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A qualitative analysis of small business owner-managers' participation and learning in an online discussion forum: not quite paradise found

Tara Laureen Smith

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A QUALITATIVE ANALYSIS OF SMALL BUSINESS OWNER-MANAGERS’ PARTICIPATION AND LEARNING IN AN ONLINE DISCUSSION FORUM:
NOT QUITE PARADISE FOUND

Tara Laureen Smith MBA, Dip. Ed (Sec), BSc (Psych)

This thesis is presented in fulfilment of the requirements for the degree of
Doctor of Philosophy

Faculty of Business and Law
Edith Cowan University

September 2012
Abstract

Small business owner-managers (SBOMs) are a difficult group to engage in formal face-to-face training and learning activities. Research to encourage SBOMs’ participation has focused on two main themes: first, trying to ascertain why they do not attend training and, second, determining their learning preferences. They are reluctant to attend formal training because they prioritise business operations (no time to attend training), perceive training as a poor return on investment, have negative perceptions of training and education, and believe the training provision often does not meet their needs. In terms of their learning preferences, it is clear that SBOMs prefer informal, network-based, experiential and problem-oriented learning. As such, efforts to increase SBOMs’ engagement in training and learning should focus on trying to incorporate these learning preferences while endeavouring to overcome their rationale for not attending formal training.

In this thesis, the focus is on the provision a free, informal, voluntary, online discussion forum (ODF) for SBOMs as an alternative to face-to-face training. The ODF provided an alternative to formal face-to-face training and enabled informal, voluntary, network-based learning for SBOMs that met their learning preferences for experiential and problem-oriented learning. The ODF also overcame their reasons for not attending face-to-face training and enabled SBOMs to learn in an informal way, with and from each other’s experiences, without having to leave their business operations. This approach was expected to promote the greater engagement of SBOMs in learning.

This cross-disciplinary study brings together elements of educational psychology in terms of learning theory and the emerging theories of online learning. It also takes a business and management perspective in applying these theories in small firm context. The study involved the development of an asynchronous ODF, which was guided by the literature regarding SBOMs’ training and learning, learning theory, online learning and, in particular, the importance of discussion for promoting relevant, authentic learning that enables interaction and reflection. The ODF provided a learner-centred approach to learning that encouraged active learning based on social interaction through discussion.
Discussion was based on problems, issues and questions posted by SBOMs in the online network and answered by the knowledge and experience of other SBOM members of the network. As such, the ODF provided learning that was relevant, authentic and interactive and that encouraged reflection.

The ODF set up for this research used Yahoo Groups, third party, groupware technology that enabled free access to SBOMs from a networked computer (other networked devices were not available in 2007). The Yahoo Groups ODF developed for this research was an online collaborative learning (OCL) forum that provided the basis of the case study reported in this thesis. The research was undertaken to explore the following research questions:

- Does an ODF empower SBOMs as active learners?
- What factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?
- What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

The research was conducted using constructivist ontology, an interpretive epistemology and a qualitative methodology. The case study approach was used to evaluate SBOMs’ participation and learning using the OCL forum, using reliable data from SBOMs. Data from four sources—the OCL forum transcript, in-depth interviews, focus groups and field notes—were used to provide insight into participation and learning by SBOMs in the context of owning and operating a small business. Pozzi, Manca, Persico and Sarti’s (2007) framework for tracking and analysing the learning process in an ODF was used to provide a structured approach to the analysis of participation and learning from the OCL forum transcript data. This was followed by a detailed thematic analysis of all data to determine what factors affected participation and learning by SBOMs in the OCL forum.

Findings from this research provided proof of concept that an ODF for SBOMs supported double-loop learning; however, participation could not be assumed. Although the ODF provided a learning approach that met the SBOMs’ learning preferences and mitigated their reasons for not attending formal training, the majority of invited SBOMs
chose not to participate. Internal factors pointed to SBOMs’ learning commitment, in particular, their occupational identity, whether they linked learning with business success, and their prior experience with ODFs. When SBOMs had committed to learning, they made time to learn in an ODF. External factors showed that the ODF technical and learning design also affected SBOMs’ decision to participate, as did the quality of learning design; however, it appears external factors are less influential than the internal factor of SBOMs’ learning commitment.

This thesis makes four contributions:

- The importance of SBOMs’ learning commitment in their decision to participate (or not) in a voluntary ODF
- Proof of concept that an informal ODF can promote deep learning for SBOMs
- Challenge to the idea purported by the more recent learning theory of heutagogy (Kenyon & Hase, 2001) that all learners in an online networked environment are self-determined
- Research design, exploratory, multiple data collection methods from the SBOMs—both those who participated in the ODF and those who chose not to take part.
Declaration of Original Work

I Tara Laureen SMITH certify that this thesis does not, to the best of my knowledge and belief:

i. Incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;

ii. Contain any material previously published or written by another person except where due reference is made in the text of this thesis; or

iii. Contain any defamatory material;

I acknowledge the work carried out by Elite Editing, in the formatting and editing of this thesis.

..................................................
Tara Smith
25 September, 2012


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I wish to acknowledge the many people who have made this thesis possible.

My Mum, whose background and upbringing did not afford her the luxury of a tertiary education, but for whom the value of learning has never been lost. I thank you for giving me the encouragement and support to reach my potential. I love you.

Murray, my husband who is the wisest person I know. Your insight into the world helped me clarify my thoughts. Your constant belief and support of my dreams got me through the bad days. I would not be who I am today, without you. I love you.

Karnabi the best daughter a mother could hope for. I am so proud of the young woman you have become, thank-you for understanding that Mum has goals and aspirations too. I love you.

Thank-you to my supervisors Rowena, Sue and Beth. Rowena for stepping up and providing support when I most needed it, you helped me find my way out of the PhD maze. Your feedback, guidance and support were invaluable. I will be forever grateful. Sue for her support and counselling throughout the journey, and Beth who planted the seed of belief in me, that I could do a PhD. Thank you.

Thanks to my ECU colleagues past and present who listened, encouraged and supported me through the challenges. In particular Julie, who made me laugh when all I wanted to do was cry. Janice who listened to me when I needed someone to talk to, you offered the support and guidance of a true mentor. I thank Matthew, Troy, Helen, Jenny, Megan and Denise who asked “how it was going” but never judged my answers!

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In particular, I would like to thank the small business owner-managers who participated and shared their stories with me, without their generosity and willingness this thesis would not have been possible.

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## Glossary

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<th>Description</th>
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<tbody>
<tr>
<td>AVETRA</td>
<td>Australian Vocational Education and Training Research Association</td>
</tr>
<tr>
<td>CCI</td>
<td>Chamber of Commerce and Industry</td>
</tr>
<tr>
<td>CMC</td>
<td>Computer-Mediated Communication</td>
</tr>
<tr>
<td>CSCL</td>
<td>Computer-Supported Collaborative Learning</td>
</tr>
<tr>
<td>DIME</td>
<td>Dynamics of Institutions and Markets in Europe</td>
</tr>
<tr>
<td>ECU</td>
<td>Edith Cowan University</td>
</tr>
<tr>
<td>GST</td>
<td>Goods and Service Tax</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resources</td>
</tr>
<tr>
<td>LMS</td>
<td>Learning Management System</td>
</tr>
<tr>
<td>OCL</td>
<td>Online Collaborative Learning</td>
</tr>
<tr>
<td>ODF</td>
<td>Online Discussion Forum</td>
</tr>
<tr>
<td>ROI</td>
<td>Return On Investment</td>
</tr>
<tr>
<td>SBC</td>
<td>Small Business Centre</td>
</tr>
<tr>
<td>SBOM</td>
<td>Small Business Owner-Manager</td>
</tr>
<tr>
<td>SME</td>
<td>Small Medium Enterprises</td>
</tr>
<tr>
<td>SMERC</td>
<td>Small and Medium Enterprise Research Centre</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical And Further Education</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
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</table>
Chapter 1: Introduction

1.1 Introduction

Small businesses are significant contributors to the Australian economy, providing jobs and contributing to economic development at all levels. Unfortunately, more than one quarter of all small businesses are no longer operating five years after they commence. When small businesses cease to operate, there are negative implications both for their local community and for society more generally. Therefore, it is important that small businesses remain competitive and are able to compete in the rapidly changing environment of the twenty-first century. One way to support small businesses is through the provision of training and education, in particular, for small business owner-managers (SBOMs).

However, SBOMs are difficult to engage in formal face-to-face training. They are reluctant to attend formal training because they prioritise business operations (no time to attend training), perceive training to have a poor return on investment, have negative perceptions of training and education, and training provisions often do not meet their needs. This does not mean that they are not learning, but rather that learning occurs informally through the process of owning and operating a business. In fact, their preference is for informal, network-based, experiential and problem-oriented learning. Thus, the provision of an alternative to face-to-face training that mitigates their reasons for not attending training and that meets their learning preferences may offer a solution to engaging SBOMs in training and learning.

The emergence of the Internet provides an opportunity to explore an alternative learning approach for SBOMs. Online learning allows SBOMs to engage in learning that is free and meets their learning preferences without having to leave their business operations. This research study looks at the provision of an online discussion forum (ODF) for SBOMs. It is provided as an alternative approach to encourage SBOMs to participate and learn, with the expectation that learning supports SBOMs to cope with change and
enables them to remain competitive. This chapter provides the background and rationale for undertaking this research, an overview of the study and the research questions.

1.2 Background

Small businesses are significant contributors to the Australian economy, accounting for 46 per cent of Australia’s gross domestic product in 2006 (Australian Bureau of Statistics, 2010). They contribute significantly to employment generation and economic development at local and national levels (Australian Bureau of Statistics, 2010). In Australia, small businesses (those employing fewer than 20 employees) account for 89.3 per cent of all employing businesses (Australian Bureau of Statistics, 2006). The most current information available estimated that there were 1.88 million small businesses in Australia, making them an extremely important business sector (Australian Bureau of Statistics, 2006). However, according to Prestney (2003), a total of 7.5 per cent of small businesses were no longer operating one year after commencing, while 27 per cent had ceased within five years. When businesses cease to operate, there is a significant negative effect on the economic and social wellbeing of the local and wider community. More importance needs to be placed on sustainable small businesses in Australia and action taken to ensure they remain competitive and function effectively. One way to ensure this competitiveness is through continuous learning, which enables SBOMs to cope with the rapid and continual change of the twenty-first century (V. Anderson & Boocock, 2002; de Kok & Uhlaner, 2001; Gibb, 1997; Huang, 2001; Lange, Ottens & Taylor, 2000; Matlay, 2004a; Morrison & Bergin-Seers, 2002)

Education and training are considered critical factors in economic progress and individual success (Australian Bureau of Statistics, 2002). Training is often seen as a panacea for all small business ills; the various reasons for training presented in the literature include:

- to prevent business failure (Ibrahim & Soufani, 2002; Storey, 2004)
- to increase productivity, growth and performance (Ibrahim & Soufani, 2002; Lange et al., 2000; D. Patton, Marlow & Hannon, 2000; van Gelderen, van der Sluis & Jansen, 2005); and
to address skills shortages (Matlay, 1999).

While the rationale for SBOM training is not debated here in this research, clearly these benefits are not realised if they fail to participate, with less than 20 per cent of small businesses investing in training (Gibb, 1997). In Australia, only 39 per cent of small businesses report expenditure on formal structured training compared with 98 per cent of big business (Australian Bureau of Statistics, 2003). While receptive to the idea of training, few specific steps are taken by SBOMs or their staff to undertake formal training (Paige, 2002). This training paradox has been noted by Matlay (1999), who states that although 92 per cent of all SBOMs in his survey of 386 claimed to have a positive attitude to training, more than 85 per cent admitted to not having provided any training over a period of 12 months. Thus, while the rationale regarding the benefits of training might be accepted by SBOMs, they do not act to realise these benefits.

The literature is replete with explanations as to why SBOMs, and those within the small business sector more generally, do not undertake formal training (see Billett, 2001; Clarke, Thorpe, Anderson & Gold, 2006; Gibb, 1997; Mack, 2003; Matlay, 2004a; Morrison & Bergin-Seers, 2002; D. Patton et al., 2000; Storey & Westhead, 1997; Westhead & Storey, 1996). The rationale describing why SBOMs do not attend formal training has been synthesised, in this thesis, into four key reasons. First, SBOMs find it difficult to take the time out of running and working in their business to attend formal training (Darch & Lucas, 2002; Paige, 2002; Westhead & Storey, 1996) because they often lack internal backup to cover them while attending the training (Matlay, 1999; Storey & Westhead, 1997). Second, they lack motivation to seek or attend training because they do not perceive a need (Billett, 2001; Baker and Wooden, 1995 as cited in Ehrich & Billett, 2004), since they have a negative perception of training and education (Macpherson, Jones, Zhang & Wilson, 2003; Paige, 2002). Third, SBOMs perceive training as a poor investment (Johnson, 2002; Lange et al., 2000; Mack, 2003; Morrison & Bergin-Seers, 2002; D. Patton et al., 2000) because their focus is short term and formal training is considered a long-term investment (Storey & Westhead, 1997). Last, the training provided does not meet business needs in terms of either the content provided, logistic arrangements or learning preferences (see Billett, 2001; Clarke et al., 2006; Gibb, 1997; Morrison, 2001; Paige, 2002; Storey, 2004).
Traditionally, research regarding learning in small business has focused on trying to encourage attendance at formal-training sessions (Field, 1997, 1998; Holden, Nabi, Gold & Robertson, 2006; Kearns, 2002; Matlay, 1999, 2004a; D. Patton et al., 2000; M. Simpson, Tuck & Bellamy, 2004; Webster, Walker & Brown, 2005; Westhead & Storey, 1996), which has largely proved futile, with participation in formal-training estimated to be below 20 per cent in Australia (Gibb, 1997). This focus on formal training appears to stem from a misconception, held by educators that ‘real’ learning in life only occurs in structured-courses at educational institutions. Or perhaps the infrastructure, policy that is invested in formal learning perpetuates a belief that learning must be formal. In addition, the term ‘training’ is often used in a way that gives an artificial impression that attendance at training automatically results in learning. It is suggested here that this focus on formal training as a means to enhance SBOMs’ learning may have constrained the development of alternative approaches to encouraging and enhancing learning for this group.

1.3 Rationale
While SBOMs might be reluctant to participate in formal training and education, this does not mean they are not learning. Rather, their learning occurs within, and through, their day-to-day work of owning and managing a business. Informal workplace learning is a preferred method for SBOMs because it enables them to learn experientially (learn by doing), using a trusted network of family, friends and professionals to help resolve their business-related issues. This informal, network-based, experiential learning through problem solving is SBOMs’ preferred way of learning. Unfortunately, their networks are not always available with the immediacy they want.

In contrast, the Internet is available 24 hours a day, seven days a week (24/7) and may provide a viable alternative to the face-to-face networks that SBOMs rely on for informal learning. The Internet can support an online-learning network that offers SBOMs access to informal learning 24/7, providing an alternative to formal course-based training with the potential to mitigate their reasons for not attending formal face-to-face training, while simultaneously meeting their learning preferences. In addition, in 2007, when this research commenced, most online-learning research had focused on the
development and delivery of formal courses within the higher-education sector. There was limited research regarding the provision of online learning for SBOMs or for facilitating informal learning. As such, researching the potential of an ODF to provide an online-learning network to encourage and support SBOMs’ informal learning is considered an important research area to address.

1.4 Overview of the Study

The research commenced by reviewing the available literature regarding SBOMs’ characteristics, and training participation. This established the need to provide an alternative to structured formal training, which requires time away from the business. Next, the existing theoretical perspectives regarding learning were explored to establish the principles that should underpin the learning design for adult SBOMs. In addition, the types of learning were explored and the differences between formal and informal learning were identified, as was the dualistic notion of learning as being single- or double-loop and surface or deep. From this, eight SBOM learning principles were derived, which formed the basis for the learning design. This was followed by an assessment of the benefits and limitations of online learning to determine the approach that should be taken. From this, it became clear that discussion was crucial for promoting deep learning online.

Discussion online is possible by the provision of ODF (also known as a threaded discussion forum). ODFs are learning spaces that allow participants to share information, exchange ideas and address and discuss particular topics and themes (Li, Dong & Huang, 2009) through a computer with an Internet connection (in 2007, when this research commenced, other network-enabled devices were not readily available). This approach allows SBOMs to learn through the active construction of knowledge, and within a social setting, the two key tenets of social constructivist learning theory. As such, an ODF was considered a viable alternative to formal face-to-face training because it enables SBOMs’ learning to occur socially through discussion with others, anywhere and at any time, without having to leave their business operations.
Research regarding SBOMs’ use of the Internet for learning was very limited. In 2007, when this research commenced, only a few studies on online learning for SBOMs could be identified. These include Moon, Birchall, Williams and Vrasidas (2005), who had explored the design principles of a formal online course for small medium enterprises (SMEs) in the United Kingdom (UK). This formal course approach was considered inappropriate for this study because it does not meet SBOMs’ learning needs or eliminate all the reasons they cite for not attending formal training. Sambrook (2003) studied perceptions of and attitudes to online learning in small businesses in North Wales (UK). She cautioned against investment in online learning, reporting that, in 2003, access to hardware and software, together with SBOMs’ attitudes to online learning, would present significant barriers to participation and learning in this way. In 2007, online informal-discussion learning research was undertaken by Stewart and Alexander (2006b). They investigated the use of online learning for SBOMs management development, using virtual action learning. They found that although it is possible to engage SBOMs in this way, technical issues can prevent full participation. Consequently, examples of online learning for SBOMs were limited, and studies investigating the use of an ODF to encourage SBOMs did not exist. For this reason, research regarding the use of an ODF to support SBOMs’ informal learning was necessary.

This cross-disciplinary study brings together elements of educational psychology in terms of learning theory and the emerging theories of online learning. It also takes a business and management perspective in applying these theories in small firm context. This research took an exploratory approach to assess whether the provision of an ODF promotes SBOMs’ participation in learning, whether learning is possible, and what type of learning occurs. The main research question (RQ) and its subsidiary questions were as follows.

RQ1: Does an ODF empower SBOMs as active learners?
RQ1(i) What factor(s) (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?
RQ1(ii) What learning (single- or double-loop; surface or deep) results from different levels of participation in an ODF?
To answer the RQs, an ODF, the online collaborative learning (OCL) forum, was set up for this research, using Yahoo Groups. Its design was based on the eight SBOM learning principles identified in the literature and sought to allow voluntary participation in an informal learning discussion without participants having to leave their business operations. The goal for the OCL forum was to be self-moderating, with SBOMs posing questions and providing answers to each other in an SBOM online-learning network. This would allow SBOMs to focus on real business issues with other SBOMs in an online network without having to leave their business operations.

As chapter 5 outlines, this exploratory study used a multi-method approach based on the assumptions and practices of qualitative inquiry to determine what factors (internal and external) led to different levels of participation by SBOMs in the OCL forum. A qualitative approach was adopted to explore the factors that affect participation by SBOMs in an ODF were fully explored, going beyond the previous research of ODFs that have limited analysis to frequency counts and other quantitative measures (Mason, 1992; Romiszowski & Mason, 2004). The use of qualitative data as suggested by Marra (2006) provided the opportunity to answer the substantive question of why the SBOMs participated, enabling a rich understanding to develop.

As this was an exploratory study, sampling was purposive (Miles & Huberman, 1994). Email invitations were sent to 159 SBOMs who had previously participated in traditional formal face-to-face training. From the initial email invitations, 13 agreed to participate. Repeat emails were sent in an effort to encourage more SBOMs to take part; however, after two months, only seven SBOMs had logged on and actively participated. The SBOM OCL forum set up for this research was used as the case study, as described in chapter 5. Case study data were derived from four sources: the OCL forum transcript, in-depth interviews, focus groups and field notes were used to provide insight into participation and learning by SBOMs in the context of owning and operating a small business. Data were analysed and reported in chapter 6, using Pozzi, Manca, Persico and Sarti’s (2007) general framework for tracking and analysing learning processes in computer-supported collaborative learning environments. Pozzi et al. (2007) provides a
five-dimension model that included participative, interactive, social, cognitive and teaching dimensions.

To understand fully the internal and external factors that affected participation, it was necessary to explore the nature of the SBOMs’ participation and learning in the OCL forum, via thematic analysis, this was done in chapter 6. Interviews and focus groups were transcribed, and on completion of the data collection, coding of data from the focus group, interviews and OCL forum commenced. Within the general parameters of the RQs, the data were inspected to develop the general categories. These were not prescribed prior to the data analysis but emerged during this initial analysis. It was initially coded openly by scrutinising the transcripts from the interviews, focus group and OCL forum transcript, line-by-line and then word-by-word, looking for terms used by respondents, identifying similarities and differences between SBOMs’ experiences of participation and learning in an ODF. The coding was undertaken by two researchers, thus ensuring consistency via ‘check-coding’ (Miles & Huberman, 1994, p. 64).

Analysis and reflection continued until the internal and external factors that affect participation and learning emerged from the data. One internal factor emerged—SBOMs’ learning commitment—that helped to explain why SBOMs participated in the OCL forum. SBOMs’ commitment to learning reflects three key attitudes held by SBOMs that influence their decisions to make time for learning by putting aside the operational demands of their business. When SBOMs are committed to learning, they make time to learn. First, they are committed to learning when they have an occupational identity that incorporates being a business manager. That is, when they have made the shift from being a functional expert and have incorporated aspects of being a business manager into their identity. Occupational identity is important because it determines how people direct their attention. Thus, when individuals identify as being a SBOM they value this, and desire to do well, which drives them to seek learning related to being a business owner and/or manager. Thus, identifying as an owner-manager helps drive their learning to develop competence in this area. Second, SBOMs are more likely to participate when they have linked learning with business success. When they value the outcome (learning) because they believe it will contribute to business success, they are more likely to participate. Third, when SBOMs have prior
experience of using an ODF, they are more likely to participate. Prior ODF experience gives SBOMs self-efficacy (self-confidence) that they have the ‘technical’ skills required to participate. Self-efficacy contributes to motivation and influences their choice of what to participate in and, as such, it influenced their decision to participate in the OCL forum. When SBOMs are committed to learning, they make time for learning, and they are prepared to take time away from the operational aspects of their business to learn. Thus, commitment to learning was crucial in the SBOMs’ decision to participate in the ODF.

External factors also affect SBOMs’ participation and learning in an ODF as discussed in chapter 7. The external factors are broadly grouped as technical and learning design. These two factors affect SBOMs’ participation and learning in the OCL forum. Technical design factors include access to a networked computer, the sign-up process and the useability of Yahoo Groups (the chosen provider). Learning design factors include building a learning network, voluntary participation, formal learning, trust, facilitation, preferred times for participation, relevant discussion topics, group size and composition.

The key findings are summarised in chapter 8 as are the contributions of the thesis and suggestions for future research.

1.5 Contribution of the Thesis

Four theoretical and methodological contributions are made by this research:

1. The importance of SBOMs’ learning commitment in their decision to participate (or not) in a voluntary ODF is demonstrated. Learning commitment emerged from the data as a theme underpinned by SBOMs’ occupational identity, whether they link learning with business success, and their prior experience with ODFs. When SBOMs are committed to learning, they make time to participate. Thus, while the literature to date has focused on the external characteristics regarding why SBOMs do not participate in learning, findings from this research suggest that the internal characteristics are more influential on SBOMs’ decision
to participate in training and learning than the external characteristics controlled by the training provider.

2. The concept that an informal ODF can promote deep learning for SBOMs is proved. Evidence from the ODF set up for this research demonstrates that when SBOMs actively participate they are able to achieve deep, double-loop learning that changes business processes and procedures. This supports the social constructivist learning theory that in order to promote deep learning, learners need to be actively involved in the creation of knowledge. Promoting this level of learning is important for SBOMs, because it is through deep, double-loop learning that they can ensure survival of the business.

3. This research challenges the idea that all adults are self-determined learners. The contemporary learning theory of heutagogy, which aims to explain online, networked learning, contends that adult learners are able to be completely self-determined. This study of SBOMs in voluntary, informal online learning advocates that not all adults are self-determined learners. That is, not all adults are able to take the initiative for learning because many ‘don’t know what they don’t know’ or perceive that they have no need for learning. As such, they are not able to diagnose their own learning needs, formulate learning goals and identify appropriate resources, suggested by contemporary learning theories.

4. Methodological contributions are made in terms of research design, which was exploratory, used multiple data collection methods and included the SBOMs who participated in the ODF and those who chose not to participate. Including the non-participants helped to provide a new perspective on SBOMs’ decision-making regarding attending training and learning.

### 1.6 Thesis Structure

This chapter introduces the thesis, presenting the background and rationale for undertaking this research, including the research questions and the significance of this study. In chapters 2 and 3 the existing literature is reviewed. Chapter 2 provides a description of SBOMs, their unique characteristics and the importance of education and training to this group. This is followed by an exploration of learning, the theories of learning, in particular, adult learning, from which the theoretical underpinnings of this
research were developed. Next, the types of learning (formal and informal) and the different levels of learning (single-loop and double-loop) are explored to demonstrate the type of learning this research aims to promote. Chapter 2 concludes by drawing together SBOMs’ learning preferences with some of the core theoretical learning principles that underpin this research. In Chapter 3, the emerging field of online learning and the important role that discussion has in promoting learning online are described. The chapter concludes with a discussion of the need for an ODF for SBOMs.

The design, features and characteristics of the ODF set up for this research, the OCL forum, are described in Chapter 4. In Chapter 5, the methodology used to conduct this research is discussed, while the analysis of the qualitative data collected is described in Chapter 6. The focus in Chapter 6 is on the SBOMs’ participation in the OCL forum, and the analysis associated with learning online. In Chapter 7, the results of the qualitative analysis are discussed within the context of the research questions, which leads into the concluding statements and recommendations in Chapter 8.

A graphical representation of the thesis layout is presented in Figure 1.1.
Figure 1.1: Graphical Representation of Thesis Layout
Chapter 2: Literature Review Part I

2.1 Introduction

This chapter reviews the extant literature in two main areas. First, the unique characteristics of SBOMs are identified, and their limited participation in formal education and training is explored. Second, the broad area of learning is reviewed. The major learning theories of behaviourism and constructivism are compared and contrasted, followed by a review of the major adult-learning theories. This leads to the various types of learning, formal and informal, and the dualistic notion of learning levels (surface and deep) being explored to emphasise that the quality of learning can vary. This chapter concludes with a set of principles to guide SBOMs’ learning.

2.2 Small Business Owner-Managers

2.2.1 Definition of Small Business

A small business is defined by the Australian Bureau of Statistics (ABS) (Australian Bureau of Statistics, 2008) as a business employing fewer than 20 people. The most current information available estimates that ‘in June 2006 there were 1,646,344 small business operators’ in Australia, excluding agricultural businesses (Australian Bureau of Statistics, 2008, p. 1). Small businesses are in all industries (Commonwealth of Australia, 2004) and range from traditional manufacturing businesses to contemporary virtual businesses. There is a significant variation within small business in terms of industry, business type and size.

Small businesses contribute significantly to employment generation and economic development at local and national levels (Robertson, 2003). Their contribution to the Australian economy represents half of all economic activity (Ehrich & Billett, 2004). They account for 95.6 per cent of all employing businesses (Australian Bureau of Statistics, 2008), and, in 2001, small business employed 3.6 million people, which represented 49 per cent of all private sector employment (Australian Bureau of
Statistics, 2001). They accounted for 58 per cent of the jobs growth between 1996–7 and 2000–01, growing at an average rate of 3.6 per cent per annum compared with big business where the average rate was 2.4 per cent (Australian Bureau of Statistics, 2001; Commonwealth of Australia, 2004). Thus, the small business sector makes an important and growing contribution to the Australian economy and one that is to some extent recognised by governments (Commonwealth of Australia, 2004).

However, according to Prestney (2003), a total of 7.5 per cent of small businesses were no longer operating one year after commencing, while 27 per cent had ceased to operate within five years. When businesses fail, there is a significant negative effect on the economic and social wellbeing of the local and wider community (Stokes & Wilson, 2010). More importance needs to be placed on building sustainable enterprises in Australia and action taken to ensure they remain competitive and function effectively. One way to ensure this competitiveness is through continuous learning, which enables SBOMs to cope with rapid and continual change (V. Anderson & Boocock, 2002; de Kok & Uhlaner, 2001; Gibb, 1997; Huang, 2001; Lange et al., 2000; Matlay, 2004a; Morrison & Bergin-Seers, 2002).

### 2.2.2 Unique Characteristics

A large proportion of the business literature is derived from and focused on large organisations. It is important to recognise that small business is not little big business (V. Anderson & Boocock, 2002; Billett, 2001; J. A. Welsh & White, 1981; Westhead & Storey, 1996; Wyer, Mason & Theodorakopoulos, 2000). The research findings and theories derived from research on big businesses are often not applicable or appropriate to small businesses, which manage and operate in a fundamentally different way (Storey & Westhead, 1997). Small businesses have a number of characteristics that make them both quantifiably and qualitatively different from big businesses. These characteristics include close control by SBOMs, not solely driven by the profit motive, and the heterogeneous nature of small business. Each of these characteristics is discussed below.
Small business is complex and varied, and within the sector there is a great deal of heterogeneity (V. Anderson & Boocock, 2002; Holden et al., 2006; D. Patton et al., 2000). Each small business has a unique set of characteristics, culture and operational practices, of which a key influence is the owner-manager and his or her knowledge, skills and abilities. In addition, industry, size, the length of time in business, the employees and the products and services all contribute to the unique characteristics of the business.

Overall, SBOMs in Australia have a lower rate of formal qualifications than the general population. While 57 per cent of the general population have completed high school qualifications (Year 12), only 49 per cent of SBOMs have completed the same qualification. In addition, the rate of formal qualifications held by SBOMs decreases with each successive qualification stage. SBOMs’ experience with education and training has a vital influence on the importance these aspects hold within the culture of their small business (Macpherson et al., 2003). The high percentage of SBOMs with low or no qualifications suggests that many do not value or emphasise formal education and training within their business.

SBOMs want their business to be successful and profitable, but unlike most big businesses, many small businesses are not solely driven by the profit motive. This notion goes against the growth assumption that underpins most business-management literature (Curran et al, 1997 and Gray, 1998 as cited in V. Anderson & Boocock, 2002). Walker and Brown (2004), report that SBOMs felt ‘that non-financial measures of this [business] success were more important than money. Personal satisfaction, pride and a flexible lifestyle were the most important considerations for the business owners’ (pp. 583–584). For them, it is not growth for growth’s sake; it is about lifestyle considerations that must be forgone in order to pursue growth. They may forgo or limit growth opportunities if those opportunities have negative lifestyle implications. Thus, they are less likely to participate in training, since one of the key factors in undertaking training is the pursuit of growth opportunities or an increased competitive advantage.
2.2.3 Education and Training Imperative

Education and training are often considered critical factors in economic progress and individual success (Australian Bureau of Statistics, 2004; Blundell, Dearden, Meghir & Sianesi, 1999; Storey, 2004). Training is often seen as a panacea for all small business ills, with primary reasons as to why SBOMs and their employees should attend training and education being presented. First, it is believed that training can prevent small business failure (Ibrahim & Soufani, 2002; Storey, 2004). Second, training increases small business productivity, growth and performance (Ibrahim & Soufani, 2002; Lange et al., 2000; D. Patton et al., 2000; van Gelderen et al., 2005). Third, training helps to address the skills shortage (Matlay, 1999).

Investment in training is suggested as a key factor in improving small business performance (D. Patton et al., 2000), and the SBOM is particularly crucial. However, research over the past 20 years has made little progress in establishing a causal link between increased training in small business and improved business performance. While some researchers, including Patton, Marlow et al. (2000), have found a link, albeit weak, between training and business performance, others, such as Jones (2005) and Storey (2004), argue that there is no empirical evidence of a link.

It is proposed that the link between training and small business performance is perhaps tenuous because the majority of research into small business learning has focused on the provision or absence of formal training as a measure of learning (Walton, 1999 as cited in Coetzer, 2006; Field, 1998). Researchers, including Huang (2001) and Matlay (1999), have measured the formal training that occurs, while others, such as Billett (2001), Jones (2005), Kearns (2002), and Lange et al. (2000), have assessed how to involve SBOMs and their employees in formal training. All have focused on quantifying participation in formal training rather than attempting to measure the quality and applicability of the learning in small business. Huang (2001) acknowledges that this practice is dangerous when he asserts that measuring only the amount of training provided is a spurious measure of learning, because if the training is poor, even many hours of training might be of no benefit.
2.2.4 Training Does Not Equal Learning

Traditionally, research into small business training has focused on encouraging attendance at formal-training sessions which has largely proved ineffective (Field, 1997; Holden et al., 2006; Kearns, 2002; Matlay, 1999, 2004b; D. Patton et al., 2000; M. Simpson et al., 2004; Webster et al., 2005; Westhead & Storey, 1996). According to Mitchell (2007), in the Certificate IV in Business (Small Business Management) in 2002, 2003 and 2004, ‘the 19,529 enrolments over three years represents just over one per cent of the 1.66 million operators’ (p. 20). This focus on formal training appears to stem from a misconception that the only ‘real’ learning is structured-course-based learning taken at educational institutions (Hager, 2004).

In addition, the term ‘training’ is often used in a way that gives an artificial impression that attendance at training ‘automatically’ results in learning. It is suggested here that this focal point of formal training as a means to enhance small business learning may have constrained the development of alternative approaches to encouraging and enhancing learning for small business.

The distinction between learning and training is not simply semantic (Field, 1998) because learning implies a change in behaviour over time, not just the acquisition of knowledge. While learning is an internal cognitive process over which the external bodies can have little control, training is an external process over which full control can be exerted. Many government organisations (including the West Australian Department of Education and Training, the Australian Commonwealth Department of Education, Science and Training, and other state government education departments), industry bodies and private organisations are heavily involved in the ‘training business’ through the regulation of training provision, supply of training or monitoring of training quality. Training has been the focus for government and industry when they discuss the dearth of skills in Australia. In fact, as Field (1997) asserts, there is a lack of recognition by public sector agencies that there are other ways that learning can be facilitated among small businesses aside from ‘structured training’. Their focus has been on the demand for and supply of training or the poor uptake of training, not on how much learning is taking place.
To date, the research regarding SBOMs’ learning has focused on manipulating the external (provider) controlled factors to encourage attendance at formal training, with the implicit assumption that attendance at training implies learning. This research deviates from this approach to investigate participation and learning of SBOMs in organised informal learning.

2.2.5 Participation in Education and Training

The rationale for why SBOMs should attend training is not debated here, but clearly benefits are not realised if SBOMs fail to participate. The following section outlines why SBOMs’ participation rates in formal training remain low.

There are a plethora of reasons which can be synthesised into four explanations: priority is given to business operations, a perceived poor return on investment (ROI), a negative perception of training and education, and training does not meet small business learning needs. These are summarised in Table 2.1.

First, SBOMs prioritise business operations. They find it difficult to take the time out of running and working in their businesses to attend training (Darch & Lucas, 2002; Paige, 2002; Westhead & Storey, 1996). In addition, they often have no internal labour market to cover the time required to attend training (Matlay, 1999; Storey & Westhead, 1997; Storey & Greene, 2010). Consequently, attending formal classroom-based training is very difficult, because attendance at training often interferes with operating their business.

Second, SBOMs perceive that investing in training provides a poor ROI. SBOMs question the returns they receive for the investment of time and money on training (Johnson, 2002; Lange et al., 2000; Mack, 2003; Morrison & Bergin-Seers, 2002; Oates, 1987; Storey & Westhead, 1997; Storey & Green, 2010). Return on training investment is usually long term, but SBOMs seek short-term gains. As such, they often view training as an unnecessary expense rather than as an investment (Billett, 2001;
Johnson, 2002; Mack, 2003). Coupled with this, SBOMs have to absorb the cost of any lost business earnings due to time spent attending training.

Table 2.1: SBOMs’ Rationale for Non-Participation in Formal Training

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Priority is given to business operations</strong></td>
<td></td>
</tr>
<tr>
<td>Lack of time; difficult to get away from running their businesses</td>
<td>Paige (2002); Darch &amp; Lucas (2002); Westhead &amp; Storey (1996); Oates (1987)</td>
</tr>
<tr>
<td>Absence of an internal labour market</td>
<td>Storey &amp; Westhead (1997)</td>
</tr>
<tr>
<td>Owners lack knowledge to make an informed decision</td>
<td>Robertson (2003)</td>
</tr>
<tr>
<td><strong>Perceived as a poor return on investment</strong></td>
<td></td>
</tr>
<tr>
<td>SBOMs question ROI</td>
<td>Johnson (2002); Lange et al. (2000); D. Patton et al. (2000)</td>
</tr>
<tr>
<td>Training is not seen as a good investment of time</td>
<td>Morrison &amp; Bergin-Seers (2002); Storey &amp; Greene (2010)</td>
</tr>
<tr>
<td>Training investment is long term, whereas small business desire a short-term ROI</td>
<td>Storey &amp; Westhead (1997)</td>
</tr>
<tr>
<td>Seen as an unnecessary expense</td>
<td>Mack (2003)</td>
</tr>
<tr>
<td>Loss of earnings while attending the training</td>
<td>Oates (1987)</td>
</tr>
<tr>
<td><strong>Negative perception of training and education</strong></td>
<td></td>
</tr>
<tr>
<td>Negative experience with training and education</td>
<td>National Skills Task Force (2000a, p. 23) as cited in Johnson (2002); Macpherson et al. (2003); (Paige, 2002)</td>
</tr>
<tr>
<td><strong>Training does not meet SBOMs’ needs</strong></td>
<td></td>
</tr>
<tr>
<td>Negative perceptions of formal training, including logistics and content</td>
<td>(Morrison &amp; Bergin-Seers, 2002)</td>
</tr>
<tr>
<td>Training content provided is not based on small businesses training needs</td>
<td>(Gibb, 1997; Storey, 2004) (Billett, 2001) (Clarke et al., 2006) (Matlay, 1999)</td>
</tr>
<tr>
<td>Small business preferences - not catered for</td>
<td>(Paige, 2002) (Kotey &amp; Folker, 2007)</td>
</tr>
</tbody>
</table>
Third, SBOMs often have a negative perception of training and education. For some SBOMs, there is no perceived need for formal training or education (Billett, 2001). Thus, there is no appropriate offering. For others, their prior experience of education and training was discouraging, and they now view all formal learning negatively. Therefore, without a perceived need, or with the belief that the training will not meet their needs, SBOMs are reluctant to participate in training or education designed for their needs.

Fourth, SBOMs perceive that the training provided does not meet their specific training needs (Billett, 2001; Clarke et al., 2006; Gibb, 1997; Kotey & Folder, 2007; Storey, 2004) or that the logistics and content are not appropriate (Morrison, 2001). According to Paige (2002), their learning preferences are not addressed. Thus, SBOMs’ experience of training is that it is not designed to meet their specific needs but is, instead, a scaled-down version of big business training. Training designed for SBOMs must be highly relevant, meet their needs and clearly articulate the benefits of participation. A study by Billington, Neeson and Barrett (2009) into the effectiveness of managerial workshops revealed the importance for providers to understand SBOMs’ ‘motivation to participate or the “what’s in it for me”’ (p. 733) in order to encourage participation because they are reluctant to take part in formal training.

In short, very few learning opportunities are designed for SBOMs’ unique characteristics, and, therefore, participation in formal training is impractical and considered of limited value. Given the barriers stated above, what do SBOMs want in regard to the content and delivery of training and learning?

### 2.2.6 SBOMs’ Learning Preferences

In the context of SBOMs, contrary to their limited involvement in formal training and education, they do participate in learning. SBOMs have a preference for informal learning (V. Anderson & Boocock, 2002; Barry & Milner, 2002; Clarke et al., 2006; Field, 1997; Gibb, 1997; Johnson, 2002; Kearns, 2002; Kotey & Folker, 2007; Matlay, 1999; Morrison & Bergin-Seers, 2002; Paige, 2002). According to Johnson (2002), the role and importance of informal learning in small business needs to be recognised and
appreciated. Johnson (2002) elaborates by concluding that when the definition of training is broadened to include more informal learning activities, such as learning that takes place on the job and does not necessarily lead to formal qualifications, the differences in their rates of uptake of training between small business and larger employers reduces.

Several authors, including Abernathy (2001), Anderson and Boocock (2002) and Morrison and Bergin-Seers (2002), note that SBOMs prefer to learn in a practical experiential way or by what Cope and Watts (2000, p.104) term ‘learning by doing’. This is also the method that SBOMs believe is the most appropriate and efficient way to learn (Field, 1997). Support for this approach is provided by Anderson and Boocock (2002) and Ehrich and Billett (2004), who found experiential learning (or learning by doing) to be both appropriate and effective. For example, Ehrich and Billett (2004) looked at how small business learnt about the Goods and Service Tax (GST) and found that simply getting in and doing it, that is, engaging with the tasks, was the strongest contributor to learning. Thus, although experiential learning is not a sophisticated formal approach, it is an effective way to learn.

While it is agreed that experiential learning is a useful learning tool for small business, Clarke, Thorpe et al. (2006) recognised that many SBOMs fail to acknowledge that learning has taken place and therefore this type of learning is often unreflective and uncritical and fails to move the business forward. This can be problematic for SBOMs who rely solely on experiential learning. They need to improve their ability to learn from experience by becoming reflective learners (Cope & Watts, 2000).

Learning by SBOMs occurs as a consequence of dealing with problems. It is often aided by interactions with others; many SBOMs acknowledge their social network as an important source of learning (V. Anderson & Boocock, 2002; Clarke et al., 2006; Devins & Gold, 2000; Ehrich & Billett, 2004; Gibb, 1997; D. W. Taylor & Thorpe, 2004; van Gelderen et al., 2005; Williams, 2007). Networks help SBOMs strengthen their businesses by providing access to resources, including skills, knowledge and information (Macpherson et al., 2003). Talking through problems and critical incidents with, and gaining knowledge from, others helps affirm understanding (Selwyn, Gorard
& Furlong, 2006; D. W. Taylor & Thorpe, 2004), which helps individuals develop their tacit knowledge. That is, when SBOMs articulate their tacit knowledge, for example, one’s assumptions regarding which action be taken, this action alone might be sufficient to generate learning (Florén, 2003). It is important to have a network of trusted others because discussion with others encourages the reflective action required to promote deep learning (Florén, 2003).

Overall, SBOMs prefer to learn experientially and through social networks that enable them to find solutions to real business issues.

2.3 Learning

This section defines learning, compares behaviourist and constructivist learning theories, explores adult-learning theories and then synthesises the literature by identifying a set of learning principles for SBOMs. The section concludes by delineating the differences between formal and informal learning and outlining the various levels of learning.

2.3.1 Definition of Learning

The concept of learning is difficult to define and to date there is no single agreed definition (Gibb, 1997; Schunk, 2008). The challenge of defining learning is acknowledged by Boud, Docherty and Cressey (2006), who describe learning as both a receptive and a constitutive process. It is receptive in that it involves receiving, understanding and applying tasks and knowledge, but learning is also constitutive because it enables individuals to initiate, shape and adapt those tasks and knowledge to embrace different situations (Boud et al., 2006). Learning is described in the literature in a variety of ways:

   Learning is a relatively permanent change in behaviour or cognition occurring as a result of experience (Dessler, Griffiths & Lloyd-Walker, 2007, p. 642).

   Learning is an enduring change in behaviour, or in the capacity to behave in a given fashion, which results from practice or other forms of experience (Schunk, 2008, p. 2).
A relatively permanent influence on behaviour, knowledge, and thinking skills, which comes about through experience (Santrock, 2008, p. 227).

Learning … is an enduring change in a living person that is not heralded by genetic inheritance. It may be considered a change in insights, behaviours, perception, motivation, or a combination of these. It always involves a systematic change in behaviour or behavioural disposition that occurs as a consequence of one’s experience (Bigge & Shermis, 2004, p. 1).

While all the definitions consider learning an action or process that involves some degree of change, they differ in their view of how learning occurs. Although they all refer to experience, this is important within the small business context. A variety of views regarding how learning occurs is articulated in the learning theories that follow.

2.3.2 Learning Theories

Researchers agree ‘that learning is important, but they hold different views on the causes, processes, and consequences of learning’ (Schunk, 2008, p. 2). As such, many theories and models have been developed to describe the nature of learning (Computing Education Research Group, 2008). These include classical conditioning (Vygotsky), social learning theory (Bandura), assimilation theory (Ausubel), attribution theory (Weiner), cognitive load theory (Sweller), stage theory of cognitive development (Piaget), cognitive apprenticeship (Collins et al.), social development theory (Vygotsky), situated learning theory (Lave), and experiential learning (Kolb) (Learning Theories Knowledgebase, 2011b). In short, all learning theories aim to explain what and how people learn, but they do so in various ways. They vary in the definition of what learning is, what knowledge is, the control of the learning environment by learners, peer group and instructor, and the realism of the context. We can see this when looking at the dimensions of learning theories shown in Figure 2.1.
However, this overview does not provide an exhaustive exploration of all learning theories. Rather, it seeks to highlight the differences between two prominent theoretical positions, derived from behavioural and cognitive psychology, that have influenced conceptions of learning. The behaviourist (instructivist) and constructivist approaches to learning are considered to lie at either end of a continuum (Cercone, 2008). As such, these two learning theories will be reviewed to enable an understanding of the theoretical underpinnings of various approaches to online learning that are the focus of this PhD study. There are three major learning theories: behaviourist, cognitive and constructivist. How knowledge is viewed, the definition of learning, the instructional approach and the role of the instructor for each of these theories is outlined in Table 2.2.
<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Behaviourist</th>
<th>Cognitive</th>
<th>Constructivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Fixed body of knowledge to acquire</td>
<td>Fixed body of knowledge to acquire</td>
<td>Changing body of knowledge, individually constructed in social world</td>
</tr>
<tr>
<td></td>
<td>Stimulated from outside</td>
<td>Stimulated from outside</td>
<td>Built on what learner brings</td>
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<tr>
<td></td>
<td>Prior knowledge influences how information processed</td>
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<table>
<thead>
<tr>
<th>Learning</th>
<th>Behaviourist</th>
<th>Cognitive</th>
<th>Constructivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>Acquisition of facts, skills, concepts</td>
<td>Acquisition of facts, skills, concepts, and strategies</td>
<td>Active construction, restructuring prior knowledge</td>
</tr>
<tr>
<td></td>
<td>Occurs through drill, guided practice</td>
<td>Occurs through the effective application of strategies</td>
<td>Occurs through multiple opportunities and diverse processes to connect to what is already known</td>
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</table>

<table>
<thead>
<tr>
<th>Instructional Approach</th>
<th>Behaviourist</th>
<th>Cognitive</th>
<th>Constructivist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Approach</td>
<td>Transmission Presentation (Telling)</td>
<td>Transmission, guide students towards more ‘accurate’ and complete knowledge</td>
<td>Challenge, guide thinking towards more complete understanding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Co-construct knowledge with students</td>
</tr>
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</table>
### Table 2.3.2.1 Role of Instructor

<table>
<thead>
<tr>
<th>Behaviourist</th>
<th>Cognitive Information Processing</th>
<th>Constructivist Social/Situated Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skinner</td>
<td>J. Anderson</td>
<td>Piaget</td>
</tr>
<tr>
<td>Role of Instructor</td>
<td>Manager, supervisor</td>
<td>Teach and model effective strategies</td>
</tr>
<tr>
<td></td>
<td>Correct wrong answers</td>
<td>Correct misconceptions</td>
</tr>
<tr>
<td></td>
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Adapted from Woolfolk and Margetts (2010, p. 371)

#### 2.3.2.1 Behaviourism

Behavioural learning theories focus on external events as the cause of observable and measureable changes in behaviour (George Mason University, 2011; Krause, Bochner & Duchesne, 2003; On Purpose Associates, n.d.; Woolfolk & Margetts, 2010). The mind is considered a ‘black box’ with learning explained in terms of observable behaviours with cognitive processes or activities of the mind being disregarded (Briner, 1999; Mergel, 1998; Santrock, 2008). That is, thoughts, feelings, and motives are not considered appropriate subject matter for the science of behaviour because they cannot be observed.

In this view, learning is assumed to be the acquisition of a response (Villalba & Romiszowski, 2001) defined as, ‘a relatively permanent influence on behavior, knowledge, and thinking skills, which comes about through experience’ (Santrock, 2008, p. 227). The overall assumption is that behaviour is a function of its consequences; as such, learning occurs through frequent response and immediate reinforcement of the required behaviour (Villalba & Romiszowski, 2001). According to this view, ‘actions that are reinforced (or rewarded) are more likely to be repeated’ (Krause et al., 2003, p. 109). There are a number of well-known theorists associated with behaviourism, including Pavlov (1849–1936), Thorndike (1874–1949), Watson...
(1978–1958) and Skinner (1904–1990) (George Mason University, 2011; Mergel, 1998). The contribution of each of these four theorists to behaviourism will be outlined. Classical conditioning (Pavlov) and operant conditioning (Skinner) (Culatta, 2011; George Mason University, 2011; Krause et al., 2003; Learning Theories Knowledgebase, 2011a; Mergel, 1998) emphasise associative learning, that is, where two events are connected (associated) (Santrock, 2008). Classical conditioning (Pavlov) is a type of learning in which the organism learns to connect or associate stimuli (Krause et al., 2003; Santrock, 2008). In particular, it is concerned with learning that is triggered when involuntary responses are activated by particular stimuli in the environment (Krause et al., 2003). In his infamous dog experiment, Pavlov demonstrated that after repeated conditioning of a bell with the presentation of food, the bell (new stimulus) alone is eventually able to trigger an automatic response (salivation); in this way, the dog is said to have been ‘conditioned’. The ringing of a bell is associated with the presentation of food; therefore, the dog begins to salivate on hearing a bell ring, even without food being present (Krause et al., 2003; Santrock, 2008; Woolfolk & Margetts, 2010).

Although it is acknowledged that classical conditioning can be useful in understanding anxiety and fears by providing an explanation of how humans and animals develop emotional reactions to various situations (Woolfolk & Margetts, 2010), it does not explain all human learning. Classical conditioning primarily focuses on the automatic conditioning of involuntary responses. As Woolfolk and Margetts (2010) state, ‘Clearly not all human learning is so automatic and unintentional. Most behaviours are not elicited by stimuli; they are emitted or voluntarily enacted’ (p. 234). Thus, it would appear that this theory could not explain the type of voluntary, self-directed participation expected by SBOMs in the online-learning forum proposed by this research.

However, another behavioural learning theory that does provide some explanation of voluntary behaviour is operant conditioning. ‘Operant conditioning (also called instrumental conditioning) is a form of learning in which the consequences of behavior produce changes in the probability that the behavior will occur’ (Santrock, 2008, p. 233). Whereas with classical conditioning a particular stimulus elicits a response that is
already in the organism’s repertoire, with operant conditioning, novel behaviours are acquired. In fact, those who support the principles of operant conditioning suggest much of what is learnt in life (e.g. reading) is the result of operant conditioning (Dworetzky, 1994).

Central to the development of operant conditioning are Edward Thorndike and B. F. Skinner (Santrock, 2008; Woolfolk & Margetts, 2010). During the 1930s, simultaneous to Pavlov’s classical conditioning experiments with dogs, Thorndike (an American) was studying cats in puzzle boxes (Santrock, 2008; Schunk, 2008). Woodfolk and Margetts (2010) succinctly describe Thorndike’s puzzle-box experiment:

To escape from the box and reach food outside, the cats had to pull out a bolt or perform some other task; they had to act on their environment. During the frenzied movements that followed the closing of the box, the cats eventually made the correct movements to escape, usually by accident. After repeating the process several times, the cats learned to make the correct response almost immediately and escape. (p. 234)

On the basis of these experiments, Thorndike developed his law of effect principle, which states that behaviours followed by positive outcomes (or satisfying effect) are strengthened, whereas behaviours followed by negative outcomes are weakened (Mergel, 1998; Santrock, 2008; Woolfolk & Margetts, 2010). That is, positive and negative consequences are used to strengthen or weaken voluntary behaviour (Krause et al., 2003).

Building on Thorndike’s law of effect, Skinner went on to develop ideas of operant conditioning (Woolfolk & Margetts, 2010). Operant conditioning includes trial-and-error learning and the law of effect (Thorndike), together with learning that occurs when behaviours receive rewards or are reinforced (Skinner). The notion that the consequences of behaviour are integral to the probability that behaviour will be repeated is central to Skinner’s form of behaviourism. As a result of the work by Thorndike and Skinner, conditioning is recognised by behaviourists as a universal learning process (On Purpose Associates, n.d.). For this reason, in a behaviourist learning environment, instructors will encourage learning by using consequences and reinforcement of learnt behaviours (George Mason University, 2011).
The principle of behaviourism is that there is an objective reality; the goal of learning is to understand this reality and modify behaviour accordingly (Jonassen, Davidson, Collins, Campbell & Bannan Haag, 1995). The role of the instructor is to efficiently communicate behaviours that represent the knowledge and skills to the learner (George Mason University, 2011; Leidner & Jarvenpaa, 1995). According to this view, the learner is basically passive, responding to external stimuli (Culatta, 2011; Learning Theories Knowledgebase, 2011a). As Zhang, Gao, Ring and Zhang (2007) explain, the instructor is in control, with a predetermined set of objectives, and interaction is limited to embedded self-assessment questions in the materials (Villalba & Romiszowski, 2001).

According to this view, knowledge is considered a product that can be transmitted in one way: from the instructor or the textbook to the learner (Jonassen et al., 1995; T. Zhang et al., 2007). Thus, instructional methods must support this efficient transfer of knowledge from the expert to the learner. One effective and well-used method that supports the pedagogical assumptions of behaviourist learning theory is the lecture method. It enables the efficient transfer of objective knowledge from the expert instructor (lecturer), to the learner (Leidner & Jarvenpaa, 1995):

The behaviourists believe that instruction should have a specific goal(s), and they strongly support sequencing of instructional materials by first presenting simple facts and then moving into more complex information. They believe that if teachers present and sequence instructional materials and evaluate students’ achievements then students will learn more effectively (Gillani, 2003, p. 25).

