
Self-learning
In own time
Keeping up-to-date
SME-relevant
Time
Accuracy
Comfortable
Confidence
Fear
Trust

Changed codes are highlighted in yellow, that is:-

e-learning cost-saving
Mentor
Mentor-influence
Budget

Source refers to either the transcript of an interview, an observation or a photograph.
Reference is each instance of a code occurring.
Bold type indicates a theme, with its codes appearing below it.
<table>
<thead>
<tr>
<th>Themes/Codes</th>
<th>Description</th>
<th>Sources</th>
<th>References</th>
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</thead>
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<tr>
<td>Depth of learning</td>
<td>References to depth - or otherwise - of learning – made in interviews, observations and photographs</td>
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<td>70</td>
</tr>
<tr>
<td>By absorption</td>
<td>References to learning by absorption / osmosis made in interviews, observations and photographs</td>
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<td>22</td>
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<td>Creativity</td>
<td>References to creativity in learning made in interviews, observations and photographs</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Deep learning</td>
<td>References to depth - or shallowness - of learning made in interviews, observations and photographs</td>
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<td>16</td>
</tr>
<tr>
<td>NLP</td>
<td>References to NLP (Neuro Linguistic Programming) made in interviews, observations and photographs</td>
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<tr>
<td>Recording learning</td>
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<td>4</td>
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<tr>
<td>Understanding</td>
<td>References to understanding – or not - made in interviews, observations and photographs</td>
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<td>3</td>
</tr>
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<td>General e-learning</td>
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<td>Category</td>
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<td>References to learning using the World Wide Web / internet made in interviews, observations and photographs</td>
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<td>Webinar references</td>
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<td>49</td>
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</table>
### Research papers
References to research papers / white papers made in interviews, observations and photographs | 5 | 5
---|---|---

### Informal / Formal
Any item which relates to informal – or formal -learning - in interviews, observations and photographs | 61 | 346
---|---|---

### Academic learning
References to academic learning made in interviews, observations and photographs | 22 | 122
---|---|---

### Anecdotes
References to learning / teaching through anecdotes made in interviews, observations and photographs | 4 | 12
---|---|---

### Certificates
References to certificates (from learning / courses or showing ability to train / teach) and to certificates for courses made in interviews, observations and photographs | 12 | 24
---|---|---

### Flexible learning
References to flexible / flexibility in learning made in interviews, observations and photographs | 3 | 4
---|---|---

### Informality
References to informality/formality in learning made in interviews, observations and photographs | 42 | 66
---|---|---

### Professional learning
References to professional learning - sometimes there is an overlap with academic learning- made in interviews, observations and photographs | 19 | 71
---|---|---

### Safety
References to safety - here this refers to lack of learning how to look after people or equipment safely and so possibly jeopardising life – made in interviews, observations and photographs | 2 | 6
---|---|---

### Statutory training
References to statutory training made in interviews, observations and photographs | 17 | 32
---|---|---

### Structured learning
References to structured learning made in interviews, observations and photographs | 5 | 9
---|---|---

### Interpersonal
References to interpersonal learning made in interviews, observations and photographs | 85 | 523
---|---|---

### Customer input
References to learning from customers made in interviews, observations and photographs | 1 | 3
---|---|---

### Face-to-face
References to face-to-face learning made in interviews, observations and photographs | 40 | 85
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Table Appendix M: Themes arising from drilling down in thematic analysis using NVivo
Appendices

Appendix N The codes, categories & themes resulting from thematic analysis using NVivo

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<td>In own time</td>
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<td>Informal / formality</td>
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<td>Interaction</td>
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<td>Learn thru teaching</td>
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<td>On-the-Job Learning</td>
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<td>Time and Budget</td>
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Figure Appendix N: The codes, categories & themes resulting from thematic analysis using NVivo
Appendices

Appendix O Plan to Disseminate Findings

As noted in the Contribution to Practice and Policy section of the Conclusions chapter, and in line with my axiology, I plan to disseminate my findings through practitioner literature and events, as well as academic ones. My plan for such dissemination is outlined below.