Behaviourism is teacher-centred learning in which the teacher is viewed as the expert who, through didactic methods, passes knowledge to the learner, who remains largely passive. In this view, learning is focused on a single objective reality. Other learning theories view learning differently. At the opposite end to behaviourism on the learning theory continuum is constructivism. The following section describes how learning occurs according to constructivism.
2.3.2.2 Constructivism

Constructivism (also known as a constructivist view of learning or a constructivist approach) goes beyond the study of how information is acquired (as in behaviourist learning theory) to examine ways in which learners make meaning from experience. Contrary to the behaviourists’ belief that knowledge is transmitted from the expert to the learner, in the constructivist approach, learning is viewed as an internal process of interpretation (McMahon, 1997). The mind is considered an instrument of thinking that interprets the surrounding world rather than seeking to remember objective knowledge (Jonassen et al., 1995). Emphasis is on the contribution that the learners themselves make in developing meaning and learning through individual and social activity (Fox, 2001; Krause et al., 2003; McMahon, 1997; Santrock, 2008; Schunk, 2004; Woolfolk & Margetts, 2010). This view assumes that knowledge has to be discovered, constructed, practiced, and validated by each learner (T. Zhang et al., 2007).

Constructivists emphasise that the way in which an individual constructs knowledge depends on what is already known by the individual (Kanuka & Anderson, 1998; Krause et al., 2003; Snyder, 2009). Learners combine new information with existing knowledge and experience, to ‘construct’ their own learning (Krause et al., 2003; Snyder, 2009). As such, what is known depends on what types of experiences have been had, and how these have been organised into existing knowledge structures (Kanuka & Anderson, 1998, p. 59). This notion of constructing knowledge differs from the behaviourist view of learning, which emphasises the acquisition of knowledge (Schunk, 2008).

Modern constructivist learning theories have evolved from the work of Piaget, Vygotsky and Bruner as well as the educational philosophies of John Dewey (Computing Education Research Group, 2008; Woolfolk & Margetts, 2010). This has led to the development of a number of different forms of constructivism, including social development theory (Vygotsky), communities of practice (Lave and Wagner), constructivism, discovery learning (Bruner), and stage theory of cognitive development (Piaget) (Computing Education Research Group, 2008; Knowledgebase, 2011). Particularly influential to the progress of constructivist learning theory has been the
human development theory work of Piaget and Vygotsky (Schunk, 2008). Their work has led to two main views of constructivism: cognitive constructivism (Piaget) and social constructivism (Vygotsky) (Computing Education Research Group, 2008; Kanuka & Anderson, 1998; Krause et al., 2003). Yet, although there is no single agreed constructivist theory, most agree on two common tenets that explain how learning occurs.

The first tenet, common to all constructivist theories, is that learners are active rather than passive in constructing knowledge (Computing Education Research Group, 2008; Kanuka & Anderson, 1998; Krause et al., 2003; Schunk, 2008; Woolfolk & Margetts, 2010). That is, instruction is seen as a process of supporting construction (learning) rather than communicating knowledge (Computing Education Research Group, 2008). Here, the teacher is a facilitator with a flexible approach to learning (T. Zhang et al., 2007). The role of the facilitator is to structure situations to enable learners to become actively involved with content though manipulation and social interaction.

The facilitator can help learners to become actively involved with content by adopting some commonly agreed constructivist approaches. These include (1) embed learning in complex problems, (2) develop realistic and relevant learning environments, (3) provide for social negotiation and shared responsibility as part of learning, (4) support multiple perspectives and multiple representations of content and (5) nurture self-awareness and an understanding of how the knowledge is constructed (Woolfolk & Margetts, 2010).

Rudestam and Schoenholtz-Read (2010) acknowledge that, during the past decade, there has been an increased commitment to constructivist pedagogy. In particular, they refer to the recent movement away from the traditional teacher-centred approach to a constructivist-based pedagogy that places the learner at the centre and in control of goal setting and negotiating meaning with others, a shift that is particularly suited to adult learning.

The second tenet is that social interaction is necessary for learning (knowledge construction process) (Krause et al., 2003; Woolfolk & Margetts, 2010). This element will be explored further in a discussion of social constructivism.
2.3.2.3 Social Constructivism

A commonly accepted constructivist theory is social constructivism, which is based on three assumptions regarding reality, knowledge and learning. First, reality is viewed as being constructed through human activity; it cannot be discovered, and it does not exist prior to its social invention (Kim, 2001). Second, knowing is a human product and is socially and culturally constructed (Ernest, 1999; Gredler, 1997; Prat & Floden 1994 as cited in Kim, 2001). Individuals create meaning through their interaction with each other and with the environment in which they live. Third, learning is viewed as a social process. It does not take place within an individual; nor is it passive development of behaviours that are shaped by external forces (McMahon, 1997). From this perspective, meaningful learning occurs when people are engaged in social activities (Atherton, 2011; Kim, 2001).

Social constructivism is associated with many contemporary theorists; however, the most significant basis of social constructivism theory was laid down by Russian psychologist, Lev Vygotsky (Atherton, 2011; Kanuka & Anderson, 1998; Schunk, 2008). It was his emphasis the on the influence of cultural and social contexts in learning that has become central to many forms of constructivism (Kanuka & Anderson, 1998; McGee, 2008; Schunk, 2008). Vygotsky argued that social interaction, through dialogue, precedes human development (Schunk, 2008). In other words, it is through dialogue that individuals test their own understanding against that of others, which ultimately leads to development. It is in this way that ‘knowledge is generated through social intercourse, and through this interaction we gradually accumulate advances in our levels of knowing’ (Kanuka & Anderson, 1998, p. 59). The emphasis here is on learners making meaning by actively combining new information with existing knowledge and experience, to ‘construct’ their own learning (Atherton, 2011; Snyder, 2009).

Thus, for a social constructivist learning environment, collaboration is an essential component to allow learners to construct their own learning (McMahon, 1997). In this view, ‘knowledge has to be discovered, constructed, practiced and validated by each learner’ (C. Zhang, 2007, p. 3). For it is through pedagogical methods, such as group
discussion and interaction, that learners, together with peers and teachers are exposed to multiple perspectives that help in the construction of understanding (Computing Education Research Group, 2008). It is via collaboration and discussion that learners are able to express their understanding, listen to the views of others and explore different ideas. In this way, their thinking is challenged, and they are provided opportunity to test the viewpoints of others (P. Taylor, 2007). All of these methods enable learners to construct their learning.

In a social constructivist view, teachers do not instruct students in the traditional (behaviourist) sense, where knowledge is conveyed from the expert to the learner in a one-way transfer of information (Schunk, 2008). Rather, teachers are seen as facilitators of learning (Santrock, 2008). Their role is to create a context for learning that enables students to become engaged in interesting activities that support and facilitate learning. Through collaborative activities, students share knowledge and participate in discussion, which enables them to negotiate meaning and build knowledge—not as individuals but as a group (Chen, n.d). This need for learning to be social is also noted in the SBOM learning literature (Voudouris, Dimitratos & Salavou, 2011; Zhang, Macpherson & Jones, 2006) where learning socially from others via networks (McGovern, 2006) is identified as important to small business success.

One way to achieve this level of collaboration and to build knowledge as a group in the twenty-first century is through technology. For social constructivists, technology is an important tool because it enables learner interactivity, regardless of geographical and time constraints. Technology enables learner discussion, dialogue and debate, which are essential to the social construction of meaning (Chen, n.d). The use of technology to support and encourage SBOMs’ learning is a principle of this PhD research.

2.3.3 Adult-Learning Theories

Behaviourist and constructivist learning theories are based on research that has investigated how to encourage and support the teaching and learning of children—or
pedagogy. Other research has focused on developing theories about the teaching and learning of adults; these are described next.

How adults learn has been a central question for scholars and practitioners in adult education since the 1920s. Adult-learning theories include McClusky’s theory of margin, Illeris’s three dimensions of learning (Merriam, Caffarella & Baumgartner, 2007), Jarvis’s learning process (Merriam et al., 2007), symbolic interactionism (Cheetham & Chivers, 2001b), transformational learning (Mezirow, 1991), self-directed learning (Brookfield, 1984), andragogy (Knowles, Holton & Swanson, 2005) and experiential learning (Kolb, 1984; Kolb, Osland & Rubin, 1995).

To date, no single theory or model of adult learning explains all that is known in regard to adult learners, the various contexts in which learning occurs and the process of learning itself (Merriam, 2001). Even so, what does exist is a range of theories, models, principles and explanations that, combined, contribute to the understanding of adult learning (Merriam, 2001). Important aspects of this body of knowledge are andragogy, self-directed learning and experiential learning. Others specifically designed to explain learning in a networked environment are heutagogy and connectivism. Each of these contributions to adult learning will be discussed in this section.

The theories of andragogy and experiential learning will be covered in detail below because it is recognised that both theories contribute to the progress in understanding informal learning for adults and thus appear to be most relevant to the research being proposed.

2.3.3.1 Andragogy

One of the most influential contributions to the understanding of adult learning was made in 1968 by Malcolm Knowles (Merriam, 2001; Merriam et al., 2007). Knowles developed a theoretical model that focused on the teaching and learning of adults (andragogy) as distinct from the practice of the teaching and learning of children (pedagogy) (Cercone, 2008; Smith, 2002; Snyder, 2009). Andragogy, which argues that adults learn in a different way from children, is formally described as ‘the art and
science of helping adults learn’ (Knowles, 1980, p. 43). According to Pratt (1998), Knowles's andragogy ‘is built on two defining attributes. First, a conception of the learners as self-directed and autonomous; and second, a conception of the role of the teacher as facilitator of learning rather than a presenter of content’ (p. 12).

In pedagogy, learning is based on a content plan: which content will be covered, how can this be organised and what is the most appropriate method for transmission (D. R. Clark, 2011). Conversely, andragogy is learner-focused and grounded in humanistic learning theory (Merriam et al., 2007). In andragogy, development is focused on the process design for facilitating learning (L. Burge, 1988; D. R. Clark, 2011). Knowles’s emphasis on the process and the active involvement of the learner was a radical departure from learning at that time (in the 1960s).

Knowles’s (1980) theory had a number of assumptions regarding adult learners that explained the learning processes associated with andragogy. The assumptions that underpin andragogy have undergone a number of iterations since they were first published in 1978, evolving from the original four in 1978 to five in the early 1980s and to six in 1989 (Knowles et al., 2005). The final iteration of the six assumptions of Knowles is described in this thesis.

The first assumption stated by Knowles, Holton and Swanson (2005) is that adults need to know why they need to learn something before they undertake to learn; it is suggested that this might be the most potent driver in their learning. ‘Training researchers have conducted research related to this premise that suggests three dimensions to the need to know: the need to know how learning will be conducted, what learning will occur, and why learning is important’ (Knowles et al., 2005, pp. 183–184). As such, it is important for facilitators of adult learning to clarify how, what and why learning is important for learners to encourage and promote learning.

The second assumption is that adults are self-directed learners (Knowles et al., 2005). That is, adults have an independent self-concept and can direct their own learning (Cercone, 2008; Merriam, 2001). According to Knowles, Holton and Swanson (2005), adults should be treated by others as capable of self-direction. Self-directed learning is a
process in which adults take the initiative for learning. They diagnose their learning needs, formulate learning goals, identify resources for learning and choose and implement appropriate learning strategies (Knowles, 1980). Therefore, the teacher-directed pedagogical model is less appropriate for adults. If adults have developed self-direction, as Knowles et al. (2005) suggest, the application of a teacher-directed approach for adult learning might be partly responsible for the dropout rate in voluntary adult education, since adults, according to Knowles et al. (2005), prefer to direct their own learning, not have it prescribed by the teacher.

The third assumption of andragogy is that learner experience is important (Knowles et al., 2005). Adults have ‘accumulated a reservoir of life experiences that is a rich resource for learning’ (Merriam, 2001, p. 5). Adults come into educational activity with both a greater quantity and a different quality of experience than that of children (Knowles et al., 2005). The combined experiences of a group of adult learners may provide the richest learning resource (Merriam et al., 2007). Adults can build on previous knowledge by relating new information to previous events, knowledge and experience (Cercone, 2008). Thus, for adult learning to be successful, it needs to utilise the experience of the learners through group discussion, problem solving and case study as opposed to a pedagogical approach where the teacher, as the expert, transmits knowledge to the students.

The fourth assumption is that adults’ orientation to learning is focused on solving problems associated with their social role(s) (Knowles et al., 2005). That is, adults are most interested in learning when it has immediate relevance to their social roles (Merriam, 2001). They become ready to learn those things that help them cope effectively with their real-life situations. Knowles, Holton and Swanson (2005) advance that the timing of learning experience is critical; people struggle to learn—formally or informally—if they are not ready, either developmentally or cognitively (Knowles et al., 2005). Andragogy promotes the idea that adult learning should be based on learners’ experiences and interests, and that this approach encourages and supports adults to learn (Ota, DiCarlo, Burts, Laird & Gioe, 2006).
The fifth assumption of andragogy is that there is a change in time perspective as people mature, with adults becoming more concerned with the immediacy of application. Learners need to know why they should learn something and how it might benefit them (Knowles et al., 2005), or ‘what’s in it for me?’ (WIFM). Thus, an adult’s learning orientation is more life-centred, task-centred or problem-centred (Merriam et al., 2007). Adults are motivated to learn by their perception of how the learning will help them perform or deal with their problems. Adults learn in a problem-centred rather than a content-oriented environment, a factor that is often ignored by many traditional and online-learning providers, who often focus entirely on the development and provision of content.

The sixth and final assumption of andragogy is that adults’ motivation to learn is internally rather than externally motivated. Andragogy makes some fundamental assumptions about what motivates adults to learn. Knowles et al. state:

> Adults tend to be more motivated toward learning that helps them solve problems in their lives or results in internal payoffs. This does not mean that external payoffs (for example, salary increase) have no relevance. Rather that the internal need satisfaction is the most potent motivator. (2005, p. 199)

However, are all adults internally motivated to learn?

The six assumptions of andragogy reinforce the goals, values and methods of the proposed ODF for SBOMs.

### 2.3.3.2 Criticisms of Andragogy

There has been significant writing and debate regarding the validity of andragogy as a theory of adult learning (Blondy, 2007; Merriam, 2001). The first point of contention is whether andragogy is a ‘theory’ of adult learning (Cercone, 2008; Cheetham & Chivers, 2001b; Merriam, 2001; Merriam et al., 2007). Davenport and Davenport (1985) in their chronology and analysis of the debate state that, over the years, andragogy ‘has been classified as theory of adult education, theory of adult learning, theory of technology of adult learning, method of adult education, technique of adult education and a set of
assumptions’ (p. 157). Knowles himself eventually agreed that andragogy is more a technique than a theory (Davenport & Davenport, 1985).

Andragogy may not be a theory in the purist sense; it is a theory in use. Merriam et al. (2007) acknowledges that practitioners who work with adult learners continue to find Knowles’ characteristics of adult learners a helpful tool for understanding adult learning. According to Davenport and Davenport (1985), the growth in acceptance and usage of andragogy since the early 1970s has been rapid, which, they suggest, is supported by many accounts in the professional literature in nursing and social work regarding the use of andragogy in staff development and continuing education (Davenport & Davenport, 1985).

However, an extensive search of the literature using multiple databases failed to find empirical research to support the use of andragogy. Similarly, Davenport and Davenport (1985) report that initial research consisted of mainly descriptive accounts of andragogy applied in a variety of circumstances, with little in the way of scientific data. Davenport and Davenport (1985) describe a growing research database:

Katz (1976), Kerwin (1979, 1980 & 1981), Holmes (1980), Hopkins (1981), and Jones (1982) have studied andragogical-pedagogical orientation of adult education in a variety of settings. Christian (1982), Davenport (1984), Grubbs (1982), and an Allen (1982) have done additional work on the orientations of adult learners. It is this research-supported database that ultimately determines andragogy’s claim to theoretical status. The preliminary findings indicate that andragogical orientation can be defined, measured, and evaluated. Early indications are that andragogical-pedagogical orientations vary by age, sex and other variables. If additional research continues to confirm such distinctions, andragogy may well possess the explanatory and predictive functions generally associated with a fully developed theory. (p. 158)

The second criticism relates to the extent to which the underpinning assumptions of andragogy are characteristics of adult learners only (L. Burge, 1988; Davenport & Davenport, 1985; Merriam, 2001). As early as 1972, Cyril Houle rejected andragogy, suggesting that the learning activities of adults and children are essentially the same. This was supported by London who, in 1973, ‘indicated that some andragogical principles could be applied to children’ (cited in Davenport & Davenport, 1985, p. 153).
Overtime Knowles revised his thinking in regard to andragogy being for adults only and pedagogy for children only (Merriam, 2001). He moved from a dichotomous view of andragogy versus pedagogy to a more neutral position of andragogy as a development from pedagogy (Davenport & Davenport, 1985).

The third limitation of andragogy centres on Knowles’ second assumption, which assumes that all adults are self-directed learners (Merriam et al., 2007). Pratt (1988) argues that not all adults demonstrate the capability or readiness to manage their own learning. This is supported by Lam’s (1985) research, where the results suggest that the success of a learner-centred approach, as proposed by andragogy, depends upon the cognitive maturity of the adult learners. Lam (1985) states, ‘Adult learners who lack formal education, and operating in what Perry termed “dualistic mode” (Perry, 1970), prefer a more structured learning environment than do more sophisticated learners who operate in a “relativistic position’” (p. 51). In addition, Merriam et al. (2007) explain that while selfirection is a goal of adult learning, most adults have been through a pedagogical education system that has socialised them to give up authority to the ‘teacher’.

Similarly, Choy and Delahaye (2002) acknowledge that in order for learners to benefit from an androgogical approach to learning they ‘need to be self-directed, autonomous and responsible for decision-making’ (p. 2). They researched the learners’ perspectives of andragogy by surveying 266 youths aged 17–24 enrolled in vocational education and training programs. Their ‘findings show that youth learners prefer only the ‘feel good’ aspects of andragogy, and are not willing to assume learner responsibilities associated with andragogy.’ (Choy & Delahaye, 2002, p. 1). In other words, young people preferred the social aspects of andragogy, rarely thinking about their own responsibility for learning. Choy and Delahaye (2002) suggest that this may not necessarily be related to age but rather to life experiences and maturity. Similarly, adults also have difficulty. As Fidishun (2000) observes, adults’ experience of traditional teacher-directed education, where learners are dependent, can make it difficult for them to move towards being self-directed learners responsible for their own learning. These learners may need help to become more self-directed (Cercone, 2008).
Blondy (2007) states that ‘Knowles’ (1984) androgogical assumptions were not formulated on empirical research but were developed as a result of experience, observations, and theoretical influences’ (p. 126). He concludes that criticisms are based on a superficial reading and continues: ‘Knowles’ intentions were to put learners first, to strive to help them meet their needs, and encourage educators to constantly be available to guide learners success’ (p. 127). Blondy (2007) maintains that these goals should be the starting point for approaching adult online learning. Andragogy was a radical departure from the behaviourist approaches that were dominant at the time. However, contemporary learning theories, such as constructivist, have much in common with an andragogical approach.

Despite the criticisms of andragogy, its strength is that is provides ‘a set of core adult learning principles that apply to all learning situations (Knowles et al., 2005, p. 2). Four other adult-learning theories are discussed: self-directed learning, experiential learning, heutagogy and connectivism.

2.3.3.3 Self-Directed Learning

Simultaneous with the introduction of andragogy to North America, self-directed learning appeared as another model of adult learning (Merriam, 2001). In the late 1960s and early 1970s, Tough, building on the work of Houle (1961), provided the first comprehensive description of self-directed learning as a form of study (as cited in Merriam, 2001). Self-directed learning is ‘learning that is widespread, that occurs as part of adults’ everyday life, and that is systematic yet does not depend on an instructor or a classroom’ (Merriam, 2001, p. 8). It is considered ‘an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) process in constructing and confirming meaningful and worthwhile learning outcomes’ (Garrison, 1997, p. 18).

Self-directed learning is a principle idea in adult education (Garrison, 1997, p. 18). It suggests that the locus of control in learning resides with the adult learner (Cercone, 2008). While some learners might be fully self-directed, others will need varying degrees of support and direction (Cercone, 2008). The ability of learners to be self-
directed depends on their characteristics, which ‘include independence, willingness to take initiative, persistence in learning, self-discipline, self-confidence, and the desire to learn more’ (Cercone, 2008, p. 148). In addition, self-directed learners are able to organise time, develop plans for completion, enjoy learning, and remain goal oriented (Cercone, 2008).

In the same manner that self-directed learning theory purports that adults become increasingly self-directed as they mature, so does andragogy. Knowles assumes that adults are self-directed learners (see Section 2.3.3.1). Both theories suggest that as a person grows and matures, his or her self-concept changes from that of a dependent personality towards being self-directed (Cercone, 2008). However, the motivation to assume responsibility for learning is influenced by both internal and external factors (Garrison, 1997). Thus, it appears unwise to assume that all adult learners will be totally self-directed, a criticism previously made of andragogy.

2.3.3.4 Experiential Learning

Experiential learning (or learning by doing) involves learners performing an activity (concrete experience) from which they make observations and reflect, and then by using those observations and reflections they are able to change their behaviour. The experiential learning model developed by Kolb is shown in Figure 2.2. In this model, learning is conceived as a four-stage cycle comprising (1) an immediate concrete experience, followed by (2) observation and reflection on that experience, leading to (3) the formulation of abstract concepts and generalisations, leading to (4) the testing of that theory through practical action, which leads to new experiences (Kolb et al., 1995; Tennant, 2006). It is important to note that the process can occur in any order, but all four parts of the cycle must be present for the learning cycle to be complete (Linstead, Fulop & Lilley, 2004). The learning cycle repeats as concepts are continuously tested and modified as a result of observation and experience (Kolb et al., 1995). This is why experiential learning is commonly referred to as ‘management learning’ (Linstead et al., 2004).
The experiential learning model proposed by Kolb (1984) has strong connections with the constructivist paradigm (Merriam et al., 2007). Kolb’s experiential learning theory builds on the work of educational and learning theorists Dewey, Piaget and Lewin (Marsick & Watkins, 1990; Merriam et al., 2007).

![Figure 2.2: Experiential Learning Cycle](image)

Learning as viewed via the Kolb model is guided by the individual’s needs and goals. Experiences are sought that relate to our goals, and these are interpreted in light of individual goals; to form concepts and test the implications of these concepts that are relevant to individuals perceived needs and goals (Kolb et al., 1995). Experiences that provide learning are never isolated events in time; rather, learners must connect what they have learnt from current experiences to those in the past and see possible future implications (Merriam et al., 2007).

The process of solving ‘real’ problems is a common approach to learning (Tynajälä & Häkkinen, 2005; Yeo, 2006). Cunningham (1998) suggests that this problem-based learning encourages individuals to reflect on and articulate the knowledge that they construct and that this is one of the best ways to facilitate workplace learning (as cited by P. J. Smith, 2003). In addition, Kolb’s concept of experiential learning matches SBOMs’ learning preferences, which are often experiential and directed at problem solving (Gibb, 1997; Pittway, Rodriguez-Falcon, Aiyegbaya & King, 2011).
2.3.3.5 Heutagogy

Heutagogy, the study of self-determined learning, builds on the principles of andragogy developed by Malcolm Knowles (see Section 2.3.3.1) and according to Kenyon and Hase (2010), ‘may be viewed as a natural progression from earlier educational methodologies … and may well provide the optimal approach to learning in the twenty-first century’ (p. 112). The key difference is that while learning in andragogy is self-directed, heutagogy takes this further by suggesting that adult learning is self-determined.

Although andragogy recognises the need for adults to self-direct their learning, it is still a teacher-centred approach to learning, according to Hase and Kenyon (2007). The teacher facilitates and guides learning, providing structure; the learner takes those cues and follows his own need to know. Conversely, heutagogy is totally learner-centred learning where the learner is the driving force in his or her own learning (Hase & Kenyon, 2007). Heutagogy encourages learners to query, research, discover and analyse according to their needs. Heutagogy puts the responsibility for learning solely in the hands of the learner; that is, what is learnt and when and how it is learnt is self-determined.

A key theme of heutagogy is that it places the learner’s responsibility for knowledge appropriation at the centre of the learning process (J. Ashton & Newman, 2006). That is, it is a learner-centred approach as opposed to the teacher-centred model proposed by pedagogy. However, heutagogy assumes that adults are autonomous learners who are able and willing to take responsibility for their own learning. This is perhaps overly optimistic, because many adults have been socialised to expect a pedagogical model, which puts the teacher in charge of what is learnt, when and how (Fidishun, 2000). The change to self-determined learning could be a little daunting for many learners for whom this approach might be overwhelming. Therefore, although heutagogy appears to offer an appropriate learning methodology for the twenty-first century, not all learners might be ready to take responsibility for determining their own learning.
It is suggested by Eberle and Childress (2007) that a self-determined, heutagological approach to learning is appropriate for online learning, with the asynchronous nature of discussion enabling reflective thinking (see Section 3.3.3.3). It is also possible that in an online environment, the learner can be at the centre of learning by asking questions of and seeking answers from peers and experts in an ODF (see Section 3.3.3.2). In this way, online discussions offer a possible medium for the heutagological approach, because they allow learners to seek learning about what they need to know rather than what is prescribed in a syllabus. In this way, ODFs can promote the essence of a heutagological approach, which is to allow learning to occur ‘when the learner is ready and not when teachers think it should happen’ (Kenyon & Hase, 2010, p. 165).

While heutagogy makes an important contribution to adult learning by promoting an awareness of the key role of the learner in the learning process, it is still in its infancy. As such, available literature is limited. To date, research is dominated by conceptual papers by the founding authors, Hase and Kenyon (2007), and there appears to be very little peer-reviewed empirical literature to support heutagogy as a learning theory.

2.3.3.6 Connectivism

More recently than Hase and Kenyon’s work on heutagogy, George Siemens advanced a new learning theory, connectivism. Siemens characterises connectivism as a learning theory for the digital age, designed as an alternative to behaviourism, cognitivism and constructivism (Bell, 2011; Dunaway, 2011; Ravenscroft, 2011; Siemens, 2004a). Connectivism advances that people develop competence from making connections with others (Senior, 2010). Learning occurs by making connections between ideas located throughout their learning network (Dunaway, 2011).

Siemens argued that social constructivism (the learning theory commonly used to inform learners’ and teachers’ actions online) could not provide sufficient theoretical support to online learning (Pettenati & Cigognini, 2007). Siemens emphasised that the traditional learning theories (behaviourism, cognitivism and constructivism) developed at time when networking technologies were not prominent and argued that connectivism is necessary to explain new types of learning that occur across networked learning
communities (Dunaway, 2011). It is this online networked environment that is crucial to the changing nature of learning, according to connectivism (Siemens, 2004a).

Connectivism has emerged to explain learning and the way in which knowledge is used with the advent and growth of Web 2.0 technologies. Web 2.0 (or the read/write web) enables learners to connect, communicate and collaborate with the rest of the world, using a variety of tools and technologies (Downes, 2005; Dunaway, 2011). Siemens and Conole (2011) explain: ‘the internet has remade how society creates and shares content and how people communicate and interact’ (p. i). Web 2.0 enables social networking providing anyone with an Internet connection the ability to publish and engage; therefore, the general public are now becoming the producers of information (Bell, 2011; Siemens & Conole, 2011). Web 2.0 has changed the way people use the Internet, from predominately consuming to now producing information (Bell, 2010).

However, are all Internet users willing to be producers of information? According to Morell (2010), 10 per cent of forum participants make some posts; of these, only one per cent are active contributors. Clearly, only a small minority participate in posting and commenting in online environments. Most participants (90 per cent) only read: a rule of thumb known as ‘the 90/9/1 principle’ (Morell, 2010). Perhaps the advantages of Web 2.0 technology are not for everyone. It is proposed in this thesis that not everyone feels technically competent or has sufficient confidence in their knowledge to commit to posting on the Internet.

The capability of Web 2.0 to enable user-generated content has altered the conditions under which people learn (Pettenati & Cigognini, 2007; Senior, 2010). As such, learning ‘is no longer the exclusive domain of the teachers’ (Senior, 2010, p. 138). Web-enabled learning in formal and informal settings is now possible through social networking practices and technologies. It is observed by Pettenati and Cigognini (2007) that learning facilitated by social networking is effective because it reflects our natural interactions:

Social networking is emerging as a highly natural practice because it is deeply rooted in our daily behaviours; spontaneous relations, interactions and conversations support informal learning practices, contribution to the creation and transmission of
knowledge. In informal learning practices, the social behaviour and the support of technologies toward the ‘network’, a network made by people and resources, a social network, unified by personal needs or common goals, interaction policies, protocol and rules, and telematic systems all together favouring the growth of a sense of belonging to the ‘net’ community (p. 43).

This idea that learners connect to a learning community and benefit from it while also feeding it with information is a key feature of connectivism (Boitshwarelo, 2011). In this way, knowledge is viewed as being distributed across the network, not only residing in the mind of the individual (Boitshwarelo, 2011) as cognitivist and constructivist learning theorists purport. That is, according to Siemens, (2004a) ‘Learning (defined as actionable knowledge) can reside outside of ourselves (within an organization or a database)’ (p.4). In addition to this key feature, Siemens (2004a, p.4) states that connectivism is underpinned by eight principles:

- Learning and knowledge rests in diversity of opinions.
- Learning is a process of connecting specialised notes or information sources.
- Learning may reside in non-human appliances.
- Capacity to know more is more critical than what is currently known.
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist-learning activities.

Decision-making is in itself a learning process. Choosing what to learn, and deciding the meaning of incoming information, occurs through the lens of shifting reality. While there is a right answer now, that answer might be wrong tomorrow due to alterations in the information climate affecting the decision.

Boitshwarelo (2011) explains that connectivism is about connecting to communities using the networking capabilities of information communication technology (ICT), which is similar to the ideas of communities of practice purported by Wenger (Wenger, 1998, 2001, 2002, 2004) (see Section 3.4.3). In this connectivist view, a community is considered a node in a wider network of nodes, in much the same way that a community of practice (COP) is an online social network consisting of members who are connected
to the wider community. For Boitshwarelo (2011), an online COP is a manifestation of connectivism.

For all that, there is debate about connectivism and its status as a real learning theory. Kop and Hill (2008) question whether connectivism is indeed a theory. Bell (2011) suggests it lacks rigour, questioning whether connectivism alone, as a successor to previous learning theories, is able to inform learning via the Internet. Verhagen (2006) suggests that connectivism is not a replacement for social constructivism but is complementary, because it does not add to the principles of earlier learning theories. Bell (2011) concurs, concluding that connectivism makes a contribution as a phenomenon rather than as a theory. Yet, despite this criticism, connectivism is considered relevant by practitioners. It is worth noting that arguments regarding connectivism’s status as a theory are similar to arguments regarding andragogy’s status as a theory (see Section 2.3.3.2).

2.3.4 Summary of Learning Theories

In summary, a behaviourist approach to learning means content is controlled by the instructor through predefined objectives; the learner is passive and learning is considered the acquisition of an objective reality. In contrast, the constructivist approach to learning promotes active learning where the learner’s role is to construct his or her own understanding. Similar to the ideas purported by constructivism, adult-learning theories advocate that learners need to be active in experimentation, to build on their experience and to learn through solving problems situated in the real world.

2.3.5 Types of Learning

There are two major types of learning: formal and informal. In this PhD, the concern is with adult learning in the context of the workplace, specifically, in this thesis, the small businesses owned and operated by participants.
2.3.5.1 Formal Learning

Collis and Margaryan (2004) define formal learning as ‘any learning structured into a course or other form of learning event, delivered in classroom or at a distance, and supported by an instructor’ (p. 38). Formal learning is generally associated with educational institutions (universities, technical and further education colleges, primary and secondary schools) that deliver education and acknowledge the outcome of learning by awarding an official document (such as a diploma, degree or certificate) (Harrison, 2003).

Formal learning experiences typically have a defined beginning and endpoint and are usually based on predefined learning objectives (Tannenbaum, Beard, McNall & Salas, 2010). Significant research has been conducted to determine how to best design, deliver and evaluate formal learning (Santrock, 2008; Schunk, 2004, 2008; Woolfolk & Margetts, 2010). Formal learning was assumed to have clear advantages because it was thought that it ‘opened up the accumulated wisdom of humankind, held in the universities’ (Colley, Hodkinson & Malcolm, 2002, p. 4).

Formal learning has several features that are common to nearly all training and education programs. First, learning is often based on behaviourist teaching and learning principles, which focuses on the teacher disseminating their expert knowledge to students or participants. Although constructivist ideas have recently been seen in formal learning environments, their use is generally quite limited, and behaviourist principles still dominate (On Purpose Associates, n.d.; Tennant, 2006). Second, programs follow prescribed learning content, which is typically approved by the government, the institution or the teacher. Third, programs generally have attendance requirements with participants required to attend on a specific day at a precise time. Fourth, at the completion of the program, participants are awarded a qualification or certificate.

Learning in a formal environment has direct and indirect financial costs. The costs include the fees associated with participating in the course and the indirect costs associated with attendance. Indirect costs include lost productivity because of time away from work or, in the case of SBOMs, the cost of temporarily ‘shutting up shop’ to
attend formal training or education, because many SBOMs do not have employees to cover their absence.

Despite the many benefits of formal training and education programs, SBOMs are reluctant to participate in formal training or education (see Section 2.2.6).

2.3.5.2 Informal Learning

There is increasing awareness that informal learning is as important as formal learning in organisational settings (V. Anderson & Boocock, 2002; Baldwin-Evans, 2006; Boud et al., 2006; Boud & Middleton, 2003b; Marsick & Watkins, 1990; Tannenbaum et al., 2010). Various definitions of informal learning exist. It has been defined as learning that generally occurs outside formal institutions and which takes place in order to meet the immediate needs of individuals, whether work-related, life-related or both (Harrison, 2003). Collis & Margaryan (2004) provide a comprehensive definition:

Informal learning is any unstructured learning that takes place in the work context and arises from both individual participation—doing the work—and social interactions with peers and experts, but with the support of an instructor (p. 38).

This type of learning differs from formal learning in that it places the purpose of the learning in the hands of the learner. The learner determines ‘what will be learned, where it will be learned and with whom it will be learned’ (Harrison, 2003, p. 32).

Informal learning is predominately experiential and non-institutional and can occur in any context, alone or in groups (Livingstone, 2000; Marsick & Watkins, 1990). It can be through a deliberate action to pursue understanding, knowledge or skill, or it can occur unconsciously through the very experience or process of doing (or what is known as ‘incidental learning’) (Marsick & Watkins, 1990; Sorohan, 1993). This type of learning is used for a variety of reasons, such as for obtaining help, information and support, learning from alternative points of view or considering alternative thinking and behaviour patterns (Conlon, 2004). Learning in this way might be as simple as a quick search on the Internet for some information or seeking advice from a peer regarding a problem at work (Baldwin-Evans, 2006). The reality is that the vast majority our learning occurs informally (Harrison, 2003; Livingstone, 2000; Montero, Watts &
Reports vary regarding how much learning occurs informally; however, most agree it is a large amount, with estimates varying between 70 per cent and 90 per cent (Sorohan, 1993).

Tannenbaum et al. (2010) highlights four common characteristics of informal learning. First, it is predominately self-guided and directed by the learner, rather than by an organisation. Second, it is driven by intent for growth, learning, improvement or development. Third, it involves some action and doing. Last, it does not occur in a formal-learning setting, such as a classroom. Tannenbaum et al. (2010) present a dynamic model of informal learning, which consists of four informal-learning components, which they suggest must all be present to ensure learning is effective. An outline of Tannenbaum et al.’s (2010) model is shown in Table 2.3.

**Table 2.3: Informal Learning Components**

(adapted from Tenenbaum, Naidu, Jegede & Austin, 2001)

<table>
<thead>
<tr>
<th>Learning component</th>
<th>Description</th>
<th>Consequence if missing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intent to learn, improve, and develop</strong></td>
<td>Recognising or being personally aware of the need to improve oneself, acquire knowledge, or build expertise</td>
<td>Might not recognise or take advantage of learning opportunity</td>
</tr>
<tr>
<td><strong>Experience and action</strong></td>
<td>Engaging in an action or an experience that involves the individual actively doing something</td>
<td>Loses the chance to learn by doing and, as such, might not learn</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Receiving feedback related to an event or action</td>
<td>Might fail to take advantage of a potentially valuable learning experience</td>
</tr>
<tr>
<td></td>
<td>Feedback can come from the task itself or from others</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feedback can be directed towards the learner or occur vicariously</td>
<td></td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
<td>Engaging in thoughtful consideration to understand one’s experiences</td>
<td>Might fail to uncover insights from one’s experience and thus less likely to learn</td>
</tr>
</tbody>
</table>
According to informal learning theory, the onus to learn resides with the learner. However, are SBOMs able to recognise the need to improve, acquire knowledge or build the appropriate expertise that Tenenbaum et al. (2001) describe? It is possible that they will not recognise or take advantage of learning opportunities offered, which is acknowledged, (see Table 2.3) if they do not have the intention to learn.

2.3.5.3 Workplace Learning

Workplace learning can be formal, informal or incidental, according to Marsick and Watkins (1990). Work-related learning is defined by Sambrook (2005) ‘as learning in and at work’ (p. 101). She specifies that it is learning that occurs at the place of work and learning that is embedded in work processes. Learning is something that occurs in many locations and through the tutelage of many people, both recognised experts (teachers, trainers, managers and supervisors) and non-experts (colleagues, clients, suppliers and friends). In addition, learning occurs through many forms of communication, including face-to-face, the telephone, the Internet and other mobile devices.

Hager (2004) suggests that there is a misconception that the only ‘real learning’ that occurs at work is formal learning, the type of learning that dominates educational institutions, such as schools, Technical and Further Education (TAFE), and universities. However, learning is not an activity that is limited to educational institutions or to formal programs or courses (D. W. Taylor & Thorpe, 2004). As D. Ashton, Sungand Raddon (2005) conclude, ‘it is also important to recognise that the form in which the learning takes place tells us very little about the outcomes in terms of the amount of learning that takes place, the level of skill acquired or its impact on performance in the workplace’ (p. 33). Thus, while formal learning is often the only learning, recognised informal learning may well be equally as important, particularly for SBOMs.

Informal workplace learning is particularly important for small business (Australian National Training Authority, 2003). A considerable amount of SBOMs’ learning is
based in and around the workplace. They often learn through work and via discussion with suppliers and customers rather than through attending formal training (Halliday-Wynes & Beddie, 2009). SBOMs use this form of learning as a means of addressing current business needs (Kearns, 2002). Workplace learning gives them the flexibility they require and allows learning to take place without having to leave their business operations, an important criterion for SBOMs, for whom business operations often take precedence (see Section 2.2.6).

Learning at work can often be experiential (see Section 2.3.5.3). Clarke et al. (2006) criticises experiential learning as being unreflective, suggesting that a reliance on this form of learning may fail to move the organisation forward. This is supported by others who suggest that reflection is a key part of workplace learning (Boud et al., 2006; Cope, 2003; Cope & Watts, 2000; Merriam et al., 2007; Sorensen, 2004). Reflection is defined by Boud et al. (2006, p. 45) as the more or less deliberate and conscious process of interpreting and making sense of experience. This conscious reflection is crucial for turning experience into learning (Boud et al., 2006; Cheetham & Chivers, 2001b). In order to reflect effectively, people must consciously become aware that they are learning (Marsick & Watkins, 1990), which is not always the case with SBOMs when learning informally (Clarke et al., 2006).

2.3.6 Levels of Learning

To be successful in the twenty-first century, businesses must innovate, adapt and learn more quickly and effectively than their competitors (Dimitriades, 2005). Effective learning, according to Dimitriades (2005), means shifting not only what is learnt but also how learning occurs within organisations. It requires meaningful change to business processes, structures, assumptions or concerns (Snell & Man-Duen Chak, 1998). Small businesses need learning interventions that not only meet their learning requirements but also force them to make the changes to their existing business practices. This is a deeper form of learning that rarely occurs in any business (Georges, Romme & van Witteloostuijn, 1999). The learning at which business is most proficient, and which it practices most, is lower-level learning (Boud et al., 2006; Georges et al., 1999; Williams, 2007).
A number of researchers distinguish between the various forms of learning, but most agree on a dualistic notion of learning. These levels have been described using a variety of terms, including ‘single-loop’ and ‘double-loop’ learning (Argyris & Schon, 1974, 1978), ‘lower-level’ and ‘higher-level’ (Fiol & Lyles, 1985), ‘surface’ and ‘deep’ learning (R. B. Brown, 2000), ‘adaptive’ and ‘generative’ learning (Gibb, 1995; Senge, 1990), ‘instrumental’ and ‘transformative’ learning (Mezirow, 1991) and ‘incremental’ and ‘transformational’ learning (Appelbaum & Gorranson, 1997). A summary of these dualistic notions of learning are shown in Table 2.4.

<table>
<thead>
<tr>
<th>Type of Learning</th>
<th>Author/s</th>
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<tbody>
<tr>
<td>Level 1</td>
<td>Level 2</td>
</tr>
<tr>
<td>Lower-level</td>
<td>Higher Level</td>
</tr>
<tr>
<td>Adaptive</td>
<td>Generative</td>
</tr>
<tr>
<td>Instrumental</td>
<td>Transformative</td>
</tr>
<tr>
<td>Incremental</td>
<td>Transformational</td>
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</table>

Most definitions suggest that lower-level (or single-loop) learning has a focus that is usually short-term, surface or temporary; it might be a repetition of past behaviours (Cope, 2003) and it may have no real long-term or developmental implications (Cope & Watts, 2000). In contrast, higher-level (or double-loop) learning occurs when complex rules and associations regarding new actions are developed together with an understanding of causation (Cope, 2003), or where the learning involves changing the knowledge base of the firm (Value Based Management, 2011). It is essential for SBOMs to engage in higher-level learning if they are to improve business performance.

Work by Argyris and Schon’s (1978) highlights this dualistic notion of learning. Single-loop and double-loop learning are described below.
2.3.6.1 Single-Loop Learning

Single-loop learning is when a problem occurs and is solved in a way that allows an individual or organisation to carry on with its existing policies or achieve its existing objectives (Georges et al., 1999). ‘Whenever an error is detected and corrected without questioning or altering the underlying values of the system (be it individual, group, inter-group, organisational or inter-organisational), the learning is single-loop’ (Argyris, 1999, p. 68). For individuals, single-loop learning is about adapting and becoming more skilful. They register that their actions are not achieving their goal and adjust their actions to enhance the possibility of achieving the goal (Snell & Man-Duen Chak, 1998). However, this type of learning does not help change existing business practices, and thus is unlikely to help organisations make the changes necessary to become, or remain, competitive in today’s rapidly changing world. Unfortunately, in many small businesses this is the predominant form of learning (Abernathy, 2001).

2.3.6.2 Double-Loop Learning

In order for businesses to adapt to environmental changes, SBOMs must become adept at deeper levels of learning, or double-loop learning (Senge, 1990). According to Chalofsky (2005), double-loop learning occurs when a problem is encountered and solved by modifying an individual’s or organisation’s underlying norms, values, beliefs, policies or objectives. At the organisational level, double-loop learning is about transforming and involves changing the whole businesses knowledge and competency base by collectively reframing problems, developing new shared paradigms or mental maps and modifying governing norms, policies and objectives (Snell & Man-Duen Chak, 1998). Double-loop learning involves a greater degree of reflection about, and questioning of, the underlying values, perception and ‘theories in use’ of the individual (V. Anderson & Boocock, 2002). Is it possible to get this level of learning in the workplace?
2.3.7 SBOM Learning Principles

Drawing on the learning theories described in Section 2.3.2, and based on what is known about SBOMs’ learning preferences (see Section 2.2.7), it is suggested that learning designed for SBOMs should follow the eight learning principles outlined in Table 2.5. These eight SBOM learning principles suggest that learning designed for SBOMs should be active, social, and based on real small business problems. Participation of SBOMs should be voluntary, and based on what they need to know that occurs naturally, as they manage their small business.

In order for SBOMs’ learning to address the eight principles identified, a significant departure from the traditional classroom-based training approaches is required. Training and education provided for SBOMs to date has largely been traditional, formal, content based and instructor led. However, this behaviourist approach does not address the eight learning principles. One possible approach to developing learning that meets these eight principles is the use of an ODF to encourage informal learning for SBOMs. This is the focus of this PhD thesis.
### Table 2.5: SBOM Learning Principles

<table>
<thead>
<tr>
<th>Learning Principles</th>
<th>Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promote active learning</strong></td>
<td>Constructivist</td>
</tr>
<tr>
<td>SBOMs should be actively involved in learning, not passively receiving information</td>
<td></td>
</tr>
<tr>
<td><strong>Encourage social interaction</strong></td>
<td>Social constructivist, connectivism</td>
</tr>
<tr>
<td>Learning should encourage discussion to allow SBOMs to construct their knowledge.</td>
<td></td>
</tr>
<tr>
<td><strong>Build from existing experience and knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Learning needs to allow SBOMs to build on previous knowledge, by relating new</td>
<td></td>
</tr>
<tr>
<td>information to previous knowledge and experience.</td>
<td></td>
</tr>
<tr>
<td><strong>Support problem solving</strong></td>
<td>Andragogy</td>
</tr>
<tr>
<td>SBOMs learn by solving real small business problems (as they arise).</td>
<td></td>
</tr>
<tr>
<td><strong>Need to know</strong></td>
<td></td>
</tr>
<tr>
<td>Participation in learning is voluntary. Learners participate, based on what they</td>
<td></td>
</tr>
<tr>
<td>need to know.</td>
<td></td>
</tr>
<tr>
<td><strong>Internally motivated</strong></td>
<td></td>
</tr>
<tr>
<td>SBOMs are internally motivated to solve their small business problems and thus</td>
<td></td>
</tr>
<tr>
<td>seek out solutions.</td>
<td></td>
</tr>
<tr>
<td><strong>Self-directed</strong></td>
<td>Andragogy, Self-directed learning</td>
</tr>
<tr>
<td>SBOMs assume personal responsibility of cognitive and self-management processes in</td>
<td>and heutagogy</td>
</tr>
<tr>
<td>learning, there is no need for an instructor as learning occurs as part of</td>
<td></td>
</tr>
<tr>
<td>running and managing their business (i.e. everyday life).</td>
<td></td>
</tr>
<tr>
<td><strong>Encourage experiential learning</strong></td>
<td>Experiential learning</td>
</tr>
<tr>
<td>Learning is about real small business problems that allow SBOMs to observe, reflect</td>
<td></td>
</tr>
<tr>
<td>and change behaviour.</td>
<td></td>
</tr>
</tbody>
</table>

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2.4 Chapter Summary

SBOMs are an important part of the Australian economy; unfortunately, many cease operating too soon. Training is seen as one way to prevent this; however, SBOMs are reluctant to participate in training, because they give priority to their business operations, perceive training as having a poor ROI, often have a negative perception of training and education or training does not meet their needs. In order to engage a greater number of SBOMs in training and learning opportunities, training must meet their needs for informal, networked-based, experiential learning, while simultaneously eliminating the reasons that they cite for not attending formal training.

It is important that the training or learning provided be based on contemporary learning theory. This chapter explored the development of learning theories, from traditional behaviourist learning theory to more contemporary constructivist learning approaches. This section on learning theories has finished with an overview of the most contemporary theories—heutagogy and connectivism—specifically designed for online learning. While the contemporary theories offer specifics for online learning, they have limited empirical support; as such, this research is grounded in the learning principles of social constructivism. The possibility of providing online learning for SBOMs that meets their learning needs while simultaneously mitigating the reasons they cite for not attending formal face-to-face training are explored in Chapter 3.
Chapter 3: Literature Review Part II

3.1 Introduction

In this chapter the review of the related literature is continued. The review first covers the growing literature on online learning, the term being defined and the different models that can be adopted described. The benefits and limitations of online learning are explored. This is done to firmly establish the importance of interaction online. This is followed by an exploration of the advantages and disadvantages of using an ODF as a means of providing participant interaction. This chapter concludes with the literature from three areas being drawn together: small business owner-managers (SBOMs) learning preferences; learning theory; and the use of an ODF to provide justification for this PhD study to investigate the use of an ODF as an alternative to formal face-to-face training for SBOMs.

3.2 Online Learning

Online learning has become a widely accepted approach for the provision of training and education (Shih, Feng & Tsai, 2008; E. T. Welsh, Wanberg, Brown & Simmering, 2003). In this section online learning is defined, and two models of online learning are outlined, before the benefits and limitations of online learning are explored. Some principles of online learning, to promote and encourage learning are noted in the conclusion.

However, to date much of the research regarding online learning has focused on the higher-education sector, including research by De Latt and Lally (2005), Guri-Rosenblit (2005), Picciano (2006) and Reeves, Herrington and Oliver (2004). As such, much of the literature covered in this chapter draws from that context and SBOMs are a very different cohort to university students who are the subjects of the majority of online-learning research. Student participation in online learning, in particular, participation in ODF is often a mandated component and marks (credit) are the rewards (external
motivation). No such external motivation is available for SBOMs who voluntarily chose to participate in this research. As such, motivation to participate is internal, that may result in very different patterns of participation.

3.2.1 Definition of Online Learning

Online learning is an umbrella term which is used to describe any learning experience or environment that is conducted on an Internet connected computer (Creations, 2007; Intelera, 2004). Rudestam and Schoenholtz-Read (2010) note a difficulty in this area is developing a clear sense of the literature on online learning because of the plethora of terms that are used to describe the experience. There are multiple terms which are used interchangeably within the literature to describe online learning, including e-learning, e-education, Internet-based training, distributed learning, network learning, technology based learning, distance learning, computer based learning, or web-based training (Easton, 2003; Rudestam & Schoenholtz-Read, 2010; Shih et al., 2008; E. T. Welsh et al., 2003). All of these terms share at least some characteristics with online learning. A plethora of definitions exists from broad to more comprehensive and detailed explanations of online learning, for example:

As a technical term, online learning encompasses a range of technologies such as the world-wide-web, email, chat, newsgroups, and text, audio and video conferencing delivered over computer networks (local area networks, intranets or the public Internet) to deliver education and training, both remotely and in the classroom (Backroad Connections Pty Ltd, 2003, pp. 4–5)

According to Stockley (2006) it is the delivery medium that is used to distinguish e-learning from online learning (or online training/education). Stockley (2006) emphasises that online learning involves using the Internet or an Intranet, excluding other electronic mediums, such a DVD’s, and CD ROM. In this thesis online learning refers to training, education and learning that is delivered exclusively via the Internet.

3.2.2 Models of Online Learning

A number of different models of online learning exist; (Bonamy & Hauglusliane-Charlier, 1995; Hannum, 2001; McConnell, 2006), essentially they all place online
learning models on a continuum. At one end of the continuum is the web-publishing model. In this model the Internet is used to distribute content anytime, anywhere to any person. The view here is that the Internet can assist with the publishing of information to be acquired. At the other end of the continuum is the ‘communication model’. In this model the Internet is viewed as a way to facilitate communication and learning with any person, anytime, anywhere.

Bonamy and Hauglusliane-Charlier (1995) and McConnell (2006) suggest that there are three distinct views of online learning. That is, two ends of a continuum and somewhere in the middle. These will be referred to in this thesis as the web-publishing model, the web-publishing-plus-discussion model and the discussion model. A summary of these three online-learning models is outlined in Table 3.1.

The web-publishing model replicates a traditional face-to-face classroom, but online. In this approach, control of the learning is with the teacher or expert, and the emphasis is on the acquisition of knowledge. There is little, if any, participant interaction. There is a set body of knowledge to be transmitted; participants are expected to study, learn the body of knowledge and present it back to the teacher, usually through examinations (Bonamy & Hauglusliane-Charlier, 1995).
Table 3.1: Three Models of Online Learning  
(adapted from McConnell, 2006, pp. 18–19)

<table>
<thead>
<tr>
<th>Underlying view of knowledge</th>
<th>Web-Publishing Model</th>
<th>Web-Publishing plus Discussion Model</th>
<th>Discussion Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge exists independently of the student.</td>
<td>Knowledge exists independently of the student</td>
<td>Knowledge is constructed collectively</td>
<td>Multiple ‘truths’ and interpretations</td>
</tr>
<tr>
<td>A curriculum is put together by the teacher and is learnt by the student</td>
<td>A ‘curriculum’ is put together by the teacher and learnt by the students</td>
<td>Learning is problem-based or issue-based</td>
<td></td>
</tr>
<tr>
<td>Interpretation can be very limited or not expected</td>
<td>Limited room for interpretation and creativity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student receives material and is expected to learn independently</td>
</tr>
<tr>
<td>Individualism</td>
</tr>
<tr>
<td>Transmission or dissemination</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role/View of student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive receiver of knowledge</td>
</tr>
<tr>
<td>All students viewed as the same and all given the same learning material</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role/View of teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher is ‘expert’, controller and arbiter of knowledge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral, by teacher</td>
</tr>
<tr>
<td>External criteria used</td>
</tr>
<tr>
<td>Exams given</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation</td>
</tr>
<tr>
<td>Some personal development</td>
</tr>
</tbody>
</table>

61
The view that sits in the middle of the continuum is the web-publishing-plus-discussion model. With this model, the control and responsibility for learning resides with each student, for personal and professional development. Knowledge exists externally to the students, but there is some room for interpretation and creativity. In this model, the teacher is an expert and is viewed as a moderator (McConnell, 2006).

The discussion model has knowledge building as its focus. With this model, attention is on the individual and collective knowledge building. Reification of knowledge is from the collective expertise of the students. With the discussion model, the teacher is a facilitator, co-expert who helps in development of the knowledge base (McConnell, 2006).

Notably, the two models at either end of the continuum—the web-publishing model and the discussion model—have developed from two distinct learning theories. The web-publishing model is based on behaviourist learning theory (see Section 2.3.2.1), which purports that there is a fixed body of knowledge to acquire, that learning is about the acquisition of facts and instruction is through transmission and presentation (Woolfolk & Margetts, 2010). The discussion model is based on a constructivist learning theory (see Section 2.3.2.2), which suggests that knowledge is socially constructed and built from what participants contribute and construct together. According to this model, learning occurs through socially constructed opportunities, and instruction is through co-construction with participants. The instructor is a facilitator, a guide, a co-participant.
However, regardless of the online model applied and the theory from which it is derived, there are associated benefits. The benefits of online learning are described in the following section.

3.2.3 Benefits of Online Learning

The benefits of online learning are well documented, particularly within the higher-education sector. The literature discusses a number of benefits of online learning; these include improved access to learning, improved quality of learning, reduced costs and improved productivity. The benefits of online learning are summarised in Table 3.2.

3.2.3.1 Learning Anywhere, Anytime

The most recognised benefit of online learning, when compared to traditional face-to-face training and education, is that it offers learning anywhere, anytime (Abdelraheem, 2005; Beamish, Armistead, Watkinson & Armfield, 2002; S. M. Gilbert & Jones, 2001; Morrison, 2001; Phillips, 2001), assuming the participants have access to a networked computer (or other web-enabled device). Online learning enables participation independent of time and place, enabling the opportunity to take part 24 hours a day, 7 days a week, regardless of geographic location (Al-Bataineh, Brooks & Bassoppo-Moyo, 2005). In addition, participants have access to a broader range of subjects and content because access is not limited by physical proximity, since providers can be located anywhere (Aydin & Tasci, 2005).

Moreover, online learning provides a flexible structure where learning can be carried out ‘just in time’ to address the needs of the individual as he or she needs to know (Al-Bataineh et al., 2005; Beamish et al., 2002; Morrison, 2001). Learning when individuals need to know is an important adult-learning principle as recognised by andragogy (Knowles et al., 2005) (see Section 2.3.3.1). In addition, a flexible structure allows learning to be done in short blocks of time, in the office or at home (S. M. Gilbert & Jones, 2001), and at the individual’s own pace (Abram, 2005; Al-Bataineh et al., 2005).
3.2.3.2 Learning Quality

Research suggests that people can and do learn online (E. T. Welsh et al., 2003). However, there is debate about the effect that online technology has on learning. Does it improve learning or is it detrimental to learning outcomes? This section discusses both sides of the debate about the quality of online learning. Many of the studies in this section compare online learning with traditional classroom-based education, that is, media-comparison studies.

Kluik and Kluik (1991) found some support for computer-based instruction improving learning outcomes in some short courses with limited technical content. Kluik and Kluik’s (1991) analysis of adult-learning studies found that the average standardised difference between computer-based training learning outcomes and classroom-based learning outcomes was a quarter (0.25) of a standard deviation higher on post-tests than did learners in a traditional face-to-face classroom. Similar support is found in a meta-analysis published by the United States Department of Education (Means, Toyama, Murphy, Bakia & Jones, 2009). The authors conclude that of the 51 studies included in their meta-analysis, 44 of which were drawn from research with older learners, ‘Students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction’ (Means et al., 2009, p. xiv). A meta-analysis of job-related courses, comparing face-to-face with online web-based learning by Sitzmann, Kraiger, Stewart and Wisher (2006) also found online learning improved declarative-knowledge outcomes when compared with traditional face-to-face classrooms. In short, a few rigorous studies have demonstrated that online learning can provide superior learning outcomes to those of traditional classroom-based learning environments.

However, Clark (1983) argues that learning differences cannot be ‘unambiguously attributed to any medium of instruction’ (p. 457). He suggests there are other factors that may confound results, including the accompanying curriculum reform, instructional method and the novelty factor (R. E. Clark, 1983). In his research in this area, he has argued that when online is compared to traditional face-to-face (media comparisons),
very few studies can demonstrate any clear differences in the quality of learning obtained (R. E. Clark, 1994).

Studies by Bernard et al. (2004) and Tallent-Runnels et al. (2006) regarding the effectiveness of online learning provide strong empirical support for Clark’s (1994) declaration. Bernard et al.’s (2004) meta-analysis of the 232 articles published between 1985 and 2002 compares online distance education to face-to-face classrooms. They report that ‘overall results indicated effect sizes of essentially zero on all three measures’ (Bernard et al., 2004, p. 379), which include student achievement, attitude and retention. That is, there was no difference, overall, between the learning outcomes of students in online distance education and those in face-to-face classrooms. However, they do report that there was significant variability across studies (Bernard et al., 2004). They point out that some online distance education was much more effective than face-to-face classrooms, and vice versa. This suggests, as Clark (1983) reported, that other factors, in addition to media differences, determine the quality of learning.

The second study, a literature review by Tallent-Runnels et al. (2006), compared and contrasted 76 articles regarding online learning in a range of journals published by ERIC, PsychINFO, ContentFirst, Education Abstracts and WilsonSelect. They examined course environment, learners’ outcomes, learners’ characteristics and institutional and administrative factors. The study concluded that ‘overwhelming evidence has shown that learning in an online environment can be as effective as that in traditional classrooms’ (Tallent-Runnels et al., 2006, p. 116). However, they do not claim that an online environment is better.

Thus, while there is some evidence that online learning may provide a learning experience that is better than traditional face-to-face offerings, caution must be exercised due to the numerous confounds (Clark, 1994). However, what can be said is that the online environment can provide for learning outcomes that are at least equivalent to the outcomes achieved in face-to-face classrooms, and it does so in a way that allows learners flexible access to content at any time and from any place.
3.2.3.3 Reduced Cost

The reduced cost of learning online (compared with face-to-face) is often portrayed as a benefit and a reason for its adoption within organisations (Aydin & Tasci, 2005; Gee & Farb, 2005; Mackay & Stockport, 2006; Munro, 2005; Rubenstein, 2003). Cost savings can be direct, such as reduction in costs associated with travel to and from the training location (Beamish et al., 2002; Tyler, 2001), or indirect, such as time away from the business (E. T. Welsh et al., 2003).

Although the reduced cost of online learning is often portrayed as a benefit (Aydin & Tasci, 2005; Gee & Farb, 2005; Mackay & Stockport, 2006; Munro, 2005; Rubenstein, 2003), empirical evidence is limited, according to Welsh et al. (2003). However, there is evidence that savings can be achieved:

Dow Chemical, which estimates that it saved $30 million in 2000 by implementing an asynchronous, Web-based system (Dow Chemical Company, 2002 Enterprise Value Awards, 2001). Approximately $20 million of the savings was due to a reduction in the time employees spent in training, with the additional $10 million of savings due to a reduction in administrative time, cost of classroom facilities and facilitators, and cost of printed materials (as cited in E. T. Welsh et al., 2003, p. 249).

The initial investment for development of interactive online learning for an organisation can be high, because such cost savings are not automatic (Waller, 2004; E. T. Welsh et al., 2003). However, E. T. Welsh et al. (2003) qualify this caution regarding costs by suggesting that if there are large numbers of geographically dispersed learners, and the course will be repeated, online learning has the potential to be less expensive than classroom-based training.

This benefit of reduced cost is related to formal course-based learning (see Section 3.2.3.3). It is likely that this benefit would be reduced with the informal learning proposed by this thesis, where there are no direct costs.
3.2.3.4 Improved Efficiency

The 24/7 availability of online learning allows participants to access learning opportunities as required, enabling them to keep up with accelerating rate of change (Morrison, 2001). Berke and Wiseman (2003) promote online learning as enabling efficient use of time and therefore the potential to increase productivity. However, no evidence is provided to support this claim. The just-in-time nature of online learning enables learners to learn when it is needed without having to wait until the next offering of the course as they would in a face-to-face situation (Munro, 2005). This might improve efficiency. According to Pantazis (2002), this availability of ‘[h]igh quality e-learning can improve speed to capability by significantly reducing the amount of time it takes to train workers on new products and process’ (pp. 21–22). This availability enables improved efficiency, ensuring that organisations have productive, capable staff when required.

3.2.3.5 Summary of the Benefits of Online Learning

The benefits of online learning have been highlighted in this section. The benefits of online learning are summarised in Table 3.2. When all of these cited benefits are implemented, online learning then has the potential to create a learning experience for participants that could be akin to that which Waller (2004) describes:

In every situation where e-learning was used it would be fun to use; it would contribute to reducing overall costs, and everyone would start and finish whatever it was the course required. It would all be delivered seamlessly and faultlessly because broadband would be ubiquitous, and the learning would be comprehensively tracked and monitored since learning management systems (LMS) would be affordable to all. The quality of the all e-learning content would be assured because it would have been designed using the best practice that had been derived from the myriad of experiences of the world’s learning professionals. All e-learning content would work with any supporting software systems since international accepted standards had long since been established. The e-learning content would be blended with other training delivery methods in the most appropriate portions—the right proportion of e-learning, distance learning, instructor-led training, coaching, mentoring and so on, appropriate to the subject material. Everyone would be so imbued with the positive experience of
learning delivered via a computer that no one would think twice about learning this way (p. 30).

Waller (2004) describes an online-learning ‘paradise’ that is yet to be achieved. A number of limitations of existing online-learning offerings are outlined in the following section.

**Table 3.2: Benefits of Online Learning**

<table>
<thead>
<tr>
<th>Benefits of Online Learning</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improved Access to Learning</strong></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td>T. Anderson (2008); Gilbert &amp; Jones (2001); Abdelraheem (2005); Morrison (2001); Phillips (2001); Beamish et al. (2002); Motteram &amp; Forrester (2005); Al-Bataineh et al. (2005); Tyler (2001)</td>
</tr>
<tr>
<td>Learning can be independent of time and place</td>
<td></td>
</tr>
<tr>
<td>The ability to learn anywhere and at anytime, regardless of geographic location</td>
<td></td>
</tr>
<tr>
<td>Flexible learning structure</td>
<td></td>
</tr>
<tr>
<td>Learning when the learner requires it</td>
<td>T. Anderson (2008); Tyler (2001); Waller (2004); Morrison (2001); Beamish et al. (2002); Al-Bataineh et al. (2005); Gilbert &amp; Jones (2001); Motteram &amp; Forrester (2005)</td>
</tr>
<tr>
<td>E-learning can provide just-in-time training and online reference tools that can be completed in short session</td>
<td></td>
</tr>
<tr>
<td>Worldwide</td>
<td>T. Anderson (2008); Tyler (2001); Aydin &amp; Tasci (2005)</td>
</tr>
<tr>
<td>Participants have access to broad learning opportunities, because participation is not restricted by geographical location</td>
<td></td>
</tr>
<tr>
<td><strong>Learning Quality</strong></td>
<td></td>
</tr>
<tr>
<td>Provides learning that is equal to face-to-face learning, but enables flexibility</td>
<td>Al-Bataineh et al. (2005); Abram (2005); Tyler (2001); Phillips (2001); S. M. Gilbert &amp; Jones (2001); Munro (2005); Bernard et al. (2004); Tallent-Runnels et al. (2006)</td>
</tr>
<tr>
<td><strong>Reduced Cost</strong></td>
<td></td>
</tr>
<tr>
<td>Cost savings and reduced opportunity cost</td>
<td>Tyler (2001); Berke &amp; Wiseman (2003); Beamish et al. (2002); Gilbert &amp; Jones (2001); Munro (2005); Swanson (2001)</td>
</tr>
<tr>
<td><strong>Improved Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>Enables learning that uses time efficiently, providing more productive and capable staff</td>
<td>Morrison (2001); Aydin &amp; Tasci (2005); Berke &amp; Wiseman (2003); Munro (2005); Pantazis (2002); Swanson (2000)</td>
</tr>
</tbody>
</table>
3.2.4 Limitations of Online Learning

Notwithstanding the many benefits of online learning, it is not without its limitations. Online learning is still in its infancy, and research to support the development, design and implementation of online applications in education and training is still emerging. There is much to learn as this area develops. Many of the disadvantages of online learning outlined in this section represent opportunities for the future improvement of online learning.

There are numerous issues associated with online learning; it is suggested here that many emerge from poor design rather than from any inherent flaw in online-learning technology.

3.2.4.1 Evolved from the Distance-Education Model

The development and implementation of online learning within the training and education sector has been an evolution, not a revolution. The majority of online learning has evolved from a distance-education model (Abdelraheem, 2005; Bernard et al., 2004; Motteram & Forrester, 2005; Rumble, 2001; Segrave & Holt, 2003; Stockley, 2006), with evolution continuing to occur as communication technologies improve. Initially, distance education was offered through correspondence, then via radio, followed by television and, most recently, through the use of personal computers that were initially stand alone but are now interconnected via the Internet (Bernard et al., 2004; Rumble, 2001). In addition, the Internet has become even more accessible through mobile devices with network accessibility, such as laptops, iPhones and iPads.

However, these changes have been driven by the development of communication technologies, rather than by innovative changes in pedagogy (Rudestam & Schoenholtz-Read, 2010). As a result, online learning has, in many instances, replicated the ineffective methods that limit face-to-face teaching (Turoff, 1995). This idea is supported by Conole, Dyke, Oliver and Seale (2004) who state, ‘Much of the current e-learning [online learning] development represents little more than transfer of didactic
approaches online, the ‘web page turning mentality’ linked to assessment and feedback’ (p. 19).

Two design imperatives of distance-education models are embedded in many online-learning offerings: (1) the need to improve access to education and (2) the desire to apply sophisticated technology in the development and delivery of distance-education offerings (Australian National Training Authority, 2001). As such, many online-learning models emulate the one-way distance-education model of sending material students, receiving back completed assignments and providing only limited one-to-one communication between the instructor and the learner (Hiltz, 1998). In what Hiltz (1998) terms the ‘mass market’ model of online learning, web pages replace lectures, and email replaces surface mail for correspondence, but it is the same pedagogical model.

3.2.4.2 Technology not Pedagogy

Many education and training courses have been moved online to take advantage of the technology with limited, if any, consideration of the teaching and learning practices, or pedagogy (Hamid, 2002; Mackay & Stockport, 2006; Norton & Hathaway, 2008; Roffe, 2002; Schroeder, 2006; Segrave & Holt, 2003; Yoo, Kanawattanachai & Citurs, 2002). Roffe (2002) explains that e-learning has placed too much emphasis on the ‘e’ (being electronic) and suggests that greater attention should be placed on other words beginning with ‘e’, such as engagement, enhancement and execution, which better support and encourage learning, as opposed to simply focusing on the application of technology.

Undoubtedly, ‘Technology should enrich the experience of learning’ (Weigel, 2002, p. 1), but to date there is no agreed pedagogy for online learning (Norton & Hathaway, 2008). As such, online learning is not supported by appropriate pedagogical principles and theoretical foundations (Schroeder, 2006), with many applications of online learning applying the traditional pedagogical model to new technology (Jochems, van Merrienboer & Koper, 2004; Phillips, 2001). Chalofsky (2005) synthesises this sentiment by concluding, ‘Technology may have changed the way we deliver learning,
but we still view learning with behaviouristic or outcome mentality’ (p. 54). To maximise the online-learning experience, it is important that old models of pedagogy are reconstructed in light of the new online tools (Palloff & Pratt, 1999).

Attention to quality course design is crucial (Bernard et al., 2004). Emphasis should be on the design of the course rather than on the technology. According to Norton and Hathaway (2008), online tools promise highly interactive learning, which institutions can customise to meet the individual needs of students. However, many institutions continue to rely on the provision of online course content only (Dirkx & Smith, 2004). The concern is that failure to develop a learning pedagogy that fully realises the potential of online technology may impede its development and acceptance as a valid learning approach.

Therefore, while online learning is promoted as being capable of revolutionising the world of learning, it would appear that to date it has been more of an evolution than a revolution. This progressive evolution of the use of technology to improve access to education might also provide perspective as to why other issues (discussed below) developed and why, in many instances, they still exist.

3.2.4.3 Electronic Repository

Many online-learning courses use technology to provide only an electronic repository of information (Dobbs, 2000; Herrington, Reeves & Oliver, 2005; Norton & Hathaway, 2008; Oliver & McLoughlin, 1999; Oliver & Omari, 2001). Courses are little more than page-turners (i.e. an online book) replicating print documents online, with instructors simply posting PowerPoint slides or putting lectures into text and posting it to the Internet (Aldrich, 2003; C Collins, D Buhalis & M Peters, 2003; Easton, 2003; Lee, 2009; Morrison, 2001; Waller, 2004). A number of authors have criticised this approach (Hamid, 2002; Herrington et al., 2005; Morrison, 2001; Oliver & Omari, 2001; Yoo et al., 2002), arguing that it does not provide a cogent learning experience. Replicating print documents online amounts to little more than e-reading (Lee, 2009) or, as Palloff and Pratt (2010) declare, a lecture simply becomes another article that students need to read.
This electronic repository of information approach has evolved as many online-learning environments, particularly in higher education, have attempted to simply replicate the traditional transmission model of teaching and learning (Mayes & de Freitas, 2005; Oliver & Omari, 2001; Reeves, Herrington & Oliver, 2004; Rudestam & Schoenholtz-Read, 2010; Rumble, 2001). Levine and Sun (2003 as cited Norton & Hathaway, 2008) take this point further, arguing that online versions of the traditional classroom model are often poor imitations of a model that centres on information being provided by the instructor during lectures or presentations and supported by printed course material (McInerney & Roberts, 2004), a model based on traditional behaviourist or cognitive approaches to teaching and learning (McFadzean, 2001). Many education and training providers offer variants of ‘post-a-lecture’, the idea being to put the traditional classroom approach on the Internet in the most efficient way possible.

This online model appears to assume that the mere provision of information online automatically transforms information into meaningful useful knowledge (Guri-Rosenblit, 2005). As Guri-Rosenblit (2005) points out, ‘In the sweeping enthusiasm for the endless possibilities of accessing remote databases and resources, somehow the essential distinction between information and knowledge has been blurred and confused’ (p. 17), without considering that this approach is unlikely to develop problem-solving and critical-thinking skills in learners (Alavi, 1994).

3.2.4.4 Limited Social Interaction

Many online training and education courses offer limited social interaction (C. Collins et al., 2003; Mackay & Stockport, 2006; Segrave & Holt, 2003). Interaction is a key element for promoting learning, according to constructivist and adult-learning theory (see Section 2.3.2.3). Many online-learning solutions are seen as replacements for traditional face-to-face instruction. Based on behaviourist learning theory, such solutions can discourage or eliminate opportunities for learning from others. For most people, learning is a social process and, to fulfil this human need, interaction is required (Osberg, 2002). Hence, online asynchronous discussions are increasingly being
recognised as an essential part of the online-learning experience (Moisey, Neu & Cleveland-Innes, 2008).

3.2.4.5 Technology Thwarts Enthusiasm

Notwithstanding one of the most widely cited benefits of online learning is its ability to provide access to learning 24 hours per day, 7 days a week (see Section 3.2.3.1), at times technology can thwart participants’ enthusiasm for learning online (S. M. Gilbert & Jones, 2001; Motteram & Forrester, 2005). Similar observations were made by Cawthon and Harris (2007), who discuss how the success of online learning depends on functioning technology. Cawthon & Harris (2007) found that technology problems were a key factor in communication breakdown between participants and the teacher in online learning. Thus, while technology provides greater access to learning opportunities, it must be reliable or participants’ enthusiasm for online learning will quickly dissipate.

3.2.4.6 Quality of Learning

There is concern regarding the quality of the online learning being offered (Norton & Hathaway, 2008; Segrave & Holt, 2003). Despite claims that online learning can improve the quality of learning, Mackay and Stockport (2006) report that limited interaction in most online-course design limits learning. Others recommend caution regarding the use of online technology for learning, highlighting that it is new and there is still much to be learnt about how to use it effectively for learning (Garrison, 2003). This is particularly the case within the higher-education sector where, it is suggested, the web-publishing model can affect the resultant learning (Segrave & Holt, 2003). Munro (2005) reports that the best current evidence is that technology is a vehicle that delivers instruction but it does not influence learning. In order for online learning to improve learning outcomes, course design must be considered (Sitzmann, Ely & Wisher, 2007). As such, a move from a web-publishing model to a discussion model (see Section 3.3) appears critical.
3.2.4.7 Hinders Productivity

Claims of online learning’s convenience, flexibility and accessibility (see Section 3.2.3) abound; however, do these benefits improve productivity? (S. M. Gilbert & Jones, 2001; Stewart & Alexander, 2006b). Questions have been raised about the suitability of online learning in the workplace where being able to learn at your desk precludes individuals from leaving the operational demands associated with the job. This can result in interruptions and an inability to complete the online learning. As Wenger (2001) acknowledges, ‘It is always possible to participation[sic], but by the same token, there is never a special occasion to participate’ (p. 48). Unlike a structured face-to-face training course where participants are required to commit a set amount of time to attend, online learning enables participants to take part whenever convenient, which may result in other priorities intervening in their intentions to partake online. Gilbert and Jones illustrate:

Employees working on a course in their own cubicle could be interrupted by co-workers, phones, and passing traffic. Someone might also misperceive an employee to be playing on the computer, when in reality he or she is taking an interactive e-course. And if there’s an audio component to the class, it could distract neighbouring cubicle residents. Co-worker distraction is one of the reasons traditional training often occurs off-site, after all (2001, p. 82).

Thus, despite the ease of 24 hours per day 7 days a week access to online-learning material from any networked device, this advantage does not always result in improved learning participation. It appears that the most often cited benefit of online learning might be detrimental in terms of participation: with so much flexibility offered online in terms of when, where and how individuals can participate, they sometimes do not commit the time to do so.

3.2.4.8 Self-Directed

Learning online by oneself requires the learner to be self-directed. Self-direction has been described in the literature in a variety of ways, including self-management, self-discipline and self-regulation (C. Collins et al., 2003; Norton & Hathaway, 2008; P. J.
Smith, 2003; Stewart & Alexander, 2006b). The need for self-direction is not new; it has been recognised throughout the distance-education literature and informal adult learning (see Section 2.3.5.2) as a key factor in learning success (Boote, 1998; Brookfield, 1984; Garrison, 1997; Kember, 1995; P. J. Smith, 2003).

Moreover, being self-directed has been recognised as a significant prerequisite for adults to manage post-secondary learning (Warner, Christie & Choy, 1998). That is, adults are required to ‘exercise choice in what, when, where and how they learn’ (Warner et al., 1998, p. 20). This can be difficult in an online environment. Norton and Hathaway (2008) explain how participants in their research found the demands of managing their time and workload were far more difficult than anticipated; specifically, the ‘issues of coping with a demanding workload and unanticipated time commitments’ (p. 485) affected the participants’ perception of learning online.

Yet, despite the importance of being self-directed for adult post-secondary learning, Warner et al.’s (1998) research with 542 vocational learners revealed that more than 70 per cent of Australian vocational education and training (VET) learners are not sufficiently self-directed to cope with flexible learning. This suggests that although being self-directed is considered important for success in many adult-learning options, including flexible, online and informal, it cannot be assumed that all adults possess this trait. Thus, while online learning offers significant learning flexibility, participants must be self-directed to manage their participation and learning.

3.2.4.9 Summary of Limitations of Online Learning

Online learning has developed from a distance-education model (see Section 3.2.4.1), which has resulted in an attempt to replicate traditional classroom pedagogy, online. This approach to online learning has resulted in a number of issues associated with online learning, as summarised in Table 3.3. However, perhaps these issues largely stem from poor design rather than an inherent flaw in online learning. To address these issues, online-learning design needs to maximise the use of the online-learning technology available, which will require a shift in pedagogy and the underlying epistemology (Rudestam & Schoenholtz-Read, 2010).
Table 3.3: Summary of Online-Learning Issues

<table>
<thead>
<tr>
<th>Online-Learning Issues</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evolved from Distance-Education Model</strong></td>
<td>Abdelraheem (2005); Bernard et al. (2004); Motteram &amp; Forrester (2005); Rumble (2001); Segrave &amp; Holt (2003); Stockley (2006)</td>
</tr>
<tr>
<td>Online learning largely evolved from a distance-education model, which may have limited its potential</td>
<td></td>
</tr>
<tr>
<td><strong>Technology not Pedagogy</strong></td>
<td>Hamid (2002); Mackay &amp; Stockport (2006); Norton &amp; Hathaway (2008); Roffe (2002); Schroeder (2006); Segrave &amp; Holt (2003); Yoo et al. (2002)</td>
</tr>
<tr>
<td>Online-learning applications driven by the technology with limited consideration of teaching and learning practices (pedagogy)</td>
<td></td>
</tr>
<tr>
<td><strong>Electronic Repository</strong></td>
<td>Aldrich (2003); C Collins et al. (2003); Easton (2003); Lee (2009); Morrison (2001); Waller (2004)</td>
</tr>
<tr>
<td>Predominance of page-turners (i.e. an online book) as a tool for e-learning</td>
<td></td>
</tr>
<tr>
<td>Large quantities of electronic materials</td>
<td>Stewart &amp; Alexander (2006b); Dobbs (2000); Herrington et al. (2005); Norton &amp; Hathaway (2008); Oliver &amp; McLoughin (1999); Oliver &amp; Omari (2001)</td>
</tr>
<tr>
<td>Limited social interaction built into e-learning</td>
<td></td>
</tr>
<tr>
<td><strong>Technology Thwarts Enthusiasm</strong></td>
<td>Cawthon &amp; Harris (2007); Motteram &amp; Forrester (2005)</td>
</tr>
<tr>
<td>Technological challenges thwart enthusiasm</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of Learning</strong></td>
<td>Mackay &amp; Stockport (2006)</td>
</tr>
<tr>
<td>Not delivering satisfactory results</td>
<td></td>
</tr>
<tr>
<td>Interruptions from co-workers</td>
<td>S. M. Gilbert &amp; Jones (2001)</td>
</tr>
<tr>
<td>Inadequate attention to the learning process</td>
<td>Mackay &amp; Stockport (2006)</td>
</tr>
<tr>
<td><strong>Hinders Productivity</strong></td>
<td>S. M. Gilbert &amp; Jones (2001)</td>
</tr>
<tr>
<td>Operational aspects of work can be a distraction</td>
<td></td>
</tr>
<tr>
<td>Audio content can distract others</td>
<td>S. M. Gilbert &amp; Jones (2001)</td>
</tr>
<tr>
<td>Participants feel isolated or lonely</td>
<td>Dyrud (2000) as cited in Bocchi, Eastman &amp; Owens Swift (2004); Stewart &amp; Alexander (2006b)</td>
</tr>
<tr>
<td><strong>Self-Directed</strong></td>
<td>C. Collins et al. (2003); Norton &amp; Hathaway (2008); P. J. Smith (2003); Stewart &amp; Alexander (2006b)</td>
</tr>
<tr>
<td>Limited feedback and support from facilitator, which leads to low levels of participant motivation</td>
<td></td>
</tr>
<tr>
<td>Self-discipline</td>
<td>Stewart &amp; Alexander (2006b)</td>
</tr>
</tbody>
</table>
3.2.5 Principles of Online Learning

Notwithstanding the limitations raised in the previous section, it is thought that the appropriate use of online technology may assist in providing greater access to learning opportunities. Effective online courses are not merely Internet versions of traditional classroom instruction; rather, they utilise the advantages of the Internet by incorporating interaction through social collaboration and encourage learners to be active (Sitzmann et al., 2007). This requires a move from the web-publishing model to a discussion model based on contemporary learning theories, which stress personal reflection, knowledge construction as a social process, and problem-based orientation (Tynajälä & Häkkinen, 2005).

According to Kanuka and Anderson (1998), social constructivism (see Section 2.3.2.3) is a widely accepted epistemological position associated with online learning. In this view, knowledge is generated through social intercourse, and it is through this interaction that learners advance their level of knowing (Kanuka & Anderson, 1998). The Internet offers a ideal platform for social constructivist approaches (McMahon, 1997), as it enables the development of a learner-centred, environment that is authentic, collaborative, and supportive of reflective and experiential processes (Jonassen et al., 1995).

The use of online technology to support social constructivist teaching approaches allows providers to go beyond the simple provision of information (web-publishing model) from instructor to student, enabling students and facilitators to develop meaning, understanding and relevant practice together (Jonassen et al., 1995). The importance of this is clarified by McCombs and Vakili (2005):

Furthermore, in the 21st century world, content is so abundant as to make it a poor foundation on which to base an educational system; rather, context and meaning are the scarce but relevant commodities today. This alters the purpose of education to that of helping learners communicate with others, find relevant and accurate information for the task at hand, and be co-learners and partners with teachers and peers in diverse settings and learning communities that go beyond school walls (p. 1582).
In such an environment, participants are encouraged to engage in learning: to discuss, argue, negotiate ideas and collaboratively solve problems (Ruey, 2010). This approach to learning is considered particularly appropriate for adults with their rich life and work experience, and the social, situated nature of learning through practice provides for authentic learning (Ruey, 2010).

However, it is important to recognise that the SBOMs in this research differ from higher-education students, who are the subject of most online-learning research to date. In particular, SBOMs’ participation is voluntary whereas students’ participation is often mandated by the allocation of course marks.

3.2.5.1 Relevant and Authentic

According to Huang (2001), constructivist theory emphasises that learning should be authentic and that learning needs to meet real-life experiences. In this view, learning is promoted and encouraged by solving relevant and authentic real-world problems. It is through the process of solving problems that learners construct their own knowledge. It is important that the learning environment has relevant, realistic and authentic tasks that represent the natural complexities of the real world (Murphy, 1997).

Adult learners desire to learn skills connected to their work experience. Thus, learning should be based on their own work and life experiences (Huang, 2001). Therefore, the online-learning experience must provide for real-world problems, events or issues that appeal and are meaningful to adult learners, to enable the development of meaningful and authentic knowledge (Huang, 2001).

In addition, it is important that participation result in deep learning. Learning researchers report that when learning is situated in real-world settings and focused on authentic problems that have meaning for participants, they develop a deeper understanding of the material (Bruckman, 2002). This research aims to provide a learning experience that is relevant and authentic and that encourages a deep understanding.
3.2.5.2 Interaction and Reflection

Constructivist learning theory purports that knowledge is constructed by the learner, based on mental activity. Mental activity is promoted through engaging in interaction with others. That is, individuals learn better by working and discussing with others than they would on their own (Cheetham & Chivers, 2001b; Laurillard, 2002; Wang, Hinn & Kanfer, 2001). The principle here is that knowledge is constructed, not transmitted (EduTech, 2011). Based on this, interaction has come to be regarded as a significant factor in facilitating and consolidating learning (Garrison, 1997; Laurillard, 1993). Thus, the design of online learning must provide interaction to support learners to actively construct knowledge (Lefoe, 1998).

It is through interaction that learners are exposed to multiple perspectives and interpretations, which can stimulate deeper and more critical reflection by learners (Koschmann 1994 as cited in Hodgson & Watland, 2004b). It is by reflecting on experiences that learners construct their own view of the world—a key aspect of learning (Boud et al., 2006; Cope, 2003; Cope & Watts, 2000; Merriam et al., 2007; Sorensen, 2004). Reflection is defined as the more or less deliberate and conscious process of interpreting and making sense of experience (Boud et al., 2006). It is this conscious reflection that is the crucial element in turning experience into learning (Boud et al., 2006; Cheetham & Chivers, 2001a). It is through reflection that each learner generates their own ‘rules’ and ‘mental models’ that are then used to help make sense of experiences (EduTech, 2011).

The incorporation of social interaction online has been recognised as an important aspect in achieving learning outcomes and reducing learner isolation (Bernard, et al., 2004; Oliver & Omari, 2001; Palloff & Pratt, 2010; Rudestam & Schoenholtz-Read, 2010). Social interaction through discussions, conversations, explanations and listening are all ways to learn by interacting with others (Southwest Educational Development Laboratories, 1999). One way to facilitate interaction online is by using ODFs, a form of computer-mediated communication.
3.3 Importance of Discussion

Key to addressing the principles of online learning (see Section 3.2.5) while reducing the limitations of the existing online-learning model (see Section 3.2.4) may reside in using a discussion model of online learning (see Section 3.3). There are many ways to facilitate this discussion model in an online environment; however, they all rely on the application of some form of computer-mediated communication (CMC).

3.3.1 Computer-Mediated Communication

CMC is a generic term that refers to communication between two or more people (who are separated geographically) via networked computers (Moisey et al., 2008; Motteram & Forrester, 2005; Naidu & Järvelä, 2006; Schwartz, 2007; J. Simpson, 2002). CMC is the exchange of messages among a group of participants by means of a networked computer for the purpose of discussing a topic of common interest (Gunawardena, Lowe & Anderson, 1997). CMC offers a wide range of applications for learning purposes, including chat (open-ended and focused), socialisation and more focused discussion of a particular subject matter.

CMC can be synchronous (live) or asynchronous (anytime) (Gee & Farb, 2005; Ingram & Hathorn, 2004; Naidu & Järvelä, 2006; J. Simpson, 2002). Synchronous CMC includes many types of text-based online chat, instant messaging and computer, audio and video conferencing. Asynchronous CMC encompasses discussion forums, mailing lists and Rich Site Summary (RSS) streams (Jonassen et al., 1995; Olaniran, 2006; J. Simpson, 2002). The many types of CMC are all capable of increasing interaction among participants, and between the facilitator and participants.

CMC is associated with numerous outcomes, including enhanced community cohesion, the development of higher-level learning and critical-thinking skills, improved academic performance and increased motivation and satisfaction with the learning experience, together with the promotion of a sense of belonging and mutual support (Moisey et al., 2008). The use of CMC requires a shift from reliance on the instructor to reliance on the
individual and other participants (Olaniran, 2006), and this can be as difficult for the participants as it is for the instructor.

3.3.2 Online Discussion Forum

One form of CMC that may have the potential for improving online-learning experiences is an asynchronous ODF. ODFs are online-learning spaces for collaboratively engaging in discussion on a topic in which participants share an interest. An ODF provides a workspace that enables participants to share information, exchange ideas, address problems and discuss particular topics or themes (Li et al., 2009). An ODF (sometimes referred to as a ‘threaded discussion forum’) allows participants to view the entire discussion. When a forum participant responds to a post, the response is ‘threaded’ to the previous entry, in much the same format as an outline (Brower, 2003). Participants can see relationships between posts and follow the flow of the conversation (Brower, 2003).

3.3.3 Advantages of an ODF

There are a number of advantages in using asynchronous ODF for encouraging and supporting learning online: (1) participation can occur anywhere anytime, (2) encourages collaboration, (3) encourages reflexivity, (4) promotes articulation and (5) supports relevant authentic learning. Each of these advantages is discussed below.

3.3.3.1 Participation Anywhere, Anytime

An asynchronous ODF enables participation 24 hours a day 7 days a week from anywhere in the world (Hammond, 2005; Harvard, Du & Xu, 2008; McFadzean & McKenzie, 2001; Moisey et al., 2008), providing the ability to link geographically dispersed participants (Motteram & Forrester, 2005), which enables a diverse range of viewpoints from different fields of expertise and perhaps cultures (Tynajälä & Häkkinen, 2005). The asynchronous nature of an ODF allows learners to participate when they have time available, with no set timetable or time commitment required.
These features are appreciated by participants, according to Tallent-Runnels et al. (2006).

3.3.3.2 Encourages Collaboration

ODFs are an excellent environment for collaborative learning. They allow participants to engage in the co-construction of knowledge through discussion (P. K. Gilbert & Dabbagh, 2005; Gunawardena et al., 1997; W. Lam, 2004). It is through such discussion that participants can articulate their own experiences and reflect on posts made by others via an ODF. Participants are able to learn from each other through sharing anecdotes and examples and taking part in debates (Moisey et al., 2008; Motteram & Forrester, 2005).

There is considerable evidence to support the use of collaboration for online learning. Research by Arbaugh and Benbunan-Fich (2006) examined the relationship between teaching approaches and learning outcomes, concluding that ‘the collaborative learning model should be the foundation upon which online courses are designed and delivered’ (p. 435). In addition, Alavi (1994), Sorensen (2004) and Tynajälä and Häkkinen (2005) all established that collaboration online enhances learning and emphasised that it promotes learning by encouraging individuals ‘to exercise, verify, solidify and improve their mental models through discussions and information sharing during the problem-solving process’ (Alavi, 1994, pp. 161–162). Tallent-Runnels et al. (2006) qualify this by stating that while asynchronous communication facilitates in-depth communication, it is not greater than that which occurs in traditional classroom-based discussion.

3.3.3.3 Encourages Reflexivity

The second advantage of an asynchronous ODF is that it allows participants time to process information, think and then formulate a response prior to posting (Brower, 2003; Hara, Bonk & Angeli, 1998; Moisey et al., 2008). This thinking time takes away the pressure that can exist in traditional classrooms, where participants usually have little, if any, time to process information and construct a suitable response. Participants in a traditional classroom are often required to provide immediate responses to the
teacher’s questions. The asynchronous nature of ODF provides time for participants to think and reflect on elements of the online discussion without the pressure of having to respond immediately (Lally & Barrett, 1999; Laurillard, 2002; Smith, 2002). Sorensen (2004) suggested that the quality of the interaction created may provide intellectual amplification as a result of the reflective nature of the online environment.

3.3.3.4 Promotes Articulation

An ODF also requires a written response, which Harvard et al. (2008) assert contributes to learning effectiveness. A written response requires participants to think through and structure their responses, which Moisey (2008) suggests promotes critical and higher-order thinking. This idea is supported by Vonderwell (2003), who found that the reliance on writing in an ODF made participants construct and express their ideas carefully. In addition, the written nature of an ODF provides a permanent record of thoughts for later reflection and debate (Hara et al., 1998). However, this may also be a disadvantage, because people with limited written communication skills might be unable to participate (see Section 3.3.4.1)

3.3.3.5 Supports Relevant and Authentic Learning

According to Merriam et al. (2007), an ODF can be used formally and informally to enhance workplace learning. An ODF provides the opportunity for individuals and groups to discuss real work-based problems, generate new ideas and get feedback from peers (Collis & Margaryan, 2004). Pozzi, Manca, Persico and Sarti (2007) assert that learners need to engage in a tangible way through the solution of a problem and, indeed, a number of studies have looked at how ODFs can be used in problem-based learning (Ronteltap & Eurelings, 2002; Uribe, Klein & Sullivan, 2003) or distributed problem-based learning (McConnell, 2002; Zumbach, Hillers & Reimann, 2004). People with a common learning goal are able to share ideas with other members of the group, whether they be internal or external to the organisation (Luppicini, 2003). This authentic communication with others can help participants to identify and solve problems related to their work (Montero et al., 2007).
An ODF provides a medium for exploring and applying new concepts and developing new skills while getting feedback from an insightful and diverse learning community. With an ODF the technology is the support system for building interpersonal relationships and mutual learning (D. Smith, 2002).

3.3.4 Disadvantages of Online Discussion Forums

Despite the many advantages of ODFs, a number of disadvantages still exist; each of these is outlined in this section.

3.3.4.1 Dependence on Written Communication Skills

The sole use of written communication means that non-verbal cues, such as gestures, smiles and tone of voice are absent (T. Anderson, Rourke, Garrison & Archer, 2001; Hara et al., 1998; Vonderwell, 2003). This leaves participants to make assumptions about the meaning of written posts. Reliance on written communication may also exclude or limit people with limited written communication skills from participating (Hara et al., 1998).

3.3.4.2 Reliance on Technology Limits Access

The reliance on technology might limit participation to those with access to networked computers and who are technically capable. Whilst not everyone has access to networked technology, most do, with recent figures indicating that 89.49 per cent of small businesses have access to the Internet (Australian Bureau of Statistics, 2011). So whilst historically access may have been limited, this issue is no longer problematic for most SBOMs. Although it should be recognised that not all SBOMs are desk based that allows for easy access to the Internet.

3.3.4.3 Personal Attributes

According to Hammond (2005), learners in asynchronous online discussions need to possess a number of key attributes to be successful. Attributes associated with online-
discussion success include an understanding of group work, self-confidence and willingness to engage with others (Hammond, 2005).

3.4 Online Discussion Forum for SBOMs

This section explains why an ODF might be an appropriate online approach for encouraging participation and learning for SBOMs. It outlines the advantages and disadvantages of an ODF in the context of SBOMs. This section concludes by linking together three key areas of literature reviewed in this chapter by demonstrating how an ODF (that meets online-learning design requirements) can simultaneously eliminate SBOMs’ reasons for not participating in formal training and address their learning preferences.

The use of an ODF based on solving real-world problems may provide an alternative learning opportunity for SBOMs, where participation does not require attendance or have significant financial cost and in which the content is learner-centred. This approach has the potential to eliminate many of the problems SBOMs mention regarding attending formal training and education courses. However, according to Morrison (2001), it does rely on an appropriate blend of people, processes and technology: requirements that may give rise to new issues for SBOMs’ participation and learning.

SBOMs’ online learning should be based on strong theoretical principles of adult learning, which suggest that learning is facilitated through three key elements: knowledge construction as a social process, a problem-based orientation and personal reflection (Tynajälä & Häkkinen, 2005). Research regarding the use of online learning for SBOMs is limited, with the notable exceptions of Moon, Birchall, Williams and Vrasidas (2005) and Sambrook (2003). Moon et al.’s (2005) research synthesised a number of key pedagogical themes identified from online- learning and management literature, including the need for learning that is active, double-loop and reflective and that incorporates interaction. While many of these research findings intuitively seem relevant to SBOMs, there is no empirical evidence to date of how this type of ODF might be used to support the informal learning that SBOMs prefer.
3.4.1 Benefits of an Online Discussion Forum for SBOMs

This section outlines the benefits of an ODF for SBOMs’ learning. It highlights how the benefits afforded by an ODF meet the learning needs of SBOMs while simultaneously addressing their stated reasons for not attending formal training.

3.4.1.1 Learning Anytime, Anywhere

Learning via an asynchronous ODF is possible at anytime from anywhere in the world through a networked device. Thus, learning via an ODF might be more convenient for SBOMs than traditional face-to-face training, because an ODF offers significantly more flexibility, in terms of when, where and how learning opportunities can be accessed (Harris, 2005). In addition, Stewart and Alexander (2006b), in their study of virtual action learning, recognised the advantages of online learning for addressing the needs of small businesses. They cite a number of reasons why online learning could provide a viable way to encourage learning within small businesses, including the flexibility and freedom for participants to work at their own pace and with less disruption to their work schedules.

An ODF enables SBOMs to participate in learning without taking time away from their business operations—one of the most often cited reasons for not attending formal training (Darch & Lucas 2002; Westhead & Storey 1996). Research on why SBOMs do not attend formal training reports that they do not have time (Darch & Lucas, 2002; Paige, 2002) or they do not have an internal labour market to cover their absences from the business (Storey & Westhead, 1997). That is, they are too busy with the operational aspects of their business (Oates, 1987; Westhead & Storey, 1996) to participate in training (see Section 2.2.6).

Thus, being able to take part in learning at anytime and from anywhere should afford SBOMs greater participation opportunities. It is suggested by Beamish, Armistead, Watkinson and Armfield (2002) and Tyler (2001) that this might be particularly important for SBOMs who find it difficult to take time away from the operational aspect
of the business to attend training. An ODF will enable SBOMs to participate from their place of business (with any networked device) during normal business hours, without the need to take time away from the business or to find cover for their absence. It is suggested that an ODF might provide an ideal alternative to formal learning ‘for busy people and busy businesses’ according to Bell (2010 p. 8).

In addition, the amount of time necessary to participate in an ODF is very flexible. Participation is voluntary and therefore the amount of time SBOMs devote to participating in an ODF is completely at their discretion. This type of flexibility should enable SBOMs to fit bite-sized pieces of learning into their busy schedules, at their own pace, without having to leave the workplace. According to Berke (2003), this flexibility allows for efficient use of time, a benefit that SBOMs may really appreciate.

ODFs allow SBOMs to communicate with others who are located elsewhere in the world (Motteram & Forrester, 2005). This allows a greater diversity of participants because individuals who are geographically dispersed can interact with each other. Thus, a significant advantage of an ODF for SBOMs’ learning is that it offers the flexibility to participate in learning, whenever they choose, from any networked device, anywhere in the world.

3.4.1.2 Resolve Real Problems

SBOMs who criticise formal training state that the logistics and content are often impractical or unsuitable for small business (Billett, 2001; Clarke et al., 2006; Gibb, 1997; Matlay, 1999; Morrison & Bergin-Seers, 2002; Paige, 2002; Storey, 2004) (see Section 2.2.6). Unlike traditional classroom approaches or the implementation of a web-publishing model of online learning, where content and material are decided by the ‘teacher’ (McConnell, 2006), an ODF enables learning that is based on what SBOMs want, or need, to learn.

The use of an ODF provides the opportunity for learners to solve real business problems, because they are able to post discussion topics and explore what is of interest and relevance to them, rather than relying on the ‘teacher’ to establish what is useful to
know (Sherratt, 2009). An ODF will enable SBOMs to ask questions regarding their real business issues and get feedback from peers (Collis & Margaryan 2004). As Blondy (2007) notes, ‘Encouraging discussion that promotes sharing of experiences and ideas in the online classroom is an excellent way to help learners identify and focus on their own learning needs’ (p. 124). An ODF will provide learning for SBOMs that can be accessed at a time and place they find convenient; thus, logistics and content will be suitable.

3.4.1.3 Network Based

Learning in an ODF is informal and relies on the sharing of tacit knowledge by a network of voluntary SBOM participants. The ODF provides SBOMs with online access to a network of likeminded others 24 hours per day 7 days a week. For SBOMs, an ODF can provide access to networks that are not available internally. For SBOMs, the ability to discuss and reflect with others is often restricted (Florén, 2003), due to a limited number of employees.

Thus, the use of an ODF will provide two important benefits for SBOMs. First, it enables SBOMs to discuss real business problems without having to leave their business operations. Second, it enables them to network with other SBOMs who, through experience, understand the challenges of owning and managing a small business. These benefits eliminate two of the major reasons that SBOMs cite for not attending formal training: that they have to leave their place of business to attend training and that the content and logistics are not suitable.

3.4.1.4 Free

Participation in the ODF proposed in this thesis is free. That is, it does not require any direct financial investment. There is an investment of time, but this can be minimal and the amount of time devoted to the ODF is totally at the discretion of the SBOMs. The ODF allows SBOMs to participate without any direct financial outlay and without having to leave their business operations, thus eliminating one of the reasons SBOMs give for not attending formal training—that it is not a good ROI.
However, despite the many reasons offered for the use of an ODF for SBOMs, it is not without its potential issues. Each of these issues is discussed in the following section.

3.4.2 Potential Issues: Using an Online Discussion Forum for SBOMs

There are a number of potential issues regarding the use of an ODF for SBOMs. Most of these issues are speculative in that they arise without support from research.

3.4.2.1 Is Learning Possible?

Can SBOMs really learn in an informal ODF? This question has yet to be fully explored in the literature. There have been few studies on online learning for small business or SBOMs, with the exception of Moon et al. (2005) and Sambrook (2003) who studied formal course-based learning for small business. Studies regarding informal online-discussion-based learning are limited to Stewart and Alexander (2006b) and Nolan, Brizland and Macaulay (2007). The focus of Nolan et al.’s (2007) paper is the development of trust, not learning. Stewart and Alexander’s (2006b) paper focuses on blended learning, with a combination of face-to-face workshops and action learning.

3.4.2.2 Access to Computers (Networked Devices)

Early research by Sambrook (2003) on the use of online learning in small business reports significant barriers to the uptake of online learning by small business, including a lack of hardware and software. Access to technology was also noted by Gray (2004) in a voluntary community of practice, where she reports that access to necessary technology was crucial to participation. Likewise, the importance of access to the relevant technology is acknowledged by a number of authors (including Al-Bataineh et al., 2005; Allen, 2003; C. Collins et al., 2003; Volery & Lord, 2000) whose research into participation on a variety of online-learning approaches with various different groups has demonstrated that access to the relevant technology is a key factor in achieving participation.
While it is agreed that access to a networked computer is essential to participating in any form of online learning, it is possible that this issue is rapidly disappearing with most small businesses now having Internet access and using a range of networked devices. In 1999–2000, the percentage of Australian businesses (large and small) with Internet access was only 29 per cent (Australian Bureau of Statistics, 2000). However, access to the Internet by small business increased significantly during the first decade of the twenty-first century. The latest data from the ABS for 2009–2010 shows that 89.49 per cent of small businesses have Internet access (Australian Bureau of Statistics, 2011).

3.4.2.3 Voluntary Participation

One of the challenges in determining the feasibility of using an ODF for SBOMs is that there is limited research regarding voluntary participation in ODFs. As noted in section 3.2 the majority of research to date has been conducted within the higher-education sector, where participation is usually mandated through the allocation of marks or credit points (Thompson & Savenye, 2007). Thompson and Savenye (2007) convey that ‘This scarcity of research suggests a need to examine which factors may drive participation in a discussion environment without mandatory posting requirements’ (p. 302).

Research is beginning to emerge that investigates participation in voluntary online learning. Thompson and Savenye (2007) explored voluntary participation in CMC in a higher-education course and found that previous online experience, the course and the instructor were all important factors in promoting participation. So (2009) explored the voluntary use of CMC in higher education and found that when groups voluntarily used CMC in a collaborative project, three factors influenced participation: their first experience of CMC, the perceived affordances of the CMC tools and the perceived efficiency of CMC for completing the collaborative tasks. The study by Garvan, Carbery, O’Malley and O’Donnell (2010) investigated voluntary participation by employees in online learning and found that instructional design (learning design) and motivation to learn were critical to voluntary participation in online learning. Thus, research is emerging that identifies a number of factors, including motivation, instructional design and prior experience, as important factors in voluntary participation. However, none of these three studies regarding voluntary participation is situated within
the small-business context with SBOMs, where complex situational and personal factors are likely to be important.

Pettijohn and Pettijohn (2007) completed a comparative study with psychology students who were allocated to either mandated or optional discussion-forum participation. They found that there were significantly more discussion-board posts when participation was mandated than when participation was voluntary. The mean number of posts in the mandated group was 1.1 posts per student per week, which exceeded the mandated requirement of one post every two weeks. In the voluntary group, only 10 of the 120 students enrolled contributed to the discussion. In addition, they ‘found that the students in the required Web discussion condition earned significantly higher grades in the course compared to students enrolled in the optional Web discussion condition’ (Pettijohn & Pettijohn, 2007, p. 258). These results suggest that higher rates of participation in an ODF support improved learning outcomes.

3.4.2.4 Trust

In order to participate in an ODF, SBOMs will need to trust others in the online community (Stewart & Alexander, 2006a). Fogg and Tseng (1999) define trust among individuals mediated by technology, stating that ‘trust indicates a positive belief about the perceived reliability of, dependability of, and confidence in a person, object, or process. (p. 81).

Nolan et al.’s (2007) research with more than 50 small businesses into individual trust and development of online business communities supports the importance of trust in online communities. They found that contribution to the business community by small businesses remained low throughout the research, despite changes to encourage their participation. The consensus from small business was that they were reluctant to discuss sensitive issues in an open forum, considering it to be too risky to contemplate (Nolan et al., 2007). Feedback from Nolan et al.’s (2007) research interviews suggested that one of the primary reasons small businesses withheld from participating in the business communities was related to interpersonal trust.
Trust is perhaps a particularly salient issue for SBOMs, where sharing information with others creates potential for what Bos et al. (2002) terms ‘opportunistic behaviour’. This idea is supported by research by Stewart and Alexander (2006b), who found that SBOMs were concerned about trust, especially the potential for other members of the group to be competitors. Mistrust, or a lack of trust, might create reluctance by SBOMs to participate in an ODF. An ODF for SBOMs, by necessity of their limited size, are required to be inter-organisational. This creates different demands on SBOMs than exist in intra-organisational discussion forums (Wagenaar & Hulsebosch, 2008). It requires additional effort on the part of the facilitator ‘to overcome the natural mistrust of people who may be competitors’ (Wagenaar & Hulsebosch, 2008, p. 16).

This reluctance by SBOMs to post business-related information to an ODF is supported by previous research by Stewart and Alexander (2006b) who investigated the use of virtual action learning by SBOMs. They reported reluctance by SBOMs to reveal aspects of their business and personal effectiveness online, despite the fact that they were comfortable to reveal this information in face-to-face meetings. This suggests that the permanent nature of the online post requires a higher level of trust between participants than do face-to-face interactions.

At the core of trust is the relationship, and the initiation of relationships online is slower and less easy than face-to-face (J. Allan & Lawless, 2003; Lipnack and Stanps, 1997). Thus, the development of trust is more difficult online than in a face-to-face setting (Bos et al., 2002). However, trust is an essential factor of learning in an ODF. A sense of community, in which the group has confidence in the ability and willingness of others (Chang & Lee, 2007), is essential for ODF success.

The need for trust between participants in an ODF is consistent with the growing literature on online community participation. Nolan et al.’s (2007) findings from a small-business online community revealed that trust between the SBOMs seeking information and the information provider was a critical requirement for participation. It appears that trust might be a crucial precursor of SBOMs’ participation in an ODF.
The second element of trust and SBOMs’ participation is the potential for participants to question the validity of the information provided by other SBOMs in the ODF. Thoms, Garrett, Canelon Herrera and Ryan (2008) found that higher-education students participating in an online knowledge-sharing community questioned the validity of the knowledge generated. They noted that the students had perceived low levels of trust, with 44 per cent disagreeing or strongly disagreeing that the community was a valid source of expertise and knowledge (Thoms et al., 2008). Similar issues regarding the validity of information might prevail for SBOMs in an ODF.

Establishing trust is key to any successful network (Florén, 2003). Provision for building and maintaining trust is a crucial role for the facilitator to consider and manage in the SBOM ODF. In order to encourage participation by SBOMs, it is important that trust is developed and that knowledge sharing is promoted. Trust is a crucial component for success in ODFs, and providers must give special attention to building trust online (Bulu & Yildirim, 2008).

3.4.2.5 Need to be Self-Directed

When participation online is voluntary and is possible twenty four hours a day seven days a week, it is suggested that learners need to be highly self-directed in order to participate. The concept of self-direction is highlighted by andragogy (see Section 2.3.3.1) and self-directed learning (see Section 2.3.3.3). It is thought here that the introduction of an ODF will require SBOMs to be self-directed in their participation and learning. This need for self-direction when participating online was recognised by Stewart and Alexander (2006b) as a potential issue for SBOMs.

3.4.3 Online Community

One particular type of ODF is an online community. This is based on three concepts of community identified by McConnell (2006): a learning community; a COP; and a knowledge-building community. There are similarities between the three concepts, although the intent of each is different. In a learning community, the intention is to focus the activity on the development of a culture of learning. In a COP, the intention is
to place a major focus on identity and identity formation in the context of professional practice. In a knowledge-building community, the intention is to place the major emphasis on knowledge building and problem solving. The intention of the community will influence the design of the community.