Academic Dissemination

Conferences

- University Forum for Human Resource Development (UFHRD)
  I have been asked to lead the ‘Learning in Small Businesses’ stream at the 19th University Forum for HRD Conference in 2017.

Target Publications

- Human Resource Development Review
- Human Resource Development International
- British Journal of Educational Technology
- International Journal of Training and Development
- Journal of Workplace Learning

I am currently unable to submit articles to Human Resource Development Quarterly (HRDQ) being its Managing Editor, but I plan to submit articles to it after my editorial term ends on 31st December 2018.

Practitioner Dissemination

Target Events

- Portsmouth Business School Hot Topic Evenings (for local businesses)
- FSB National Conference (March 2017)
Appendices

- FSB Regional and Branch Conferences / Meetings (Wessex)
- Local Enterprise Partnerships Conference (March 2017)
- Local Enterprise Partnerships local events (Solent and Enterprise M3)
- Chambers of Commerce events, e.g. Hampshire networking and training events
- CIPD conferences, exhibitions and events

Target Publications

- FSB Regional Voice and FSB Business Bytesize
- Local Enterprise Partnerships guest-blog
- British Chambers of Commerce guest-blog
- British Chambers of Commerce’s Chamber News
- CIPD – investigate possibility of contributing to factsheet about e-learning and/or SMEs.
Appendices

**Appendix P Points arising at XRN, ImageCo and HelpingPeople to aid future research**

As mentioned in Appendix A, which evaluated how the research design worked in practice, there were some points which arose from the pilot-study at XRN which were taken forward to help the research at ImageCo and HelpingPeople. These were:-

- Ask whether there are particular days when I should be present
- Allow time to analyse the findings while at the research organisation
- Allow sufficient time to transcribe interviews
- Do not interrupt interviewees
- Try to stop interviewees waffling about irrelevant matters, while encouraging free discussion of relevant areas
- Ask interviewees whether they are willing to read the transcript of their interview and feedback any necessary corrections
- Make it clear to everyone that, due to time constraints, only a limited number of interviews can be conducted
- Ask people who have not been interviewed what they would have mentioned if they had been interviewed
- Stay flexible
- Try to sit among those being researched and vary this if possible
- Allow sufficient time for ethnographic research.

Additional points which arose in ImageCo and were used to improve my research in HelpingPeople were:-

- Ascertain when people at the research site will be away from the office, for example on holiday
- Awareness of wider interpretation of term ‘e-learning’
- Questions concerning ‘feeling comfortable’ were added to the Interview Protocol (Appendix D).
Appendices

Points from HelpingPeople which could help my future research were:-

- Importance of awareness of what is and isn’t acceptable regarding amount of work and responsibility undertaken for research organisations,
- Awareness of acceptable behaviour and possible support when difficulties are encountered in research organisations.
Appendices

Appendix Q: Form UPR16

FORM UPR16
Research Ethics Review Checklist

Please include this completed form as an appendix to your thesis (see the Postgraduate Research Student Handbook for more information).

Postgraduate Research Student (PGRS) Information

Student ID: H75383

PGRS Name: Heather Jane Blake Short

Department: Organisation Studies and Human Resource Management

First Supervisor: Dr Sarah Gilmore

Start Date: 2nd October 2012

Study Mode and Route: Part-time

Title of Thesis: The Hidden World of e-learning in Small and Medium Enterprises

Thesis Word Count: 74,692

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University’s Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study. Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

UKRIO Finished Research Checklist:
(If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: http://www.ukrio.org/what-we-do/code-of-practice-for-research)

a) Have all of your research and findings been reported accurately, honestly and within a reasonable time frame?

YES ☒ NO

b) Have all contributions to knowledge been acknowledged?

YES ☒ NO

c) Have you complied with all agreements relating to intellectual property, publication and authorship?

YES ☒ NO

d) Has your research data been retained in a secure and accessible form and will it remain so for the required duration?

YES ☒ NO

e) Does your research comply with all legal, ethical, and contractual requirements?

YES ☒ NO

Candidate Statement:
I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s).

Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC): E204

If you have not submitted your work for ethical review, and/or you have answered ‘No’ to one or more of questions a) to e), please explain below why this is so:

Signed (PGRS): Date: 20th February 2016