There are various types of online communities, which differ in terms of how communications are structured. Communication can be one-to-one, one-to-many where one party is the focus, or many-to-many, which enables the community to harness the combined resources of all the participants to the benefit of all (Cheung, Lee, Ip & Wagner, 2005). Virtual communities are based on ongoing many-sided exchanges that take place via CMC. A virtual community allows people to connect in the exchange of information and learn from each other (Rothaermel & Sugiyama, 2001). Virtual communities can provide valuable site content, working in a similar way to portals in that they filter and integrate the most valuable information for the community (Rothaermel & Sugiyama, 2001).

Online communities differ from social networks. Members of social networks display companionship and social support and engage in information exchange, but show weak ties. Interactions lack depth and are often transient (McConnell, 2006). However, online communities have shared values and interests (Rheingold, 1993 as cited in McConnell, 2006). In online communities, the interpersonal relationships provide sociability, support, information exchange, a sense of belonging and social identity (Wellman & Gulia, 1999). Ties are strong, with members sharing personal information and experiences, which develops trust (Wellman & Gulia, 1999). According to McConnell (2006), the cornerstone of online communities lies in the socially close, strong, intimate ties, the development of trust and shared values and social organisation. The quality of people’s relations is important in an online community.

According to McConnell (2006), there are five principles to developing a learning community in a professional development context. First, the problems and the issues addressed are defined by the members. They are usually complex and ill defined. Second, the problems or issues raised have a frequently personal or professional focus; they are important to members of the group. Third, problems require negotiation and
communication to understand them. Fourth, there are no specific predefined learning outcomes. Fifth, learning is highly experiential and requires a high degree of reflexivity.

McConnell (2006) recognises that teachers have to adopt new relationships with learners moving away from the traditional notion of themselves as the experts and controllers of the curriculum towards facilitating learning. However, in this thesis, it is suggested that a move away from the traditional notion of teaching requires a change in the learner also. Many adult learners have been socialised to expect a traditional transmission model of education, one in which the teacher controls and directs what is taught and the learner passively receives the knowledge. When teachers adapt a more facilitative approach, learners must take on greater responsibility for their own learning, and this can be a significant change for both teachers and learners.

Communities that share resources, knowledge, experience and responsibility through reciprocal collaborative learning offer an alternative method to traditional formal education (McConnell, 2006). Hemmasi and Csanda (2009) discussed the need for networks and found support for the utility and effectiveness of COPs, providing people are committed, engaged and well connected (2009). This alternative approach to learning may allow SBOMs to collaborate online with others about real business problems. This approach has the potential to enable SBOMs to participate in learning that provides the opportunity to develop new insights into managing their small business without having to leave their business. It also enables an opportunity to discuss real issues with others, an issue for SBOMs who, unlike big business, often have few, if any, colleagues.

Boitshwarelo (2011) explains that the study of education COPs has been approached in two ways. First, existing case studies of online social networks have been used. Second, the researcher has attempted to develop an online community, and then studied the results of the design. Is it possible to build an online COP? Alternatively, does planning the design and developing an online COP actually prevent the formation of an authentic COP? Perhaps it is not possible to create the most crucial elements of a COP, which according to Rovai (2002), include mutual interdependence among members, connectedness, trust, interactivity and shared values and goals. It is possible that these
elements might develop only in a natural environment and might not develop fully, if at all, in a contrived COP?

3.4.4 Summary: Online Discussion Forum for SBOMs

An ODF holds many benefits for SBOMs, including the ability to learn twenty four hours a day seven days a week from anywhere. This allows SBOMs to participate in learning without having to leave their business operations, one of the most commonly cited reasons for not attending formal training. An ODF also allows SBOMs to learn in a way that meets their learning preferences. That is, an ODF provides a platform that enables SBOMs to discuss real business issues with other SBOMs through an online network. This focus on real business problems and learning that is network-based supports SBOMs’ learning preferences. Last, learning via an ODF has no direct financial costs associated, because participation is free.

In addition, this section identified a number of issues regarding ODFS for SBOMs. Most importantly, can SBOMs learn via an ODF? This is critical to the success of this research. An ODF must be able to promote more than discussion; it must be able to trigger double-loop learning (see Section 2.3.6.2). This research aims to answer this question. In addition, access to computers, the voluntary nature of the ODF, the issue of trust and the need for SBOMs to be self-directed are important issues that might influence the effectiveness of an ODF for promoting and encouraging learning for SBOMs.

3.5 Existing Online Discussion Forums for Small Business

An Internet search in early 2012 revealed several ODFS for small business in existence. Details of each of these small business ODFS are provided in Table 3.4. A review of the small business ODFS revealed that there is much interest in reading and sharing knowledge online. Figures on the number of threads, posts and members are provided in Table 3.4.
### Table 3.4: Small Business Online Discussion Forums

<table>
<thead>
<tr>
<th>Name and Website</th>
<th>Statistics as at 1 February 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Business Ideas Forum (USA)</td>
<td>Threads: 23,521</td>
</tr>
<tr>
<td><a href="http://www.smallbusinessbrief.com/forum/">http://www.smallbusinessbrief.com/forum/</a></td>
<td>Posts: 120,226</td>
</tr>
<tr>
<td></td>
<td>Members: 62,859</td>
</tr>
<tr>
<td>Numbers not provided by the website</td>
<td></td>
</tr>
<tr>
<td>Ideas Café CyberSchmooz (USA)</td>
<td>Threads: 718</td>
</tr>
<tr>
<td><a href="http://www.businessownersideacafe.com/cyberschmooz/">http://www.businessownersideacafe.com/cyberschmooz/</a></td>
<td>Posts: 5,187</td>
</tr>
<tr>
<td></td>
<td>Members: 2,150</td>
</tr>
<tr>
<td>Small Business Forum (USA)</td>
<td>Threads: 33,014</td>
</tr>
<tr>
<td><a href="http://www.small-business-forum.com/">http://www.small-business-forum.com/</a></td>
<td>Posts: 208,305</td>
</tr>
<tr>
<td></td>
<td>Members: 339,413</td>
</tr>
</tbody>
</table>

Three of the four websites are based in the United States; however, it was noted during the review that there were posts from small businesses in other countries, including the United Kingdom. One of the four reviewed, the Small Business Forum (Australia), <http://www.smallbusinessforum.com.au> is based in Australia.

The Australian Small Business Forum, set up mid-2010, is moderated and managed by a small group of volunteer SBOMs. The forum was created to be ‘an ever-expanding pool of resources that small business owners can count on for up-to-date information’ (Small Business Forum, 2011). The forum has a range of questions and answers, including some promotion of goods and services by SBOMs, although it does not support blatant advertising, stating ‘blatant advertorial posts that only serve as a promotion tool will be removed’ (J. Thomas, 2010).

The most active forum, the Small Business Forum (USA) has more than 300,000 members discussing many topics, including writing a business plan, raising capital, online marketing, software and business law. While there are many threads and posts,
there are a number of questions with no replies, despite many views (see Figure 3.1). For example, in the small-talk thread, some questions have received (as at 6 February 2012) no posts, as shown in Figure 3.1. For example, the question, ‘What online services do you use that makes managing or running your business easier?’ received more than 2,000 views, but no replies. This suggests that although many people view and read forum posts, less are willing to share knowledge with others online, which provides support for the 90/9/1 principle (Morell, 2010) (see Section 3.3.4.3).

![Small Business Forum (USA) Small Talk for Small Business Thread](image)

**Figure 3.1: Small Business Forum (USA) Small Talk for Small Business Thread**

The statistics for other forums were similar, with rates of viewing much higher than the rates of posting, as shown in Figure 3.1. The topic, ‘Who has had proven results with ad words’, received more than 10,000 views, but only 26 posts, as shown in Figure 3.1. Thus, the ratio of posts to views is in excess of 400. Based on membership numbers, SBOMs appear eager to participate online, but they are less likely to post.
The statistics appear to indicate that although the development of an ODF can promote and encourage SBOMs’ learning, encouraging active participation might be challenging.

3.5.1 Research Questions

An exploratory approach was taken with this research to assess whether providing an ODF promotes SBOMs’ participation in learning, whether learning is possible, and the type of learning that occurs.

The main RQ and its subsidiary questions were as follows:

- **RQ1**: Does an ODF empower SBOMs as active learners?
- **RQ1 (i)** What factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?
- **RQ1 (ii)** What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

3.6 Summary

Online learning is a possible alternative for encouraging and supporting SBOMs’ learning. Three models of online learning were presented (see Table 3.1): the web-publishing model, the web-publishing-plus-discussion model, and the discussion model. The two extremes—the web-publishing model and the discussion model—were explored as a means of demonstrating the different approaches to learning from which each have evolved. The behaviourist underpinnings of the web-publishing model were compared with the constructivist underpinnings of the discussion model. The benefits and limitations were explored, which demonstrated the importance of adhering to the principles of online learning to ensure that learners have a relevant and authentic learning experience that provides for interaction and reflection. These key principles are supported online by the use of discussion. The importance of discussion was explored and the advantages of this learning approach were highlighted.
In conclusion this chapter draws together the benefits of an ODF for SBOMs and describing how this approach offers a unique way of addressing SBOMs’ learning preferences while simultaneously eliminating their reasons for not attending formal training, as shown in Table 3.5.

Table 3.5: Online Discussion Forums for Small Business Owner Managers

<table>
<thead>
<tr>
<th>SBOMs’ Learning and Participation</th>
<th>Research Support</th>
<th>Online Discussion Forum (How it satisfies SBOMs’ criteria)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority is given to business operations</td>
<td>Darch &amp; Lucas (2002); Matlay, (1999); Paige (2002); Storey &amp; Westhead (1997); Westhead &amp; Storey (1996)</td>
<td>Enables 24/7 access</td>
</tr>
<tr>
<td>Poor ROI</td>
<td>Johnson (2002); Lange, Ottens &amp; Taylor (2000); Mack (2003); Morrison &amp; Bergin-Seers (2002); Oates (1987); Storey &amp; Westhead (1997)</td>
<td>No financial investment required and minimal investment of time at SBOMs’ discretion</td>
</tr>
<tr>
<td>Perception of training is negative</td>
<td>Billet (2001); Macpherson, Jones, Zhang &amp; Wilson (2003); Morrison &amp; Bergin-Seers (2002); Paige (2002)</td>
<td>ODF does not directly affect SBOMs’ perception but attempts to encourage learning</td>
</tr>
<tr>
<td>Does not meet small business needs or preferences</td>
<td>Billet (2001); Clarke, Thorpe, Anderson &amp; Gold (2006); Gibb (1997); Matlay (1999); Storey (2004)</td>
<td>Network-based, informal, problem-oriented with no prescribed content</td>
</tr>
</tbody>
</table>

SBOM’s learning preferences

<p>| Informal learning | Anderson &amp; Boocock (2002); Barry &amp; Milner (2002); Clarke, Thorpe, Anderson &amp; Gold (2006); Field (1997); Gibb (1997); Johnson (2002); Kears (2002); Matlay (1999); Morrison &amp; Bergin-Seers (2002); Paige (2002) | ODF forum is completely informal, no formalities in terms of course or content are required |</p>
<table>
<thead>
<tr>
<th>SBOMs’ Learning and Participation</th>
<th>Research Support</th>
<th>Online Discussion Forum (How it satisfies SBOMs’ criteria)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network-based</td>
<td>Anderson &amp; Boocock (2002); Barry &amp; Milner (2002); Clarke, Thorpe, Anderson &amp; Gold (2006); Gibb (1997); Taylor &amp; Thorpe (2004); van Gelderen, van der Sluis &amp; Jansen (2005); Williams (2007)</td>
<td>Uses a community of SBOMs who ask questions and provide answers to others’ problems, issues or questions</td>
</tr>
<tr>
<td>Experiential</td>
<td>Abernathy (2001); Anderson &amp; Boocock (2002); Morrison &amp; Bergin-Seers (2002)</td>
<td>SBOMs use their own experience to help others with business problems</td>
</tr>
<tr>
<td>Problem-oriented</td>
<td>Tynajälä &amp; Häkkinen (2005); Yeo (2006); Ehrich &amp; Billett (2004)</td>
<td>SBOMs are able to ask questions about problems that they are facing, and others within the group offer advice and solutions</td>
</tr>
</tbody>
</table>

**ODF requirements**

<table>
<thead>
<tr>
<th>ODF learning principles</th>
<th>ODF technical design</th>
<th>ODF uses asynchronous discussion to fully support SBOMs anywhere at any time, 24/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alavi (1994); Bonk &amp; Dennen (2002); Brower (2003); P. K. Gilbert &amp; Dabbagh (2005); Gunawardena et al. (1997); Harvard et al. (2008); Lally &amp; Barrett (1999); W. Lam (2004); Laurillard (2002); Moisey et al. (2008); Motteram &amp; Forrester (2005); Sorensen (2004); Tynajälä &amp; Häkkinen (2005); Vonderwell (2003)</td>
<td>Gee &amp; Farb, (2005); Gunawardena et al. (1997); Ingram &amp; Hathorn (2004); Jonassen et al. (1995); Moisey et al. (2008); Motteram &amp; Forrester (2005); Naidu &amp; Järvelä (2006); Olaniyan (2006); Schwartz (2007); J. Simpson (2002)</td>
<td>Encourages collaboration, articulation and reflexivity Based on learning that is relevant and authentic</td>
</tr>
</tbody>
</table>

| Teaching and learning model online COP |asics (2009); McConnell (2006); Rothaermel & Sugiyama (2001); Wellman & Gulia (1999) | Learning using the ODF is centred on a community of SBOMs |
Chapter 4: Online Discussion Forum for SBOMs

4.1 Introduction

In this chapter the online options that are thought to encourage and support SBOMs’ participation and learning are reviewed. In doing so, two major options considered for this research are described. Initially, an online course for SBOMs is considered and an explanation is provided for why this approach was eliminated. Next, an ODF—the selected approach—is discussed. The advantages and disadvantages of the three ODF groupware technologies (Blackboard, Google groups and Yahoo Groups) that were considered in 2007, are reviewed. Rationale for the selection of Yahoo Groups as the groupware to support the ODF for SBOMs is provided. Following on from this, the ODF set-up to conduct this PhD research, the OCL forum is described. This chapter concludes by illustrating the forum’s interface and features, highlighting the useability of the OCL forum by explaining how participants were able to log on, view and post to the forum.

4.2 Online-Learning Options Considered

The aim of this research is to understand what is needed to encourage and support participation and learning by SBOMs. The literature review revealed three sets of criteria that were important for SBOMs and online learning. It is important that learning be designed and delivered in a way that mitigates the rationale that SBOMs provide for not attending training (see Section 2.2.6). In particular, any learning offered should enable SBOMs to participate without having to leave their business operations, the most commonly cited reason for not attending formal training. It is important that any learning offered met the learning needs of SBOMs for informal, network-based, experiential, problem-based learning (see Section 2.2.7). Online learning should apply the principles of online learning, as discussed in detail in Section 3.2.5. Learning should be relevant and authentic, provide interaction and encourage reflection.
In order to encourage and support SBOMs’ learning online, the design of an ODF for SBOMs must leverage the benefits of an ODF. Based on the literature review, the four benefits of an ODF for SBOMs include (1) learning should be available anytime anywhere; (2) learning should be based on resolving real small-business problems, (3) learning should be informal through a network of other SBOMs; and (4) learning should be free. These benefits are fully described in Section 3.3.3. Two major options were considered: an online course designed and developed for SBOMs, and an ODF for a community of SBOMs. These two options are discussed.

4.2.1 Online Course

Initial considerations for the provision of online learning for SBOMs centred on the design, development and delivery of an online portal or course. However, as the review of the existing SBOM training literature progressed, it became clear that the use of a formal online training program might not provide the best option for SBOMs. The literature review revealed that SBOMs are very reluctant to participate in formal training and that their learning preferences for informal, network-based, experiential, problem-based learning were unlikely to be met through a formal online course.

In addition to an online course not meeting SBOMs’ learning preferences, the time commitment required to participate in a formal course was considered problematic. Furthermore, the design and development of an online course requires technical expertise and significant financial investment and time to implement. The financial investment required and the reliance on external expertise were considered risky because timelines for development could quickly exceed the time allowed for PhD completion. Consequently, the option of providing a formal online portal or course was eliminated as a viable option for promoting and encouraging SBOMs’ learning.

Moreover, the literature reviewed indicated that good online learning requires learning to be active. In addition, it should include social interaction and it should be aimed at solving real business problems. A summary of an online course against the three major sets of criteria is shown in Table 4.1.
4.2.2 Online Discussion Forum

The advantages of online technology, which offers learning twenty four hours per day seven days a week, without having to leave business operations, was still considered an important option to investigate for encouraging and supporting SBOMs’ learning. The literature review had revealed that social learning via discussion with peers was an important aspect of a number of contemporary learning theories, including social constructivism and andragogy (see Section 2.3.2.3 and 2.3.3.1). Consequently, the use of an ODF for learning was given consideration.

An ODF offers SBOMs the opportunity to discuss real business problems in an informal way, via an online network, without having to leave their business operations. An ODF ensures all four SBOMs’ learning preferences for informal, networked, experiential and problem-oriented learning are met. An ODF meets SBOMs’ learning preferences and simultaneously eliminates their reasons for not attending formal training. In addition, the literature review revealed that good online learning should be active, include social interaction and be aimed at solving real business problems. As such, an ODF was considered to provide a workable solution for encouraging and supporting SBOMs’ learning. A summary of an ODF against the three major sets of criteria is shown in Table 4.1.

4.2.3 Summary of Online Options

Table 4.1 summarises the two online options considered for encouraging and supporting SBOMs’ learning. The table compares the two options on two sets of criteria. First, how they address SBOMs’ rationale for not attending formal training. Second, how they meet SBOMs’ learning preferences.
## Table 4.1: Summary of Online Options for SBOMs

<table>
<thead>
<tr>
<th>SBOMs’ Rationale for not Attending Formal Training</th>
<th>Online Course</th>
<th>ODF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority is given to business operations ✓</td>
<td>Learning anytime anywhere (24/7) no need to leave the business operations ✓</td>
<td>Learning anytime anywhere (24/7) no need to leave the business operations</td>
</tr>
<tr>
<td>Poor return on investment ✓ * Free (no financial outlay) *only if university or institutional provider subsidises</td>
<td></td>
<td>Free (no financial outlay)</td>
</tr>
<tr>
<td>Perception of training and education is negative X</td>
<td>Encourages learning, by eliminating some of the reasons they do not attend formal training ✓</td>
<td>Encourages learning, by providing learning that meets their needs, and eliminates some of the rationale for why they do not attend formal training</td>
</tr>
<tr>
<td>Provision of training does not meet small business needs or preferences X</td>
<td>Does not meet</td>
<td>Network-based, informal, problem-oriented with no prescribed content</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SBOMs’ Learning Preferences</th>
<th>Online Course</th>
<th>ODF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal learning X</td>
<td>Learning would be formal, based on prescribed content and directed by instructor ✓</td>
<td>ODF is completely informal, no required time commitment or structured course content is provided</td>
</tr>
<tr>
<td>Network-based X</td>
<td>Learning would be course-based, with limited opportunity for networking ✓</td>
<td>Uses a community of SBOMs who ask questions and provide answers to each other’s problems, issues or questions</td>
</tr>
<tr>
<td>Experiential X</td>
<td>Learning would be based around content, cases and information provided by the instructor ✓</td>
<td>SBOMs use their own experience to help others with similar issues/challenges</td>
</tr>
<tr>
<td>Problem-oriented X</td>
<td>Information driven, not based around the problems of SBOMs ✓</td>
<td>SBOMs ask questions about business problems, issues or questions about their small business. The community offer advice and solutions</td>
</tr>
<tr>
<td>Learning Principles</td>
<td>Online Course</td>
<td>ODF</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------</td>
<td>-----</td>
</tr>
<tr>
<td>Relevant</td>
<td>X  Passive participants, in a teacher-centred approach</td>
<td>✓  Active participants, learner-centred approach</td>
</tr>
<tr>
<td>Authentic</td>
<td>X  Limited social interaction</td>
<td>✓  Social interaction at the core of the learning approach</td>
</tr>
<tr>
<td>Interaction</td>
<td>X  Information driven; not based around the problems of SBOMs</td>
<td>✓  SBOMs ask questions about business problems, issues or questions about their small business; the community offers advice and solutions</td>
</tr>
<tr>
<td>Reflection</td>
<td>✓  May encourage reflection</td>
<td>✓  Likely to encourage reflection as questions are based on real business issues</td>
</tr>
</tbody>
</table>

An ODF was able to meet more SBOMs’ learning preferences while simultaneously eliminating most of their rationale for not attending formal training. The online course did not meet any of SBOMs’ learning preferences, and was able to eliminate only some of the reasons SBOMs do not attend formal training. For these reasons, an ODF was considered the best option for SBOMs. A number of technical options were available for an ODF; these are detailed in the next section.

### 4.3 ODF Technical Options

In order to set up an ODF for SBOMs, three groupware applications were considered. This included Blackboard the University’s learning management system (LMS), Google groups and Yahoo Groups. Each of the three groupware applications considered is described below, and assessed against the key criteria of cost, ease of ODF set-up and ease of use.

#### 4.3.1 Learning Management Systems: Blackboard

#### 4.3.2

The first alternative investigated was the University’s LMS, Blackboard. Blackboard had a number of benefits. First, it was free for the researcher to use. Second, it was easy
to set up, and technical support was available. Third, user support was available. Fourth, 
the researcher was familiar with the platform. Therefore, Blackboard was considered a 
possible ODF platform for SBOMs.

However, when Blackboard was investigated a number of technical and procedural 
issues arose that prevented its use as an ODF for SBOMs. The primary issue was that 
SBOMs would have to be enrolled as ‘students’ to allow a student number, user name 
and password to be assigned by the information technology department. This required 
significant administration, with SBOMs having to complete their details on several 
university forms, providing identification before being able to use the ODF. As such, 
the use of Blackboard was going to be administratively difficult for SBOMs. The 
number of obstacles and steps required, before a SBOMs could actually participate in 
the ODF was considered too complex and time consuming for SBOMs, a group who are 
known to be difficult to engage in learning. Thus, this option was eliminated.

4.3.3 Google Groups

The second option considered suitable for an ODF for SBOMs was Google groups. 
Google groups had several advantages. First, it is free. Second, it is easy to set up. The 
researcher (as the group manager) was able to set up a group, using the Create a Google 
Group page, which is shown in Figure 4.1. In addition, three options are provided to 
establish access levels. The first option is public, where anyone can read or join but only 
members can post. The second option is announcements only, where anyone can read 
or join but only the group manager (i.e. the researcher) can post messages. The third 
option is restricted; with this option, SBOMs must be invited to join the group and post 
or read messages. With this final option, the group archives do not appear in public 
search result or the directory (Google, 2007). This restricted option was considered the 
best option, because SBOMs could be invited to participate using the same email 
address that would be used to invite them to take part in this research. In short, the 
different options offered by Google groups for setting up an ODF for SBOMs, in 
addition to it being free to use, meant Google groups was a strong contender for the 
groupware platform for the ODF for SBOMs.
However, two concerns arose regarding the useability of Google groups as an ODF. First, users would need to set up a Gmail account to enable them to have access to the ODF. Although this was easy to do, it was thought some SBOMs might be concerned about having to take this step. It also added another step for SBOMs to complete in order to participate in the research ODF. Second, the standard Google Group user interface as shown in Figure 4.2 provided limited options for the researcher to personalise the forum for SBOMs. The forum would look like most Google Group forums, and it was considered important that SBOMs were presented a professional-looking forum that was tailored to their needs. The degree to which this could be achieved with Google groups in 2007 was limited, and this was a concern.
The third option considered for an ODF for SBOMs was Yahoo Groups. Like Google groups, Yahoo Groups had a number of advantages. First, it was free to use. Second, it was easy to set up. Yahoo Groups allowed the researcher to customise who could join the group, who could post messages to the group, whether messages would be archived and whether the group would be listed in the Yahoo Group directory. The ability to restrict access to the forum to only those SBOMs invited by the researcher was important to maintaining the research integrity.

However, there were two concerns regarding the usability of Yahoo Groups as an ODF for SBOMs. First, users would need to set up a Yahoo account to enable them to access the ODF. Although this was easy to do (see Figure 4.3), there was some concern that it may deter SBOMs from participating. This would be an additional step between SBOMs deciding to participate and being able to view posts, post and contribute to the ODF.

Figure 4.2: Google Groups Standard User Interface

4.3.4 Yahoo Groups
Unlike the other ODF groupware investigated in 2007, Yahoo Groups was easy to customise with pictures. This was an important feature for ensuring that the ODF for SBOMs was easy to use, and looked professional. Therefore, although Google groups and Yahoo Groups had many of the same advantages, disadvantages and benefits, Yahoo Groups was selected as the groupware platform for the ODF for SBOMs.

Following the decision to use Yahoo Groups, the researcher set up an ODF for SBOMs. It was customised with a name and a brief description about for whom and for what the forum was designed. A picture and a blue colour theme were chosen to give the forum a customised look appropriate for SBOMs. The group was called an OCL forum for small business owner-managers, and was given the shortened name of OCL_SmallBiz. The OCL forum is shown in Figure 4.4.
This section outlines the use of the OCL forum; it describes how messages can be posted and viewed and how new topics started. It outlines the features of the OCL for SBOMs’ discussion.

The OCL forum was easy to use, and messages could be read and posted by participants by going to the messages page, as shown in Figure 4.5. The message page allowed...
participants to view the various topics being discussed on the forum, the number of posts on that discussion topic, the date and time of the most recent post and the person who had written that post. Please note the actual user name and email address has been removed from Figure 4.5 to ensure participant anonymity.

Figure 4.5: Message Page

From the message page, the threaded discussion (or conversation) related to each topic could be viewed in detail by clicking on the topic name. A threaded discussion topic is shown in Figure 4.6. Each post can be read in chronological order, from the first post through to the most recent post. The user name, email address and date are recorded for
each post, to allow each person to be identified. Again, all user names and email addresses, other than those of the researcher, have been removed from Figure 4.6 to ensure participant anonymity.

Figure 4.6: A Threaded Discussion Topic

Creating a new topic and posting to an existing topic was easy for users to do. To create a new topic, participants simply selected the ‘start topic’ button, as shown in Figure 4.7. From there, they were able to post a new topic by filling in the details in a form, similar to writing an email (see Figure 4.8). To post to an existing topic, participants simply chose the topic that they wished to add a thread to and then selected ‘reply’; their post was added to the thread and the date, time and user name added to the thread. This is shown in Figure 4.9.
A new topic can be started by selecting

Figure 4.7: Start a New Topic from the Home Page
Figure 4.8: Post a New Topic
4.5 Chapter Summary

This chapter reviewed the online options considered to encourage and support SBOMs’ participation and learning. The chapter described the two major options—an online course and an ODF—and provided rationale for why an ODF was selected. The advantages and disadvantages of three ODF groupware technologies (Blackboard, Google groups and Yahoo Groups) were reviewed, and justification for the selection of Yahoo Groups was provided. An overview of the interface and the features of the OCL forum and the ODF set-up for this research concluded the chapter.

The set-up of the OCL forum for SBOMs represented the beginning of the data collection phase for this research. The next chapter describes in detail the research approach used in this PhD.
Chapter 5: Research Methodology

‘Qualitative inquiry cultivates the most useful of all human capacities: the capacity to learn’ (M. Q. Patton, 2002, p. 1).

5.1 Introduction

The aim of this research was to ascertain whether learning for SBOMs could be facilitated through an ODF and the factors (internal and external) that affect their participation. Discussed in this chapter are the philosophical perspectives on research and a description of major research approaches, conceptual framework, research questions, rationale for the methodology and process of undertaking research. Described are the methodology, issues and assumptions pertaining to the design of this research. It includes an outline of the data collected from four sources (ODF transcript, focus groups, semi-structured interviews and field notes), procedures used to analyse the data, and validity and reliability strategy. Prior to concluding, this chapter addresses the unique nature of Western Australia as a research base and the possible implications for the findings of this research. A summary of the methodology chapter is shown in Figure 5.1.

In order to achieve these objectives, a review of the relevant methodology literature was undertaken to establish a design for conducting the research. The research sought to understand if learning for SBOMs can be facilitated through an ODF, and what factors (internal and external) affect their participation. The study offers an opportunity for SBOMs to participate in an alternative to formal face-to-face training, by providing an ODF, which enables informal, networked-based learning. Specifically, this research was concerned with answering one overarching question and two subsidiary questions regarding participation and learning by SBOMs in the ODF:
RQ 1  Does an ODF empower SBOMs as active learners?
RQ1(i)  What factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?
RQ1(ii)  What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

To answer these questions, a range of data collection methods was employed. These methods included analysis of the statistics generated by the online collaborative learning (the ODF set up for this research and described in Chapter 4) forum host software, examination of the discussion transcripts, interviews of SBOMs after their participation in the OCL forum, and focus groups with SBOMs who chose not to participate in the OCL forum.

5.2 Research Design

The literature on research design concentrates on the two major approaches, quantitative and qualitative (Davies, 2007; Leedy & Ormrod, 2005; Saunders, Lewis & Thornhill, 1997). The two differ in the basic philosophical assumptions researchers bring to the study, the types of research strategies used and the specific methods employed (Cresswell, 2009; Cresswell & Clark, 2007). In addition, the debate between the two approaches mirrors the long-held debate in philosophy about the nature of knowledge (Davies, 2007). Is there such a thing as objective truth? Is all knowledge relative to the person through whose eyes it is perceived? This section briefly describes each approach.

Diverse ways of thinking about the research process stem from different paradigms or worldviews (Esterberg, 2002). A paradigm can be viewed as a set of basic beliefs that guide action (Guba & Lincoln, 1994). It is comprised of people’s assumptions about what is real, what is true, what is most acceptable, what and who are most powerful, and even the very nature of people, objects and events in the world (McMurray, Pace & Scott, 2004).
5.2.1 Positivist and Constructivist Paradigms

There are two diverse and potentially irreconcilable paradigms that exist in the organisational literature: quantitative and qualitative (Cresswell, 1994; McMurray et al., 2004). The quantitative paradigm is termed the ‘positivist’, ‘traditional’, ‘objectivist’, ‘dominant’, ‘experimentalist’ or ‘empiricist’ (Cresswell, 1994; Esterberg, 2002; Maylor & Blackmon, 2005; McMurray et al., 2004; Sarantakos, 2005). The qualitative paradigm is termed the ‘constructivist approach’ or ‘naturalistic’ (Cresswell, 1994). The two paradigms have vastly different assumptions and implications for all phases of research (Cresswell, 1994; Esterberg, 2002; Sarantakos, 2005). However, both qualitative and quantitative inquiry seek honest, meaningful, credible and empirically supported findings (M. Q. Patton, 2002).

The choice of paradigm reflects the researcher’s most basic beliefs, or philosophical assumptions, about the nature of reality (ontology) and how researchers can understand it; that is, what constitutes knowledge (epistemology) (Esterberg, 2002; Guba & Lincoln, 1994; Maxwell, 2005; Maylor & Blackmon, 2005; McMurray et al., 2004). The positivist view is based on an ontological assumption that reality is objective, singular and independent of the researcher (Cresswell, 1994). This view assumes reality is something concrete with a structure that can and should be discovered (McMurray et al., 2004). The aim of research within this paradigm is to discover a set of causal laws that can be used to predict patterns of human behaviour (Esterberg, 2002). In this view, knowledge is created by deductive logic finding ways to operationalise and test social theories.

In comparison, the constructivist view assumes reality (ontological assumption) is subjective and multiple as seen by participants in the study (Cresswell, 1994). That is, for the constructivist there is no objective reality or objective truth (Sarantakos, 2005). Reality is a creative process constructed or created by individuals within their social worlds (Esterberg, 2002; McMurray et al., 2004; Merriam, 1998). Thus, multiple realities exist in any research situation: that of the researcher, the participants and the reader. Researchers who hold constructivist views seek to understand what people do to create their worlds and how they make sense of the world in which they live (McMurray
et al., 2004). The qualitative researcher reports all of these different realities and relies on the voices and interpretations of informants (Cresswell, 1994).

The two paradigms also differ on the epistemological assumption regarding the relationship of the researcher to the researched. The positivist view is that the researcher must remain distant and independent of the research (Clough & Nutbrown, 2002; Cresswell, 1994; Hallenbone & Priest, 2009; Sarantakos, 2005). Thus, in surveys and experiments, researchers seek to control for bias using systematic samples, and attempt to remain objective in assessment. In contrast, the constructivist view holds an interpretivist epistemology (Sarantakos, 2005). Interpretivist epistemologies seek to describe and understand socially constructed realities (Hallenbone & Priest, 2009). They aim to generate socially relative knowledge about a social phenomenon, and often proceed by interpreting experience and observation using language-based methods (Hallenbone & Priest, 2009). They produce theoretical constructs that offer a comprehensive description and insightful understanding of the phenomenon (Hallenbone & Priest, 2009).

5.2.2 Dominance of a Positivist Paradigm in Online-Learning Research

A study of the dominant approaches used to research network-based learning between 1999 and 2002 by Hodgson and Watland (2004a) reports that the approaches and methods used have been predominately positivist and quantitative. They argue that the methods and approaches used have not been consistent with the educational principles supposedly associated with network-based learning—principles that lay deep within the social–cultural learning theories. Hodgson and Watland (2004a) report that the majority of research in network learning has originated from United States–based information systems researchers, where:

Much of the research has been based on the use of questionnaire surveys of satisfaction and of perceived learning, together with assessment of learning outcomes for determining learning effectiveness of collaborative work and groups using technology compared with face-to-face groups (p. 102).

Hodgson and Watland (2004a) state that rarely have researchers assumed an ontology based on actors involved in the social construction of reality.
In a response to concerns raised by Arbaugh and Benbunan-Fich (2004) regarding the assertions about the need to decrease the dominance of quantitative approaches, Hodgson and Watland (2004b) maintain their position. They argue that if education practice has incorporated collaborative and dialogical approaches to learning, research should match the underlying ontological and epistemological position of such approaches. In concluding their study, Hodgson and Watland (2004a) ask that researchers of network-based learning consider research methods aligned with the philosophical principles underpinning constructivist and collaborative approaches to learning.

5.2.3 Selection of a Suitable Paradigm

A research paradigm should be chosen according to the orientation that best matches the study’s context, motivations, aims, questions, constraints and likely uses (Hallenbone & Priest, 2009). The aim of this research is to discover what factors affect SBOMs’ participation and learning in an ODF, in the context of owning and managing a small business (a natural setting). As Mayes and de Freitas (2005) conclude, learning is embedded in the social context. Thus, it is considered important that the SBOMs’ experience of participating (or not) in the OCL forum be captured within the context of owning and operating a small business. SBOMs’ action regarding participation and learning were shown in the literature review (see Sections 2.2.6 and 2.2.7) to be influenced by the operational challenges of small business. It is proposed that SBOMs’ participation and learning can be better understood within the complexity of the small business context.

The questions that form the basis of this research called for the interpretation of participating SBOMs’ experiences. Of particular interest were the reactions of the SBOMs to participating and learning in the OCL forum. Also of interest was whether this environment helped encourage greater levels of participation in learning events. This focus on the SBOMs’ experience on the OCL forum called for an interpretive approach to the research.
In addition, the learning design for this research is based on SBOMs’ participation and learning in an OCL forum—learning from one another in an informal network—an approach firmly situated within social–cultural learning theory. In order to provide relevant and useful insights, the research orientation will correspond with these assumptions about the construction of knowledge. For this reason, this research is conducted within constructivist ontology, an interpretivist epistemology and a qualitative methodology. This choice about the constructivist paradigm and its associated ontology and epistemology will influence the structure and process of this qualitative research.

5.2.4 Qualitative Research

The selection of an appropriate research design is crucial to the success, and helps determine the quality, of research results (Bordens & Abbott, 2002). In order to select the most appropriate strategies for this research, a number of factors were considered. The most important consideration is the nature of the research problem or issue under investigation (Clough & Nutbrown, 2002; Cresswell, 2009; Dawson, 2006; Ekanem, 2007; Ghauri & Grønhaug, 2002; Leedy & Ormrod, 2005; Moore, 2006; Yin, 2003b). Other factors include the extent of control the researcher has over the behavioural events, whether the focus of the study is contemporary or historical (Yin, 2003b) and the finances, time and expertise of the researcher (Moore, 2006).

Qualitative research is not a single, all encompassing, approach to research (M. Q. Patton, 2002). There are many recognised qualitative research approaches; Tesch (1990 as cited in Cresswell, 2009) identifies as many as 28 approaches. Others, such as Denzin and Lincoln (2005) recognise nine distinct qualitative approaches, including performance, critical and public ethnography, interpretive practices, case studies, grounded theory, life history, narrative authority, participatory action research and clinical research. Similarly, Cresswell (2007) recognises a variety of approaches but limits his discussion to five approaches: narrative research, phenomenology, grounded theory, ethnography and case study.
According to Maxwell (2005) the strength of qualitative research is threefold: first, the inductive approach; second, its focus on specific situations and people; and, third, its emphasis on words rather than numbers. Qualitative research explores attitudes, behaviour and experiences in an attempt to achieve an in-depth opinion (Dawson, 2006), generally through the collection and analysis of qualitative data. This approach is typically used to answer questions about the complex nature of phenomena, often with the intention of describing and understanding the phenomena from a participant’s point of view (Leedy & Ormrod, 2005). Thus, research is often a situated activity that locates the observer in the world in which phenomena takes place (Davies, 2007; Denzin & Lincoln, 2005; Liamputtong & Ezzy, 2005; Saunders et al., 1997). The focal point is on the meanings that the research participants attach to social phenomena and the attempt by researchers to understand what is happening and why, all within the context (Denzin & Lincoln, 2005; Saunders et al., 1997). Data collected is in the form of words and observations and is analysed to derive themes, categories, typologies, concepts and tentative hypotheses, and even more theories (Merriam, 1998), ‘with an attempt to generate analyses that are detailed, ‘thick’, and integrative’ (Liamputtong & Ezzy, 2005, p. 2).

Two features of qualitative research appear to be particularly relevant to addressing the aims of this study; that is, ascertaining whether learning for SBOMs can be facilitated through the OCL forum and what factors (internal and external) affect their participation. First, the feature of studying phenomena where it occurs, which for this research is the small business context. The small business context has been identified in the literature review (see Section 2.2.6) as a key factor in preventing SBOMs’ from participating in training. In particular, contextual issues, including being time-poor (Darch & Lucas, 2002; Paige, 2002) and having no internal capacity to cover absences when participating in training (Matlay, 1999; Storey & Westhead, 1997) have been cited as key factors in preventing training participation. Second, qualitative research enables the researcher to understand the phenomenon from the perspectives of those being studied. Thus, qualitative research for this study would allow participation and learning in the OCL forum to be understood from the perspectives of the SBOMs who participate (or not). This enables greater insight into how people make sense of their experience (Liamputtong & Ezzy, 2005).
5.3 Case Study Research

A case-study methodology was selected to aid the development of a rich and complex understanding (Berg, 2001; Lichtman, 2006; A. B. Thomas, 2004) of learning and participation of SBOMs in an ODF. According to Yin (2003b) case studies are the preferred strategy when ‘how’, ‘why’ or exploratory ‘what’ questions are being posed, when the researcher has limited control over the behavioural events, and when the focus is in on a contemporary phenomenon within some real-life context. The research questions include both ‘how’ and exploratory ‘what’ questions aimed at exploring SBOMs’ participation and learning in the OCL forum, a relatively new phenomenon for which there is limited research. While the researcher had some control over the set-up and facilitation of the OCL forum, she was unable to control the quantity or quality of participation and/or learning that occurred. SBOMs were in control of their level and degree of participation and learning throughout the study. Thus, case study was seen as a suitable methodology with which to address this study’s research questions.

Yin (2003b) describes case-study method as an empirical inquiry that investigates a contemporary phenomenon within a bounded real-life context. This idea is supported and expanded on by Cresswell (2007):

Case study research is a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual material, documents and reports) and reports a case description and case-based themes (p. 73).

The focus of case studies can be broad or focused (Berg, 2001). Case studies can be conducted on an individual, a group, an entire program, a type of situation, a particular entity, an activity or an entire community (Berg, 2001; Cresswell, 2007; Lichtman, 2006), depending on the issue or object being studied. In this sense, the specific group, event, social setting or person represents the ‘case’.

The cases in this research were the ODF where SBOMs are individual data points. The aim of conducting the research was to develop an understanding of whether and how
they (the SMOBs) participate and learn in an ODF. That is, the bounded case is the ODF and its ability to encourage participation and learning by SBOMs. The use of a bounded case is justified by Schrire (2006):

The case study framework answered the need for obtaining a holistic view of variables in interaction in the bounded context of the computer conference itself. In addition, the performance of a content analysis of the verbal data within the case study framework allowed the study to move from mere description to meaningful interpretation (p. 52).

There are various types of case studies. A single case study focuses on a single case only; multiple case studies include two or more cases within the same study (Yin, 2003a, p. 5). Whether single or multiple, the case study can be exploratory, explanatory or descriptive (Yin, 2003a). Each of these is discussed. Exploratory case studies aim to define the question and hypothesis of a subsequent study or determine the feasibility of the desired research procedures. Explanatory case studies present data bearing on cause-and-effect relationships, explaining how events happened (Yin, 2003a). According to Yin (2003a), descriptive case studies present a complete description of the phenomenon within its context.

For the purpose of this research, multiple descriptive case studies were used to provide a comprehensive description of SBOMs’ participation and learning in an ODF as it occurred during their daily working lives. Multiple descriptive case studies give an intensive examination (A. B. Thomas, 2004; Yin, 2003a) of how the ODF was used for learning in small business. Multiple descriptive case studies (Yin, 2003a) were used to describe contrasting results among the range of SBOM participants and non-participants in the ODF, thus reflecting the varied attributes of the population from which they were drawn (A. B. Thomas, 2004).

The key strength of a case study is its use of multiple sources and techniques in gathering data that may include surveys, documentation review, interviews and observation (Soy, 1997). Case study methods involve gathering sufficient data about a specific group, event, social setting or person to enable the researcher to develop a thorough understanding of how it operates or functions (Berg, 2001).
Criticism of case-study research centre around three main areas: first, the lack of rigour, second, that there is little basis for generalisability and, third, the length of time to complete the research and the large number of unreadable documents produced (Merriam, 1998; Yin, 2003b). The use of structured processes and procedures for data collection and analysis can address rigour in all forms of qualitative research (M. Q. Patton, 2002). The validity and reliability processes for this research are outlined in Section 5.4. In terms of generalisability, the goal of this research was to expand and generalise theory (as described in section 8.1) that is analytic generalisation, rather than statistical generalisation, which derives from a representative sample. Although it is acknowledged that the time to complete the research and the unreadable documentation can be problematic, a high-quality case study can be completed in a limited period with comprehensible documents.

5.4 Validity and Reliability

Validity and reliability are important because they refer to the credibility of the explanation and interpretation of the research (Maxwell, 2005). There are four tests commonly used to judge the quality of empirical qualitative research: construct validity, internal validity, external validity and reliability (Yin, 2003b). Each will be discussed in relation to this research except internal validity, which Yin (2003b) states is a concern only for causal or explanatory case studies.

5.4.1 Construct Validity

Construct validity refers to the use of correct operation measures for the concepts being studied (Yin, 2003b). According to Yin (2003b), this can be particularly problematic in case-study research, where operational measures used to collect the data are often not well developed. This study applied the three tactics for increasing construct validity in case studies outlined by Yin (2003b). First, this research used multiple sources of evidence, with data collected from the OCL forum (discussion forum transcript), participant interviews (interview transcripts), and focus groups (focus group transcript) to provide a number of different lines of inquiry. Second, this research provides a chain of evidence from the different sources of data collected to the findings in Chapter 6, by
providing direct quotes from the sources to support interpretations made. Third, the findings from the case-study report were reviewed by SBOMs who participated in the research.

Learning is a difficult concept to measure. To ensure construct validity in this case study it, was important that the concept be clearly defined and an operational measure be used to assess. A plethora of approaches have been designed to assess learning in an ODF; however, they have been limited largely to user self-reports, descriptive statistics based on the number of posts, posting rates, frequency counts and other quantitative measures (Gunawardena et al., 1997; Henri, 1992; Marra, Moore & Klimczak, 2004; Mason, 1992; Strijbos & Stahl, 2007). This research aimed to move beyond the dominant quantitative measures and analyse the discussion forum transcript to determine if learning does occur. In order to analyse the discussion forum transcript qualitatively, it was important the measure used also reflect the principles of social learning theory that underpin this research.

Henri’s (1992) computer and content analysis model was considered because it is based on social learning theory; however, the detail for coding discussion forum data was limited, and this was considered a weakness that would be difficult to overcome. More recent work in measuring ODF has been done by Pozzi et al. (2007). Their model builds on Henri’s (1992) original model, but provides significantly more detail about what constitutes the five different levels of learning they propose. While Pozzi et al.’s (2007) model is designed to measure formal university-based learning, the underlying assumptions are embedded in social learning theory and this theoretical underpinning was thought an important factor in choosing a measure for SBOMs’ participation and learning. Thus, the Pozzi model was considered an appropriate measure of participation and learning that could be applied to the ODF proposed in this research.

Pozzi et al. (2007) outline dimensions and indicators that are broad, enabling the framework to be adapted to fit the informal nature of this study’s ODF. The framework has five dimensions: participative, interactive, social, cognitive and teaching. Each of these is outlined in Table 5.1. The framework uses predominantly qualitative measures for assessing participation and learning. However, it does support participation with
counts of posts. Pozzi et al. (2007) provide clarity for how operational measures of participation and learning in an ODF will be assessed in this study. It also allows easier replication, because the process is well documented.

5.4.2 External Validity

External validity (or generalisability) refers to the extent to which the case study findings can be extended to other situations (Huberman & Miles, 2002; Merriam, 1998; Yin, 2003b). External validity has been problematic for qualitative researchers for some time (Merriam, 1998) and has been a major barrier in doing case studies (Yin, 2003b). However, as Cresswell (2009) asserts, the intent of qualitative inquiry is not to generalise findings outside those in the study. This is supported by Maxwell (2005) who states ‘external generalisability is often not a crucial issue for qualitative studies. Indeed, the value of a qualitative study may depend on its lack of external generalisability’ (p. 115).

There are procedures that can be used by the researcher to strengthen external validity. These include within a single case sampling from a subunit, or using multiple cases to study the same phenomenon (Merriam, 1998). In this study, external validity was strengthened by using multiple case studies and by sampling a number of SBOMs (subunits) in the ODF case. Limited generalisability can be seen as problematic in qualitative case-study research. However, its opposing strength of providing a rich, thick description of a particular group in a given situation was seen as important. That is, the value of this case study is the rich, thick description and themes developed from SBOMs participating and learning in the context of using an ODF.

5.4.3 Validation Strategies

In order to ensure confidence in the methodology and analysis, the following three validation strategies were used: triangulation, rich, thick descriptions in the findings, and the presentation of alternative explanations. Each of these is discussed here.
Triangulation was used to ensure the findings are trustworthy. Triangulation is the use of multiple methods to help develop an in-depth understanding of the phenomenon being studied (Denzin & Lincoln, 2005). Multiple methods add rigour, breadth and depth to the inquiry, which was important to help ensure that a full and complete picture of SBOMs’ participation and learning on an ODF was developed.

Triangulation of the data in this research occurred in three ways. First, the data were gathered from different sources and represented different data types. Data were collected through the ODF software, which established the SBOMs’ pattern of use within the discussion forum throughout the study. The SBOMs’ and the researcher’s contributions to the ODF were archived, providing the opportunity to examine material in detail using Pozzi et al.’s framework (2007) (see Table 5.1). Interviews with SBOMs were transcribed and analysed in conjunction with the ODF transcript. Focus groups with SBOMs were transcribed to assess why SBOMs chose not to take part in the discussion forums. Second, data were triangulated through the use of multiple data collection methods. Quantitative methods were used to gather information regarding SBOMs’ participation patterns on the discussion forum. Qualitative methods included the analysis of the ODFs, interviews and focus groups. Third, the findings were triangulated through theoretical checking and double-checking to ensure that theories could be replicated and confirmed through examination of different perspectives within the data.

The second validation strategy used in this research was the use of rich, thick description to communicate the findings, which, according to Cresswell (2009), transports the reader to the setting allowing the reader to make decisions about the transferability of the findings beyond that described. This thick description makes the findings richer and more realistic. The findings are shown in Chapters 6 and 7.

The third validation strategy applied was the presentation, where possible, of negative or discrepant information (Cresswell, 2009). In particular, the use of focus groups with SBOMs who did not participate in the ODF enabled the researcher to develop a more complete understanding of the factors that both support and prevent participation. This allowed the differing perspectives of SBOMs to be more accurately reflected.
Discussion of contrary information about various themes regarding participation added to the credibility of this case study.

Details of the analysis and inter-rater reliability are discussed in Section 5.8.2.

5.4.4 Reliability

Reliability refers to the operations of the study, such as the data collection procedures being able to be repeated with the same results (Yin, 2003b). In order to do this, the procedures of this case study were documented in as many steps as possible (Cresswell, 2009). Other reliability procedures used in this study included the checking and re-checking of transcripts to ensure that they did not contain transcription errors. During analysis of the interview transcripts, the codes were described on initial capture. Then to ensure that the meaning of the codes did not shift during the coding process, data were constantly compared with the initial definitions as suggested by Cresswell (2009).

In addition, the reliability of information in this case was increased by maintaining a chain of evidence (Yin, 2003b), the principle being that an external observer is able to trace the steps from research questions to conclusion or, alternatively, from conclusion back to the initial research question.

5.5 Ethical Considerations

Ethical considerations regarding this research focus on four issues; first, avoiding harm to respondents; second, informed consent; third, privacy, anonymity and confidentiality; and fourth, analysis and reporting (Babbie, 2002; Leedy & Ormrod, 2005; Sarantakos, 2005; Saunders et al., 1997). Each of these four issues including how they were managed in the design of the current study is discussed in this section.

First, this research was designed to ensure participants were not exposed to physical, psychological or legal harm (Sarantakos, 2005). Although the risk was small, there was some potential that SBOM participants could reveal sensitive information regarding themselves or their business during the computer mediated discussion. They could
reveal information that could embarrass or endanger their small business. To avoid this, only the SBOM’s first name and a brief description of the type of business (not the business name) were used, during the ODF.

Second, all participants in this research took part on a voluntary basis and completed an informed consent form prior to participating in this study. All SBOMs contacted were able to accept or refuse to take part. Those who chose to participate in this study did so knowingly and voluntarily, by reading and signing the informed consent letter, which outlined the research and the possible risks to the individual and their business. The informed consent letter described the nature of the research project, together with the type of participation required (Babbie, 2002; Cresswell, 2009; Sarantakos, 2005; Saunders et al., 1997). A copy of the informed consent letter is shown in Appendix A.

The letter explained what participation in the study would require and outlined that the data from the discussion forum would be collected from the online site. The letter also explained that SBOMs would be asked to take part in an interview, and clarified that their privacy would be protected because no participants would be revealed in any resulting publications. SBOMs were informed that their participation in this study was voluntary and they could withdraw at anytime without penalty. All SBOMs were made aware of whom they could contact if they had any concerns regarding the research. As such, the names of the SBOMs shown in the findings chapters have been changed to protect their identity.

Likewise, participation in the focus group was voluntary. The focus group invited SBOMs who had not participated in the OCL forum to take part in a discussion (focus group) about prior training. To encourage attendance drinks, food and a $50 gift voucher were offered. Invitations to attend one of two focus groups are shown in Appendix B. Third, this research respected the participants’ right to privacy, by ensuring that the nature and quality of participants’ responses remained strictly confidential (Sarantakos, 2005). Confidentiality was provided by ensuring that the name of the respondents do not appear on the research interviews or online forum data (Sarantakos, 2005). According to Saunders et al (1997) use of the discussion forums during data collection can lead to the possibility of ethical issues in regard to
confidentiality. To avoid harm participants used only their first name and a generic
description of their business in the OCL forum. That is, when they introduced
themselves online they used their first name, and did not reveal the name of their small
business, but instead gave a generic description the type of business that they owned.
They also used generic email addresses to access the forum, to avoid revealing their
business or personal identity, thus enabling them to ask questions and reveal answers
without revealing their identity. In addition, informed consent forms were kept separate
from the research data to ensure that names could not be linked (Sarantakos, 2005).

Fourth, ethics were adhered during the research, the writing and dissemination of this
research, by using pseudonyms and presenting a complete and honest report of the
findings. Analysis and reporting of the findings of this study uses pseudonyms, as
suggested by Cresswell (2009), thus quotes and names are used in the findings but the
name used is a pseudonym, thus helping to ensure that the information provided cannot
be linked with the respondent.

5.6 The Case

This section discusses the goal of this research and the planned research design. It
describes how SBOM participants were recruited for the research, and the data
collection and analysis process. In addition, it also addresses the specifics of how,
reliability and validity, generalisability, triangulation, relevance and rigour are
addressed in the data collection and analysis.

5.6.1 Research Goal and Planned Design

The goal of this research was to provide an ODF for SBOMs that enabled them to
engage in informal, network-based learning without having to leave their small
business. The learning design was focused on enabling SBOMs to help each other by
providing an ODF for asking small-business-related questions. The concept was that
SBOMs would be able to share knowledge with one another, to help and support each
other to learn and that this would occur ‘naturally’ without the need for facilitation.
Questions would be posed by SBOMs and answered by other SBOMs. That is, the ODF would be informal.

The plan for this research had five main stages of data collection, as shown in Figure 5.2. The first step was to set up the ODF (as described in Chapter 4) and invite SBOMs to participate. Step 2 was to allow small business to ask questions and to provide answers to each other on the ODF. This was expected to be self-facilitating. Step 3 was to conduct interviews with a selection of participants regarding their participation and learning using the ODF. It was anticipated that there would 50+ SBOMs participating, thus selection to represent differing levels of participation (i.e. low, medium and high) would be required. Step 4 was to conduct interviews with a sample of non-participants to develop an understanding of what prevented participation and what might be required for future participation.
However, due to the limited number of SBOMs participating in the OCL forum the research did not go as planned. The flexible nature of qualitative research (Leedy & Ormrod, 2005; Liamputtong & Ezzy, 2005) enabled a number of modifications to the planned research process to be made, in an attempt to answer the research questions. The actual research process is detailed in Section 5.7.

Figure 5.1: Planned Research Process
5.6.2 SBOM Participants

Participants were drawn from an internal university database. The database from the Small and Medium Enterprise Research Centre (SMERC) consisted of 212 records of SBOMs who had previously participated in formal face-to-face human resource management training between 2005 and 2007. The 212 SBOMs’ records in the database were reviewed, with 159 records being complete and valid.

A personalised email (i.e. their first name was included) explaining the research and inviting them to participate was sent to 159 SBOMs in the database, on 1 October 2007. The email had an informed consent form attached (see Appendix C and A respectively). Email was chosen for its speed, and as a means of ensuring that potential participants had the necessary level of computer literacy to participate in an ODF. Computer literacy had been identified as an important factor in online-learning participation in the literature review (see Section 3.3.4.2). Following the email, nine system administrator emails were received stating that the recipient could not be reached. Thus, 150 emails with attachments were successfully sent to potential participants.

In the week following the first email invitation, the researcher received eight email replies. Seven replies from SBOMs expressing their interest in participating in the research, and returning their completed consent form. There was also one response stating that they were too busy to participate. Each of the seven emails received in reply to the invitation were sent an email acknowledging their response. The email informed the SBOMs that they would receive another email with details regarding participating in the ODF.

Due to the limited response (7 from 150) to the first email, a reminder email was sent on the 10 October 2007, to the 143 potential participants, who had not responded. From this reminder email, another two participants agreed to take part, and returned their complete consent forms. Thus, from the original SMERC database, which contained 150 small business email addresses, nine SBOMs agreed to participate.
Nine SBOM participants for an ODF, was considered insufficient, based on research to date (De Schutter, Fahrni, & Rudolph, 2003). Thus, the researcher used a small list of new start-up businesses obtained from a local innovation laboratory, and a university networking event, to encourage a greater number of SBOMs to participate. Invitations were sent to 14 SBOMs (all at start-up phase) who had requested help or assistance from a local innovation laboratory. Two of these SBOMs agreed to participate, and returned their completed consent forms. Two additional participants were gained through a SBOMs’ networking event held in relation to other university business.

In total, 13 SBOMs agreed to participate in the OCL forum. They were emailed with instructions about how to join Yahoo Groups and a hyperlink to the ODF by the researcher on 17 October 2007.

5.7 Data Collection

This section describes the data collection process for this research. The data were collected in five stages. Figure 5.3 provides an overview of the data collection process and data collected.
5.7.1 Step 1: Metro SBOMs’ Online-Learning Forum

The OCL forum, an ODF for SBOMs, was set up by the researcher using Yahoo Groups in September 2007. The OCL forum is shown in Figure 5.4.
The Metro OCL forum was conducted over a two month period from 17 October 2007 to 13 December 2007 with seven SBOMs (of the 13 who agreed to participate), and two researchers (the author and her principal supervisor) participating in the forum. Yahoo Groups was used to host the OCL forum, as outlined in Chapter 4. The OCL forum began with no fixed finish date, it simply tapered off, and the last post was the 13th of December, 2007.

To start the forum, the researcher asked all participants to introduce themselves to the group by providing their first name and a brief outline of their small business. Participants were encouraged to post questions about business-related issues and to provide help and support to others where possible. The researcher observed the discussion on the OCL forum and it became clear after three days that the OCL forum was not going to be a self-moderating forum as planned. To promote discussion, the researcher began to facilitate the forum, prompting discussion by asking questions and providing encouragement to the participants.

Questions were posted by participants and the researchers, and suggestions, ideas and help were provided via participants and researchers in the online forum. This data were
held as threads on the OCL forum for the entire length of the forum use, and no entries required moderation. The analysis of this online discussion is described in Chapter 6.

To ensure data from the Metro OCL forum was not lost or corrupted, transcripts were copied to a Microsoft Word document. The Word file was stored on the researcher’s computer connected to the university network, which is backed up daily. All SBOMs’ data stored in the researcher’s computer used pseudonyms. Identifying details were changed without changing the context. When reporting quotes from the OCL forum, in chapter 6, they are used intact with punctuation and spelling errors retained.

5.7.2 Step 2: Interviews with ODF participants

Following the two-month trial of the metro OCL forum, interviews were conducted to investigate the SBOMs’ experience of participating and learning in an ODF. Interviews enabled the researcher to explore answers to the research questions about what factors led to different levels of participation and learning in the OCL forum. The SBOMs’ experience of participating and learning in an ODF is captured in the findings in Chapter 6.

Semi-structured interviews were conducted with all willing SBOMs who had signed up to participate in the OCL forum. This included the five SBOMs who participated in the OCL forum and one intentional participant (she signed up but did not actually participate in the ODF).

Semi-structured interviews were used to allow the researcher flexibility to omit questions, change the order depending on the flow of conversation and to include additional questions when exploration of topics raised by participants was required (Saunders et al., 1997). The interviews with participants addressed four primary topics: first, the business demographics; second, the participation in other training and learning activities; third participation in the OCL forum; and, fourth, learning via the OCL forum. The question framework for the participants is shown in Appendix D. While the interview question framework formed the basis of the themes for the interviews, questions were omitted when they were considered inappropriate, such as questions
regarding learning in the OCL forum when SBOMs had not participated. The semi-structured nature of the interviews also enabled the researcher to alter the order of the questions and to ask additional question to explore ideas, themes and issues raised by the participants.

All interviews were digitally recorded using an iPod. The digital recordings were uploaded to the researcher’s computer and then transcribed. All interview data were transcribed within a week of being recorded. Transcription was verbatim and completed by the researcher to ensure accuracy and security of data. In addition, the process of transcription provided the researcher with the opportunity to undertake the first analysis of the interview data (M. Q. Patton, 2002). M.Q. Patton (2002) suggests that analysis is an iterative process beginning with transcription. The process of listening, typing, listening again and checking the transcription is one in which the researcher becomes familiar with the phrasing, ideas, and nuances of what is being said as well how it is said, which is an important aspect of qualitative analysis. During transcription, the researcher noted, highlighted and captured codes, which provided the first insights into the participation and learning of SBOMs in an ODF.

Following transcription, the data were checked for accuracy by listening to the digital recording while simultaneously reading the transcription. The data were then cleaned using an approach used by Dennen and Wieland (2007) where all names used in the research were replaced with pseudonyms, and identifying details were changed without changing the context. Personal, on-the-side discussion not pertaining to the research topic was deleted. Quotes from the ODFs are used intact, with punctuation and spelling errors retained.

In addition to the interview recordings, the researcher also made field notes during each interview. As Patton (2002) describes, the field notes from this research include a description of business premises, where the interview took place, who was present and the dates and time of the interviews. In addition, the key ideas and topics of discussion given in response to the questions asked were also noted. In this way, the researcher’s field notes also served as a backup in case of any technology failures.
5.7.3 Step 3: Focus Group with SBOMs Who Did Not Participate in OCL Forum

To gather data about what factors contributed to SBOMs’ decision not to participate in the ODF, two focus groups were organised. All SBOMs who lived within a 10 kilometre radius of the focus group locations and did not participate in the OCL forum were invited to attend a focus group. One focus group was held in the northern suburbs (Perth, Western Australia) and the other in the southern suburbs, to enable easy access.

Twenty-three (23) SBOMs were invited by phone to the northern suburbs focus group (based on their business being located in the northern suburbs). The focus group was held at 6 pm, allowing a standard business day to be uninterrupted. In an attempt to improve participation in the focus group, a meal and a $50.00 store voucher was offered to all SBOMs who attended. Seven SBOMs agreed to take part, and an email was sent with full details to all who agreed; however, only one SBOM attended the scheduled northern suburbs focus group. Thus, an interview format was used. The interview was conducted in a private room of a northern suburbs restaurant, the planned location of the focus group. It addressed three primary topics: first, the business demographics, second, the participation in other training and learning activities and, third, what prevented participation in the ODF. The question framework for this participant is shown in Appendix E. While these questions formed the basis of the interview, other questions were included by the researcher in an effort to explore the ideas, themes and issues raised by the participant.

Whilst a focus group was scheduled, it was an interview that was actually conducted as only one participant was present. There are differences between the two formats. Firstly there were no peers to aid in the development ideas. Secondly there are no peers to place pressure on individuals. Thirdly the atmosphere of an interview is more formal, than that of a focus group. This change in format, whilst necessary to cope with the situation of only having one SBOM turn up for the focus group it is likely that this had affects on the results obtained.
Twenty-eight SBOMs were invited to the southern suburbs focus group (based on their business being located in the southern suburbs). In an attempt to improve participation in the focus group, based on the limited turnout at the northern suburbs focus group, the southern suburbs focus group was scheduled as a working lunch between 12 pm and 2 pm. All SBOMs were offered a free lunch and $50.00 store voucher to attend. Seven SBOMs took part in the southern suburbs focus group.

The southern suburbs focus group was run by the researcher and a research assistant. The research assistant assisted in the room set-up and took the field notes to enable the researcher to focus on asking questions and facilitating the group. The focus group was conducted in a training room of the small business development centre (a government funded small business support centre) in the southern suburbs. The focus group addressed three primary topics: first, the business demographics, second, the participation in other training and learning activities and, third, what prevented participation in the ODF. The question framework is shown in Appendix E. While these questions formed the basis of the focus group, other questions were included by the researcher during the focus group to explore the ideas, themes and issues raised by the participants.

The focus group and interview (originally scheduled as a focus group) were digitally recorded using an iPod with a recording attachment. The digital recordings were uploaded to the researcher’s computer and then transcribed. All focus group and interview data were transcribed within a week of being recorded. Transcription was verbatim and completed by the researcher to ensure accuracy and security of data. In addition, the process of transcription provided the researcher with the opportunity to undertake the first analysis of the data (see Section 5.8). During the process of transcription, the researcher noted, highlighted and captured codes, which provided the first insights into the participation and learning of SBOMs in an ODF.

Following transcription, the data were checked for accuracy by listening to the digital recording while simultaneously reading the transcription. The data were then cleaned using an approach used by Dennen and Wieland (2007) where all names used in the research were replaced with pseudonyms and identifying details changed without
changing the context. Personal, on-the-side discussion not pertaining to the research topic was deleted. Quotes from the focus group and interviews are used intact (findings Chapter 6) with punctuation and spelling errors retained.

In addition to the focus group, the researcher also made field notes during the focus groups. Field notes include a description of the date, time, business premises, location and attendees. In addition, the key points from the participants’ responses were also noted. In this way, the researcher’s field notes also served as a backup in case of any technology failures.

5.7.4 Step 4: Initial Analysis of Metro Data

During the facilitation of the metro ODF and the transcription of interviews and focus groups, three themes emerged regarding problems with participation. First, it was clear from the low levels of participation in the OCL forum, that an informal ODF might not be the solution for encouraging participation in learning. Second, the initial analysis of the interview data revealed that the useability of the OCL forum was problematic for SBOMs. Two useability problems were noted by SBOMs when participating in the OCL forum: the requirement to be a Yahoo member concerned some, and the display of discussion threads in chronological order made reading and contributing difficult. Third, during interviews some SBOMs suggested that linking ODFs to face-to-face networking and learning events would help improve participation online. A full examination of these findings is provided in Chapter 6.

In order to explore fully the use of ODF for SBOMs, a choice was made to set up a second ODF that eliminated the two usability issues raised by SBOMs in the ODF.

5.7.5 Step 5: Regional Online Forum Phase 2

A second forum that did not require membership, and where the threads were in reverse chronological order, was set up to explore whether the useability issues explained the low levels of participation in the ODF. The second forum was for SBOMs operating
businesses in the regional Western Australia and, as such, became known as the regional online forum.

The set-up of the Great Southern online forum was based on the lessons learnt from the initial findings from the OCL forum. The set-up was designed to eliminate the two major usability issues raised by SBOMs in interviews following the Metro OCL forum. The researcher used a different type of forum host, phpbb (http://www.phpbb.com/), that did not require membership to participate in the forum and enabled threads to be displayed in reverse chronology, that is, the most recent post first rather than in the chronological order that Yahoo Groups displayed posts. The Great Southern online forum is shown in Figure 5.5.

![Great Southern Online Forum](image.png)

Figure 5.5: Great Southern Online Forum

The SMERC database held 87 records for businesses in the Great Southern region; of the 87 participants, 53 had email addresses. The other 34 were contacted by telephone to obtain their email addresses. Six email addresses were obtained, 20 were unable to be contacted (e.g. phone rang out, insufficient details in the database), and eight stated on the phone that they were not interested in participating. Fifty-nine potential participants in the Great Southern region were contacted via email on 5 September 2008 to take part
in the Great Southern online forum. See Appendix C for a copy of the email (which was tailored for each invitee). There were no replies to the emails, and no one signed in to the Great Southern online forum. Follow-up emails were sent to encourage participation, but not a single SBOM took part in the Great Southern online forum.

Thus, the question about usability and its impact on participation remained. The findings regarding SBOMs’ participation in the OCL forum are examined in Chapter 6. A discussion of why this may occur is explored in Chapter 7.

5.7.6 Step 6: The Green Advantage SBOM Forum

The linking of an ODF to a face-to-face networking or training event was suggested in interviews following the Metro OCL forum, as a way to improve participation online. An opportunity to explore the link between face-to-face events and online discussion participation arose when SMERC, within the researcher’s university, began a training program, The Green Advantage, aimed at improving SBOMs’ environmental awareness. An ODF was set up to support the SBOMs who attended The Green Advantage program. The Green Advantage SBOMs’ forum (the Green Forum) was available for SBOMs immediately after the workshop. This allowed the researcher to explore if linking a face-to-face event to a discussion forum promoted online participation. The format was similar to the Regional online forum, having threads displayed in reverse chronological order.

The Green Forum was available for two months, between 5 September 2008 and 5 November 2008. Invitations were sent to 70 SBOMs, 22 signed up, and two posts were made by SBOMs to the forum. Such limited posting prevented analysis. However, the results from the Green Forum are used to support aspects of the findings and discussion in Chapter 7.

5.8 Data Analysis
The data analysis used in this research was aimed to provide a comprehensive picture of participation and learning by SBOMs in the OCL forum.

5.8.1 Discussion Forum Descriptive Statistics

Data analysis began with the generation of a range of descriptive statistics from the online-learning discussion forum data collected. Data were analysed quantitatively. It included the total number of messages posted during the forum, the average length (number of lines of text) of posts, the number of posts per participation, the number of posts by researchers, the number of posts per topic, the date and time of the posts, and the percentage of researcher and participant posts, in line with the Pozzi et al. (2007) framework. As discussed by Thompson and Savenye (2007) in relation to voluntary participation, this initial quantitative analysis allowed levels of engagement within the OCL forum and the commitment of time by each participant to be measured, but it did not determine the quality of the participation or learning that occurred.

5.8.2 Discussion Forum Analysis: Participation and Learning

The transcripts of the OCL forum were analysed using Pozzi et al.’s (2007) framework. The framework is a five-dimension model: participative, interactive, social, cognitive and teaching. The framework describes the method used to analyse participation and learning in the ODF. Their framework is based on a five-dimension model that includes participative, interactive, social, cognitive and teaching. Each of the dimensions is described in Table 5.1.

Pozzi et al.’s (2007) framework offers both qualitative and quantitative measures for assessing learning as it occurs in an ODF. While Pozzi et al.’s (2007) model was designed to measure formal university-based learning, in particular, teacher training, the pedagogical model that underpins the model ‘is based on the assumption that knowledge can be constructed through social negotiation and that discussion with others—peers or tutors—is a primary way to learn because it encourages critical thinking and hence understanding’ (Garrison et al., 1999 as cited in Pozzi et al., 2007, pp. 169–170). The OCL forum is based on a similar theoretical model. As such, Pozzi et al.’s (2007) model
was considered a suitable model to measure learning by SBOMs in the OCL forum. The framework outlines dimensions and indicators that are broad, enabling the framework to be adapted to fit the informal nature of OCL forum.
Table 5.1: Learning Dimensions, Indicators and Manifestations

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicators</th>
<th>Manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Participative</td>
<td>Active participation</td>
<td>Number of messages posted, document uploaded</td>
</tr>
<tr>
<td></td>
<td>Passive participation</td>
<td>Number of messages read</td>
</tr>
<tr>
<td></td>
<td>Continuity</td>
<td>Distribution of participation over time</td>
</tr>
<tr>
<td>2. Interactive</td>
<td>Passive participation before posting</td>
<td>Number of answers to other participants messages</td>
</tr>
<tr>
<td></td>
<td>Reference to other participants’ messages</td>
<td>Implicit and explicit citations of other students’ messages</td>
</tr>
<tr>
<td></td>
<td>Consideration of others’ contributions</td>
<td>Reference to others’ messages</td>
</tr>
<tr>
<td>3. Social dimension</td>
<td>Affection</td>
<td>Expression of emotions, intimacy and personal anecdotes</td>
</tr>
<tr>
<td></td>
<td>Cohesiveness</td>
<td>Reference to group using pronouns, phatics and salutations</td>
</tr>
<tr>
<td>4. Cognitive and meta-cognitive</td>
<td>Revelation</td>
<td>Recognising a problem, showing a sense of puzzlement, explaining or presenting a point of view</td>
</tr>
<tr>
<td></td>
<td>Exploration</td>
<td>Expressing agreement/disagreement, sharing ideas and information, brainstorming, negotiating, exploring</td>
</tr>
<tr>
<td></td>
<td>Integration</td>
<td>Connecting ideas, making synthesis, creating solutions</td>
</tr>
<tr>
<td></td>
<td>Resolution</td>
<td>Real-life applications, testing solutions</td>
</tr>
<tr>
<td>5. Teaching</td>
<td>Direct instruction</td>
<td>Presenting contents, proposing activities, diagnosing misconceptions, confirming understanding through assessment and explanatory feedback</td>
</tr>
<tr>
<td></td>
<td>Facilitating Discourse</td>
<td>Identifying areas of agreement/disagreement in order to achieve consensus, encouraging, acknowledging or reinforcing participant contribution, setting the climate for learning</td>
</tr>
<tr>
<td></td>
<td>Organisational Matters</td>
<td>Introducing topics, planning the course, explaining methods, reminding students of deadlines</td>
</tr>
</tbody>
</table>

Adapted from Pozzi et al., (2007)
Analysing the OCL forum transcript using Pozzi et al.’s (2007) framework was complicated. Limited detail regarding the unit of analysis was provided in the article, “A general framework for tracking and analysing learning processes in computer-supported collaborative learning environments’. Soon after analysis commenced, it became apparent that many posts demonstrated multiple learning dimensions within a single message. This prevented the coding of a complete message to a single learning dimension. Pozzi et al. (2007) make no mention of the unit of analysis that should be applied. As a result, the unit of analysis is left to the discretion of the researcher. Messages could be analysed at the message level, which may contain several paragraphs, at the paragraph level, or at the unit of meaning or sentence level. As a result, the researcher had to determine the unit of analysis for this research.

To determine the unit of analysis, a number of factors were taken into consideration. First, it was thought that the complex nature of learning could be lost if the ODF transcripts were coded only at the message level, as a number of messages were several paragraphs long. Second, paragraphs were considered an unsuitable unit of analysis, because the informal nature of the ODF resulted in paragraphs not always formally structured and, as such, contained a number of ideas. As a result, the unit of analysis went beyond the paragraph level to analyse sentences, phrases or words to allow the multiple learning dimensions represented to be reflected.

To validate the coding procedures, one researcher coded the transcript data twice. Each coding was done separately, one week apart. In addition, a second researcher coded the data. The individual analyses were very similar in the identification and interpretation of Pozzi et al.’s levels with inter-rater reliability being 72 per cent across the categories. Whilst Miles and Huberman (1994) suggest that qualitative researchers should aim for inter-rater reliability 80 per cent, 72 per cent was deemed adequate given the subjectiveness of the coding criteria. Inter-rater discrepancies were resolved by discussion, and no data remained uncoded. Notably, inter-rater agreement was higher for the cognitive/meta-cognitive dimension (dimension 4) than with the participative, interactive and social dimensions. Clarity of distinguishing interactive discussion from social was more difficult. The model proposed by Pozzi et al. (2007) enabled the
researchers to more clearly identify this cognitive/meta-cognitive activity than the first three dimensions.

The findings regarding SBOMs’ participation and learning in an ODF are reported in Chapter 6.

5.8.3 Analysing Interviews, Focus Groups and Field Note Data

The data analysis of interviews and the focus group occurred in three stages: first, preparing and organising the data; second, reducing the data to themes through a process of coding and then condensing the codes; and third, representing the data in discussion, figures and tables in Chapter 6 of the thesis. The detailed analytical procedures that support each of the three stages are explained in this section.

The analysis of the interview transcripts and focus group data adopted a systematic approach to analysis, as outlined by Huberman and Miles (1994). Analysis began during the interview process, with the researcher noting interesting comments and making connections between participants’ comments and links with existing research, as covered in Chapters 2 and 3. Analysis was iterative and continued throughout the research, from data collection, through to and including, writing up. The data interpretation and analysis was continually revised throughout the life of this research, as new understandings were made by the researcher.

The first stage of the inductive analysis involved reading and re-reading the interview transcripts and the focus group notes several times, to get a sense of each interview and focus group as a whole (Cresswell, 2007). This enabled the researcher to further familiarise herself with the data while beginning to structure the data into meaningful units. The process of reading and re-reading transcripts raised awareness of the ‘patterns, themes and categories’ (M. Q. Patton, 2002, p. 453) that begin to emerge in the data. Initial insights, ideas and key concepts regarding the data were coded and noted in the margins of the interview transcript printouts in the form of memos. These provided some major organising ideas as suggested by Cresswell (2007), which were used to begin the coding process following all data being uploaded to NVivo.
NVivo qualitative data analysis software (QSR, 2007) was used to provide rigour and to allow full exploration of the findings. NVivo helped the researcher to manage, shape and analyse qualitative data (Cresswell, 2007). Primarily, NVivo assisted by allowing the data to be recorded and stored in a single location and enabled the researcher to isolate segments of text and code them, linking them with other segments of text for future retrieval.

The transcripts from all interviews, focus groups, and field notes were uploaded to NVivo. All documents were uploaded as separate Microsoft Word documents, thus maintaining clear linkage to the original sources. The process of coding continued, using NVivo. The analysis used the initial codes from the transcript memos. These formed the basis of the initial coding. Each interview transcript was analysed in detail in NVivo, with text being coded to existing codes, or, when new insights were gained during the analysis, new codes where created. Following the interview data, the focus group data and the ODF was coded in the same way. ‘Open’ codes were attached to those sections of data that appeared to be important to the understanding of the participation and learning of SBOMs in an ODF. Thus, some sections of the data were coded in a variety of ways, while others were discarded as irrelevant. These open codes were broadly categorised under the three major themes of learning, participation and business information. Figure 5.6 shows these initial codes in NVivo.
During this initial coding of data in NVivo, the researcher made use of the memo function to record the logic of initial interpretations made in the early phase of analysis. Codes were primarily developed based on the emerging information collected from participants. However, it should be noted that it is likely that at least some codes were influenced by the researcher’s understanding of the existing literature. This open coding process enabled the researcher to deconstruct the data and reconceptualise (Liamputtong & Ezzy, 2005) in relation to the RQs.

Once all data were coded in NVivo, initial codes were reviewed to look for ways of reducing and combining the codes into themes. Moving beyond coding involved printing all the data by code from NVivo. The data were read and re-read by code. This proceeded through each code as the researcher looked for categories and themes of information. Initial themes began to emerge where similar codes were grouped together. To help understand the data, the researcher sketched many diagrams in an attempt to identify interrelationships between codes. Eventually, a hierarchy of codes began to
develop that described the same phenomenon or theme. For example, the codes of being action-oriented, linking learning with success, and all learning being valuable were linked to the theme of SBOMs’ attitudes about learning. SBOMs’ attitudes about learning became a key theme in explaining why SBOMs chose to participate (or not) in the ODF, as discussed in the findings in Chapter 6.

The final phase of the data analysis involved presenting the data in a combination of text, tables and figures, which are shown in the findings in Chapter 6 of this thesis.

5.9 Limitations

This research had two major limitations: one, not all SBOMs have access and therefore participation is limited to those who did; two, of those with access few participated.

Participation in this research was reliant on SBOMs having Internet access (which, conversely, is reported in the literature review as a primary advantage see Section 3.3.3.1). It is recognised that not all small businesses have access to the Internet. Latest figures from the ABS show that 99 per cent of big businesses (200 or more employees) used the Internet during the year ending 30 June 2008 (Australian Bureau of Statistics, 2009). This usage figure declines with business size, with only 83 per cent of micro businesses using the Internet during the same period (Australian Bureau of Statistics, 2009). For this reason, some SBOMs would be unable to participate because they do not have access to the Internet, or they do not have easy access.

Having a limited number of SBOMs participate in the ODFs had implications for this research. It restricted the flow of discussion in the forums. The low rate of participation resulted in few questions being asked by SBOMs and few responses when questions were asked (see Section 6.5.1.1), as a result of limited participation learning was restricted. As discussed in Chapter 2, a social–constructivist learning environment requires active participation to enable learners to construct their own knowledge. Without active participation in the ODFs, learning was limited. However, it should be recognised that limited participation in the ODFs provided important insight into the
usefulness of this technology as a learning tool for SBOMs, and helped to answer the overarching research question.

5.10 Summary

In this chapter the methods used to collect and analyse the data necessary to answer the research questions have been described. This research was conducted using constructivist ontology, an interpretivist epistemology and a qualitative methodology to address the research questions. The case study approach selected sought to evaluate SBOMs’ participation and learning using an ODF by using reliable data from SBOMs. Data from multiple sources: ODF transcript, in-depth interviews, focus groups and field notes were gathered and analysed using both NVivo and manual methods. The data analysis developed themes regarding SBOMs’ participation and learning in ODF. The findings are described in Chapter 6.
Chapter 6: Findings—Participation and Learning

The ultimate test of a study’s worth is that the findings ring true to people and let them see things in new ways (Liamputtong & Ezzy, 2005, p. 32).

6.1 Introduction

In this chapter, research findings are outlined regarding SBOMs’ participation and learning via the OCL forum. Findings from this research provide some evidence that SBOMs can learn by participating in an informal ODF. However, participation by SBOMs cannot be assumed. Despite the OCL forum providing a learning opportunity that was online, did not require time away from their business and met their learning preferences for informal, network-based learning, participation by SBOMs was limited.

This chapter commences with a description of the research participants and the data collection. In particular, it explains the OCL forum posts in terms of number, topic, length and patterns that emerged. This is followed by analysis of the OCL forum data using Pozzi et al.’s (2007) framework. Pozzi et al.’s (2007) model is used to demonstrate how the various levels of participation and learning proposed by the framework were demonstrated by SBOMs on the OCL forum.

The second section of the findings explores why SBOMs chose to participate (or not) in the OCL forum. Three major themes emerged that influence SBOMs’ participation in the OCL forum. The first theme, SBOMs’ commitment to learning, is influenced by three factors: their prior ODF experience, their attitude regarding the value of learning for business success and their occupational identity. When SBOMs are committed to learning, they are more willing to set aside time to participate in learning. The second theme that emerged was the influence of the technical design of the OCL forum on participation and learning. This second theme explores the importance of easy access to a networked computer, ease of connection and the useability of the forum. The third theme that emerged was the influence of the OCL forum learning design on SBOMs’
participation and learning. This section outlines the importance of discussion-topic relevance and timelines, the facilitator’s role and the importance of trust. The chapter concludes with a summary of the key findings regarding SBOMs’ participation and learning in the OCL forum.

6.2 Research Participants

The OCL forum was developed for SBOMs; it provided a learning approach that addressed their reasons for not attending formal training while simultaneously addressing their learning preferences. However, the number of SBOMs who participated was low, as outlined in Chapter 5.

6.2.1 Group Size and Composition

6.2.1.1 Participants

A total of 159 SBOMs were invited to join the OCL forum; however, only seven participated. This represents a participation rate of less than five per cent. While these participation rates are low, they do reflect the broader challenges of SBOMs’ training or learning participation as discussed in Chapter 2. Repeated efforts were made to encourage and entice their voluntary participation as discussed in Chapter 5; however, participation rates remained low. Whilst the number of participants is low, data was collected in multiple forms and provides a rich account of SBOM participation and learning in the OCL forum. Small number of participants in SBOM learning and training research is common, other researchers in online and small business training in general using small numbers (Moon, Birchall, Williams and Vrasidas, 2005; Billington, Neeson, Barrett, 2009; Walker, Redmond, Webster and LeClus (2007) Stewart and Alexander, 2006a, 2006b). The SBOMs who did participate in the OCL forum represented a variety of businesses and industry types. Details of the participating SBOMs, including their pseudonyms, types of businesses, number of years their businesses had been in operation and the number of employees is shown in Table 6.1.
The typical SBOM participant in this research was 40+ years of age, which reflects the general population of SBOMs in Australia with 58 per cent of all SBOMs aged between 30 and 50 years of age (Australian Bureau of Statistics, 2008). Most of the SBOM participants had more than five years experience of owning and managing a small business and had between two and seven employees. There were slightly more males than females (4:3), which reflects the statistics for the general population of SBOMs at 68 per cent male and 32 per cent female (Australian Bureau of Statistics, 2008).
<table>
<thead>
<tr>
<th>SBOM Name</th>
<th>Type of Business</th>
<th>Business Type</th>
<th>ABS Industry Codes</th>
<th>Location</th>
<th>Number of Employees</th>
<th>Number of Years in Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kelly</strong></td>
<td>Web design company offering small businesses the full solution, providing hosting, email, and website design</td>
<td>Proprietary limited</td>
<td>Business Services (78)</td>
<td>North-eastern suburbs of Perth, Western Australia</td>
<td>2 + up to 40 contract workers available in India</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Rachel</strong></td>
<td>Custom-designed high-performance exhaust systems</td>
<td>Proprietary limited</td>
<td>Motor Vehicle Retailing &amp; Services (53)</td>
<td>Northern suburbs of Perth, Western Australia, in an office/workshop within a light industrial/commercial area</td>
<td>Unknown (no interview given)</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Mike</strong></td>
<td>Three separate businesses, signage &amp; graphic design: a print business, and a window-tinting business</td>
<td>Proprietary limited as trustees for a trust</td>
<td>Printing Publishing &amp; Recorded Media (24)</td>
<td>South-eastern suburbs of Perth, Western Australia</td>
<td>3 full-time</td>
<td>8+ years (with original window-tinting business 12 years)</td>
</tr>
<tr>
<td><strong>Steve</strong></td>
<td>General finance broker to small and medium businesses, a very broad range of clients</td>
<td>Proprietary limited</td>
<td>Finance (73)</td>
<td>Inner northern suburbs of Perth, Western Australia, in an office within a light industrial area</td>
<td>4 full-time 1 part-time</td>
<td>8 years</td>
</tr>
<tr>
<td><strong>Neil</strong></td>
<td>Wholesale plant equipment</td>
<td>Proprietary limited</td>
<td>Machinery &amp; Motor Vehicle Wholesaling (46)</td>
<td>Northern suburbs of Perth, Western Australia, in an office–workshop within a light industrial–commercial district</td>
<td>7 full-time</td>
<td>10 years</td>
</tr>
<tr>
<td><strong>Donna</strong></td>
<td>Business consultant</td>
<td>Sole trader</td>
<td>Business Services (78)</td>
<td>Operates business from home office</td>
<td>1 full-time</td>
<td>18 months</td>
</tr>
<tr>
<td><strong>Colin</strong></td>
<td>Corrosion and inspection engineering</td>
<td>Unknown (no information provided)</td>
<td>Motor Vehicle Retailing &amp; Services (53)</td>
<td>Unknown (no information provided)</td>
<td>Unknown (no information provided)</td>
<td>Unknown (no information provided)</td>
</tr>
<tr>
<td><strong>Teena</strong></td>
<td>Edith Cowan University: colleague</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Together with the SBOMs who participated in the OCL forum, two other groups of SBOMs were involved in providing data for this research: intentional participants and non-participants.

6.2.1.2 Intentional Participants

Intentional participants are SBOMs who were invited and who completed the consent form but who did not make any posts on the OCL forum. This was one female participant who owns and operates an Indigenous therapy business.

6.2.1.3 Non-Participants

Non-participants are SBOMs who were invited to participate in the OCL forum but who chose not to participate. Eight of these non-participants attended a focus group or interview. This enabled the researcher to explore the reasons why they did not participate. There were slightly more female non-participants (5) than male (3). The focus group participants represented a range of businesses, as shown in Table 6.2.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Small Business Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Information Technology contract labour supply</td>
</tr>
<tr>
<td>Female</td>
<td>Coach Tour Business</td>
</tr>
<tr>
<td>Female</td>
<td>Physiotherapist</td>
</tr>
<tr>
<td>Male</td>
<td>Consumer good importer</td>
</tr>
<tr>
<td>Male</td>
<td>Property renovation and presentation</td>
</tr>
<tr>
<td>Female</td>
<td>Print and design</td>
</tr>
<tr>
<td>Female</td>
<td>Hair dressing</td>
</tr>
</tbody>
</table>

Table 6.2: Focus Group Participants
6.3 Data Collected

Four main forms of data were collected during the research: ODF transcripts, interview transcripts, focus group notes and field notes.

6.3.1.1 ODF Transcripts

The OCL forum transcripts contained a complete record of the online discussion that occurred. The discussion forum technology (Yahoo Groups) captured what was discussed, together with posting information, such as email address, date and time. This information was captured from Yahoo Groups and then downloaded into a Microsoft Word document. Data were cleaned to ensure the identity of participants remained confidential by allocating a pseudonym to each of the online participants.

6.3.1.2 Interview Transcripts

Interviews with participants were recorded electronically and then transcribed verbatim into a Microsoft Word document. Each participant’s identity in the interview script was kept confidential through the allocation of a pseudonym. Interview scripts contained all questions asked and all responses obtained through the interview, together with the interview date, time and location.

6.3.1.3 Focus Group Notes

Notes taken during the focus group were recorded with pen and paper and then transcribed into electronic form. Notes contained participants’ names and the location, date and time of the focus group along with the key discussion points.

6.3.1.4 Field Notes

Field notes were made by the researcher during the ODF, the focus group and the interviews. These included discussion notes, observations about each participant and his
or her business, tentative connections with literature, questions about observations and information such as the date, time and location.

While data were predominately qualitative, some of the OCL forum data were quantitative in nature. Quantitative data included information about participation in the OCL forum, such as the number of lines of text per post and the number of posts made by participant, day and topic. Data were analysed in a variety of ways in order to interpret what factors influenced SBOMs’ participation and learning in an ODF. A brief outline of how data collected were analysed is described in the next section.

### 6.4 Data Analysis

The four forms of data were collected and then analysed in two ways. First, the OCL forum transcript was analysed using Pozzi et al.’s (2007) framework to analyse the social and cognitive processes of SBOMs’ participation and learning via the OCL forum. Second, all four forms of data collected (the OCL forum data, the interview transcripts, the focus group notes and the field notes as outlined in the previous section) were analysed to determine the patterns, themes and categories that emerged regarding the factors that influenced SBOMs’ participation and learning in the OCL forum. Figure 6.1 diagrammatically depicts the data collected, the analysis and the findings.
6.5 Analysis: Pozzi et al.’s Framework

The OCL forum transcript was analysed using Pozzi et al.’s (2007) framework for analysing an ODF, as outlined in their article ‘A general framework for tracking and analysing learning process in computer-supported collaborative learning environments’. The framework details five dimensions: participative, interactive, social, cognitive and teaching. According to Pozzi et al., each dimension is ‘analysed through a set of indicators obtained by tracking participants’ behaviour’ (2007, p. 169) within the OCL forum. The dimensions, indicators and manifestations of Pozzi et al.’s framework are outlined in Chapter 5 in Table 5.1.

To analyse whether and how learning occurred in the OCL forum, each message posted was classified using the dimensions described in Pozzi et al.’s framework (2007). Although, theoretically, the framework appeared simple and straightforward, the application of the framework to real forum data was not without its challenges. In particular, determining to which dimension each post should be allocated was particularly difficult, as some OCL forum posts contained evidence of multiple...
dimensions. Several posts contained two or three dimensions within them. Thus, for the purposes of classifying each post, the highest dimension in the post was used to classify the whole message. That is, if the message contained elements of interactive (2) and cognitive (4), the message was classified as cognitive (4). This classification represents each post in Figure 6.2.

As can be seen in Figure 6.2, the initial posts to the OCL forum were mostly participative and interactive in nature (1 and 2), but became more social (3) and cognitive (4) as the forum progressed. The trend line in Figure 6.2 illustrates the progression of the discussion on the OCL forum from initially participative to becoming progressively cognitive over time. In addition, the frequency of posts made by the facilitator (5) decreased over time as the SBOM participants became more familiar with using the OCL forum.

Analysis of the OCL forum transcript data using each of the five dimensions of Pozzi et al.’s (2007) framework is described in the following sections.
6.5.1 Participative Dimension

The participative dimension measures the level of involvement by the participants in the OCL forum. According to Pozzi et al. (2007), participation can be measured using three categories: active, passive and the degree of continuity of participation across time. Measures include accessing the forum, posting to the forum and the number of documents downloaded or uploaded. Participation in the OCL forum was determined by quantifying the number of messages posted by each participant. The number of posts to each topic and the day and time of posts were also analysed to see if participation displayed any identifiable patterns. Although it does not include data about lurkers, that those who read but don’t post. This may have been provided additional information about participation.

6.5.1.1 Participating in the OCL Forum

The limited number of participants resulted in a low level of participation online. A total of 60 posts were made to the OCL forum over two months. The SBOMs varied in their participation from posting a single post to up to ten posts. Details of how many posts and the percentage of posts made by each participant are shown in Table 6.3.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Number of Posts</th>
<th>% of Total Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher</td>
<td>22</td>
<td>36.67</td>
</tr>
<tr>
<td>Kelly</td>
<td>10</td>
<td>16.67</td>
</tr>
<tr>
<td>Rachel</td>
<td>8</td>
<td>13.33</td>
</tr>
<tr>
<td>Mike</td>
<td>6</td>
<td>10.00</td>
</tr>
<tr>
<td>Steve</td>
<td>5</td>
<td>8.33</td>
</tr>
<tr>
<td>Teena</td>
<td>3</td>
<td>5.00</td>
</tr>
<tr>
<td>Neil</td>
<td>3</td>
<td>5.00</td>
</tr>
<tr>
<td>Donna</td>
<td>2</td>
<td>3.33</td>
</tr>
<tr>
<td>Colin</td>
<td>1</td>
<td>1.67</td>
</tr>
<tr>
<td>Total Posts</td>
<td>60</td>
<td>100.00</td>
</tr>
</tbody>
</table>
As Table 6.3 demonstrates, the researcher made the highest percentage of posts. The facilitator role was not to participate in the OCL forum, but to promote and moderate discussion. Unfortunately as conversation did not flow naturally, the facilitator made many postings to promote or encourage discussion by the SBOM participants.

Despite the low level of participation in the OCL forum, the SBOMs who participated enjoyed their experience and expressed a willingness to take part in similar learning events in the future. The participating group were very committed to learning (see Section 6.2.1.1) and considered the OCL forum a convenient learning tool.

At times, the limited number of participants on the OCL forum restricted the natural flow of discussion. It made it difficult for robust debate to occur or for a variety of points of view to be expressed. Participants recognised that if more SBOMs had taken part, there would have been more discussion online and a greater variety of topics, questions and answers. In his interview, Mike commented that the inclusion of more participants would have been instrumental in improving his experience on the OCL forum:

More people … because it was a very, very small … I think if you’d had more people on there. I think you would have found that it would … have gained its own momentum. Mike, SBOM Interview

It appears from these findings that there is a ‘magic number’ or, at least, a minimum number of participants that enables discussion on forums to flow naturally. The concept of the ‘ideal’ number of participants is explored in the discussion in Section 7.5.2.8.

Although Pozzi et al. (2007) discuss the importance of passive participation (where a message is read but a post is not made), this could not be assessed in the OCL forum. Unfortunately, the host, Yahoo Groups, did not record when messages were read or when participants logged on. However, evidence that passive participation occurred on the forum was captured in follow-up interviews. When participant Colin joined the OCL forum after six weeks and made his first post, he stated, ‘I have read a few of the messages and will continue go through them in order to pick up the threads’. He had not
actively participated for the first six weeks of the forum, but was now reading the posts to try to catch up on what was being discussed. In addition, Neil stated in his interview that while he was not always an active participant in terms of the number of posts he made, he was reading the posts (passive participation) and enjoyed this passive form of participation. He explained how he enjoyed reading the conversation between others and did not always feel the need to participate actively:

I didn’t involve myself a lot I more sat back and watched ... I did find the conversation between people sort of interesting … It was good I suppose to sit there and watch the banter and then ask a couple of questions. Neil, SBOM Interview

The limited participation may have been exacerbated by the closed nature of the OCL forum. The importance of networks and building a community are discussed in Section 7.5.2.1.

6.5.1.2 Patterns of Participation

The time of day and the day of the week of all posts to the OCL forum were analysed to determine if any observable patterns of SBOMs’ participation were evident. Two clear patterns emerged. The preferred day of the week to participate was Wednesday, as shown in Figure 6.3. The favoured time of the day to participate was between 11 am and 12 pm, as shown in Figure 6.4.
Figure 6.3 displays the OCL forum posts by day of the week. The graph demonstrates a pattern indicating a preference by SBOMs to post to the OCL forum early in the week, with posts dropping off as the week drew to an end. Participation in the OCL forum peaked on Wednesdays, with 35 per cent more posts occurring on Wednesday than on any other day of the week. Posts on Wednesday account for one third of all posts to the SBOM OCL forum. Notably, no participants posted on the weekend, suggesting that SBOMs might have considered participation in the OCL forum as work and thus did not
post during weekends. The posts on a Saturday were posted by the researcher’s principle supervisor.

Thus, contrary to the belief that one of the biggest benefits of online learning is its 24/7 availability, access to the OCL forum in this study reflected a traditional working week, with less than 20 per cent of all posts to the OCL forum occurring between 5pm Friday and 9am Monday. This suggests that SBOM perhaps focus on lifestyle above all other aspects, and as such are not prepared to participate or learn in time outside of standard working hours.

6.5.1.3 Post Length

The graph shown in Figure 6.5 displays the number of posts by length (as measured by the number of lines of text per post). The graph displays a tendency for short messages. The mean lines of text per post was 9.82, the median was 8, with the standard deviation being 6.8. The length of posts ranged from a single line of text to 28 lines of text (not counting the salutation and sign-off). There is a bimodal distribution, one at eight lines of text and one at 10 lines of text, with the graph demonstrating that a post length of fewer than 10 lines per post is most frequently used.

![Figure 6.5: The Number of Posts by Length (Lines of Text)](image-url)
The post length from this research was compared with previous research undertaken by Moisey, Neu and Cleveland-Innes (2008). Their research was based on student self-reporting of message length. They found that of the students surveyed, 25 per cent described the length of their posts as short, 62.5 per cent as medium and 12.5 per cent as long. Moisey et al. (2008) did not provide details regarding the length of posts that students considered to be short, medium or long. Therefore, to compare this research to Moisey et al.’s (2008) research, the OCL forum posts had to be categorised as short, medium and long. To do this, calculations were based on the mean and the standard deviation. The mean length of the OCL forum posts was 9.82 lines and the standard deviation 6.8. As such:

- Short posts were calculated as the mean minus one standard deviation (i.e. $9.82 - 6.8 = 3.02$). As such, posts with three lines of text or fewer were deemed to be short.
- Long posts were considered to be posts that were the mean plus one standard deviation (i.e. those with $9.82 + 6.8 = 16.62$). Thus, posts of 17 lines of text or more were deemed long.
- Medium posts were considered to be all posts that lay within one standard deviation of the mean. Thus, posts of between four and 16 lines of text were deemed to be medium.

The results showed that only 18.33 per cent of posts made to the forum were short, being of three lines or fewer, 61.67 per cent of posts made to the forum were medium, being of four to 15 lines of text in length, and 20 per cent of all posts made to the forum were considered long, being more than 17 lines of text. A summary of these findings is shown in Table 6.4.

The findings show that the percentages of long, medium and short posts were similar to the findings of Moisey et al.(2008). This is interesting when you consider that Moisey et al.’s (2008) research was based on an ODF with students and participation was mandatory. Therefore, while voluntary participation appears to affect the number of participants and the total number of posts to the forum, it does not appear to affect the
length of posts. The application of voluntary participation in an ODF is discussed in Section 7.5.2.2.

### Table 6.4: OCL Forum by Length of Posts

<table>
<thead>
<tr>
<th>Length of Posts</th>
<th>Message Length</th>
<th>Number of Posts</th>
<th>Percentage of Total Posts %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short posts</td>
<td>1–3 lines of text</td>
<td>11</td>
<td>18.33</td>
</tr>
<tr>
<td>Medium posts</td>
<td>4–16 lines of text</td>
<td>37</td>
<td>61.67</td>
</tr>
<tr>
<td>Long posts</td>
<td>17+ lines of text</td>
<td>12</td>
<td>20.00</td>
</tr>
</tbody>
</table>

### Table 6.5: Comparison of Post Length Findings with Moisey et al. (2008)

<table>
<thead>
<tr>
<th>Length of Posts</th>
<th>SBOM OCL Forum Percentage of Posts by Length %</th>
<th>Moisey, Neu &amp; Cleveland-Innes (2008) Findings Percentage of Posts by Length %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short posts</td>
<td>18.33</td>
<td>25.00</td>
</tr>
<tr>
<td>Medium posts</td>
<td>61.67</td>
<td>62.50</td>
</tr>
<tr>
<td>Long posts</td>
<td>20.00</td>
<td>12.50</td>
</tr>
</tbody>
</table>

In addition to the number of lines of text, the OCL forum was also analysed in terms of number of characters. This allowed comparison with the social networking tool Twitter, which has a maximum length of 140 characters per message (Twitter, 2012). The mean number of characters per post was 599, with a range from 38 to 1667. Only 10 per cent of posts were less than 140 characters, and thus suitable for use on a micro blogging tool such as Twitter. Suggesting that, the OCL forum learning discussion would not be possible on Twitter.

In summary, the participative dimension was analysed to be those messages that demonstrate involvement in the OCL forum, a precursor to learning online. The number, length and topic of posts to the OCL forum provide some insight into SBOMs’ participation. However, they do not explain why SBOMs chose to participate (or not) in the OCL forum. The factors that explain SBOMs’ participation and learning in the OCL forum are described in Section 6.6.
6.5.2 Interactive Dimension

According to Pozzi et al. (2007), the interactive dimension measures the relationship-building process between participants during the learning process. This dimension is measured by analysing messages that cross reference others’ messages or refer to others’ messages (Pozzi et al., 2007). Examples of the interactive dimension on the OCL forum include where a participant posts a message that either refers to another person’s post or references another participant by name. Messages that contained segments analysed as being interactive in many cases also contained social and cognitive dimensions. The OCL forum had many incidents of the interactive dimension:

Ditto Mike … we find that networking is the best form of advertising … and our car signage generates a lot enquiries as well. Kelly, SBOM OCL Forum

I do take on board what most of you are saying …Donna, SBOM OCL Forum

I’m with Teena, I’m another great believer [regarding business plans] Steve, SBOM OCL Forum

By referencing others’ messages or by referring to other participants by name, the SBOMs on the OCL forum were beginning to demonstrate the relationship building needed to facilitate learning. This interactive dimension is an important aspect of the learning process, as it demonstrates that participants are developing social construction of knowledge by questioning and discussing issues, as recognised by social constructivist learning theory (as discussed in the literature review, Chapter 3). The importance of the development of relationships and trust for learning are discussed in Section 7.5.2.4.

6.5.3 Social Dimension

The third dimension identified by Pozzi et al. (2007) is the social dimension. This dimension is related to what Garrison et al. (1999) term ‘social presence’, which is ‘the ability of participants in a community of inquiry to project themselves socially and
emotionally, as ‘real’ people (i.e., their full personality), through the medium of communication being used’ (p. 89). This dimension was revealed on the OCL forum by displays of two main indicators: affection and cohesiveness (Pozzi et al., 2007). In this research, affection was measured through participants’ expression of emotions, intimacy and personal anecdotes, as described by Pozzi et al. (2007). Cohesiveness was measured by participants’ references to the group, use of pronouns, phatics and salutations (Pozzi et al., 2007). Each of these two indicators is described with evidence from the OCL forum that supports their manifestation in the discussion forum that provides evidence of the ability of the SBOMs to project themselves as real people online.

Affection was displayed in a number of ways in the OCL forum. Participants used words, phrases, and emoticons\(^1\) as a means of displaying affection for the facilitator and other participants in the OCL forum.

I laughed when I found you took ‘chores’ literally and presumed it was laundry, ironing, etc. Kelly, SBOM OCL Forum

What a good idea :D … I love meeting new people and discussing business … Anyway, I’m probably rambling on too much … You lot will get used to that from me as we go :-). Mike, SBOM OCL Forum

The quotes from the SBOMs illustrate displays of affection in the OCL forum. They demonstrated to the others in the OCL forum that they are ‘real’ people. In particular, Mike’s use of emoticons to illustrate his emotions online displays his experience in participating and communicating in an ODF. Although he used emoticons sparingly, they reflected and projected Mike’s outgoing personality (as displayed in the research interviews). The demonstration of affection by participants in the OCL forum was

\(^{1}\) Emoticon: an emoticon is a textual portrayal of a writer’s mood or facial expression. They are often used to alert a responder to the tenor or temper of a statement, and can change and improve interpretation of plain text.’


😊 😊
critical to facilitating learning, as affection helps with the formation of trusting relationships between online participants (see Section 7.5.2.4). It is the relationships between participants that are critical to learning in a social constructivist environment (see Section 2.3.2.3), because knowledge emerges from exchanging ideas (Bates & Sangrà, 2011).

The second indicator of the social dimension is cohesiveness. Cohesiveness was expressed in a variety of ways on the OCL forum. There are many examples of the use of pronouns, phatics, salutations and references to the group. Examples of how the participants (and the facilitator) in the OCL forum were able to project themselves as real people is demonstrated in the social presence they displayed on line. There were many indications of cohesiveness, such as the use of pronouns, phatics and references to the group, for example:

I’m really keen to see how this forum progresses and hope everyone enjoys this experience. *Kelly, SBOM OCL Forum*

I look forward to being involved further in this forum. *Donna, SBOM OCL Forum*

Hi everyone … I am the granny (actually great-granny) of the group … By enlisting in forums like this one we should be able to put our heads together, pool our knowledge, successes and failures, to see what can be done. I am ready to do just that, are you? *Rachel, SBOM OCL Forum*

Interestingly, while there are some illustrations of what Pozzi et al. (2007) identify as cohesiveness in the OCL forum, most OCL forum participants when asked during an interview about their feelings of connection suggested that they felt no sense of connection. Most participants felt little, if any, connectedness with others on the OCL forum. Donna and Neil categorically stated that they felt no connection, while other participants were more reserved when asked about their feelings of connectedness:

I wouldn’t say I really felt connected to any of them (laugh). *Steve, SBOM Interview*

Not as much as I have in a lot of other forums. *Mike, SBOM Interview*
Mike proposed that the OCL forum’s focus on business issues limited the feelings of connectedness. The OCL forum was limited to discussion on ‘business’ issues. In Mike’s opinion, this hampered participation and the formation of relationships among SBOMs. He suggested that the OCL forum required a social side to support the business aspect:

A lot of the other forums they have, they have kind of like the business part of it and they have a more social side of it as well. So on the gaming sites, they usually got a lounge or you know or somewhere where you can just go in and post up a joke or a stupid picture or something like that with that kind of interaction you kind of get to know people a little better. Whereas with this [OCL forum] it was very narrow, it was really on the subject itself. So you didn’t really get that kind of (or I didn’t feel) that I got that kind of connection. *Mike, SBOM Interview*

Limiting the OCL forum to only ‘business’-related matters might have limited the feelings of connectedness. The importance of establishing and maintaining connection in an ODF are discussed in Section 7.5.2.1.

### 6.5.4 Cognitive Dimension

The fourth dimension of Pozzi et al.’s (2007) model is the cognitive dimension. This dimension draws on the work of Garrison, Anderson & Archer (2001) regarding cognitive presence. Garrison et al. (2001) define cognitive presence ‘as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry’ (p. 11); that is, learning through the exchange of ideas in a social setting. According to Pozzi et al. (2007), in an ODF, cognitive presence is demonstrated by thematic units indicated by four phases: revelation, exploration, integration and resolution. Each of these four phases of cognitive presence are described and illustrated with examples of how cognition was displayed by SBOMs on the OCL forum.
To analyse the cognitive dimension, the discussion topics on the OCL forum are used to highlight various examples of the cognitive indicators. Discussion on the OCL forum centred on six topics:

- SBOM introductions online
- the skills shortage*
- advertising*
- leave without pay*
- government funding for small business
- business plans*.

The four discussion topics marked with an * will be used to highlight the cognitive dimension of the OCL forum. Other learning took place in the OCL forum that SBOMs considered valuable, and which was cathartic. This cathartic learning occurred through participation in the OCL rather than as a direct result of any one discussion. It concludes the section on cognition.

### 6.5.4.1 Skills Shortage

After introductions by the researcher and all SBOMs in the OCL forum, Steve focused the OCL forum on its purpose by raising a question about attracting suitable staff during Western Australia’s skills shortage:

> Like most people in business my biggest problem at the moment is finding suitable staff, so I am keen to hear of your experiences and solutions in this area. Steve, SBOM OCL Forum

In this post, Steve said he had a problem with finding staff during the Western Australian skills shortage (2006–2008). He acknowledged the issue and sought advice from other SBOMs, via the OCL forum, as to how this could be resolved. That is, he revealed that he had a problem (finding staff) and he sought help from others to find a solution. This is what Pozzi et al. (2007) describe as a revelation, which is the first phase of the cognitive dimension (i.e. learning). Following on from Steve’s question, Rachel asked:

> I would like to start the ball rolling with something Steve has mentioned. “getting staff”. I know we have been advertising for over 12 months and we haven’t even had a phone call. It would be nice just to get to first base, like an interview, to be able to
discuss what is offered. Does anyone have any suggestions or perhaps a magic wand??? Rachel, SBOM OCL Forum

Rachel’s post also demonstrates both cognitive revelation and exploration. Rachel shared information about her problem finding staff (exploration) but also expressed agreement with what Steve had said about the difficulties. Interestingly, it was then Steve (who had asked the original question about skills shortage) who came back with information on what he had done and how this has worked for him, in regard to using a government employer hotline and Job Search. Steve offered Rachel help and support with a question he had originally raised. Steve explained how he had reorganised jobs in his business to maximise his chances of finding a suitable employee. Although Steve had asked the initial question, and Rachel had supported his concerns about finding staff, Steve was the person to provide assistance. From this discussion, Rachel was able to use the ideas put forward by Steve in her business.

Rachel applied her learning’s from the OCL forum to her business. This represents double-loop learning, as discussed in Section 2.3.6.2 of the literature review. Rachel changed the way she designed jobs and expanded her recruitment sources to include long-term unemployed, which represented a change of her employment policy. In short, the posts on the OCL forum regarding the skills shortage demonstrated the cognitive dimension of learning. Participants recognised a problem, expressed agreement and shared information and ideas, all of which are deemed indicators of cognition by Pozzi et al. (2007). This provides evidence of double-loop learning in the forum, which is discussed further in Section 7.6.4.

6.5.4.2 Advertising

The third thread to generate discussion on the OCL forum was about how to advertise effectively. It was started by Rachel, who asked:

My question to the Group is ‘What have you found is the best, most effective form of advertising? Rachel, SBOM OCL Forum

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Rachel’s post demonstrates a revelation, which, according to Pozzi et al.’s (2007) framework, is a manifestation of the cognitive dimension. Revelation also occurs when an individual expresses a particular point of view. Revelation occurred when three SBOMs provided advice and suggestions to Rachel’s question regarding advertising. Kelly, Neil and Mike revealed their points of view and communicated their learnt experience regarding advertising, in particular, the use of websites for advertising:

I’d also like to point out the obvious ... and that’s a website ... these days you will often get overlooked in the Market place if people can’t find you online ... not a plug for more work ... just saying. So a website that has good search engine placement is a really good way to advertise. Kelly, SBOM OCL Forum

We would receive approximately 40% of our new enquires[sic] from our web page. I think the thing to remember with any advertising. The main goal is to have the customer contact you then it’s up to the company to sell its goods & services whatever form we use. Second, a you need to monitor all your call to get a true Indication where your leads are coming from, once you know where you leads are come from then direct most of your advertising money in that direction. While still trying different area, looking for what else might work. The old saying is I known[sic] 50% of my advertising is working but which half. Without monitoring your calls you’ll never known [sic] which half works. In short our web page works great & where [sic] just in the process of up grading. Neil, SBOM OCL Forum

It is also a useful tool [referring to a website] to refer people to when they enquire about your services. Steve, SBOM OCL Forum

The second phase of the cognitive and meta-cognitive dimension is exploration (Pozzi et al., 2007). Exploration is described as being evident when participants express agreement or disagreement, brainstorm, negotiate, explore or share information and ideas with others online (Pozzi et al., 2007). Throughout the OCL forum, exploration was evident in the SBOMs’ contributions, with agreement occurring more often than disagreement; however, both were evident as the extracts from the OCL forum confirm. Agreement was shown by Kelly:

Ditto Mike ... we find that networking is the best form of advertising and our car signage generates a lot of enquiries as well. Kelly, SBOM OCL Forum
However, disagreement about the best form of advertising occurred when Donna posted a difference of opinion regarding the use of websites for advertising. She shared her thoughts that not all businesses need a website:

So I don’t know if having a website is a pre-requisite for every type of business.  
Donna, SBOM OCL Forum

Thus, while many of the participants promoted the idea of a website for advertising their businesses, Donna suggested that not all businesses need a website and that the need for a website depends on what type of business you own. This demonstrates exploration, a cognitive indicator according to Pozzi et al. (2007) in the form of disagreement.

The third manifestation of the cognitive dimension is integration, which, according to Pozzi et al. (2007), is demonstrated by participants online when they connect ideas, make synthesis or create solutions. An example comes from Neil on the topic of advertising when he connected ideas regarding advertising, the use of websites and how to direct expenditure on advertising:

The main goal is to have the customer contact you then it’s up to the company to sell its goods & services whatever form we use. Second, a you need to monitor all your call to get a true Indication where your leads are coming from, once you know where you leads are come from then direct most of your advertising money in that direction. While still trying different area, looking for what else might work. Neil, SBOM OCL Forum

The advertising thread demonstrated that through online discussion SBOMs have constructed their ideas regarding advertising and shared them with others. This demonstrates learning, according to social constructivist learning theory because SBOMs are demonstrating the construction of knowledge, as discussed in Section 7.6.

6.5.4.3 Leave without Pay

The third discussion thread was about employees’ entitlement to leave without pay (LWOP). Kelly began the thread:
Just wondering if anyone has an idea about employees and how much “leave without pay” they can take per year? I guess the real question is … when does LWOP interfere with the employee’s full-time status, and how many days LWOP would you allow an employee to have to just take care of chores. *Kelly, SBOM OCL Forum*

Kelly’s post demonstrates the cognitive dimension in her question about LWOP. She revealed that she was unsure of the ‘rules’ that govern LWOP and asked the group for help. This ‘revelation’ is a manifestation of cognition, according to Pozzi et al. (2007). In reply to the message, Rachel connected a number of ideas to help Kelly make a decision about what to do with the employee who was taking too much LWOP. Rachel’s opening statement in reply to Kelly demonstrated connection of a number of ideas:

I think the main point is, “How well do you know them” and also “What is their attitude towards their job and you, their Employer. *Rachel, SBOM OCL Forum*

Kelly demonstrated integration when she connected several of the ideas presented in the discussion by Rachel and Mike:

Thanks Mike and Rachel … Mike, I liked your analogy of the “team” and not letting the team down. And, Rachel, we are trying pretty hard to be fair here, this employing people thing has been a big learning curve for us but we’re getting there I think. *Kelly, SBOM OCL Forum*

Kelly then began to integrate some of the ideas offered by Rachel and Mike within the same message:

I think for the number of days we’re talking about we don’t need to be that harsh but we’ll be suggesting annual leave days replace LWOP for a bit I think and having a chat about being a member of our “team”. *Kelly, SBOM OCL Forum*

Again, learning (about LWOP) was demonstrated online, Kelly integrated the ideas offered by others online and made plans for how she would manage the employee who had been taking too many days off. Learning through discussing online allowed Kelly to construct her own understanding of what is fair and reasonable regarding LWOP.
The final topic of discussion was business plans. The question was raised by the facilitator in an effort to promote more discussion among the participants. A discussion about the need for, and importance of, business plans ensued, among four participants on the OCL forum. They shared their views about business plans: why a business plan is so important, what should be included in a business plan and the problems with some business plans. An excerpt from the OCL forum is shown in Figure 6.6.

Excerpt from OCL Forum—Business Plan Discussion

Date: Thu Nov 29, 2007 1:29 am
Subject: Re: Small business online learning forum Business Planning
Hello all
I am a great believer in business plans—you won’t get money from the banks or venture capitalists without one! Apart from that, if they are done properly, they let you think through all aspects of the business. I have had several businesses that I did not proceed with on the strength of the business plan—I just realised that it might have been a great idea, but at the end of the day it didn’t translate into dollars.

I have reviewed quite a lot of business plans when I was a director at the Technology Park in Bentley, and it seems to me that what most people write are Marketing plans—they skim over the finances and the legal entities part. These are the most important sections and probably the only bits that the bank will be interested in.

A business plan will also help you to be strategic, as you should be thinking about the business a year after start-up and five years after start-up. I have a short attention span, so also always planned for on selling my businesses, and this was a very important aspect of my planning. I found that once the business was up and running I was flat out with the operational stuff and didn’t have time to be more strategic, so it was great to be able to go back to the business plan and review how I was travelling against my plan.

Regards
Teena

Date: Thu Nov 29, 2007 10:58 am
Subject: Re: Small business online learning forum Business Planning
Hi all.
I’m with Teena, I’m another great believer.

Being involved in business finance I often meet people looking for funds to start a business, buy a business or expand a business and it is amazing how many business people do not have a business plan.
Of course there are “Business Plans” and there are “Business Plans”. I meet quite a few new business owners who have paid someone to do a business plan for them but have had no real input into the plan. This doesn’t make any sense to me and, while it may be sufficient to satisfy a bank’s requirements for getting the business loan, it often fails to highlight the risks which may be incumbent in their business.

I am a great believer that Business Plans are forever a work in progress. Sure, you need to have a plan before you set out. But you also need to regularly review your business plan because things inevitably change. More often than not your business plan is very optimistic and it pays to review it regularly to make sure you are heading in the direction you anticipated.

Steve

Date: Thu Nov 29, 2007 12:11 pm
Subject: Re: Small business online learning forum Business Planning

Hello all

I absolutely agree with Steve. There are now business plan templates on the web and I know a lot of people are beginning to use them. The problem is that the business owner simply plugs in what is required and doesn’t get that all important ‘feel’ for the business. There is nothing like spending a few weeks on a business plan to get to know what your business is all about.

Regards

Teena

Date: Fri Nov 30, 2007 11:01 am
Subject: Re: Business Planning

I’m also a great believer in business plans. I haven’t had the real-world experience with them that Teena and Steve have had though. But, I did have loads to do with them at uni while studying e-business and project management and came to the conclusion that all businesses should have one. And, as long as they’re a “living” thing, i.e. updated regularly to suit the current situation of the business, then they work IMHO. I helped to write our current business plan and thoroughly enjoyed the process ... it is updated regularly.

I wrote an assignment on Amazon’s business plan at uni and eventually published it as part of our [Company Name] Cyber Aspect online magazine ... it’s worth a read if you’re up for it ...

http://www.cyber-aspect.com/features/fa_041.htm

Cheers,

Kelly

Figure 6.6: Excerpt from the OCL Forum

The excerpt from the forum shown in Figure 6.6 illustrates how the online discussion progresses, with various participants offering ideas and resources for the development of a business plan. Participants also discussed why it is important to have a business
plan. Participants were demonstrating different indicators of cognition exploration, expressing agreement and disagreement and sharing ideas and information regarding the importance of business plans and their use.

This online discussion expanded Kelly’s understanding of the usefulness of a business plan. Teena’s explanation online of how she uses business plans to think through various aspects of the business and to determine viability provided new insight into the use of business plans for Kelly. This construction of understanding regarding the importance of business plans prompted Kelly to share her new knowledge with another online group:

I did one [wrote an article] on business plans rock because of that discussion that we had about business plans so I did that. So I’m learning all the time. Kelly, SBOM Interview

A passage from Kelly’s article is shown in Figure 6.7.

<table>
<thead>
<tr>
<th>Passage from Kelly’s Business Plan Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>I recently joined a Small Business mailing list and conversations were a little stilted until the topic turned to Business Plans. My inbox immediately filled up with opinions ... some people very much pro Business Plans ... some vehemently against the idea because they were too busy running their businesses to write a business plan ... and some sitting on the fence, not willing to take a side but making small rumblings about all that work. I decided to write this article because I’m one of the people who are very much pro Business Plans. So, why a business plan? Just think about this ... you have come up with the most brilliant idea for an online business but you’re concerned that your entrepreneurial abilities may not be up to scratch. What do you do? Where do you start? How do people start up their businesses/e-businesses? It’s simple really; a lot of people will develop a Business Plan to assess the viability of their idea … Kelly, Feb 2008.</td>
</tr>
</tbody>
</table>

Please note: The URL to reference this article has not been included, because the research participant could be identified from the article.

Figure 6.7: Business Plan Article

The article in Figure 6.7 demonstrates Kelly’s learning from Teena’s post about how business plans can help SBOMs fully explore their business ideas (as described in the OCL discussion forum excerpt in Figure 6.6). Kelly constructed her understanding of business plans and linked with real-life applications of those ideas, demonstrating learning or what Pozzi et al. (2007) refer to as a cognitive manifestation of learning.
Interestingly, when asked in an interview if she learnt anything by participating on the forum Kelly noted:

Ummmm … (pause) bits and pieces. You know like, the business plan thing that was really exciting having that for me … (giggle) because I’m a geek. Having that lady (I think it was) came[sic] back and said she uses the business plan to actually work out her ideas and see if they are valid and stuff and I never really thought of it that way so that was cool. *Kelly, SBOM Interview*

While the cognitive and meta-cognitive dimension was well represented in the OCL forum, manifestations of integration were limited. Conceivably, poor participation on the forum may have affected the opportunity to demonstrate integration, which requires participants to connect, synthesise or create solutions from ideas presented. Low levels of participation on the OCL forum provided a limited number of ideas and solutions, thus restricting opportunity for participants to demonstrate integration. The affect of limited participation is discussed in Section 7.5.

Pozzi et al.’s (2007) framework provided a tool to analyse the OCL forum discussion. Learning, as described by Pozzi et al.’s (2007) cognitive dimension, was evident in four of the six discussion threads in the OCL forum. Thus, while acquiring participation by SBOMs was challenging, the OCL forum did provide evidence that learning in an informal ODF is possible, as explained in Section 7.6.

### 6.5.4.5 Cathartic Affirmation

During interviews, some SBOMs expressed that the most valuable aspect of participating in the OCL forum was the validation that they are not alone with the problems and issues they experience as an SBOM. They expressed that despite the OCL forum not providing clear answers to their problems, it gave them a sense of support; they felt they were not the only person struggling with a particular issue. Participating in the OCL forum provided SBOMs with support and a sense of validation and feelings of camaraderie. Feelings of support and validation are exemplified by the discussion on how to attract and retain employees. When participants realised that other SBOMs were also having problems attracting and retaining staff, they were able to externalise the
issue as a broad economic issue related to the skills shortage in Western Australia at the time. This feeling was highlighted by Steve when he said, with a wry smile and a bit of laugh, during the interview:

Yeah well that was it’s just nice to hear I guess it’s just a sounding board put up the issues you are having it’s a common problem, well then you say get on with life if it isn’t then you step back and say what am I doing wrong … Just getting comfort that I wasn’t alone … Yeah that’s it you just get that feeling that its common issues facing, which I suspected was the case from the clients that I talked to … just the degree of the difficulties. Steve, SBOM Interview

This feeling of not being alone was also highlighted by Kelly who discussed her experience of using the OCL forum and the opportunity the forum afforded to discuss her business issues with others:

I liked reading about other people’s problems and even though couldn’t help a lot of them ’cause I didn’t have the experience I liked reading about it … I find I talk my clients all the time about how they’re going and … staff issues and stuff and it’s the camaraderie thing. Kelly, SBOM Interview

Further discussion of the importance of cathartic affirmation is discussed in Section 7.6.4.1.

6.5.5 Teaching Dimension

The fifth dimension of Pozzi et al.’s framework is the teaching dimension, which aims to assess teaching presence, which is defined by Anderson et al. (2001) as ‘the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes’ (p. 5 as cited in Pozzi et al., 2007). Pozzi et al.’s (2007) framework proposes that the teaching dimension is the binding element in creating a learning community and includes indicators, such as direct instruction, facilitating discourse and organisational matters.

The OCL forum was an informal learning space and, as such, had no formal teacher or expert. In order to promote discussion, the researcher took the role of the facilitator. Based on Pozzi et al.’s (2007) model, teaching presence in the OCL forum was
measured by three indicators: direct instruction, facilitating discourse and organisational matters. First, direct instruction, which Pozzi et al. (2007) suggests is demonstrated by presenting contents, proposing activities, diagnosing misconceptions and confirming understanding through feedback was analysed. There is limited evidence of this form of teaching presence, largely because Pozzi et al.’s framework is designed to measure formal learning rather than informal learning; therefore, aspects such as direct instruction are very limited. However, due to the informal nature of the learning design, aspects such as direct instruction were used only at the beginning to propose an introductory activity, when participants were asked to introduce themselves online.

Initially, the facilitator provided an introduction welcoming participants to the OCL forum to assure participants that they had made it to the OCL forum. As each participant joined the forum, a message to acknowledge and reinforce that his or her post was successful was provided by the facilitator. This, according to Pozzi et al. (2007), reflects what they have termed ‘the teaching dimension’ in their learning processes framework. The facilitator took time to acknowledge each participant who joined the forum, to encourage participation and to reassure them that someone was reading their posts. Acknowledgement of forum posting is considered critical in establishing and maintaining discussion in ODFs (see Chapter 3). It is also part of establishing the climate for learning, which is an aspect of the teaching dimension, acknowledged by Pozzi et al. (2007) to facilitate discourse.

Teaching presence is also indicated by what Pozzi et al. (2007) terms ‘facilitating discourse’, which measures the encouragement, acknowledgement and reinforcement of participants’ contributions by the teacher (or in the case of the OCL forum, the facilitator). This was the teaching dimension used most often; 45 per cent (or 10 of the 22) of the posts made by the facilitator were categorised as facilitating discourse. Encouragement, acknowledgement and reinforcement were considered important for establishing and retaining the SBOMs online. As such, the role of the facilitator on the OCL forum was substantial, with contributions by the facilitator representing more than one third (36.67 per cent) of the total posts.
Messages by the facilitator where kept simple and informal to encourage participation. The facilitator also tried to reflect any specifics in the messages posted. For example, the discussion between the facilitator and Rachel after Rachel posted her first message to the forum:

Finally made it. I am really looking forward to lots of imput [sic] and forums. Let it all begin. Rachel, OCL Forum

That is great Rachel, it is a bit of hurdle that first bit, but you made it and now we can get started. Facilitator, OCL Forum

Other feedback provided by the facilitator included:

Thanks for your positive thoughts on this topic Rachel, I think Steve’s comments are interesting. Facilitator, OCL Forum

A great range of ideas all of which sound fantastic. Facilitator, OCL Forum

Organisational matters, such as introducing topics via the posting of questions, were also part of the facilitator’s role. The posting of questions was used as a way of encouraging interaction and knowledge sharing by the SBOMs on the OCL forum. Questions posted by the facilitator included prompts designed to encourage more information on a topic, such as:

I wonder what types of positions you have been able to fill like this? And what areas you still have not been able to address? Facilitator, OCL Forum

This question was asked by the facilitator during the discussion about the skills shortage, following Steve’s post where he offered information about the use of a government–employer hotline and Jobsearch (as useful sources of potential employees), as a means of encouraging Steve to share more information with the group. This type of prompting encouraged Steve to detail what he had done and which vacancies he was able to fill in this way.
At times, the facilitator tried to draw other participants into the online conversation, but this was very difficult. On occasion, the facilitator reiterated questions that had been asked by the participants as a means of encouraging online discussion, as shown below.

Steve touched on a key point at the end of his introductions regarding the skills shortage. He stated:

Like most people in business, my biggest problem at the moment is finding suitable staff, so I am keen to hear of your experiences and solutions in this area. *Steve, OCL Forum*

I have heard many business people and HR [human resources] professionals discussing the lack of staff in WA, I wonder who else has been touched by this and like Steve I wonder what you are all doing about it? *Facilitator, OCL Forum*

The aim of the OCL forum was to promote an ODF that would be a community of learners. However, the low number of participants and the low number of posts during the early days of the forum suggested that this aim was not going to be achieved. As such, the facilitator played a more active role than initially planned, posting questions and answers and encouraging discussion. The importance of a facilitator in an ODF is discussed in Section 7.5.2.5.

### 6.5.6 Summary of Analysis using Pozzi et al’s Framework

This section concludes the findings regarding participation and learning in the OCL forum, based on analysis of the OCL forum transcript, using Pozzi et al.’s framework (Pozzi et al., 2007). Despite the difficulty in obtaining SBOMs’ participation in the OCL forum, this research was able to provide evidence that it is possible for SBOMs to experience deep, double-loop learning by participating in an informal ODF (see Section 7.6.4). The next section describes the findings based on the inductive analysis, which identified patterns, themes and categories that emerged from the data. It explains the factors that led to different levels of participation in the OCL forum, and what types of learning resulted from participation.
6.6 OCL Forum Participation and Learning

This section describes the key themes that emerged following analysis of all four sources of data: the OCL forum transcript, the interview transcripts, the focus group notes and the field notes. Based on the analysis of the data, three themes emerged that help to explain different levels of participation by SBOMs in the OCL forum. The first theme that influenced participation in the OCL forum is SBOMs’ commitment to learning. This is influenced by three factors: their prior ODF experience, their attitude regarding the value of learning for business success, and their occupational identity. When SBOMs are committed to learning, they are more willing to set aside time to participate in learning. The second theme that emerged was the influence of the technical design of the OCL forum on participation and learning. This theme explores the importance of easy access to a networked computer, ease of connection and the useability of the forum. The third theme that emerged was the influence of the OCL forum learning design on SBOMs’ participation and learning. This section outlines the importance of discussion-topic relevance and timeliness, the facilitator’s role and the importance of trust.

6.6.1 Committed to Learning

To date, much of the research regarding SBOMs’ participation in training has focused on the external factors that influence their decision to participate (or not) in training. Prior research has investigated the timing, content, location, teaching and learning approach to encourage greater levels of SBOMs’ participation in formal face-to-face training, as outlined in Chapter 2. However, what emerged during this research was the importance of SBOMs’ commitment to learning and the way in which this led to different levels of participation in the OCL forum. SBOMs’ commitment to learning is influenced by their thinking regarding their occupational identity, the importance they place on learning for business success, and their prior ODF experience. Each of these is described in the next section, which concludes with a discussion about how these attitudes affect SBOMs’ willingness to take time out of their business operations for learning.
6.6.1.1 Make Time to Learn

Having limited time is reported in the literature as an explanation for why SBOMs do not participate in training and learning events (see Chapter 2). Similar findings were found in this research, despite the development of a learning approach that addressed SBOMs’ learning preferences and did not require time away from their business, most did not participate in the OCL forum. Is it a time related issue or is there an alternative explanation for why the majority of SBOMs invited to take part in the OCL forum did not participate?

The issue of SBOMs’ limited time to take part in learning was encountered very early in the research process when an SBOM invited to participate replied to the email invitation:

Sorry can’t participate, work load too high. *Return Email from SBOM*

Interestingly, SBOMs who participated in the OCL forum also noted the problem with making time for training and learning. When asked by the researcher in an interview, ‘What factors prevent you from participating in training and learning activities?’, SBOMs referred to the limited time they have available, as these comments demonstrate:

Time … not enough time. *Steve, SBOM Interview*

Time, money, I try and do as many things as I can. *Mike, SBOM Interview*

Probably time is the biggest factor. *Neil, SBOM Interview*

Being time poor or being too busy was also noted in a discussion thread when, after the OCL forum had been operating for a month, a new participant introduced himself:

My name is Colin, I’m very late getting on board due to some very busy weeks. *Colin, SBOM OCL Forum*
SBOMs state they do not have time to participate in training and learning. However, when asked during data collection interviews about the number of hours they work, they did not report working exceptionally long hours. The number of working hours varied across participants, with a standard week reported as being between 30 and 45 hours. This correlates with Australia’s standard full-time working week, which is reported by Australian National Employment Standards as 38 hours per week (Commonwealth of Australia, 2011). The exception was one participant who reported that some busy periods required him to work up to 100 hours in a week. However, he acknowledged that this was often followed by a slower week and explained that peaks and troughs were a normal part of his business. Regardless of the hours worked per week, the majority of participants felt that there was not enough time to attend training and learning.

 Appearing contradictory to the notion of being time poor was the agreement among participants that one of the greatest (perhaps only) benefits of being an SBOM was the degree of flexibility in relation to when, where and how work is carried out. Comments by participants regarding time flexibility included:

  At two o’clock in the afternoon if I feel I have had enough I can just walk out and come back at five or whatever you just can’t do that in a normal job. *Kelly, SBOM Interview*

  Flexibility take the day off when I feel like it play golf, go to the beach whatever...*Steve, SBOM Interview*

  Ohhh I like the freedom to ummm set your hours and set your work, you know how many hours you are going to work. And I can work in the evening if I want, work on the weekends, I can suit myself, and fit visiting my family during the day if I want. *Donna, SBOM Interview*

Thus, while limited time is a reason proffered by SBOMs to explain their limited levels of participation in the OCL forum, the reasons appear to be more complex than not having enough time. It is suggested that how SBOMs decide to use their time might prove a better explanation. As the analysis of the data continued, it emerged that there
was something different about the way that SBOMs who participated viewed learning. SBOMs who participated in the OCL forum can be characterised as being committed to learning—not only to learning in the OCL forum but to all forms of learning. This appears to stem from their understanding that learning is important for business success and to identifying as a manager rather than as a functional expert. These internal factors that influence participation and therefore learning are described in the next section.

6.6.1.2 Managerial Occupational Identity

SBOMs who participated in the OCL forum understand that managing a small business requires a broad range of expertise. SBOMs who identify as business managers understand that managing their business requires a range of knowledge, skills and abilities in addition to the functional (or operational) expertise they had developed prior to starting their business. Identifying as a manager raises awareness of the management skills required, such as marketing, finance, cash flow and human resources, which are outside their functional expertise. The development of this ‘manager’ identity is a key factor that encouraged active participation in the OCL forum.

The participants demonstrated this manager identity when they posted questions to the OCL forum regarding managerial aspects of business:

My question to the Group is “What have you found is the best, most effective form of advertising”? Rachel, SBOM OCL Forum

Like most people in business, my biggest problem at the moment is finding suitable staff, so I am keen to hear of your experiences and solutions in this area. Steve, SBOM OCL Forum

Just wondering if anyone has an idea about employees and how much “leave without pay” they can take per year? Kelly, SBOM OCL Forum

These questions illustrate that these participants do not know everything about managing a small business, but they are prepared to learn. For SBOMs, there is much to learn. Mike explains that learning is crucial to managing a small business:
You’re not born into this stuff. You don’t come out of the womb knowing how to read financial statements. *Mike, SBOM Interview*

He elaborates on how he realised there were many aspects of running a business of which he had no knowledge and how developing this understanding has encouraged him to seek learning opportunities:

There’s a lot of stuff that I don’t know but I’ve become a bit of a course whore [colloquial for someone who has attended a lot of courses]. I did one course years and years ago it was ‘cash flow today’ … at the SBC [Small Business Centre] and I had tears in my eyes cause I realised how much I didn’t know and since then I am always on a course or I’m always in a group of people that are business owners. *Mike, SBOM Interview*

Acceptance of this need to learn about how to manage a business encourages SBOMs to seek learning opportunities, and it encouraged participation in the OCL forum.

In contrast, SBOMs who identify as functional experts do not see the value of learning about managerial aspects of managing a business and, as such, they focus on operational aspects of the business. The role of SBOMs’ occupational identity in participation and learning is discussed in Section 7.4.1.1.

### 6.6.1.3 Linked Learning with Business Success

SBOMs who participated in this research believed learning is important for business success and were prepared to invest time for learning. This attitude to learning for business success emerged in a variety of ways during the data collection. Participants were asked why they participated in the OCL forum or learning activities in general. Many expressed ideas about the need to respond to changes in their industry or the need to stay ahead of the competition:

It’s really good for us to be on top of what going on … basically it’s the buck stops here so, with me and I need to get out there and learn bits and pieces to help make us function … Things change so much. *Kelly, SBOM Interview*
The need to keep up it’s a developing industry, a rapidly developing industry and if you don’t keep up and the especially in compliance side if you don’t keep up, you fall behind with compliance you risk having your doors shut. *Steve, SBOM Interview*

I just have to keep learning, and we do the same with the guys here … We’re always learning because we have to keep going forward. And our type of business you have to stay on top. *Mike, SBOM Interview*

Technology … small businesses have to move with it and keep up with it … I just think you all should be doing some training. *Donna, SBOM Interview*

Keep ahead of the competition via new ideas. *SBOM Focus Group Participant*

I’m a physio [physiotherapist] with no business training, and I couldn’t survive without attending training it gives you the confidence to take your business to the next level. *SBOM Focus Group Participant*

The SBOMs who participated in the OCL forum expressed the need to keep up with industry and technological changes. They accepted that they need to learn to keep abreast of external changes and to remain successful, and they were prepared to take time out of their business operations in order to learn. OCL forum participants viewed time on training and learning activities as worthwhile, as indicated by the following discussion:

Your business will actually improve from the training so you’ve got to sit and go okay, this is part of your long-term strategy, strategic planning, long-term planning, it’s actually that training you’re going to gain from, so you’ve got to fit these things in. *Donna, SBOM Interview*

I look at it [learning] as working on my business. *Mike, SBOM Interview*

… take that little bit of time you learn something it actually can save you time. *Steve, SBOM Interview*
The OCL forum participants are committed learners. They are committed to participation in a variety of learning activities because they understand the importance of learning to long-term business success.

However, limited participation by SBOMs in this research may indicate that many SBOMs do not appreciate the strategic value of learning. The story ‘A tale of two signwriters’ (see Figure 6.8) describes Mike’s appreciation of the importance of learning for business success, while simultaneously juxtaposing Dave’s disregard for learning. The story illustrates how two SBOMs, both sign-writers, have very different views on the strategic value of learning.

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**Story: A Tale of Two Signwriters**

Mike is a small business owner-manager who runs a sign-writing business in the south-eastern suburbs of Perth, Western Australia. Mike has a vibrant personality and relishes in telling stories regarding his and other owners’ small businesses. Mike recently bought a commercial digital printer. He bought the biggest and the best printer available on the market. This is a big investment for him and, while his cash flow is currently strained, he acknowledges that the investment is a strategic one that will allow him to provide a range of services that he is currently unable to provide. Following the purchase, he invests $800.00 for one day of training on how to use the printer, stating that ‘it’s worth it … you go and learn’. Mike further invests in training for two of his employees, ensuring everyone is familiar with the functionality and operation of the printer.

Shortly after the printer purchase and training investment, Mike visits a printing supplier where he recognises another sign writer, Dave, who has recently purchased the same commercial digital printer as Mike. Mike describes Dave as a ‘really good’ signwriter and a ‘nice man’. They begin talking about the technicalities of sign writing; during the conversation, the topic moves to over-laminates (a way of protecting the print). Mike asks Dave, ‘What are you buying to protect the print’? Dave responds, ‘Frog Juice’. Mike explains to Dave that he shouldn’t use Frog Juice because the printer does not use water-based ink. Dave and Mike have a lengthy discussion about whether the ink is water-based with Mike eventually convincing Dave that Ecosol is a solvent-based ink and that Frog Juice is not an appropriate print protector.

Mike then educates Dave on what should be used and even offers the use of some equipment and assistance in completing Dave’s job. Mike explains, ‘I got him a water-based laminate to use on the solvent print, ’cause if you are going to use a solvent on a solvent, you’re going to melt it. You know the inks are gonna [colloq. going to] run. He’d never been and done the course.’ Mike realises the value of the printer training he had attended and the potential cost that Dave may have incurred because he had not learnt how to use the printer correctly. Mike values learning and is perplexed as to why Dave would not do a course that would maximise his investment and minimise his potential losses. The difference between Mike and Dave is highlighted by Mike who understands and accepts that mistakes in business are costly and that it is not only the direct cost of the inks and vinyl but also the indirect cost of production time and the potential risk of losing a customer.
Mike understands that learning is important to business success. He does not want to make mistakes, he does not care what others think of him and he articulates this very strongly, stating ‘You know I don’t give a shit, I want to learn. And I want to do my business right.’ Mike, SBOM

**Figure 6.8: A Tale of Two Signwriters**

This case demonstrates the different views of SBOMs regarding the importance of learning for business success. It expresses the different ways in which two SBOMs, both working in the same industry, approach learning. Mike appreciates the strategic value of learning but Dave is yet to make the link between learning and business success and was on the verge of making a costly mistake.

Perhaps for SBOMs, this appreciation of the value of learning for business success, or the strategic value of learning, develops with experience. Most SBOMs who participated in the OCL forum had been in business for more than five years. Perhaps this connection develops over time, or perhaps it is the result of positive previous experiences of training or learning. Despite how it occurs, it seems that this group of SBOMs have the answer to ‘why they need to know’, a key assumption of andragogy (see Section 2.3.3.1). It appears that this understanding that learning is important for business success is a factor in explaining why some SBOMs participated in the OCL forum and others did not. The importance of linking learning with business success as factor that affects levels of participation and learning in an ODF is discussed in Section 7.4.1.2.

In summary, the SBOMs’ level of commitment to learning was a very important factor that led to various levels of participation and learning in the OCL forum. If SBOMs value learning as important for business success, and identify as business managers, they are more likely to be active participants. As such, these findings indicate that an SBOM’s commitment to learning plays an important role in participation, because it encourages him or her to make time for learning. Limited time is an important barrier to SBOMs engaging in training and learning, as discussed in Chapter 2. However, what is suggested here is that, rather than time availability, it is commitment to learning that influences SBOMs’ decisions to take the time to learn (see Section 7.4.1).
6.6.1.4 Prior ODF Experience

SBOMs were more likely to participate in the OCL forum when they had prior ODF experience. Previous experience helped SBOMs feel technically confident. This prior ODF experience influenced SBOMs’ willingness to sign up and participate. The number of posts made by each participant to the OCL forum is shown in Figure 6.7. Notably, three of the four most active participants, Kelly, Mike and Steve (see Figure 6.7), were experienced discussion forum users. In particular, Mike’s previous experience of discussion forums helped promote his participation in the OCL forum. He explains:

Yes … yes I’m a forum slut. I love them. I love them to bits. For work and play. I’m a member of a sign based, UK sign group and I’ve actually learnt most of my trade through this web site. Because it is all different sign companies, back in the UK. If you have a problem with something, or you’re not sure how to do it you can post up on the forum. And everyone will jump in and give you a hand. *Mike, SBOM Interview*

![Figure 6.9: OCL Forum Participant Posts](image)

In contrast to Mike’s experience with an ODF, some SBOMs experienced frustration during the OCL forum. SBOMs with no previous experience of ODFs experienced a ‘steep learning curve’ in order to take part. Participation required overcoming some technical hurdles, or entry barriers, including establishing membership of Yahoo Groups, navigating to the OCL forum and reading and posting messages to the correct
OCL forum thread (as described in Chapter 4). Donna described the challenge of overcoming the technical hurdles:

It [the Yahoo Groups website] was asking me to join Yahoo or something and I was a bit dubious about that I thought I just didn’t feel comfortable joining Yahoo … I found it hard to ummm to link in. I didn’t find it easy for the Yahoo. I don’t use Yahoo. It was a bit of a hurdle. I think it was a bit of stumbling block for me. I remember trying it and something didn’t work easily, so I think I answered an email I don’t know … and I’m actually quite good with computers but I had trouble, yes, following the link. *Donna, SBOM Interview*

Most of the SBOMs who chose not to participate in the OCL forum had no previous ODF experience. Only one of the eight focus-group attendees had used an ODF. This suggests that previous ODF experience was an important factor in encouraging participation in the OCL forum, perhaps because they had previously overcome the technical hurdles involved in signing up and participating in an ODF. The important function of prior ODF experience in SBOMs’ participation in learning is discussed in the importance of self-efficacy for learning (see Section 7.4.1.3).

6.6.2 OCL Forum Technical Design
The technical design of the OCL forum was an external factor that influenced who participated and the level of their activity. Three technical factors facilitated participation: (1) easy access to a networked computer; (2) the sign-up process; and (3) the OCL forum user interface. Each of these external factors is outlined in this section.

6.6.2.1 Access to a Networked Computer

First, in order to participate in the OCL forum it was necessary for the SBOMs to have access to a networked computer (i.e. a computer with Internet access). Notably, all of the participants interviewed had a computer on their office desk, enabling easy access. It was recognised by Kelly that not all SBOMs experienced the easy access to a networked computer that she did. She suggested that this might have been a factor in the low rates of participation (inactive) on the forum, conceding:
Yeah I guess they [other SBOMs] thought it would take too much time … maybe not everyone has a computer that they sit in front of all day. I could flick over and have a look at what was going on and come back and keep working.

Kelly, SBOM

The convenience of having access to a networked computer encouraged active participation on the OCL forum throughout the working day. The ease of being able to view the OCL and take part in the online discussion throughout the day was considered by participants to be a real advantage of this mode of learning. They appreciated that participation on the OCL required only a few minutes during the day to read or post new forum content. The importance of easy access to a networked computer is discussed in Section 7.5.1.1.

6.6.2.2 Sign-Up Process

The sign-up process for the OCL forum involved a number of steps over a period of weeks. It appears that the process to sign up and take part in the OCL forum may have limited the number of SBOM participants. The sign-up process had three steps. On receipt of the email invitation, SBOMs had to reply to the researcher, then create a Yahoo account and then sign in to the OCL forum using the uniform resource locator (URL) provided by the researcher. Connection to the OCL forum required multiple steps and commitment before the SBOMs could view and take part in the OCL forum. This possibly reduced participation.

However, not all SBOMs who were interested in participating took the steps necessary to participate. During the focus group with non-participants, the SBOM non-participants acknowledged receiving the email inviting them to participate in the OCL forum but admitted they did not take any action to respond. They acknowledged that they thought the OCL forum seemed like a good idea and wanted to take part. They expressed that they did not have enough time to reply to the email when it was received and intended to do it later. However, this delay in taking action resulted in them forgetting about participating in the OCL forum.
The invitation email did not allow SBOMs to view the OCL forum prior to sign-up. Focus-group participants thought that the OCL forum was a good idea. However, they did not take the actions to participate, partly because they did not understand what was required to participate. Being able to view the OCL forum prior to making a commitment would have demonstrated what was required and might have encouraged participation. The idea of one-click-to-connect is discussed in Section 7.5.1.2.

6.6.2.3 Useability of Yahoo Groups

The use of Yahoo Groups to host the OCL forum was met with mixed reactions from the participants. Mike did not like the way the discussion threads are displayed in reverse chronological order; that is, the most recent post (in terms of date and time) appears at the top of the thread, and the oldest post is displayed last. Mike stated that most forums in which he has participated display posts in the reverse order, with the first post (original post in a thread) displayed at the top and all subsequent posts displayed below this in order of date and time. He suggested that this provides users with the ability to read topics easily, because they are displayed in order, enabling users to make sense of the discussion with ease. This useability issue was considered by Mike to be a key technical design issue that inhibited participation.

The use of a third party to host the OCL forum concerned some participants. This may have prevented or limited some SBOMs from participating. Some participants felt uneasy about providing their details to a third party. Donna was wary regarding Yahoo’s request for many of her personal and business details; during the sign-up process this made her feel uncomfortable and might have limited her participation on the OCL forum. In addition, the use of Yahoo might have prompted three of the eight SBOM participants to use an email address that did not identify them and/or their business. Kelly and Rachel used generic names and email addresses that did not name them personally or identify their business, ensuring anonymity. Mike used a Yahoo address that identified him personally but gave no reference details to his business. This fear of using Yahoo as a third-party forum provider was a cause for concern for participants, and it possibly reduced the number of SBOMs who took part in the research.
However, interestingly, Steve and Mike both felt that by participating in the OCL forum they learnt how to use Yahoo Groups. Mike runs a graphic-design business in a south-eastern suburb of Perth, Western Australia. For Mike, learning how to use the tool has changed the way he does business. That is, he has modified his business processes as a result of using Yahoo Groups. He commented during the data collection interview about how learning to use Yahoo Groups changed his existing business process:

… when you did your online thing. You showed me that Yahoo Groups. We use Yahoo Groups for our work now … we use it for messages, when there was three of us working here on computers all the time three of us taking phone calls and booking in jobs. And it was a cheaper way … we didn’t have to have a server running … we can have one diary … you can access it from home, ummm from your workshop. It’s great. It’s a really good use of the tool and it’s free. Mike, SBOM Interview

Mike now uses Yahoo Groups to manage client bookings and as a calendar, which all staff can access from any location. This circumvented the need to install a server and has enabled all staff to book in clients, regardless of location. Simply by participating in the OCL forum, Mike learnt something new that he has now implemented in his business, which has changed how he does business. Thus, for Mike, participating in the OCL forum exposed him to a new technology; he has learnt how it can be applied and has implemented it in his business—evidence of double-loop learning (see Section 7.6.4).

6.6.3 OCL Forum Learning Design

The OCL forum was designed to support SBOMs’ learning preferences for informal, network-based learning while simultaneously addressing their reason for not attending formal training. The OCL forum enabled SBOMs to participate in learning designed for their learning needs without having to leave their business operations. Through the analysis of the data, six themes emerged regarding learning design of the OCL forum,
including voluntary participation, informal learning, group composition, relevant topics, trust and facilitation.

To date, most research regarding ODFs has focused on the higher-education sector, where learning is formal and participation is mandated by the application of course grades (as discussed in the literature review in Chapter 3). However, this study was different. The OCL forum was designed to support SBOMs’ informal learning where participation was voluntary. These differences in learning design had significant effects on both the overall participation rates and the discussion topics in which participants chose to take part.

6.6.3.1 Voluntary Participation

Participation in the OCL forum for this study was voluntary. SBOMs were under no obligation to participate or to contribute to the discussions. Voluntary participation is very different from the mandated participation in ODFs in the higher-education sector, as discussed in the literature review in Chapter 3. Unlike most ODFs in the higher-education sector where participation is mandated through the allocation of grades, participation in the OCL had no such motivation lever. As such, participation was derived entirely from SBOMs’ internal motivation and commitment to learning. In this way, SBOM learners are exercising choice about what, when and how they learn; thus, they need to be highly self-directed.

Are all SBOMs capable of being self-directed learners? Evidence from this research suggests that perhaps they are not. The need to be self-directed in an informal ODF is discussed in Section 7.5.5.2.

6.6.3.2 Informal Learning

The type of learning offered in the OCL forum was informal learning (see Section 2.3.5.2). The informal learning offered SBOMs an opportunity to learn from the experience and knowledge of other SBOMs. Most participants considered that there was
much value in learning from, and with, other SBOMs. The value of learning from other SBOMs was expressed by participants:

[On what was the best aspect of the OCL forum] being able to ask a question from people in the same situation. Kelly, SBOM Interview

So here I am [on the OCL forum] and looking forward to the broad interest, knowledge and inspiration that I know we can give each other. Rachel, SBOM OCL Forum

I … thought it [the OCL forum] was a good way to find out how other people were dealing with it [that is his difficulty with hiring staff] or not dealing with it. Steve, SBOM Interview

In particular, the experienced SBOMs (in terms of the number of years they had been operating a small business), Kelly (5 years), Steve (8 years), and Neil (10 years), appreciated the value of learning from other SBOMs. They accept that learning about managing a small business can be achieved in many ways, including informally through networking with family and friends, online via websites and through formal training and education. Acceptance by SBOMs that their business is not unique, and that the challenges faced by SBOMs are often common to all small businesses, forges an appreciation that learning from other SBOMs is valuable and worthwhile. The OCL forum participants understood that learning comes in many forms, formal and informal. The SBOMs who participated in the OCL forum demonstrated a willingness to try learning opportunities, regardless of the format, because they are committed to learning, in all its forms. Being committed to learning is discussed in Section 7.4.1.

Conversely, the informal nature of the learning promoted in the OCL forum was criticised by one SBOM:

… learning from other small business is interesting, but other small businesses don’t do what we do. Ellen, SBOM (Intentional Participant) Interview

Interestingly, Ellen did not participate in the forum and, as such, did not know what was discussed on the OCL forum. However, she did express the desire to learn from a
recognised expert rather than from other SBOMs. This need to have directed learning, where content is determined by an expert, might result from being socialised in an education system during the 1960s and 1970s where teaching and learning were guided by behaviourist learning theory. This desire for expert-directed learning and its affect on the perceived validity of knowledge is explored further in Section 7.5.2.3.

6.6.3.3 Group Composition

The size and the composition of the participant group in the OCL forum affected participation by SBOMs. Participation was informed by the level of experience in owning and managing a small business.

Some of the more-experienced SBOMs did not participate in some discussions because the issue was something that they had already resolved within their business. When asked why he did not participate in some threads, Mike said:

I’ve been through a lot of it … I’ve been through the full gambit of those questions that came up. *Mike, SBOM Interview*

Conversely, inexperienced SBOMs were intimidated by some of the discussion topics online. Limited experience inhibited participation because their limited experience as an SBOM meant that the issue being discussed on the forum was a topic to which they could not contribute, or which they did not understand, or which was not relevant to their business (or not yet relevant):

I thought I was one of the only newer business … others were big, experienced … So I felt very different … I can’t actually relate to this, I’m not at that stage … I wanted to talk to people about how they’ve gone and how they started. *Donna, SBOM Interview*

In addition, timing is important because people ‘don’t know what they don’t know’. Some participants did not know that they might need to learn about hiring people for their business; as such, they could not ask the questions and they could not share any information. Kelly discussed the importance of the timing of the discussions and that if a discussion had taken place two months later how much more she would have been able to contribute:
Yeah that was good because there was that one woman she didn’t know to try the unemployment office or whatever it was so … that was really good … yeah see since then I’ve advertised on Seek for people and know like a lot more so I could have participated in that ummm more than I did cause I had no idea how to help anyone with that. *Kelly, SBOM Interview*

Thus, it seems that there is no ‘one size fits all’ ODF that will meet all SBOMs’ learning needs. It seems to depend on the degree of the SBOM’s owner-manager experience and the stage of development of his or her understanding of SBOMs’ issues.

6.6.3.4 Relevant Topics

Participants were more active when topics were relevant to their immediate needs. The need for relevant topics to generate discussion online was noted by Donna. She commented during her interview that her participation was limited due to the topics being discussed. She felt they were not relevant to her because she was new to small business and did not employ staff. During her interview, she stressed the need for relevancy when deciding to post:

I didn’t find a lot of relevant topics. I didn’t have staff. There are a couple of times they were talking about issues to do with staff. So I couldn’t participate. *Donna, SBOM Interview*

Kelly also references relevancy when she discusses how she was unable to contribute to the discussion regarding employing staff during the OCL forum, she acknowledged that had the discussion occurred two months later she would have had more to share, because she had experienced the process of employing a staff member.

...since then I’ve advertised on seek for people and know like a lot more so I could have participated in that ummm more than I did cause I had no idea *Kelly, SBOM Interview*

Thus, the timing of both the OCL forum and the relevance of the topic determined who could or would participate. This supports the assumptions of andragogy (see Section
2.3.3.1), which state that ‘the need to know’ and ‘immediacy’ influence adult participation in learning events. This is discussed in Section 7.5.2.7.

Similarly, SBOMs were more likely to be active participants and post to a discussion topic when they felt that they had a valuable contribution to make. Confidence to participate and post online came from believing they had valuable knowledge and experience that they could share with others, as shown by the following comments made during interviews:

I don’t think I actually got any solutions from it [OCL forum] but I think I was able to offer some...Steve, SBOM Interview

If you’re helping someone else out or you’re thinking about someone else’s problem then it kind of minimises yours so I enjoyed that. Mike, SBOM Interview

The desire to share their experience provided motivation for SBOMs to participate in the OCL forum. The important role of self-confidence in SBOMs’ participation in an ODF is discussed in the role of self-efficacy in learning (see Section 7.4.1.3).

6.6.3.5 Trust

The OCL forum was an asynchronous ODF. The asynchronous nature of the OCL forum allowed participants time to think prior to posting a written message. This thinking time is a recognised feature of ODFs that are designed to promote thoughtful discussion, as covered in the literature review in Chapter 3. However, this thinking time does not always promote participation. Thinking time allows participants to think through the nature of their post and the implications of what is being said, and while this might improve the quality of the post, it could decrease the quantity of participation. SBOMs had time to think about what they were reading and what they were posting. They questioned if they could trust other OCL forum participants. First, SBOMs questioned if they could trust the other participants with information they wanted to share, second, they questioned the knowledge provided by others and, third, they were concerned about the permanent nature of written communication posted to the OCL forum.
Being able to think carefully prior to posting limited participation because some SBOMs deliberately held back from responding to posts. For some, this meant choosing to hold back from participating in a discussion thread for fear they might be seen to dominate discussions, which they considered would be perceived negatively by other participants. This perception of being seen negatively was highlighted by Kelly, who did not want to dominate a discussion thread regarding the need for a web presence and the use of websites for advertising, despite her expertise as a web designer. Kelly withheld from responding because she wanted other SBOMs in the OCL forum to trust her. She felt that by contributing to that particular discussion she might be perceived by others as someone who was only participating to promote her web-design business. She explained during the interview:

You know I wasn’t going to be the one who came back and went of course you do I left that and someone else actually came back and said it so. I thought well that’s good...Kelly, SBOM Interview

In comparison, Mike, who has been in business for more than 15 years, explained that he held back from asking questions that he really needed help with, largely because he felt embarrassed. He explained:

…probably the ones that I’ve never really asked about keep going back to cash flow. I always knew that you were supposed to have so much capital you know to be able to grow so much, to be able to take on so much work. But I always felt a bit embarrassed about asking other people about that. Mike, SBOM Interview

The issue of trust also arose regarding the permanent nature of written communication in the OCL forum. Participants gave considerable thought to what they posted. Kelly and Mike discussed the importance of being careful about what they posted and how the posts were phrased. They recognised that other forum users could misinterpret what is being said if posts were not worded carefully. They expressed concern that all participants need to think before posting, to remain wary that posts are written communications, which can be misunderstood:

I know that the written word is quite easy to misinterpret so I’m really cautious about how I word things … I was also cautious about how I approached people and it
served me well, 'cause there were a couple of people who got a bit thingy. *Kelly, SBOM Interview*

No, I, I’m one of these type people who hasn’t got something to say on a subject then I don’t say it. And I think forums are good and bad for that. Because they get the people that, who will just reply to everything and they won’t think about what they replied, you’ll get some people who will think really deeply about it and they want to get they develop it like an online personality so they [other people] really think about what they are going to post before they actually post it. 'Cause [sic] it gives you that kind of freedom, you read the thread, and then you could just go straight off the top of your head the same as you would in a conversation. You could just type that down. Or it gives you the opportunity to sit back and think do I really want to say that

*Mike, SBOM Interview*

Trust is a factor that affects the level of participation in the OCL forum. Lack of trust reduced the number of questions asked, and it prevented people from sharing their knowledge and expertise that might have been beneficial to other SBOMs, including peripheral participants. These limitations regarding trust online affected participation and potential for learning. Trust, and how to develop it in an ODF, are discussed in Section 7.5.2.4.

6.6.3.6 *Facilitation*

The role of the facilitator on the OCL forum was crucial to encouraging and maintaining participation. Sixty posts were made over the two months of the OCL forum trial, with more than one third (36 per cent) of these being made by the facilitator. The 22 posts made by the facilitator dominate the OCL forum in terms of the quantity of participation. Figure 6.7 displays the number of posts on the OCL forum by the researcher and each participant. All posts by the facilitator were designed to facilitate and promote discussion by, first, encouraging participants to introduce themselves, second, asking questions to generate discussion, third, acknowledging posts made by participants and, fourth, summarising key discussion points. The role of the facilitator in promoting learning is discussed in Chapter 6.
The role of the facilitator in generating and promoting discussion was recognised by participants. They appreciated their posts being acknowledged by the facilitator. Participants also acknowledge that without the facilitator, there would have been less participation on the OCL forum and it may have ceased to exist. Participants recognised the role of the facilitator in trying to promote discussion:

I felt you were egging people on to get involved. *Neil, SBOM*

When it was quite you’d chuck [colloquial. for throw] up a question what do you guys think about this. You were very subtle. But it was a poke and … it was good. *Mike, SBOM*

I think without you [facilitator] we wouldn’t have got as many posts as we got so I think that your contribution was kind of vital. *Kelly, SBOM*

One participant recognised the role of the facilitator but felt that the facilitator could have done more to improve participation on the OCL forum. Donna acknowledged the role of the facilitator in asking questions and pushing discussion along, but recognised that when the facilitator stopped, conversation online ceased. Donna suggested that to improve the OCL forum, individual encouragement was required from the facilitator. Donna saw the facilitator’s role as a nurturer of discussion. She suggested that the facilitator should coax participants not taking part in a particular discussion to post by providing individual prompts and tailored questions. She felt that the facilitator should direct questions to individuals, to ask them, ‘What do you think about this <name>?’ or ‘Are you <name> okay?’ She proposed that this would demonstrate that the facilitator was paying attention, and she recommended that this nurturing by the facilitator would help the more reluctant participants to post to the forum.

A facilitator is vital in promoting participation online with SBOMs. Although the goal was to have a self-managing ODF, the findings from this research suggest that constant and skilled facilitation is required to encourage and promote participation online. This is discussed further in Section 7.5.2.5.
6.7 Conclusions

This chapter described the findings regarding SBOMs’ participation and learning in the OCL forum. Analysis of the OCL forum data using Pozzi et al.’s (2007) framework established that SBOMs could achieve double-loop, or deep learning, by participating in a voluntary, informal ODF. This is an important finding because research into the use of informal ODFs for SBOMs has had limited attention in the literature, as discussed in Chapter 3.

Analysis of the four types of data, including the OCL forum discussion transcript, interview transcripts, focus group notes and field notes, revealed three themes that influence SBOMs’ participation and learning in a voluntary, informal ODF.

The first theme questions the rationale provided by SBOMs that they do not have time to learn. SBOMs’ commitment to learning, which includes the value they place on learning for business success, and their occupational identity, determines if they will take time for learning. The third factor is related to prior experience with ODFs: if SBOMs had had experience with an ODF, they were more likely to participate. The second theme to emerge was regarding the technical design of the ODF, and the importance for SBOMs to have easy access to a networked computer, an easy sign-up process and ease of useability of the discussion forum. The third theme centred on the learning design and the implication of relevant and timely discussion topics, the role of the facilitator and the importance of developing and maintaining trust online to support participation and learning. While the learning and technical design of the ODF was important, what appeared to be the most important factor in getting SBOMs to participate was their mindset. SBOMs’ attitudes about learning affect their behaviour and their decisions regarding participating and learning.

The analysis of the OCL forum data revealed deep, double-loop learning by SBOMs. This provides some evidence that learning in an ODF by SBOMs is possible. However, engaging SBOMs in learning is difficult. Despite the elimination of many of the obstacles that SBOMs have cited in the literature as reasons for not participating in training and learning (see Chapter 2), SBOMs continue to be reluctant to participate in
learning that is specifically designed to meet their needs and to overcome their rationale for not attending formal training.

SBOMs’ mindset regarding learning is a key factor in their participation in learning events. Their internal thinking and attitudes to learning, which include their attitudes to allocating time for learning, to the role of learning in the success of their small business and their self-confidence to take part successfully, are crucial to their level of participation in an ODF, and possibly to all forms of training and learning. Other factors that influence participation and learning include the technical and learning design of the OCL forum; however, these two factors appear to be less influential on SBOMs’ participation and learning than does their learner mindset.
Chapter 7: Discussion:
Online-Learning Forum for SBOMs

… it’s always possible to participate but by the same token, there is never a special occasion to participate (Wenger, 2001, p. 48).

7.1 Introduction

The aim of this research was to understand the factors that engage more SBOMs in learning, with the broad assumption that learning provides support for the growth, development and continuing success of their businesses. This research provided an alternative to formal face-to-face training by providing an OCL forum, which enabled informal, voluntary, network-based learning for SBOMs. The OCL forum delivered an informal learning opportunity that met SBOMs’ learning preferences while simultaneously overcoming their reasons for not attending face-to-face training, including time away from business operations and poor ROI. Despite meeting their learning preferences and mitigating the reasons stated for not attending training, participation in the OCL forum was limited. Notwithstanding this limited participation, findings from this research do provide proof of concept that an ODF does facilitate deep learning for SBOMs, supporting the existing literature regarding learning via an ODF, which has developed primarily through the higher-education sector.

Despite this learning success, willing participation by SBOMs in an ODF cannot be assumed. Findings from this research regarding the difficulty of attracting SBOMs to take part in the OCL forum are consistent with the existing body of knowledge regarding SBOMs’ participation in training and learning, which acknowledges that they are a difficult group to engage (Billett, 2001; Gibb, 1995, 1997; Moon et al., 2005; Paige, 2002; Walker & Brown, 2004; Webster et al., 2005; Westhead & Storey, 1996). To date, attempts to improve poor participation by SBOMs in training and learning have largely focused on manipulating external variables that can be controlled by the training provider. Focus has been on manipulating the training variables, including content (Billett, 2001; Clarke et al., 2006; Gibb, 1997; Matlay, 1999; Storey, 2004), delivery
approach (Morrison & Bergin-Seers, 2002) and location (Redmond & Walker, 2008). The findings from this exploratory research offer new insights into what factors encourage different levels of participation (active, inactive) by SBOMs in an ODF. Findings indicate that SBOMs’ internal characteristics are important factors to engaging voluntary participation by SBOMs in an informal ODF. These internal factors demonstrate that SBOMs are committed to learning. Being committed to learning means that SBOMs make time to learn, have a managerial occupational identity, value learning for business success and have prior ODF experience. Being committed to learning influences SBOMs’ decision to participate and learn in a voluntary ODF and could potentially explain their participation (or not) in training more broadly.

This discussion chapter brings together elements of educational psychology in terms of learning theory and the emerging theories of online learning. It also takes a business and management perspective in applying these theories in small business context. This chapter discusses the internal and external factors that influence SBOMs’ decision to participate and learn in an ODF. The first section examines the internal factors, which affect SBOMs’ decision to participate in a voluntary ODF. The second section describes the ODF technical design factors, which include access to a networked computer, the sign-up process and orientation. This is followed by the ODF learning design, which includes the impact of voluntary participation, the importance of trust, the facilitator, relevant topics, group size, preferred times, group composition and building a learning network. The section describes the external design characteristics, including timing, group composition, trust and facilitation that can be controlled by providers to encourage and support participation. The chapter concludes by suggesting that an understanding of SBOMs participation in and learning would benefit from additional research into factors underpinning the internal factors that influence SBOMs’ decision to participate.

7.2 Research Questions

This research set out to answer one overarching question, and two sub-questions regarding participation and learning by SBOMs in an ODF. The main research question and its subsidiary questions were:
**RQ1:** Does an ODF empower SBOMs as active learners?

**RQ1(i):** What factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?

**RQ1(ii):** What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

The two subsidiary questions will be answered first, and then discussion will be drawn together to answer the overarching research question.

### 7.3 RQ 1(i): Internal and External Factors

This section seeks to answer what factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF.

### 7.4 Internal Factors

To achieve the aim of engaging more SBOMs in learning, they must first agree to participate. This research shows that participation by SBOMs in an ODF cannot be guaranteed, even when this learning has been designed to meet their learning needs and negate the documented reasons for why they do not attend formal training. SBOMs’ participation rates in the OCL forum were low, with only 0.05 per cent of those invited to take part actually participating. Many internal and external characteristics led to different levels of participation. This research revealed that SBOMs’ commitment to learning had a strong influence on their decision to participate and learn in the OCL forum. Being committed to learning means SBOMs make time to learn, have a managerial occupational identity, value learning for business success and have prior ODF experience. Being committed to learning influences SBOMs’ decision to participate and learn in a voluntary ODF and could potentially explain their participation (or not) in training more broadly.

#### 7.4.1 SBOMs’ Commitment to Learning

This section explores how SBOMs’ commitment to learning influences their level of participation in an ODF. Commitment to learning is an internal factor that influences
SBOMs’ decision to participate in an ODF. Being committed to learning means SBOMs make time to learn, have a managerial occupational identity, value learning for business success and have prior ODF experience. Each of these factors is explored.

7.4.1.1 Managerial Occupational Identity

Findings from this research indicate that occupational identity affects SBOMs’ commitment to learning. Occupational identity is the set of central enduring characteristics that typify the line of work an individual does (Ashforth & Kreiner, 1999). For SBOMs, it is suggested that their occupational identity can be aligned to being an owner-manager (managerial identity) or it can be aligned to being a functional expert (e.g. hairdresser, plumber, printer, painter), or a combination of the two.

Occupational identity is important; it determines how individuals direct their attention (Lave & Wenger, 1991; Lesser & Storck, 2001) because the desire to be competent at what one values is a powerful driving force for adults seeking learning (Wlodkowski, 2008). This idea is supported by Lesser & Storck (2001) who describe how identity shapes the learning process by influencing the training and learning in which SBOMs take part. Rae (2005) explored the concept of identity in his triadic model of entrepreneurial learning, which includes contextual learning and negotiated enterprise, together with personal and social identity. SBOMs in this study, like the entrepreneurs in Rae’s (2005) research, have identities that have developed from their personal and social activities and the practices and roles they experience, often through early employment. It is ‘these abilities, skills and know-how [that] are often applied in the core activity of the new enterprise’ (Rae, 2005, p. 237). This knowledge and these skills are usually rooted in the functional expertise of the business.

An occupational identity associated with being a ‘functional’ expert supports previous research findings that report SBOMs are often too busy working in the business to work on the business (Paige, 2002; Westhead & Storey, 1996). This emphasis on working in the business instead of on the business is supported by research conducted by Charters, Clark-Murphy, Davis, Brown & Walker (2008) regarding SBOMs in the wine industry. Their findings describe SBOMs who are aware of functional (i.e. wine-making)
knowledge, skills and attributes required for success, but ‘they are relatively unaware of and unconcerned with the issues of management expertise and general management skills’ (Charters et al., 2008, p. 150). Similar finding were revealed in Cohen and Musson’s (2000) study of 18 general practitioners, following the implementation of government legislation in the United Kingdom that placed more emphasis on the business functions of general practice. The research revealed that most general practitioners were able to construct a business identity that complemented their medical identity, but when these two identities were set in opposition the medical identity clearly took precedence. For most general practitioners in the study, business was secondary to their medical identity; however, Cohen and Musson (2000) conclude that the balance can shift over time.

However, the incorporation of owner-manager characteristics in their identity appears to be an important ‘mental shift’ for SBOMs in this study. The challenge of this mental shift is illustrated in the findings of this research by those SBOMs who wanted to participate in the ODF (identity associated with being a manager) but did not do so due to functional demands (identity associated with being a functional expert). For those SBOMs who have incorporated characteristics of a manager into their identity, the holding of multiple identities can place additional and sometimes inconsistent demands on the behaviour of individuals (Ashforth & Mael, 1989).

The occupational identity of SBOMs is complicated by their need to fulfil often two distinct roles in the business: the functional expert and the business manager (Cohen & Musson, 2000). This dual identity can be problematic; often the role of functional expert has been very strongly developed because many have worked their way up through the ranks of the industry and have subsequently established their business on the basis of specific operational (functional) skill (Jeffrey, Hide & Legg, 2010). The strength of this functional identity makes it difficult to incorporate a business-manager identity.

Multiple identities can lead to role conflict, which, according to Biddle (1986), is where two or more incompatible expectations for the behaviour of a person occur simultaneously. This role conflict experienced by SBOMs and its link to participation in management-related learning poses somewhat of a catch-22 situation for small-
business training providers. To participate in management-related training, SBOMs must identify as a manager. However, it is through participation in communities that individuals begin identifying with their occupational group (Becker & Carper, 1956; Hendley, Sturdy, Fincham & Clark, 2006). This identification and learning cycle then becomes an automatic positive feedback loop. That is, because they identify as a manager, they attend management-related training, which further develops their management identity. Conversely, those SBOMs who identify (or more strongly identify) as functional experts are less likely to participate in management-related learning opportunities, which prevents them from developing a manager identity, which in turn reinforces their operational identity—a negative feedback loop.

Hendley, Sturdy, Fincham and Clark (2006) identified that individuals’ participation in learning communities is guided by their sense of self, in which individuals determine the ‘fit’ or resonance of an opportunity with their current sense of self. Thus, if SBOMs’ occupational identity is more closely associated with being a business manager than with being a functional expert, participation in management-related learning opportunities is more likely. The business-manager sense of identity within the business helps to explain why some SBOMs embrace management-related learning and training opportunities, while others perceive no benefit in participation. Thus, one way of improving participation in management-related learning may require development, or strengthening, of the owner-manager occupational identity, or, at least, the identification of where an individual is on this occupational identity spectrum.

It is suggested that for many SBOMs the renegotiation of their identity from functional expert to business manager is difficult and requires making one role identity more salient than another (Murnieks, Mosakowski & Cardon, 2012). For some, this identity formation from functional expert to business manager may never occur. They remain functional experts not developing the new abilities, skills and know-how to enable them to identify as an owner-manager. Thus, participation in business-management learning opportunities offered to them is outside ‘what they do’ as functional experts. ‘Business-management’ learning opportunities do not match their own internalised identity of who they are, nor what they believe is required in order to be successful in business.
This is perhaps so with SBOMs who participated in this research. As the findings indicate, the majority of SBOMs who participated in the ODF were experienced SBOMs whose identity might have made this important shift from that of a functional expert to that of an owner-manager. This is perhaps an important characteristic for understanding why some SBOMs participate in learning while others do not.

In summary, SBOMs whose occupational identity is that of a business manager are more likely to participate in training related to improving business management knowledge and skills. SBOMs whose occupational identity is that of a functional expert are unlikely to participate in business management training, because it is not congruent with their identity. Thus, it is suggested that SBOMs who have an occupational identity aligned with being a functional expert were unlikely to participate in the ODF, because it was a forum promoted to discuss issues and problems common to SBOMs.

7.4.1.2 Linked Learning with Business Success

SBOMs were motivated to participate in the OCL forum when they value the outcome (learning). The value that they place on the outcome is strongly connected to how important they believe learning is to the success of their business. The SBOMs who participated in the OCL forum believe learning is an important factor in obtaining or maintaining a successful business. It appears that through a (or many) prior learning experience(s) and its application to their business, they have developed a strong belief that there is an important link between learning and business success. Similar to the idea proposed by Zhang, Macpherson and Jones who suggest that entrepreneurs have an outward focus, that they look outside their own business for ‘deeper and wider learning’ (2006, p.299). That is they see the benefit of learning, regardless of the method, content or type. They are willing to learn, understanding that what is learnt may not be applicable to their business immediately, but that they will be able to apply that learning at sometime in the future. This group were willing participants in the ODF, valuing the outcome of learning; similarly, Rae and Carswell (2000) found that successful entrepreneurs also value learning.
In contrast, the SBOMs who did not take part in the ODF appear not to place the same value on learning for business success. This finding is supported by the broader literature on why SBOMs do not participate in training. There is a variety of reasons why SBOMs do not participate in training, including having had a negative experience with training and education (Macpherson et al., 2003; Paige, 2002), the perception that training provides a poor ROI (Johnson, 2002; Lange et al., 2000; Mack, 2003; Morrison & Bergin-Seers, 2002; Paige, 2002) or that the provision of training does not meet their needs (Billett, 2001; Clarke et al., 2006; Gibb, 1997; Matlay, 1999; Storey, 2004), training is a long-term investment but SBOMs want a short-term ROI (Storey & Westhead, 1997), training is seen as an unnecessary expense (Mack, 2003) and no perceived need for training by SBOMs (Billett, 2001). To date, much of the research has tried to identify what actions providers can take to meet SBOMs’ needs (Billington, Neeson & Barrett, 2009; Charters et al., 2008; Redmond & Walker, 2008; Webster et al., 2005). Yet, SBOMs continue to be reluctant to participate in training and learning. Thus, the question remains: how to engage SBOMs to participate in learning designed for their benefit.

Perhaps the answer to improving SBOMs’ participation is to investigate beyond the what, when, where and how of what is offered by the training provider to examine the SBOMs’ level of commitment to learning. That is, the answer could be to shift from looking at what external providers can do to improve learning and training to investigating if, and how, we can modify SBOMs’ commitment to learning and increase their understanding about the importance of learning for business success. If the ‘value of learning’ internal belief is crucial to encouraging participation by SBOMs, then future research must explore if, and how, this can be developed and/or strengthened to encourage greater participation in training and learning events.

However, the value of learning for business success was not the only factor that contributed to SBOMs’ decision to participate in the ODF. The decision to participate was also influenced by their prior ODF experience.
7.4.1.3 Prior ODF Experience Increases Self-Efficacy

Prior ODF experience was important to SBOMs’ participation in the OCL forum. Previous ODF experience gave SBOMs them self-confidence in their ability to participate. Self-confidence is referred to in the learning literature as ‘self-efficacy’, which is defined by Bandura (1997) as ‘beliefs in one’s capability to organize and execute the courses of action required to produce given attainments’ (p. 3). Self-efficacy is a personal assessment, and is situation specific, but largely based on performance in past experiences (Wlodkowski, 2008). The role of self-efficacy in SBOMs’ learning participation is supported by literature in both academic performance (Hodges, 2008) and training and learning (Bandura, 1997; Hurtz & Williams, 2009; Noe, 1986; Noe & Wilk, 1993; Tennenbaum, Mathieu, Salas & Cannon-Bowers, 1991). The conclusion is that an individual’s self-efficacy beliefs are significantly and positively related to performance (Bandura, 1997; Hodges, 2008). That is, when SBOMs believed they were capable (positive self-efficacy) of participating in the ODF, they were more likely to sign-up and participate. Importantly, self-efficacy contributes to motivation and influences the choices of activities in which people will participate, how much effort they contribute, their level of perseverance and their resilience to adversity (Bandura, 1997; Moos & Azevedo, 2009; Yi & Hwang, 2003). Thus, self-efficacy through its influence on choice and motivation played a pivotal role in SBOMs’ decision to participate in the OCL forum, and in which topics they chose to participate, as discussed in the topic relevancy section (see Section 7.5.2.7).

Participants had greater self-efficacy regarding taking part in the ODF when they had prior discussion forum experience. This prior experience facilitated SBOMs’ decision to take part in the ODF, because they believed they were capable, having previously mastered the skills to sign up, post and add new threads to a discussion forum. This finding is consistent with results from the higher-education sector, which also show that technical experience increases students’ participation rates. Students previous experience of technology is a critical success factor in online learning (Volery & Lord, 2000). More specifically, research by Rovai (2007) and Thompson & Savenye (2007) found that the number of student posts to online discussion boards increased
commensurately with their level of experience. Thus, previous experience plays an important role in promoting active participation by SBOMs in an ODF.

Unfortunately, much of the research to date on self-efficacy in learning is based on traditional training, development and education (Bandura, 1997; Noe, 1986; Noe & Wilk, 1993). The role of self-efficacy in online environments is still in its infancy (Hodges, 2008). However, Garvan, Carbery, O’Malley and O’Donnell (2010) postulate that the role of self-efficacy might be even more salient in online-learning environments, where learners have to assume more responsibility, engage in more self-directed behaviours and work more independently than they do in face-to-face training. Garvan et al.’s (2010) survey of 557 employees who had the opportunity to participate in voluntary e-learning activities demonstrated that attitudinal variables, which include self-efficacy, have a significant impact on actual participation. They conclude that employees who feel that online learning will be worthwhile and enjoyable and will lead to desired outcomes are more likely to participate. Similar conclusions regarding SBOMs’ participation on the ODF are made from this research. SBOMs who believe they can learn via an ODF and desire the outcomes (that is, they value the learning) were more motivated to participate and learn.

On the contrary, without ODF experience, SBOMs were much less inclined to take part. Only one participant in the OCL forum had no prior ODF experience (see Section 6.6.1.4). With no prior experience, being able to participate required significant additional learning. Newbies (people new to ODFs) had to learn how to sign up to the third-party provider (Yahoo Groups), connect to the OCL forum and use the ODF (to create posts, read discussion threads and generally navigate through the OCL forum). Overcoming these technical hurdles (obstacles) can be difficult. It appears that the more obstacles in place, the less likely SBOMs are to be active participants. This is discussed further in sign-up process in Section 7.5.1.2.

In addition, many non-participants clearly expressed confusion about the benefits of learning via an ODF. They did not understand that the learning offered was network-based and flexible in terms of time commitment required and, as a result, they decided not to participate (see Section 6.2.1.3). Gray (2004) experienced similar participation
challenges in a voluntary online COP, finding that lack of familiarity with the technology and limited understanding or interest in the benefits of using an online COP hampered participation. Thus, prior experience is an important element in making an informed decision to participate.

It is suggested that when learning is voluntary, as it was with the OCL forum, barriers such as technical hurdles can prevent SBOMs from participating. In voluntary learning, the motivation to overcome any hurdle must come from intrinsic motivation, as no external motivation exists. This is different from much of the research to date, which has focused on participation in ODFs where participation is mandatory. Mandatory participation involves some external motivation, in the form of grades or course completion, for individuals to persist in overcoming the barriers. For SBOMs to overcome these barriers required persistence and resilience derived only from internal motivation based on the desire to participate. SBOMs that do not value learning and do not see learning as an important factor for business success are unlikely to persist in overcoming the barriers to participation. However, it is more than technical expertise developed through prior participation that encourages active participation in an ODF.

SBOMs who were experienced ODF users were able to make an informed decision. That is, they had an understanding of what was required to participate and learn via an ODF. This was particularly relevant in terms of the time commitment required to participate in an ODF. Experienced users knew that the amount of time required to participate in the OCL forum was a variable that they could control. SBOMs that had no prior ODF experience were unclear about the time commitment required and assumed that a specific predetermined amount of time (e.g. two hours per week) was necessary to participate. Thus, for some, their decision not to participate was made without all the necessary information. See Section 7.5.1.2, for recommendations on how to prevent this. This finding is similar to an idea proposed in the broader SBOM training literature by Robertson (2003), who suggests that SBOMs lack the knowledge to make an informed decision. Is it possible to inform SBOMs of the importance or should attention be focused on those SBOMs who have already developed this understanding?
In addition, previous experience of a particular business issue increased the likelihood that SBOMs would participate in that discussion topic. That is, when SBOMs felt they had something meaningful to contribute to the OCL forum, they had higher levels of self-efficacy and were more likely to participate in the discussion. It was their perception of the value of their business expertise or experience that influenced their participation in the OCL forum and their willingness to share knowledge with others online. This point was also noted by Hussey (2008), who observed that learning through the sharing of experiences is particularly reliant on self-efficacy. Conversely, when SBOMs had low levels of self-efficacy regarding their knowledge or expertise in a particular topic, they did not participate in discussion threads related to that topic (see Section 7.5.2.7). Thus, low levels of self-efficacy regarding knowledge or expertise limit or even prevent participation in particular discussion threads. Others participated, but in a peripheral way. That is, they chose not to actively participate (i.e. they did not post) but instead participated by reading the discussion threads (inactive participation). Peripheral participation (or ‘lurking’) is a recognised form of participation and makes up 90 per cent of all participation in an ODF, as described by the 90/9/1 principle (Morell, 2010).

7.4.1.4 Make Time to Learn

This study indicates that many SBOMs are reluctant to allocate time for learning. The participation rate by SBOMs in the OCL forum was less than one per cent. This finding is consistent with the existing body of knowledge about SBOMs’ participation in face-to-face training. A number of authors (Darch & Lucas, 2002; Oates, 1987; Paige, 2002; Westhead & Storey, 1996) report that the reason SBOMs do not participate in training is that they have limited time. However, despite providing a learning opportunity for SBOMs that aimed to address the issue of time in that it was informal (no prescribed time commitment required), online (no time away from their business) and available twenty four hours per day seven days a week (no set time for attendance), participation was limited. Thus, it appears that the reluctance to participate in learning is not due to a lack of time but due to the choices SBOMs make about how they use their available time. SBOMs do what they value; if SBOMs do not identify as owner-managers and do
not perceive any value in learning for business success, it is unlikely they will participate.

7.4.2 Summary of SBOMs’ Commitment to Learning

The findings from this research suggest that SBOMs’ learning commitment was pivotal to their participation in the ODF. Learning commitment influenced the SBOMs’ participation. SBOMs who were committed to learning, value learning for business success, felt they were capable of participating successfully in the ODF (self-efficacy) and had an occupational identity aligned with being a business manager, were more likely to take time out of the business operations to participate in learning. This commitment then encouraged participation.

7.5 External Factors

The internal characteristics of SBOMs was an important factor that influenced participation and learning in the OCL forum. However, there are external factors that also affect participation and learning in an ODF. The external factors are broadly grouped as technical design and learning design. These two external factors influenced participation and learning in the OCL forum. Evidence from this research indicates that providers need to consider many of the same factors already identified within the broader ODF literature, which focused on the higher-education sector. This research extends this body of knowledge by identifying the components that providers should consider when developing an ODF for SBOMs. This section explores two external factors: the technical design and the learning design.

7.5.1 ODF Technical Design

This study illustrates how the technology can be either a barrier or an enabler to participation in online learning. This section explores how to maximise participation and learning by SBOMs in an ODF.
7.5.1.1 Access to a Networked Computer

Access to a networked computer was critical for participating in the OCL forum, in late 2007 as access to the Internet relied on a networked computer. Since 2007 many more devices have become available that enable network access, in particular, smart phones (e.g. iPhone). Thus, the same research conducted today would no longer rely on a networked computer.

An examination of the findings highlights that the SBOMs who participated in this research did so because they had easy access to a networked computer in their immediate workspace for at least part of the day. This allowed them to participate easily in the OCL forum without having to leave their business operations. They could be working at their computer and simply switch to the OCL forum window to read and post and then switch back to the work window. This made participation in the OCL forum very easy for this group, because they were able to participate without interrupting their normal business operations.

Conversely, those without easy access to a networked computer may find it difficult, if not impossible, to participate. It seems that the important characteristic is easy access, rather than access per se, because the ABS statistics indicate that in 2009–10, 89.49 per cent of small businesses had access to a networked computer (Australian Bureau of Statistics, 2011). Thus, it seems unlikely that limited access to a networked computer explained the low participation rates; rather, it was the ease of access. This difficulty has been noted by others who have demonstrated that ease of access to the relevant technology is a key factor in achieving participation (Al-Bataineh et al., 2005; Allen, 2003; C Collins et al., 2003; Grey, 1999; Volery & Lord, 2000).

7.5.1.2 Sign-Up Process, Provide One Click to Connect

Findings from this research show that the sign-up process was complex and required the SBOMs to complete a number of steps prior to accessing the OCL forum. In particular, the delay between being invited to take part and the start of the OCL forum influenced SBOMs’ participation. For example, some SBOMs recalled reading the email invitation
and thinking it was a good idea. However, they delayed their decision to sign up. They then forgot, or it never quite made it to the top of their priority list of things to do.

This type of delay by SBOMs to sign up and participate in the OCL forum might be explained in three ways. One, they simply did not want to take part and, as participation was voluntary, it was a personal decision (see Section 7.5.2.2), two, they choose to focus on operational aspects of their business (see Section 7.4.1.2) and to delay learning because they do not consider it important, as discussed in the commitment to learning section (see Section 7.4.1) and, third, the OCL forum sign-up process might have hindered participation.

Thus, to maximise SBOMs’ participation in an ODF, providers should require immediate action. Immediate action could be promoted in two ways. First, the provider could place a time and date deadline in the email, giving a limited window of opportunity (e.g. today only) for response. This would encourage immediate, rather than future, action. Second, the process to sign-up for, and connect to, the ODF needs to be easy to ensure there is no delay in decision-making. Therefore, a URL that connects the SBOMs to the ODF should be included in the email. In this way, they can immediately read and post to the ODF, without having to complete several interim steps, as was required with the ODF. Delays in taking action to join an ODF are likely to result in non-participation as other business priorities obstruct their intentions to take part.

The second issue that delayed participant’s decision to take part in the forum was limited information about the amount of time required to participate and expectations of users that it would be time consuming. Providers must state clearly that no specific time commitment is required and emphasise that participants may spend as much or as little time on the learning forum as they choose.

7.5.1.3 Orientation for Newbies

Seven SBOMs participated in the OCL forum; of these, six had previously used an ODF, either for business or personal use. The need to support online learners is recognised in the broader online-learning literature. Al-Bataineh et al. (2005), Mayes
and de Freitas (2005), Sloman (2002) and Choy et al. (2000) all propose that providing some form of learner support is critical for success in online learning. Motteram and Forrester’s (2005) empirical research into the online experiences of postgraduate education students in the United Kingdom recommended that orientation be provided to ensure that participants can access, enter, and navigate the online community. Ensuring people feel comfortable with using the technology helps encourage participation. Sitzmann, Ely and Wisher (2007) go further, concluding that the provision of computer and Internet orientation will help improve not only participation but also learning. Thus, it seems crucial that orientation is provided for SBOMs wanting to participate in an ODF but who have no experience in doing so.

Bulu and Yildirim (2008) suggest that onsite orientation at the beginning enables the establishment of relationships and provides the opportunity for task and technical orientation. This would aid participation by SBOMs who are not confident in the technical aspects of online learning and who have not previously used discussion boards. A demonstration that is linked to other face-to-face networking events (the linkage of ODF to other networking events is discussed in Section 7.5.2.1) would have the two-fold effect suggested by Bulu and Yildirim (2008). That is, it would enable the establishment of relationships of trust in a face-to-face environment and enable technical orientation in the use of an ODF. However, this returns to the initial challenge: if SBOMs do not attend face-to-face training, would they attend a networking event?

7.5.1.4 Summary of ODF Technical Design

In summary, to maximise SBOMs’ participation and learning using an ODF, they must have easy access to a networked computer, a simple one-click to sign up and participate in the forum and, if new users are to be encouraged, some form of orientation.

7.5.2 ODF Learning Design

The ODF technology design, together with the ODF learning design, helped encourage active participation in the OCL forum. Nine key considerations for ODF learning for SBOMs emerged from this study, including building a learning network, the impact of
voluntary participation on learning, informal learning, trust, the role of facilitation, preferred times for participation, the need for threads to be relevant and timely, the group size and the composition of the group.

7.5.2.1 Building a Learning Network

The importance of SBOM learning that is social and network based has been noted in the SBOM learning literature by McGovern (2006), Voudouris, Dimitratos & Salavou (2011) and Zhang, Macpherson and Jones, (2006). Based on this SBOM learning preference, this research developed an ODF for SBOMs that was designed to facilitate voluntary informal learning, that was both social and network based. The OCL forum focused on creating meaningful learning discussions about owning and operating a small business, for a select group of invited SBOMs. The OCL forum’s focus on learning, the closed nature of the OCL forum with participation by invitation only and the artificial nature of its development might all have prevented the formation of a learning network.

The OCL forum focused on learning without any ‘space’ for socialising. This focus on learning may have been detrimental to forging relationships between the forum participants. The development of relationships is seen as crucial in social constructivist learning, because it is via dialogue with others that knowledge is constructed (Atherton, 2011; Kanuka & Anderson, 1998; Schunk, 2008; Snyder, 2009). As Wagenaar and Hulsebosch (2008) affirm:

A learning community is about relationships, connecting, dialogue, and negotiating meaning: sense-making … Learning happens through conversations, and the more intimate conversations may take place in private spaces, one-on-one or in small groups. Especially in the beginning, the private spaces may be more important than the public space (p. 28).

It was suggested by one SBOM during the data-collection interview that a social side that was ‘off the record’ in the OCL forum and that enabled discussion about anything might have helped to develop discussion to flow and relationships to form. Cox and Morris (2004) make a similar observation, stating that, ‘a critical weakness of online
community technology is that it ‘offers one undifferentiated space … no backstage, nothing is off the record, everything is public and archived’ (p. 8). In addition, Rovai (2007) suggests that these social spaces provide for ‘socio-emotional discussions’, which encourage the development of personal relationships and foster a sense of acceptance. Participants want the opportunity to get to know their group, according to Brown et al. (2006). The need to develop the social aspect of the ODF was neglected, which may have been a contributing factor to the limited number of posts.

In addition, the number of posts was limited by the low rates of participation by the invited SBOMs, with only seven of the 159 invited choosing to participate (see Section 6.2.1). It is suggested that limiting participation to only invited SBOMs prevented the formation of a learning network, partly because of the artificial barrier placed around who could participate in the learning network. A closed network does not reflect the natural interactions that social networking reflects (Pettenati & Cigognini, 2007). An open forum might have allowed participants to connect with a broader group, with participants being able to invite other interested SBOMs and other members of their social network. This broader network might have increased participation numbers and aided discussion flow in the OCL forum.

The use of a connected network for learning forms the basis of Siemens (2004b) work on connectivism, which suggests that learning occurs across networks. Siemens & Conole suggest that the Internet has changed the way people learn, with people becoming not only consumers of information but also producers of information (2011), although findings from this research suggest that SBOMs are reluctant to learn in this way. Learning via a voluntary, informal network requires learners who are highly self-directed and who have high levels of self-efficacy regarding their own accumulated business knowledge. The finding here suggests that most SBOMs are unwilling or unable to direct their own learning and that many lack the self-efficacy to share business knowledge. Therefore, while connectivism may explain the way some people learn online, they are perhaps only the most highly developed learners, because findings for this research suggest that not all learners are able, or willing to learn in this way.
The planned nature of this research, in which a learning network was designed and developed, might have prevented the formation of a community of SBOMs. This artificial, planned approach to establishing the OCL forum might have prevented the formation of an interconnected network of people (Boitshwarelo, 2011). Rovai (2007) observes that connectedness, trust and interactivity might only develop in a natural setting and might not develop when a network has been artificially created, as it was in this research. This may explain why the small business forums available on the Internet, such as the Small Business Ideas Forum (USA) with 62,859 members, and Small Business Forum (Australia) with 2,150 members, have been so successful. It is suggested that these forum have been allowed to develop naturally and, as such, trust, connectedness and interaction may have formed over the time. Perhaps when networks are allowed to form in this way, they are able create a shared resource that is valuable and useful to participants, which helps encourage more participants to join, as these large online forums demonstrate.

Although the development of shared resources for SBOMs was a goal of this research, unfortunately, limited participation prevented this being created. However, it is recognised that when large numbers of participants choose to take part in an ODF and their participation levels are high, there is potential to create a significant knowledge resource. Posts by a variety of people to an ODF provide a repository with a diverse range of experiences and points of view on a given topic. Discussion data are then accessible via the Internet 24/7 and stored for future reference. The development of a type of encyclopaedia that is readily available and can be consulted when needed is one of an online COP’s primary uses, according to Ardichvilli et al. (2003). That one of the primary benefits of an online discussion is the development of a knowledge repository that can be accessed easily is supported by Rothaermel & Sugiyama (2001) and McLure, Wasko & Faraj (2000).

If providers are keen to promote learning by SBOMs in an online network, the provision of an open network including a social component that is likely to increase trust and the connections between SBOMs will ultimately lead to greater levels of participation and learning.
7.5.2.2 Voluntary Learning

This research on an informal ODF to support SBOMs’ learning is a new and emerging area of research. There is limited research on the use of ODFs for SBOMs with the exception of Nolan et al. (2007), Sambrook (2003) and Stewart and Alexander (2006a, 2006b); therefore, this research was underpinned by ODF research from the higher-education sector. However, unlike the higher-education context (Gunawardena et al., 1997; Hara et al., 1998; Harvard et al., 2008; Laurillard, 2002; McConnell, 2002, 2006; Motteram & Forrester, 2005; Pozzi et al., 2007; Tallent-Runnels et al., 2006), participation in this research was entirely voluntary. Participation in the ODF was not mandatory, and participants did not receive grades or a credit towards a qualification. Participation was dependent on the internal (intrinsic) motivation of SBOMs.

Thus, SBOMs who voluntarily participated in the OCL forum are self-directed learners. The requirement to be self-directed has been recognised in the adult-learning literature by Knowles (1980, 1990), Knowles et al. (2005) and Tough (1967 as cited in Merriam et al., 2007). They explain that adult learners (in contrast with children) can direct their own learning, are motivated to assume personal responsibility, identify their own learning needs and take the initiative for their own learning (Knowles, 1980, 1990; Knowles et al., 2005). It is suggested that the OCL forum participants (who were more experienced) might be better able to identify their own learning needs in relation to managing and running a business, because they identify as owner-managers and have recognised the link between learning and business (see Section 7.4.1.2), which might not be the case with the non-participants.

This study shows few SBOMs are highly self-directed learners; instead, it appears that many could both need and expect support. It is recognised that not all adults are self-directing (Cercone, 2008; Knowles et al., 2005; Merriam et al., 2007) and that some will need different levels of support and direction. It is suggested that many SBOMs require high levels of support for learning, particularly management-related learning, because they ‘don’t know what they don’t know’ or, as Billet suggests, they have no perceived need for learning (Billett, 2001). SBOMs are reluctant to engage in management-related learning despite often not having the management skills necessary for business success.
(Gaskill, Van Auken & Manning, 1993; Posner, 1993). Instead, they choose to focus on operational aspects of their business (Darch & Lucas, 2002; Paige, 2002; Westhead & Storey, 1996). Without the self-confidence and desire for additional learning—two important characteristics that underpin being self-directed—SBOMs are unlikely to engage in training or learning events designed for their benefit, particularly if the learning is voluntary and there is no external requirement to participate.

7.5.2.3 Informal Learning: A Valid Source of Knowledge?

In addition to the voluntary nature of participation, this research focused on informal learning as opposed to formal course-based learning. The informal nature of the OCL forum was designed to meet the preferred learning methods of SBOMs and to ensure that the learning was designed around what they want to know rather than what an instructor thinks they need to know. The informal learning design enabled SBOMs to ask questions and to provide answers for each other. There was no expert. The concept was for a group of networked SBOMs to learn from each other. While this happened for some of the SBOMs, others questioned the validity of the knowledge shared in the OCL forum.

Interviews showed that the participating SBOMs enjoyed the freedom of determining what was discussed and therefore learnt on the OCL forum. They viewed the ability to ask other questions of other SBOMs as a bonus. This could be related to being committed to learning. It could also be related to the length of time they have been in business: they have learnt that there is much to be learnt and that learning can be in many forms, unlike some of the less-experienced SBOMs, who question the idea that they can learn from other SBOMs.

Questions about the validity of information provided on the OCL forum raise an important issue regarding which form of knowledge is valid. The idea that informal learning is not valid is noted by Boud and Middleton (2003a) who suggest that informal learning is often not acknowledged in organisations as real learning. According to Blanchette and Kanuka (n.d.), learners have been socialised to want instructor-led,
content-focused delivery or the traditional information-transmission delivery model. The desire for instructor-led tuition appears to be based on the assumption that only knowledge from a recognised expert is valid and reliable (Chao, 1997). This belief about the validity of knowledge is underpinned by a behavioural-based view of learning that promotes the idea that the only real learning is formal, classroom-based learning in which the content, mode and schedule are determined by the instructor.

The findings regarding informal learning (see Section 6.6.3.2) show that two of the SBOMs interviewed have been conditioned by ten or more years of formal schooling to assume that content and structure will be provided by the ‘expert’, in this case the facilitator. According to Symons (1996 as cited in McFadzean & McKenzie, 2001), in the field of adult education, learning groups often start with an initial basic assumption of dependency often conditioned by years of ‘expert’ teaching, and ‘the paradox for educators is to lead a group beyond content dependency’ (p. 482).

Learning does not have to be formal, planned, and led by a teacher (expert); it can occur in an informal ODF, as the findings from this research demonstrate (see Section 6.6.5.4). However, the biggest challenge appears to be helping learners to appreciate informal learning. There is a wide variety of learning channels already in place for SBOMs, but the addition of informal ODFs should be considered as they offer an opportunity for learning from others at a time a place to suit the SBOMs.

7.5.2.4 Trust

Trust emerged as a major consideration in SBOMs’ decision whether or not to participate in the OCL forum. Three major concerns regarding trust were articulated. First, SBOMs were concerned about sharing knowledge and information with others, second, they questioned the validity of the knowledge provided by others and third, they were concerned about the permanent nature of written communication in the OCL forum. This third concern restricted participation (see Section 6.6.3.5).

SBOMs in this research were concerned about sharing knowledge and information with other SBOMs in an ODF. Nolan et al.’s (2007) research, conducted with more than 50
SMEs, highlights the importance of trust in ODFs. They found that the SMEs’ contribution to the business community remained low throughout the three stages of the action research, despite changes to encourage their participation. The consensus from SMEs was that they were reluctant to discuss sensitive issues in an open forum, considering it to be too risky to contemplate (Nolan et al., 2007). Feedback from their research interviews with SMEs suggested that one of the primary reasons they withheld from participating in the business communities was related to interpersonal trust.

Lack of trust limits SBOMs’ participation in ODFs. Trust is a particularly salient issue for SBOMs because sharing information with others creates potential for what Bos et al. (2002) term ‘opportunistic behaviour’. This idea is supported by research by Stewart and Alexander (2006b), who found that SBOMs were concerned about trust, especially the possibility that other ODF members might be competitors, despite the fact that they were comfortable to reveal this information in face-to-face meetings.

Due to their limited size, communities for SBOMs are by necessity required to be inter-organisational. The inter-organisational nature of SBOM ODFs places different requirements on SBOMs than exist on members in other corporate communities, which are largely intra-organisational (Wagenaar & Hulsebosch, 2008). This requires additional effort on the part of the facilitator ‘to overcome the natural mistrust of people who may be competitors’ (Wagenaar & Hulsebosch, 2008, p. 16), suggesting that the permanent nature of the online post requires a different level of trust between participants than do face-to-face interactions.

The development of trust online is acknowledged as being more difficult than in face-to-face settings (Bos et al., 2002). At the core of trust is the relationship; the initiation of relationships online is slower and less easy than in face-to-face situations (J. Allan & Lawless, 2003; Lipnack and Stanps, 1997). However, trust is an essential factor of learning in an ODF. A sense of community, in which the group has confidence in the ability and willingness of others, is essential if an ODF is to be successful (Chang & Lee, 2007).
The second element of trust was in regard to SBOMs questioning the validity of the information provided by others online. Some participants considered that learning from other SBOMs was not a valid form of learning. They did not consider the knowledge valid because the other SBOMs are not recognised experts. This affected their participation in this form of learning because they did not value learning from others. Similarly, Thoms, Garrett, Canelon Herrera and Ryan (2008) found that higher-education students participating in an online knowledge-sharing community questioned the validity of the knowledge generated. They noted that students had low levels of trust in the validity of the information shared, with 44 per cent disagreeing or strongly disagreeing that the community was a valid source of expertise and knowledge (Thoms et al., 2008).

The third issue that emerged regarding trust online was the use of the written word as the only source of communication. Some participants in this research expressed concern about the permanent nature of the written word in online forums. This affected their willingness to actively post to the OCL forum. The use of the written word resulted in participants being extremely cautious about the content and composition of their message; they were concerned to ensure that their message could not be misconstrued.

Establishing trust is key to any successful network (Florén, 2003). Ensuring there is provision for building and maintaining trust is a crucial role for facilitators of SBOM ODFs to consider and manage. In order to encourage participation by SBOMs, it is important that trust is developed and that knowledge sharing is promoted. According to Wenger (1998), the development of trust requires time and sustained interaction. However, it is a crucial component for success in an ODF, and providers must give special attention to building trust online (Bulu & Yildirim, 2008).

Building trust online is more difficult than in face-to-face situations. In order for the ODF to be successful, members need to be comfortable participating online (Ardichvilli et al., 2003; Thoms et al., 2008). Two approaches to developing trust online include encouraging regular communications and linking the ODF to face-to-face communities (Bulu & Yildirim, 2008). Regular communication has been shown to deepen trust
among higher-education students in online learning (Bulu & Yildirim, 2008). In reference to online COPs, Wagenaar & Hulsebosch (2008) state:

Communities thrive on trust. One of the main dynamics of a community is that members ask for and offer help to solve problems. Regularly helping each other makes it easier for members to show their weak spots and learn together in the ‘public space’ of the community. Having regular frank and supportive discussions of real problems builds a greater sense of connection and trust between members. As they share ideas and experiences, members often develop a shared way of doing things, a set of common practices, and a greater sense of common purpose. (p. 17)

It is thought that development of regular communication between SBOMs over an extended period in the OCL forum would have improved trust and promoted the sharing of a greater number of real small business problems. However, the limited number of participants made sustaining discussion difficult. The second approach, to link the ODF to a face-to-face community, was suggested by SBOMs who participated in this research. The suggestion was to link the ODF to existing Chamber of Commerce and Industry networking events. It was suggested that this would allow SBOMs to develop trust in a face-to-face network where developing trust is easier and then to extend this network to an online environment. This possibly would allow SBOMs to be more trusting of others online. However, this takes the discussion back to the original problem: how to engage SBOMs in training and learning.

7.5.2.5 Facilitation

The goal of this research was to set up an ODF for SBOMs that would be self-facilitating. However, it quickly became clear that the OCL forum set up for this research was not going to be self-facilitating, primarily because there were a limited number of participants and, as such, discussion in the ODF was difficult to promote and sustain. In an attempt to encourage discussion, the researcher continued to facilitate discussion throughout the period of the ODF. At times, when conversation was flagging, it was difficult for the facilitator not to ‘get trapped into the “Atlas syndrome” of holding up the discussion world’ (E. Burge, Laroque & Boak, 2000, p. 12).
The findings regarding the quantity of posts to the ODF confirm that the facilitator posted 37 per cent of all posts, a ratio of slightly more than 1:3. This is the same as the ratio of facilitator-to-participant posts in Gray’s (2004) research, where the moderator-to-participant posts over the life of the community were 1:3. In COP research conducted by Henderson (2007), two case studies were compared. In the second case study, which examined four United Kingdom secondary-school teachers’ COP participation, there was a lack of reciprocity, social engagement and accountability between the participants, resulting in an increasing reliance on the facilitator. In that case study, the facilitator posted 42 per cent of the discussion forum messages, or a ratio of 2:5 compared with the first case study, where only 28 per cent of the posts came from the facilitator. Thus, it seems that when a forum is working well, the need for the facilitator to intervene is reduced.

Findings from this research indicate that a facilitator is necessary to generate the essential participation and learning in an SBOM ODF. This finding is supported by the broader literature on online learning, with many authors proposing that having a facilitator is a critical factor in online-learning success (Allen, 2003; L. A. Brown et al., 2006; Collis & Margaryan, 2004; Knowlton, Knowlton & Davis, 2000; McFadzean & McKenzie, 2001; Norton & Hathaway, 2008; Rovai, 2007; Waltonen-Moore, Stuart, Newton, Oswald & Varonis, 2006). The role of the facilitator in encouraging discussion and providing feedback is seen as essential (Collis & Margaryan, 2004). In this research, the participants recognised the crucial role of the facilitator in encouraging participation, providing feedback and acknowledging posts. Some participants acknowledged that, without the facilitator, discussion would have ceased much sooner.

The role of the facilitator has long been recognised as essential in promoting learning, regardless of the environment (Norton & Hathaway, 2008). Support for the importance of facilitators in online environments has increased over the past decade as research into online learning in a variety of settings has developed. Findings in a variety of organisational settings have shown that online learning requires a skilful, dedicated facilitator. Allen’s (2003) research demonstrated that the facilitator’s role was important in supporting the development of an online-learning community for workforce development. Similarly, findings by Waltonen-Moore, Stuart, Newton, Oswald and
Varonis (2006) illustrated that the role of facilitators was pivotal in encouraging student learning in online professional development. Likewise, Collis and Margaryan (2004) concluded that facilitation in the form of feedback was important to online learning in a corporate environment. Equally, research by Choy, McNickle and Clayton (2000) found that learner support by the provider was critical for online learning in the VET sector. In short, evidence suggests that online discussions must be facilitated if they are to successfully promote participation and, ultimately, learning. Thus, perhaps the goal of a self-facilitating ODF is not feasible when learning is the objective.

7.5.2.6 Preferred Times for Participation

The analysis of posts by participants in the ODF revealed three noteworthy participation patterns (see Section 6.5.1.2). First, users demonstrated a noticeable preference for Wednesdays with 35 per cent more posts occurring on a Wednesday than on any other day of the week. Second, there was a decline in the number of posts as the working week progressed, with only 20 per cent of posts occurring outside the standard working week, generally seen as nine to five Monday to Friday. Last, 20 per cent of all posts to the forum were between 11 am and 12 pm. This section discusses each of these patterns and explores existing literature for explanations as to why these patterns arose.

The number of posts to the OCL forum showed a marked spike on Wednesdays, despite the forum being available 24/7. Similar findings of peak contribution rates occurring on Wednesdays were found by Wells, Fieger and de Lange (2008) with second-year higher-education students, suggesting that SBOMs are not unique in their preference for posting on Wednesdays.

The second posting pattern from the OCL forum was that the number of posts declined as the week progressed, as shown in Figure 6.9, with the number of posts on Fridays a mere 20 per cent of the number of posts on Wednesdays. A decline in the number of posts as the working week progressed was also reported by Jeong and Frazier (2008) who found that messages posted by graduate students later in the week received fewer responses. This decline in the number of posts as the week progressed, with no posts by SBOMs on the weekend (weekend posts were made by the researcher and principle
supervisor) was also observed by Allan and Lewis (2006), although they provide no rationale for why this decline might occur.

The third noticeable pattern in the ODF was SBOMs’ preference for the hour between 11 am and 12 pm, with 45 per cent more posts during this hour than at any other time of the day. The preference to post to discussion forums between 11 am and 12 pm has also been reported by Allan and Lewis (2006) and Wells et al. (2008), who studied two different cohorts. Allan and Lewis (2006) investigated employee development, and Wells et al. (2008) reported on second-year accounting students. As a result of widespread findings for this preference for 11 am to 12 pm, it appears unlikely that the reason(s) for this is unique to SBOMs.

The reason for this usage pattern is not quite clear. One possible interpretation of the peak between 11 am and 12 pm might be related to people’s energy levels during this hour. According to research by Kahneman, Krueger, Schkade, Swhwarz and Stone (2004) on the diurnal rhythms of people, ‘Tired reached its nadir at lunchtime and was followed by a steep rise through the remainder of the day’ (p. 1778). This suggests that 11 am to 12 pm might be the time of day when people feel most able to participate in online learning. Kahneman et al. (2004) comment that ‘this diurnal pattern differs from the naïve expectation that tiredness increases steadily throughout the day’ (p. 1778). Interestingly, the V-shaped diurnal patterns observed by Stone et al. (2006) and Kahneman et al. (2004) is the inverse of the pattern shown by the ‘time of postings’ found in this research, suggesting that the patterns of participation observed in the ODF might be related to natural human rhythmic cycles.

These patterns of participation in terms of the day of the week and the time of the day imply that SBOMs are more likely to participate in an ODF during the middle of the working day, during the working week. This is contrary to the idea that one of the biggest benefits of online learning is its 24/7 availability (Abdelraheem, 2005; Al-Bataineh et al., 2005; Beamish et al., 2002; S. M. Gilbert & Jones, 2001; Morrison, 2001; Motteram & Forrester, 2005; Phillips, 2001; Tyler, 2001). Therefore, although the 24/7 access is promoted as one of the most important benefits of online learning, it appears that this is not a benefit for SBOMs.
These three patterns of user preference for posting on weekdays, in particular Wednesday, and during the hour between 11 am and 12 pm, suggests that providers of ODFs for SBOMs might have success if they target this peak period. Perhaps the provision of a ‘hot hour’ on Wednesdays between 11am and 12 pm might improve participation and learning. In addition, the possibility of providing synchronous chat during this time could also be explored. A hot hour could also be the appropriate time to target new SBOM members to start participating. Thus, the time to send invitations and reminders could be Wednesday morning between 11 am and 12 pm. In addition, providing one-hour online sessions between 11 am and 12 pm, either daily or weekly on a Wednesday, could maximise participation by SBOMs.

7.5.2.7 Relevant Discussion Threads

The findings from this study indicate that SBOMs who participated in the OCL forum were more active when the discussion threads (topics) were related to their immediate needs or they felt confident that they had something valuable to contribute. This is also closely linked to SBOMs’ self-efficacy, as discussed in the section on prior ODF experience (see Section 7.4.1.3).

The requirement that learning meet the immediate needs of the learner is a recognised assumption of Knowles’s andragogy (Knowles, 1980; Knowles, 1990; Knowles et al., 2005). This principle centres on adult learners’ need to know (Knowles et al., 2005). According to Knowles, the need to know is a key driver of motivation in adult learning. It is clear that relevant topics promote motivation in SBOMs because, at times in the ODF, SBOMs very much wanted to know the answer to their question and, as such, they were motivated to participate. This motivation is also central to self-directed learning (Cercone, 2008; Garrison, 1997; Merriam et al., 2007); if an adult wants to know the answer to a question or problem, he or she is better able to self-direct their efforts towards finding a solution.

7.5.2.8 Group Size
The OCL forum set up as part of this research comprised a group of seven SBOMs with varying levels of participation (as measured by posts) (see Section 6.5.1). This limited number of participants did not generate sufficient posts to develop a discussion that flowed. When questions were posted with limited responses, discussion was stilted. The problem with an ODF having too few participants was noted by Ryle and Cumming (2007) who concluded that if the group is too small, activity can become too infrequent and momentum stifled. As such, the success of an ODF is largely dependent on the number of people participating (De Schutter, Fahrni & Rudolph, 2003).

In comparison to the OCL forum in this research, two ODFs for SBOMs (as discussed in Chapter 3), the Small Business Ideas Forum (United States) and the Small Business Forum (Australia) have 62,859 and 2,150 members respectively. Membership numbers of this magnitude allow online discussions to progress naturally without the facilitator feeling as though he or she must prop up the conversation, a phenomenon described as the ‘Atlas syndrome’ (E. Burge et al., 2000, p. 12). However, it is not clear how many SBOMs would be necessary to establish and maintain a successful ODF.

There is no agreement in the literature about the ideal number of participants required to establish and maintain an ODF. Drawing on the literature from the higher-education sector, Bowen (n.d.) proposed that to facilitate an ODF, there should be between six and ten members. Conversely, Green (1998 as cited in De Schutter et al., 2003) as advises that between 10 and 15 participants are required to generate quality online discussion. This idea about quality is similar to the ‘critical mass hypothesis’. Hiltz and Turoff (1978 as cited in Cheung et al., 2005, p. 82) found that groups using CMC with fewer than eight to 12 active users failed to produce enough new material to maintain their participants’ interest and to retain participants. These are similar findings to the findings of this research.

However, it is suggested that voluntary participation could require more than 10 members to ensure active discussion. Rovai (2002) captures the complexity of ODF set-up, stating that it is difficult to define specific numbers for online communities as it varies based on the situation and is dependent on the content, instructors and learners. Desanctis, Fayard, Roach and Jiang (2003) take a slightly different approach to group
size. They offer general guidelines to encourage the facilitator to develop a relatively large core group of participants, suggesting this can help to avoid insularity that can stem from a group too small to foster learning.

Perhaps it is not only about the number of participants but also about the value that is being added. Another approach to research regarding ODF participation has been to focus on trying to establish a pattern between the number of participants and the value provided. Rothaermel and Sugiyama (2001) argue that ‘up to a certain point, incremental new members add additional value to the community; beyond a certain point, incremental new members dissipate value (p. 306). This suggests that accumulating more participants does not always add value; at a certain point the addition of more participants will begin to reduce the value of the ODF for its existing members. Thus, more is not always better in an ODF.

Conversely, Albion and Weaver (2006) suggest that the relationship between the number of participants and the value of the ODF is similar to a virtuous circle, stating; ‘Once a certain level of participation is reached, momentum is easier to maintain like a ‘virtuous circle’ (p. 5). On the contrary, McLure, Wasko and Faraj (2000) found that very large communities make it difficult for participants to locate the information pertinent to their needs, suggesting that selecting useful information from the mass of posts in ODFs with 100,000 participants can be difficult, particularly for individuals new to discussion forums.

Although this section does not draw any conclusive agreement from the literature regarding the ideal number of participants in an ODF, it is clear that encouraging and gaining participation is somewhat of a catch-22 situation. The more participants, the more useful the forum and, consequently, the easier it is to attract new participants. A limited number of participants, combined with low levels of participation, results in stilted discussions where questions are raised but not answered or the answers provided offer few alternatives. This can create a vicious cycle where participation wains, the ODF becomes of limited benefit and it ceases to be operational. Thus, it is suggested that the start-up of an ODF is a crucial point. It is vital that an ODF commences with
participants who are willing to be active members. Without this, the value of the ODF is likely to be limited.

It is not only the number of SBOMs participating that is important but also their commitment. Participation and commitment by SBOMs in the OCL forum was uneven; the most active participant contributed 10 posts to the forum while, at the other end of the continuum, one participant contributed only one post. This variation in the contribution levels in ODFs has been noted by Cheung et al. (2005) and Wagenaar and Hulsebosch (2008). Cheung et al.’s (2005) research into virtual communities concluded that participation in virtual communities is uneven, with the majority of content being produced by a small number of participants. They noted that, even among those who are significant contributors to content, there are differences in the type, nature and quality of the content produced (Cheung et al., 2005). More recently, a study of a COP by Wagenaar and Hulsebosch (2008) found that they had a core group of 15–20 very active practitioners and a group of 20 members who moved around. They suggest that a changeable level of participation in COPs is a core characteristic. The most active members constitute the core group; they are active, interested individuals who inhabit the active space. This idea is supported by Amin and Roberts (2006) who state that ‘size may be of less significance than the degree of participant commitment towards the endeavour and to each other’ (pp. 25–26). In conclusion, it appears that the number of participants alone does not account for the success of an ODF, that the quality and quantity of contributions is an important success factor, which, with SBOMs, appears to stem from their commitment to learning.

7.5.2.9 Group Composition

This research indicates that group composition in an ODF influences who, and how, SBOMs participate. The ODF set up as part of this research offered a single ODF for SBOMs, regardless of experience or business type, to discuss issues, seek advice and offer help online. Taking part in a particular discussion topic online was influenced by the individual’s perception of, and confidence in, his or her own experience. The more-experienced or more-confident SBOMs stated that they did not participate in some discussions because the issue that was being discussed was something they had already
resolved in their own businesses. Conversely, SBOMs with limited experience, or those whom lacked confidence, felt unable to participate in some discussion topics because they felt they had nothing to offer because they were yet to experience the issue being discussed or did not feel confident in their knowledge of the issue. Some SBOMs went so far as to state that they would have preferred the ODF to have homogenous groups based on the level of small business experience. These concerns about their own experience and confidence raise questions about the most effective group composition for SBOMs in an ODF.

The literature regarding the most effective membership composition of an ODF has generally supported the need for groups online to be heterogeneous. Support for mixed groups for ODFs comes from a wide variety of research, which suggests that having a diverse group offers a number of advantages to the online learner. First, diversity is considered a valuable asset, stimulating innovation and creative thinking (Wagenaar & Hulsebosch, 2008) that aids the development of novel solutions (McFadzean, 2001). Second, diversity helps avoid conflicts of interest because groups have members from different industry sectors (Holgate, 1999) or from the same sector but different regions (Dawe & Nguyen, 2007). Last, the concept of COPs is premised on the use of groups with varying levels of expertise (Wenger, 1998, 2001, 2002).

Support for the use of mixed groups has also been found in previous research with small business online groups. Clarke et al. (2006), in their action learning research with SME’s, found that learning was better and more profound when the experienced and inexperienced manager groups were mixed and that both groups benefited. Inexperienced managers valued the experience and the ideas of what might be possible, while the experienced managers were motivated by the opportunity to give others the benefit of their experience.

The design of an ODF for SBOMs may need to be flexible in relation to group composition. There will be times when the most appropriate ODF might be a homogenous grouping. In this scenario, perhaps the best approach would be to limit discussion access to only those SBOMs in the process of business start-up (i.e. a homogenous group). This would enable them to discuss, freely, the challenges and
struggles associated with establishing a small business, with support and advice being provided by an online facilitator experienced in small business start-up. By keeping new SBOMs together, the intention would be to help the group feel comfortable in sharing their struggles among those in similar circumstances. It should also help minimise the feelings of inadequacy experienced by some of the participants in this research who felt intimidated by those more experienced owner-managers.

Experienced SBOMs may also benefit from the opportunity to discuss with others at a similar stage of development. This provides recognition that there are issues unique to those at a more advanced stage of business development. More-experienced SBOMs face a set of challenges different from the challenges new SBOMs face, and thus an online forum to discuss issues such as the growth and expansion of their business, managing human resources and raising capital, which are within the domain of more experienced SBOMs, may trigger more discussion.

However, SBOM ODFs with homogeneous groups will not enable cross fertilisation of ideas between businesses at different stages, in particular, the knowledge sharing by more-experienced SBOMs with new SBOMs. At the commencement of this research, this sharing of experience across a small business network was considered a major advantage of using an ODF. The benefits of heterogeneous groupings discussed above suggest that there are advantages of this form of grouping. The challenge is to provide a range of group options for SBOMs, which provide the benefits of homogenous groupings for issues related to their stage of business development and provide heterogeneous groups that allow the benefits of sharing knowledge and experience with others.

7.5.3 Summary of ODF Learning Design

Nine aspects of the ODF learning design (external factors) affected participation by SBOMs. These include the need to develop a learning network, the voluntary nature of the forum, the informal nature of the learning, trust, the facilitation, the timing of participation, the relevance of the discussion threads, group size and group composition. While the importance of these learning design aspects are not downplayed, their
importance in obtaining and retaining SBOMs’ participation in an ODF seem to be less important than the role of learning commitment. Thus, while the provider can manage, manipulate and enhance the external ODF factors, their influence on participation and learning by SBOMs appear to play a lesser role in the decision to participate than do internal factors (see Section 7.4).

The findings from this study demonstrate that the internal factors are very important to obtaining and maintaining active participation by SBOMs in an ODF. The external factors play a smaller role in participation; as such, focus should be on developing SBOMs’ learning commitment. Alternatively, efforts to promote SBOMs’ learning could focus on those who are already committed to learning.

7.6 RQ1 (ii) Learning in an ODF?

This section answers the second subsidiary question:

**RQ1 (ii)** What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

7.6.1 SBOMs’ Experience of the ODF

This exploratory research provides some evidence that SBOMs can learn by participating in a voluntary, informal ODF; however, participation rates remain a challenge. An ODF for SBOMs mitigates the reasons that they provide for not attending formal training: first, that training is not a priority as they have limited time and find it difficult to attend training with few, if any, employees to cover their absence (Barrett & Mayson 2007; Redmond & Walker 2008). Second, SBOMs question the return they receive for the time and money spent on training (Johnson 2002; Lange et al. 2000; Mack 2003; Morrison & Bergin-Seers 2002; Oates 1987; Storey & Westhead 1997). They often see training as a cost not an investment (Billet 2001; Walker & Webster 2006). Last, SBOMS claim that inappropriate logistical arrangements fail to maximise the use of their finite time. An ODF was able to mitigate these reasons while simultaneously meeting their learning preferences for learning that is informal (V.
Anderson & Boocock, 2002; Clarke et al., 2006; Field, 1997; Gibb, 1997; Johnson, 2002; Kearns, 2002; Matlay, 1999; Morrison & Bergin-Seers, 2002; Paige, 2002), network-based (V. Anderson & Boocock, 2002; Barry & Milner, 2002; Clarke et al., 2006; Gibb, 1997; D. W. Taylor & Thorpe, 2004; van Gelderen et al., 2005; Williams, 2007), experiential (Abernathy, 2001; V. Anderson & Boocock, 2002; Morrison & Bergin-Seers, 2002) and problem-oriented (Ehrich & Billett, 2004; Tynajälä & Häkkinen, 2005; Yeo, 2006). Despite this, an ODF is not a complete solution to the issues of encouraging and supporting SBOMs’ learning. The issues of not enough time to participate in learning and SBOMs’ questioning of the value of learning remain. In addition, the use of an ODF for learning raises new issues, including the use of technology, trust, self-efficacy and SBOMs’ commitment to learning, as discussed in the first research question (see section 7.4 and 7.5).

7.6.2 SBOMs Can Learn via an ODF

The SBOMs who took part in the ODF enjoyed the experience of learning in an online environment. They enjoyed participating in discussions with other SBOMs without having to leave their business. They appreciated the flexibility provided by online, which allows 24/7 voluntary participation enabling them to decide when and how they would participate. Participation varied depending on the topic, and participation could be active (posting to a thread) or inactive (reading). This allowed SBOMs to participate as and when they wanted in a way that met their learning needs, an important aspect of adult learning (Knowles et al., 2005). However, while a few SBOMs appreciated the benefits of an ODF, it did not provide the much hoped-for answer to engaging more SBOMs in learning.

Despite limited participation, there was evidence that SBOMs were able to learn via an ODF. Through discussion with others in the ODF, SBOMs were able to actively construct new knowledge; this is learning, as described by social constructivist learning theory (Atherton, 2011; Cheetham & Chivers, 2001b; Garrison et al., 2001; Laurillard, 2002; Schunk, 2008; Snyder, 2009; Wang et al., 2001). The ODF enabled SBOMs to raise issues and others to provide help in the form of suggestions, answers and sharing of experiences. As such, the ODF allowed SBOMs to provide multiple viewpoints,
enabling SBOMs to construct their learning (Kanuka & Anderson, 1998; Schunk, 2008; P. Taylor, 2007). Learners were able to express their understanding, read the ideas of others and explore different ideas, which allowed SBOMs to actively combine new information with existing knowledge and experience to ‘construct’ their own learning (Atherton, 2011; Snyder, 2009).

Analysis of the discussion forum transcript, using the Pozzi et al. (2007) framework, provides evidence of learning through an ODF. The findings show that the OCL forum demonstrated all five levels of the framework: participative, interactive, social, cognitive and teaching. The first three levels demonstrate the development of relationships and the social interaction required to achieve learning through discussion. The fourth level, cognition, is evidence of learning (see Section 6.5.4). The findings demonstrate that learning occurred in four of the six discussion threads. That is, SBOMs were able to construct their own knowledge about four specific issues: the skills shortage, advertising, leave without pay and business plans (see Section 6.5.4). Learning in these topics resulted in different levels of learning. One topic demonstrated single-loop learning, and three topics demonstrated double-loop learning, described in the next section.

7.6.3 Single-Loop Learning

Single-loop learning occurred in one of the four topics (advertising) that demonstrated learning in the OCL forum. The discussion on advertising highlighted a variety of ways that small business could advertise, effectively, without significant financial outlay. While it was an interesting discussion generating a few posts, there was no evidence from the SBOMs who participated in this discussion of changes to business process or procedures. However, this may have occurred after data collection was completed.

7.6.4 Double-Loop Learning

Double-loop learning occurred in three of the four topics that demonstrated learning in the ODF. Double-loop learning occurred from the discussion about skills shortage (see Section 6.5.4.1), with one of the participants changing how jobs are designed and using
the new recruitment opportunities to find staff for her business. This represents double-loop learning (Argyris & Schon, 1978), because Rachel (the SBOM) adapted her business policies to cope with the environmental conditions being experienced, that is, the skills shortage in Western Australia late 2007 (Chalofsky, 2005; Senge, 1990). During the discussion about skills shortage, had to reflect upon and question her existing strategy and values regarding who was a ‘suitable’ person to employ (V. Anderson & Boocock, 2002). The ODF provided her with new insight, prompting the reflection and helping her to envisage a different approach to dealing with Western Australia’s skills shortage. This type of double-loop learning is essential for SBOMs because it helps them to remain competitive in a difficult market, such as the skills shortage of 2007.

The second discussion topic that demonstrated double-loop learning was the importance of business plans (see Section 6.5.4.4). In this discussion, a number of SBOMs shared information about if, how and why they use business plans. The business plan discussion expanded Kelly’s understanding of how to use a business plan. Through the information shared on the ODF, Kelly developed new insight about how to use a business plan to think through various aspects of the business, such as viability. She constructed this new knowledge and then shared it with others in another online group by writing an article on business planning. Clearly, Kelly developed a new understanding of business plans and changed her beliefs and objectives about how a business plan could be used within her business (Chalofsky, 2005; Senge, 1990). This learning encouraged Kelly to question her perception about how business plans can be used; that is, her theory in use (Argyris & Schon, 1978). Thus, double-loop learning was demonstrated as a result of participating in the ODF.

The third discussion topic that generated double-loop learning was leave without pay. This topic was raised by Kelly who was having an issue with an employee taking significant amounts of leave without pay, and it was affecting her business operations. Mike shared a practical strategy for tackling this issue with the employee; he suggested that she have a discussion with the employee about being part of a team. She did so and suggested the employee take annual leave rather than leave without pay. That is, she
took a different approach from her usual ‘policy’ regarding leave without pay. This demonstrated double-loop learning, an outcome of Kelly’s participation in the ODF.

In addition to the individual topics that facilitated learning, SBOMs also learnt that they were not alone in experiencing certain issues. They discovered that other SBOMs were also experiencing similar problems. This cathartic affirmation provided by online discussion was an important overall learning outcome of the ODF.

7.6.4.1 Cathartic Affirmation, I am Not Alone

Participation in the ODF reduced isolation for SBOMs, providing cathartic affirmation that they are not alone and others are experiencing the same problems. For some SBOMs who took part in the ODF, this was powerful learning. SBOMs operate independently and often do not have peers with whom they can discuss issues and problems. The discovery that others are experiencing these same issues was very cathartic for the participating SBOMs. The cathartic nature of discussing problems online is noted by McLure, Wasko and Faraj (2000) and Florén (2003) who suggest that communities are particularly important for people who do not have access to others in the workplace. Through the sharing of stories with others, SBOMs are able ‘to discover the paradox, that organizational stories are unique, but that stories may be widely similar among organizations’ (Wagenaar & Hulsebosch, 2008, p. 16). It is suggested that sharing online may help SBOMs to depersonalise their issues and develop understanding that it is not about them, or their business, but about broader business or social issues.

Similarly, in the broader network-learning literature, Gray (2004) highlights how working adults participating in an informal online COP note the importance of affirming that others were struggling with similar issues. In addition, research from other intra-organisational ODFs have also noted the cathartic value of being able to vent about changes and organisational issues online (Vieira da Cunha & Orlikowski, 2008). The ability to share and to read about others’ issues and problems was not a tangible
outcome (e.g. getting an answer to a question) of participating in the ODF, but it is an important, intangible, long-term outcome that is useful for SBOMs.

The difference between short- and long-term value and between tangible and intangible results is noted by Wagenaar and Hulsebosch (2008):

In the short-term, members get help with immediate problems, devise better solutions and make better decisions by including peer perspectives. In the long-term, members develop professionally and keep abreast of new developments in their fields. Tangible results might be manuals, improved skills or reduced costs. But the greatest value appears to lay in the intangible outcomes: relationships people build among each other, a sense of belonging, the spirit of inquiry, or professional confidence and identity. (pp. 17–18)

Perhaps, the sharing of problems by SBOMs, and the recognition that they were not alone, could well be the most important learning from participating in the OCL forum.

### 7.6.5 Implications for Learning Theory

The design of the ODF was based on nine learning principles derived from six complementary learning theories. The theories that support this research include four traditional learning approaches: social constructivist, andragogy, self-directed learning and experiential learning, all of which were developed prior to the development of online network-based learning. In addition to traditional learning, two contemporary learning theories designed to explain online network-based learning also support this learning approach: heutagogy and connectivism. Table 7.1 shows the six learning theories that support the ODF learning approach, the learning principles derived from theories, and the ways in which the findings from this research support or challenge existing learning theories.
Table 7.1: SBOM Learning Theory, Learning Principles and OCL Findings

<table>
<thead>
<tr>
<th>Theory</th>
<th>Learning Principles</th>
<th>OCL Forum Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social constructivist</td>
<td><strong>Promote active learning</strong></td>
<td>The ODF enabled active learning</td>
</tr>
<tr>
<td></td>
<td>SBOMs should be actively involved in learning, not passively receiving information</td>
<td>Active participation in the ODF resulted in deeper learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants recalled discussions that they participated in</td>
</tr>
<tr>
<td>Social constructivist, connectivism</td>
<td><strong>Encourage social interaction</strong></td>
<td>The ODF encouraged social interaction with other SBOMs</td>
</tr>
<tr>
<td></td>
<td>Learning should encourage discussion to allow SBOMs to construct their knowledge</td>
<td>Social interaction with others enabled SBOMs to construct new knowledge</td>
</tr>
<tr>
<td>Builds from existing experience and knowledge</td>
<td>Learning needs to allow SBOMs to build on previous knowledge by relating new information to previous knowledge and experience</td>
<td>SBOMs participating in the ODF built on their existing experience and knowledge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBOMs used new knowledge to build on existing knowledge</td>
</tr>
<tr>
<td>Support problem solving</td>
<td><strong>SBOMs learn by solving real small business problems (as they arise)</strong></td>
<td>ODF allowed SBOMs to solve real business problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBOMs were able to solve real problems by asking questions in the ODF</td>
</tr>
<tr>
<td>Need to know</td>
<td><strong>Participation in learning is voluntary; learners participate, based on what they need to know</strong></td>
<td>Need to know determined who participated in the ODF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBOMs voluntarily participated in the OCL forum; they participated only in discussion threads where they had a need to know, or that had relevant experience to share</td>
</tr>
<tr>
<td>Internally motivated</td>
<td><strong>SBOMs are internally motivated to solve their small business problems and thus seek out solutions</strong></td>
<td>Participation required internal motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not all SBOMs were internally motivated</td>
</tr>
<tr>
<td>Theory</td>
<td>Learning Principles</td>
<td>OCL Forum Findings</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Andragogy, self-directed learning and heutagogy</td>
<td>Self-directed (andragogy and self-directed learning) or self-determined (heutagogy)</td>
<td>Few SBOMs are self-directed</td>
</tr>
<tr>
<td></td>
<td>SBOMs assume personal responsibility of cognitive and self-management processes in learning; there is no need for an instructor because learning occurs as part of running and managing their business</td>
<td>Most SBOMs chose not to participate, because they are unaware of their learning needs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only those SBOMs who participated in the OCL forum appear fully self-directed</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>Encourage experiential learning</td>
<td>Learning occurred</td>
</tr>
<tr>
<td></td>
<td>Learning is based on real small business problems that allow SBOMs to observe, reflect and change behaviour</td>
<td>Questions posted by SBOMs were real business issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advice provided resulted in changes to business processes and procedures</td>
</tr>
</tbody>
</table>

Findings from this research support the learning principles that derive from traditional learning theories; however, they question principles developed from one contemporary online-learning theory. This research challenges heutagogy, the study of self-determined learners, a contemporary adult-learning theory that builds on Knowles’ theory of andragogy (Kenyon & Hase, 2010). Hase and Kenyon (2007) argue that andragogy, while recognising the need for adults to be self-directed, is still essentially a teacher-centred approach to learning. In andragogy, the teacher provides the structure, and the adult learners follow their own need to know. Heutagogy, however, places all the responsibility for learning with the learner (J. Ashton & Newman, 2006). This approach assumes all adults are self-determined learners. That is, all adults are autonomous learners and are willing, and able, to take responsibility for their learning.

This research found that not all SBOMs are able to determine their learning. Low rates of participation in this research, and in many other training and learning initiatives, indicate that SBOMs are not able to determine their learning needs and are not willing (or able) to be responsible for their learning. Very few SBOMs in this research accept the importance of learning for business success (see Section 7.4.1.2) or understand the need to learn about how to manage their business. Without acceptance of the importance
of learning about managing their business, they are unwilling to make time for learning (see Section 7.4.1.4). The SBOMs who took part in the focus group accept that learning is important and they thought that the ODF was a good way to learn; however, when it came time to participate, they chose to focus on operational aspects of their businesses.

Conversely, the participants who took part in the ODF understand the importance of managerial aspects for ensuring business success. Perhaps the level of experience (i.e. number of years) of owning and managing a small business might be critical here, because the SBOMs who took part in the ODF were mostly very experienced owner-managers with more than five years of business experience. They had developed an understanding of the link between learning and business success, that learning for business success is more than simply learning about the operational aspects. It requires learning about managing a business operation. This understanding ensured that they were committed to learning (see Section 7.4.1).

While traditional adult-learning theories, including andragogy and self-directed learning, recognise that not all adults are self-directed, heutagogy states that all adults are self-determined. However, not all SBOMs are autonomous learners, that is, ‘they don’t know what they don’t know’ or, as previous research by Billett (2001) has suggested, SBOMs lack knowledge to make an informed decision about participating in training and learning designed for their benefit. They have no perceived need for this learning or do not value learning for success. In addition, training investment is long-term, and SBOMs want a short-term ROI (Johnson, 2002; Lange et al., 2000; D. Patton et al., 2000; Storey & Westhead, 1997).

Similarly, the informal, voluntary nature of the ODF enabled SBOMs to learn when they were ready. However, not all SBOMs recognise this need to learn and, as such, are never ‘ready’. This intent to learn is a key component for informal learning, according to Tenenbaum et al. (2001). They explain that without the intent to learn, improve and develop, individuals may not take advantage of learning opportunities. Perhaps the intent to learn, described by Tenenbaum et al. (2001) as the ability to recognise the need to improve, acquire knowledge, or build expertise, is not always apparent in SBOMs.
This may explain why many learning opportunities might be overlooked by SBOMs, particularly when there is no mandatory requirement to participate.

7.7 RQ1: Does the provision of an ODF empower SBOMs as active learners?

Unfortunately, the provision of an ODF does not engage SBOMs as active learners. It is not the much hoped-for ‘paradise’ for promoting and engaging SBOMs in learning. This research demonstrates that an ODF for SBOMs is not the answer to engaging SBOMs in learning. Findings show that an ODF can promote deep, double-loop learning for SBOMs, but they remain reluctant to participate. Despite the benefits afforded by an ODF that allows learning from anywhere at any time, thus mitigating the reasons SBOMs cite for not attending formal training, while simultaneously meeting their learning preferences, participation is limited. As such, investment in the development, promotion and support of ODF learning for SBOMs should be cautious and limited.

7.8 Conclusion

In summary, this research provided an opportunity for SBOMs to participate in an informal, voluntary ODF offering an alternative to formal classroom-based training that mitigated many of the reasons SBOMs cite for not attending formal face-to-face training, while simultaneously meeting their learning preferences. Yet, still participation was limited.

This thesis provides insight regarding why SBOMs participate (or not) in an ODF. Specifically, this thesis draws attention to the important role of the internal factor of SBOMs’ commitment to learning in the decision to participate in an ODF. Commitment to learning is based on key attitudes held by SBOMs about the value of learning for business success, their occupational identity and their self-efficacy, all of which affect SBOMs’ decision to participate. SBOMs who value learning for business success, have an occupational identity associated with being an owner-manager, and have high levels of self-efficacy regarding their ability to participate online, actively participated in the ODF. The internal factor of learning commitment influenced SBOMs’ decision to
participate in the ODF, perhaps more so than the external factors of content, timing and approach that have been the focus of SBOM training and learning literature to date.

This thesis challenges the idea that all adults are self-determined learners. The contemporary learning theory of heutagogy, which explains learning via an online network, contends that adult learners are completely self-determined. This study of SBOMs in a voluntary, informal online learning network, advocates that not all adults are self-determined learners. That is, not all adults are able to take the initiative for learning, because many ‘don’t know what they don’t know’ or perceive that they have no need for learning. As such, they are not able to diagnose their own learning needs, formulate learning goals and identify appropriate resources, suggested by contemporary learning theories.

Other ODF external factors, including the technical and learning design, identified in this research support the existing literature regarding the provision of ODFs. The literature to date has been based primarily on research from within the higher-education sector. As such, this research extends to SBOMs the ODF learning and technical design theory developed from the higher-education sector.
Chapter 8: Conclusion:
ODFs—Not Quite Paradise Found

8.1 Introduction

This chapter opens by recapping the aim and the research questions, followed by a summary of the main research findings regarding SBOMs’ participation and learning via the ODF. The findings are then linked to the research questions posed at the end of the literature review. Subsequently, the theoretical contribution of this research is demonstrated, and an outline of the practical contributions is provided, which provides a set of guidelines for the set-up and use of ODFs for SBOMs. The chapter concludes with a discussion of the limitations of this research and suggestions for other research opportunities.

The aim of this research was to encourage and support participation and learning by SBOMs. To achieve this, an informal, voluntary ODF for SBOMs was set up that enabled SBOMs to participate in learning, while mitigating many of the reasons they cite for not attending formal training, including having to take time away from their business operations to participate. Simultaneously, the ODF provided an opportunity that met SBOMs’ learning preferences for informal, network-based, experiential, problem-based learning (see Section 2.2.7). The ODF used Yahoo Groups, a third-party groupware technology that enabled SBOMs access twenty four hours per day seven days a week, from any networked computer. The ODF set up for this research was the OCL forum, and this formed the basis of the case study research that investigated SBOMs’ participation and learning in an ODF. This research answers the following questions.
RQ1 Does an ODF empower SBOMs as active learners?
RQ1(i) What factors (internal and external) lead to different levels of participation (inactive, peripheral participants, active) in an ODF?
RQ1(ii) What learning (single- or double-loop, surface or deep) results from different levels of participation in an ODF?

The findings from this research suggest that an ODF is a viable learning approach for SBOMs; however, participation is not assured. The expectation was that the use of an ODF would provide an alternative to face-to-face training that would promote greater SBOMs’ participation in learning. The ODF provided an alternative approach to SBOMs’ learning that simultaneously met their stated learning preferences, addressed their rationale for not attending formal training and applied the key design principles of online learning. However, it was not the anticipated solution to engaging SBOMs in learning.

This thesis makes four main contributions:

SBOMs’ learning commitment is important in their decision to participate (or not) in a voluntary ODF. Learning commitment emerged from the data as a theme that is underpinned by SBOMs’ occupational identity, whether they have linked learning with business success, and their prior experience with ODFs. When SBOMs are committed to learning, they make time to participate. Therefore, although the literature to date has focused on the external characteristics regarding why SBOMs do not participate in learning, findings from this thesis suggest that the internal characteristics are more influential on SBOMs’ decision to participate in training and learning than the external characteristics controlled by the training provider.

This research provides proof of concept that an informal ODF can promote deep learning for SBOMs. Evidence from the ODF used for this research demonstrates that when SBOMs actively participate, they are able to achieve deep, double-loop learning that changes business processes and procedures. This supports the social constructivist learning theory that in order to promote deep learning, learners need to be actively
involved in the creation of knowledge. Promoting this level of learning is important for SBOMs, as it is through deep, double-loop learning that they ensure survival of the business.

This thesis challenges the idea that all adults are self-determined learners. The contemporary learning theory heutagogy, which aims to explain online-networked learning, contends that adult learners are able to be completely self-determined. This study of SBOMs in a voluntary, informal online-learning forum advocates that not all adults are self-determined learners. That is, not all adults are able to take the initiative for learning, because many “don’t know what they don’t know” or perceive that they have no need for learning. As such, they are not able to diagnose their own learning needs, formulate learning goals and identify appropriate resources suggested by contemporary learning theories.

Methodological contributions in terms of research design, which was exploratory, used multiple data collection methods and included both the SBOMs who participated in the ODF and those who chose not to. Including the non-participants helped to provide a new perspective on SBOMs’ decision-making regarding attending training and learning.

Thus, the question of how to engage SBOMs in learning remains. The findings from this exploratory research extend the body of literature regarding how to improve SBOMs’ learning participation. Existing literature focuses on how providers can manipulate external training variables, such as timing, location, training content and facilitator skill to improve SBOMs’ participation (Billet, 2001; Gibb, 1997; Redmond & Walker, 2008; Storey, 2004). The findings from this research imply that greater emphasis should be placed on the internal characteristics of SBOMs to encourage greater learning participation. The idea of focusing on the internal characteristics are also discussed by Malcolm Knowles, the adult-learning theory, andragogy (Knowles, 1980, 1990; Knowles et al., 2005). The importance for SBOMs to understand why they need to know how to manage their business (why learn, what is in it for me?) and the need to be self-directed in order to participate in voluntary ODF learning are highlighted.
8.2 Summary of the Main Research Findings

This research provides proof of concept that an ODF is a viable approach to SBOMs’ learning; however, participation is not guaranteed. This section summarises the main research findings regarding SBOMs’ participation and learning in the ODF.

Despite the limited success of the ODF, a number of insights regarding why SBOMs participate (or not) in an ODF were identified. Specifically, attention is drawn to the important role of SBOMs’ learning commitment in their decision to participate in an ODF. For example, the role of occupational identity and understanding the importance of learning for business success are key internal factors that encourage SBOMs to make time for learning. This is an important step forward in understanding how to promote SBOMs’ learning and offers the opportunity for a significant shift in research emphasis away from the existing focus on the external characteristics, such as content, timing, location and delivery of training, as a way to improve participation.

8.2.1 Proof of Concept

This research provides proof of concept that the use of an ODF is a viable approach to SBOMs’ informal learning. Deep learning was demonstrated; however, evidence of such learning was limited because of the low number of participants and the difficulty sustaining online discussions. To date, research has largely focused on the use of ODF as a support to formal course-based learning within higher education. In contrast, this research explored the application of an ODF to promote informal learning by SBOMs. The findings from this research extend the growing body of knowledge to include the use of SBOMs’ informal learning via an ODF.

Findings demonstrate that the ODF enabled SBOMs to share their business issues with other small business owners, which, for some, helped them feel less isolated. The ODF enabled SBOMs to get acknowledgement from others online that they are not alone with a particular issue. This provided affirmation that the issue was not personal, or specific to their business. For some SBOMs, this was very cathartic. The ability for SBOMs to share online provides an option for support that might be particularly important for this
group who often do not have access to others within the workplace with whom they can confide, supporting the literature regarding the loneliness of SBOMs (Gumpert & Boyd, 1984).

8.2.2 The Importance of Being Committed to Learning

Limited time is not the only consideration in SBOM’s decision to participate in a voluntary ODF designed for learning. The importance of internal beliefs regarding the value of learning, their own self-efficacy and their occupational identity also influence their decision.

The existing literature is replete with research that purports that the reason SBOMs do not participate in learning is that they do not have time. Findings from this research support this body of knowledge. However, there is some evidence from this research that indicates that it is not only limited time but also what SBOMs consider when deciding about how to best utilise their available time. The decision to devote time to learning appears to be strongly influenced by their commitment to learning, which is based on the value they place on learning for business success, their occupational identity and their self-efficacy.

Commitment to learning was demonstrated by the SBOMs who participated in this study. They clearly value learning for business success, and they understand that it is important to take time away from the day-to-day operations of their business to learn. They accept that they may have to sacrifice time working in the business, but consider working on the business very important. They understand that there is more to owning and managing a business than being an operational expert; most have developed a managerial occupational identity. Development of this managerial occupational identity was clear in participants but was not clear in the non-participants, who took part in the focus group. The salience of managerial identity (Murnieks, Mosakowski and Cardon, 2012) appears to develop over time. Notably, most of the participants in the ODF had been in business for more than five years. Perhaps this experience has taught them that there is more to small business success than operational expertise.
In addition, self-efficacy played a role in SBOMs’ participation in the ODF. All (except one SBOM) who took part in the ODF had previous ODF experience. This made it easier to participate, because they knew what to expect. Knowing what is involved in ODF participation played a key role. Previous experience of forums provided a clear understanding of the type of learning and the time commitment required to take part. This was a sticking point for some SBOMs and articulated by focus group attendees. Many of the SBOMs invited to take part in the ODF assumed it was an online course with a set time commitment and, as a result, they did not commit. This finding strongly supports existing literature regarding SBOMs and traditional classroom-based training.

An important contribution that this research makes to the body of knowledge regarding SBOMs’ participation in learning activities is to draw attention to the importance of being committed to learning in the decision to participate in an online-learning forum. While the literature to date has focused on the external characteristics, including timing, location, training content and facilitator skill to improve SBOMs’ participation, findings from this research suggest that SBOMs’ participation in learning could be improved by focusing on their commitment to learning.

The literature is clear that SBOMs are a difficult group to engage in formal face-to-face training. Findings from this research extend this body of knowledge by concluding that SBOMs’ participation in an ODF is also challenging, despite the many advantages afforded by an ODF.

8.2.3 SBOMs Need Effortless Access to a Networked Computer to Participate Online

In order to take part in the ODF, effortless and regular access to a networked computer was necessary. Findings show that the effortless and regular access to a computer in the workplace made a significant contribution to enabling SBOMs to participate. Those SBOMs who participated had easy access to a computer, enabling participation in the ODF, because their office space included a networked computer. Thus, being able to ‘log on’ to the ODF to see what discussion was taking place and then switch back to work made participation in the ODF during their normal working hours easy. Although
online-learning forums enable easy access to learning, it is still not for all SBOMs because easy access to a networked device is still required, and not all SBOMs operate the type of business where this is possible.

However, for most SBOMs, this access is possible. Rates of Internet access have increased significantly over the past ten years, from 29 per cent in 1999–2000 (this figure is all businesses, the percentage of small business was not disaggregated) (Australian Bureau of Statistics, 2000) to 89.49 per cent of small business in 2009–10 having Internet access (Australian Bureau of Statistics, 2011). These figures suggest that most SBOMs have access to the Internet, although access might not be desk-based and, as such, might not be easy access.

The need for easy access to the ODF was a key finding. However, since 2007, when the data for this research was collected, there have been advances in technology that would enable easy access to an ODF. The emergence of network-enabled devices, in particular mobile phones (e.g. iPhone), make access from anywhere at any time easy. In 2012, no longer do SBOMs need to have easy access to a networked computer in order to have Internet access.

8.2.4 Guidelines to Support SBOMs in an Informal Online Learning Forum

This section provides a set of eight guidelines for providers considering establishing an ODF for promoting informal online learning for SBOMs. The guidelines are based on the findings of this research, which had a limited sample size. However, these guidelines are supported by other, related research.

8.2.4.1 One Click to Connect

As participation in learning is problematic for SBOMs, it is important the providers ensure connecting and participating in the forum is as simple, quick and easy as possible. Findings from this research suggest that allowing SBOMs to delay making the decision to participate reduces the likelihood that they will take part. It is vital not to
delay SBOMs’ decision to participate; therefore, it is important that participants can connect to the forum directly from the invitation.

8.2.4.2 Provide Expert Facilitation to Encourage Participation and Trust

In order to encourage participation and build trust and support, a SBOM ODF must have an expert facilitator. The three key aspects of the facilitator’s role are outlined below.

Findings from this research and other research (Allen, 2003; L. A. Brown et al., 2006; Collis & Margaryan, 2004; Knowlton, Knowlton & Davis, 2000; McFadzean & McKenzie, 2001; Norton & Hathaway, 2008; Rovai, 2007; Waltonen-Moore, Stuart, Newton, Oswald & Varonis, 2006) have concluded that a facilitator is necessary to generate participation and learning in an SBOM ODF. The facilitator’s role is to create a framework for discussion and communication and to provide feedback. It is important that the facilitator be a strong champion to drive and encourage SBOMs to participate. In addition, it is important that there is a range of topics and questions available at all times to allow SBOMs to participate in discussions that are relevant to their business situation. The importance of relevant topics was key to who participated in discussion threads. As SBOMs are at various stages of growth and have diverse levels of experience, a range of topics are required to encourage participation by all.

The development of trust in an ODF designed for SBOMs is a significant consideration for the provider and facilitator. In this research, trust emerged as a major consideration in three ways: first, in SBOMs’ decision to contribute to a discussion thread, second, in the reliance they placed on the knowledge provided by other SBOMs and, third, in the permanent nature of the written word. Establishing and building trust requires time and sustained interaction and is recognised as being more difficult than in face-to-face situations. To establish trust in an online forum, regular communication over a sustained period is essential. It is thought that the establishment of trust can be assisted by connections in pre-existing face-to-face networks.
8.2.4.3 Support the Development of an Information Repository

Progression of discussion in an online-learning forum for SBOMs over months and years will result in the development of a shared information repository. The information repository will be available for reference 24/7, allowing SBOMs to read historical posts to find answers to their current issues. This will provide a significant resource for SBOMs. This discussion could be supplemented by the posting of links to resources, templates, and other websites that support SBOMs’ development.

8.2.4.4 Be Online During Preferred Times (Wednesday 11 am–12 pm)

Analysis of SBOMs’ participation in the ODF revealed important participation patterns. The hour between 11 am and 12 pm each day received more posts than did any other hour, and Wednesdays had more posts than any other day of the week. Interestingly, all SBOMs’ posts occurred Monday to Friday during standard working hours. Thus, despite one of the most frequently cited advantages of online learning being its 24/7 availability, SBOMs did not utilise this feature.

Therefore, it is suggested that providers use asynchronous communication during the preferred participation time of 11 am to 12 pm weekdays, and on Wednesdays. The use of asynchronous discussion would maximise the value of Wednesdays between 11 am and 12 pm. It would be possible to have ‘experts’ log on during this time to provide expertise in a particular aspect of small business management. Topics might include producing a business plan, managing cash flow, recruiting staff and employment relations law and how it affects small business.

The online-learning forum was available 24/7, yet all SBOMs’ posts were on weekdays (no weekend posts) and most were during standard working hours. Thus, despite one of the most frequently cited advantages of online learning being its availability, SBOMs did not utilise this feature. Despite SBOMs not participating in the ODF outside standard working hours, there was a pattern to their usage. There were more posts on a Wednesday than on any other day of the week, and the hour between 11 am and 12 pm
was the most popular hour of the day to post to the forum. This suggests that Wednesday between 11 am and 12 pm might be a good time to target SBOMs for online learning, in particular, the use of synchronous chat during this time could be very fruitful.

8.2.4.5 Use a Variety of Group Sizes and Compositions

The ideal group size for a SBOMs’ ODF for learning was not conclusive from this research, though it was clear that the number of participants should be more than eight. Whilst no clear ‘ideal’ number of participants has arisen from this, or other research, it is suggested that a core group of between 15 and 20 active participants, plus 20 less active participants as suggested Wagenaar and Husebosch’s (2008) research, may be adequate. This number of SBOMs allows for varying activity levels between participants and their competing operational demands.

The design of an ODF for SBOMs’ learning requires flexible group composition. At times, a homogenous group might be most appropriate to provide the benefits of a group with participants at a similar development stage. At other times, a diverse or heterogeneous (or mixed) groups will be the most appropriate, where a mix of experienced and inexperienced participants would help stimulate innovation and creative thinking (Clark et al., 2006; Dawe & Nguyen, 2007; Holgate, 1999; Wenger, 1998, 2001, 2002).

8.2.4.6 Support Newbies

It is important that providers supply orientation to the ODF to enable participants who are not familiar with online-learning forums to take part (Choy et al, 2000; de Freitas, 2005; Sloman, 2002).

8.2.4.7 A Virtual Lounge Room for Socialising

To assist in establishing and growing relationships between participants and to support the development of trust a ‘lounge room’ could be used. The lounge room would enable
participants to socialise online and to participate in discussions that would be ‘off the record’. Participants in this research felt this would be a valuable addition to the more formal aspects of the ODF. This is also important for establishing and maintaining trust in an inter-organisational online network.

8.2.4.8 Promote Online Forum Benefits Clearly (What’s In It For Me?)

To maximise participation by SBOMs, providers must be clear to promote the key benefits of participating in an online forum, thus answering the proverbial question: ‘What’s in it for me?’ It is important that SBOMs understand that the ODF is online and available 24/7 for them to use as much or as little as they wish. It must be clear that it is not an online course and, as such, no fixed time commitment is necessary. All of these benefits must be ‘sold’ to encourage SBOMs’ participation.

8.3 Limitations

The main research findings show that although there are some benefits to be gained in using an ODF to promote and encourage participation and learning by SBOMs, this approach is not the much hoped-for ‘paradise’ for addressing SBOMs’ limited participation in learning and training events specifically designed for their benefit. This type of learning approach might only be suitable for some SBOMs who are committed to learning and have easy access to a networked computer. However, what the findings do not do is claim that an ODF is the much-anticipated solution to encouraging and promoting greater participation and learning by SBOMs.

Despite providing an alternative approach to SBOMs’ learning that simultaneously meets their stated learning preferences, addresses their rationale for not attending formal training, and applies the key design principles of online discussion-based learning, participation was limited, which resulted in limited data for analysis. In order to address this limitation, the researcher took a number of actions, including holding focus groups with those SBOMs who chose not to participate to identify why they did not participate. Despite these actions, participation by SBOMs in the ODF remained limited.
The restricted data is acknowledged as a limitation of this research. However, the data do provide support for the dominant literature about the difficulty of engaging SBOMs in training and learning.

Another limitation of this study is the limited theoretical basis for design. The research literature on using ODFs for learning is new and emerging. To date, the majority of research has been in the higher-education sector, where the focus has been on using ODFs as part of a formal course with mandated participation and learning that is predominately instructor-led. As a new and emerging area of research, there was limited literature regarding SBOM learning and participation in online-learning forums.

Limited relevant SBOM-related literature resulted in this study drawing and adapting principles gleaned from the dominant higher-education research. The assumptions about the adaptability of such models might be flawed. The differences between the type of participants (SBOMs, not higher-education students), the approaches (informal as opposed to formal) and the requirements (voluntary as opposed to mandatory) resulted in a number of assumptions about the design and development of an ODF for SBOMs, and it is acknowledged that some of these assumptions might have been flawed.

It is possible that this study was a little before its time. The ODF data for this study were collected late 2007. Since then, the growth of network-enabled devices, including smart phones (e.g. iPhone), and the progression of social networking into mainstream use may well result in very different results in 2012. In March 2012, there were more than 835 million Facebook users (Miniwatts Marketing Group, 2012), with more than 12 per cent of the world population using Facebook (Mniwatts Marketing Group, 2012). This degree of usage suggests that social networking via Facebook is mainstream, widely accepted and used by many people around the world.

In addition to Facebook other social networking media including Twitter and Linkedin may also yield very different results for a SBOM informal ODF. Twitter in 2012 has more than 140 million active users making more than 340 million Tweets every day (Twitter Blog, 2012). Again, Twitter with its micro blogging using less than 140
characters (Twitter Blog, 2012), might also yield very different learning and participation results, by SBOM. Although, results from this research suggest that micro blogging for learning may not be possible with 90% of posts made in this research exceeding Twitter’s 140 character limit. However, the explosion of social networking media options, and uptake of products such as Facebook and Twitter, suggest that results of an informal ODF for SBOMs could yield very different results.

Another limitation of this study is the sample of SBOMs who were invited to participate. As all had previously engaged in face-to-face training, there is a possibility that this group were more positive regarding the value of learning for business success. As such, the results from this sample may not be representative of the broader SBOM community. In addition the association with the university in general may have affected participation.

Despite these limitations, all possible steps within the control of the researcher have been taken to mitigate the limitations of this research. The research demonstrated proof of concept that informal online-learning forums can support deep learning by SBOMs.

8.4 Further research

This research has provided some useful insights into the use of ODF for SBOMs, but it has also raised some possible additional research opportunities.

8.4.1 Include Synchronous Discussion

Although there are a number of recognised benefits in using an asynchronous ODF as used in this research, findings from this study suggest that inclusion of some synchronous discussion during SBOMs’ preferred day (Wednesday) and/or their preferred hour (11 am–12 pm) may provide additional encouragement and support for SBOMs’ use of ODFs. In particular, the provision of some short (one-hour) synchronous chat opportunities with experts might be a welcome addition to the asynchronous informal learning offered in this study.
8.4.2 Link Online-Learning Forum with Established SBOMs’ Networks

Efforts were made to build relationships between participants, but developing trust online is acknowledged as more difficult than in face-to-face relationships (Bos et al., 2002). It is suggested that the use of an informal online-learning forum to support an existing face-to-face network, such as those established by Chamber of Commerce and Industry groups may yield greater participation and learning by SBOMs. The use of existing face-to-face networks, for example Chamber of Commerce, as a precursor to an online-learning forum may help to establish relationships between SBOMs, which would promote greater participation. This could help SBOMs trust the advice and information provided by other SBOMs in an online forum.

In addition, the use of already established online networks in Facebook and Twitter, might also help establish and develop trust between SBOM’s. The use of online networks provides new opportunities to build and maintain trust in 2012 that did not exist in 2007 when this study was conducted.

8.4.3 Replicate with Younger SBOMs

The participants in this study were all aged 40+ years (generation X and baby boomers). The use of technology by younger people (less than 30 years of age, generation Y) is different; they are reported as being more technically able than earlier generations (Martin, 2005). Conducting a similar research study with generation Y SBOM participants could yield different results. For digital natives, that is those who have an information age mindset (Prensky, 2005) social networking and instant communication technologies have changed the meaning and understanding of working, socialising and communication (Levickaite, 2010). For generation Y and generation Z social networking is not an additional tool to use to communicate it is the way that they communicate. Social networking tools are no longer faddish online applications; they are globally ubiquitous (DiSalvo, 2010). For most generation Z, and many generation Y social networking is a daily phenomenon. Levickaite (2010) reports that, one hundred per cent of generation Z and 43 per cent of generation Y are online every day. This familiarity and use of social networking for communication by generation Y and Z, is
likely to result in very different levels of participation and learning online, than those shown by the Generation X and Baby Boomers described in this research.

8.4.4 Committed to Learning

Another area for further research is to assess if the internal factor of being committed to learning is related to experience. By understanding how this factor develops in SBOMs’ training and learning, could help to focus opportunities for SBOMs. This could enable training and education providers to target particular courses and programs, et cetera, to SBOMs who are committed to learning, rather than offering such services to all SBOMs.

8.5 Summary

Despite the limited success of the ODF, a number of insights regarding why SBOMs participate (or not) in an ODF have been identified. Specifically, this thesis draws attention to the important role that SBOMs’ internal beliefs play in their decision whether or not to participate in an ODF. This is an important progress in the understanding of how best to promote SBOMs’ participation and learning. It offers the opportunity for a significant shift in research emphasis away from the existing focus on the external characteristics of content, timing, location and delivery of training to improve participation through appealing to internal beliefs and value systems.

Despite the limited participation and learning demonstrated in this research, it is important that research continues to investigate the use of online technologies to support SBOM learning. Online learning is still in its infancy, and the use of an ODF for SBOMs in 2007 may have been before its time. The development of increasingly sophisticated social networking technology, and the plethora of network enabled devices available in 2012, are likely to yield very different results. It is considered that such advancements in technology would enable SBOMs to participate, in a way that fully integrates learning with day to day business operations.
In addition to technology advancement, the changing SBOM generational demographics, from baby boomers and generation X, to generation Y is likely to result in different levels of participation and learning online. Generation Y use social networking sites daily for communication, as such their application to learning maybe more accepted, than it was by SBOMs in 2007. Future research should seek to determine if results regarding online participation and learning would be different with generation Y SBOMs. Perhaps generation Y, and their use of social networking technologies, might result in achieving the learning paradise expected by this research. That is where SBOMs participate and learn online, as a part of their everyday practice. This research into SBOMs use of an ODF was not quite paradise found. However, advances in social networking technology and changing SBOM demographics may lead to improved learning participation, by this difficult to engage group.
References


Bowen, M. (n.d.). WebCiTy: Building Classroom Community Online. Retrieved from mbowen@aucegypt.edu


Gilbert, S. M. & Jones, M. G. (2001). E-learning is e-normous: Training over the Internet has become the fastest-growing workplace performance improvement tool and utilities are using it in several ways. Electric Perspectives, 26(3), 66.


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Appendix A: Informed Consent Letter

Edith Cowan University
Research

1st September, 2008

Dear Small Business Owner-Manager

RE: On-line Learning Forum for Small Business

Edith Cowan University (ECU) in conjunction with the WA Department of Education and Training and the Australian Research Council (ARC) is conducting research into the use of an on-line forum (i.e. an on-line “bulletin board” where you can leave messages and others can respond to the messages you have sent), as a way of encouraging learning and knowledge sharing between small businesses. Your participation in this research is vital and will help us to determine if on-line discussion boards are a useful learning tool for small business.

This research will use an on-line forum to capture discussions about business problems and solutions between a variety of small businesses and the ECU researcher. This research will also involve follow-up interviews with some people.

People participating in the research will be tracked, however all information gathered in the research will be confidential, and no participant will be identified in any publications.

There are no known risks associated with this study and participation is completely voluntary. Participation in this research is expected to benefit you and your business by providing an on-line network of small business owner-managers from which you can seek help, guidance and support for any business related issues. You may withdraw from this study at any time.

This research is being undertaken as part of the requirement of a PhD at Edith Cowan University. If you have any questions or require further information about this research, please contact Tara Smith (Contact details below) or her research supervisor Associate Professor Sue Stoney (Tel: 08-6304 5260, email: s.stoney@ecu.edu.au). If you have any concerns or complaints about the research and wish to talk to an independent person, you may contact the Human Research Ethics Officer at Edith Cowan University (Tel: 6304 2170, email: research.ethics@ecu.edu.au).

Your contribution to this research is valued, and we hope you find it a motivating and positive experience as part of your business’s ongoing development.

Please type your name and the date to replace the XXXX’s below to acknowledge your participation in this research project and that you have understood the nature and purpose of the procedures, and return this form via email to Tara.Smith@ecu.edu.au

Signature of participant: XXXX  Date: XXXX

With thanks,

Tara Smith
PhD Candidate
Ph: 08 6304 2097
Appendix B: Invitation to Focus Group

ECU: Training Follow-Up

Hi

A few years back you came to one of ECU’s (Edith Cowan University) small business Human Resource Management training courses. Based on the feedback received, most people found real value in what they learnt.

I am about to do a follow-up discussion session, which I hope you can attend:

**When:** Thursday the 4th of September  
**Time:** 12.00 pm–1 pm (A light lunch will be provided)  
**Where:** Gosnell’s SBDC—The Agonis, 2232b Albany Highway, Gosnells

I hope that you will be able to make it, please let me know if you are able to attend by reply email to Tara.Smith@ecu.edu.au or by Tel: 6304 2097 or Mob: 0409116919.

I look forward to catching up with you all then.

Kind regards,

*Tara*
Appendix C: Invitations to Participate in Small Business Online Learning Forum

Hi Will,
You are invited to participate in ECU’s ground breaking research into the use of an on-line discussion forum as a way of promoting small business learning.

This research is aimed at helping people in small business throughout Western Australia develop learning networks. This will be done by providing an on-line discussion forum in which small business problems and issues can be discussed. The forum offers you the chance to ask questions about anything to do with the setting up, running or growing your small business, and you may also be able to help others by offering advice and help.

The forum will be facilitated by Tara Smith, an experienced lecturer and facilitator from ECU’s School of Management.

To Participate
To participate simply read the information provided in the letter attached, complete the relevant details and return it by email to Tara-Smith@ecu.edu.au.

Research Details
To view further details of the research see the attached information letter.

If you have any question or require further information about this research, please contact Tara Smith (Tel 08-6304 2097 Email: Tara-Smith@ecu.edu.au) or her research supervisor Associate Professor Sue Stoney (Tel 08-6304 5260, Email: s.stoney@ecu.edu.au).

I look forward to learning with you on-line.

Regards,
Tara Smith

Tara Smith
Hi Small Business Owner-manager,

You are invited to participate in ECU's ground-breaking research into the use of an online discussion forum as a way of promoting small business learning.

This research is aimed at helping people in small business throughout Western Australia develop learning networks. This will be done by providing an online discussion forum in which small business problems and issues can be discussed. The forum offers you the chance to ask questions about anything to do with the setting up, running or growing your small business and you may also be able to help others by offering advice and help.

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If you have any questions or require further information about this research, please contact Tara Smith (Tel 08-6304 2097 Email: Tara.Smith@ecu.edu.au) or her research supervisor Associate Professor Sue Stoney (Tel 08-6304 5960, Email: S.stoney@ecu.edu.au).

I look forward to learning with you online.

Regards,

Tara Smith

Tara Smith
Appendix D: Case Study Interview Questions

### You and Your Business

1. What type of business do you operate? (e.g. accountant, hairdresser, plumber, web designer, etc. (Please be as specific as possible)
2. What is your business postcode? ______________________
3. Are you a sole trader, partnership, Pty, trust, other
4. How many people work in this business (including yourself)? Full-time/ part-time
5. How long has your business been operating?
6. What is your age?
7. Highest education completed?
8. How many hours a week, on average, do you currently work in the business?
9. How did you come to be running this business?
10. Describe some of the challenges that you face in running your business.
11. What do you enjoy most about running your own business?

### Participation

12. What learning/ training activities (training, TAFE) besides participation in the small business online learning forum, have you been involved in the past?
13. Informal also (prompt ...have you asked friends, your accountant, web search, agencies such as ATO, Small Business Development Corporation)
   a. 2 years?
   b. 5 years?
14. What factors encourage you participating in training/ learning activities?
15. What factors prevent you from participating in training/ learning activities?

### Online collaborative Learning

16. Have you participated in online forums other than the ECU small business OCL? If yes, what was it and why did you participate?
17. Why did you participate in the online forum?
18. What did you think you were going to get out of your participation in the online learning forum?
19. Describe your experience of participating in the online collaborative learning forum.
20. Describe your sense of connection with others in the online learning forum.
21. What was the best aspect of participating in the online learning forum?
22. What did you like least about participating in the online learning forum?
23. How could the forum have been improved?
24. How did you feel when you realised problems raised would not be solved by the facilitator or others in the forum?
25. Would you participate in this type of learning activity again? Why or why not?
26. How important is it to you to be able to apply the learning gained immediately? Why?

### Business Change

27. What did you learn (if anything) by participating in the on-line learning forum?
28. As a result of your participation in the forum, have you made any changes to the way your business operates?
   a. Can you describe those changes?
   b. How did those changes come about?
29. How has this changed the way you do business?
30. Was the forum worthwhile, why or why not?

Facilitator

31. Describe the facilitator’s (Tara’s) contribution to the forum.
   a. Was this what you expected?
32. How could the facilitator (Tara) have improved your experience of the learning forum?

Conclusion

33. Do you have anything else that you would like to add about your experience of participating in this research?

Thank you for participating.

I have really appreciated your time in participating in both the online forum and the interview.
Appendix E: Focus Group Questions

1. Do you remember the HR course?
2. Have you participated in other training?
3. Reasons for not participating in training?
4. Do you remember receiving an email re: online forum about a year ago?
5. Do you think the forum would be helpful?
6. Have you done any online learning in the past?
7. What encourages you to participate in training?
8. Timing of training?
9. Is online follow-up good?
10. Is training important?
11. Two key issues for business owners?
12. What is the best way to get small business involved in training?
13. Would an online forum following on from training be useful?
14. Are you at all interested in participating in the forum?
15. Other comments:
Appendix F: Final Coding Tree with Parent and Child Codes

### Tree Nodes

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