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Customer Learning for Value Creation

by

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Abstract

In value creating contexts, customers often have to be clear about the roles they are required to perform (Kleinaltenkamp et al., 2012; Bitner et al., 1997), and may be required to develop their knowledge and skills in order to participate (Hibbert et al., 2012). This typically necessitates the ability to use and integrate resources in exchange encounters containing social and economic actors (Kleinaltenkamp et al., 2012; Hibbert et al., 2012; Arnould et al., 2006; Sheth and Uslay, 2007) to co-create value for each other (Vargo and Lusch, 2008; Payne et al., 2008). This research adds to the burgeoning literature on customer resource integration that calls for more insights into the roles of customers in creating their own value (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Arnould et al., 2006). This can help firms to develop an appreciation of the customer value process and design co-creation activities that can support their customers' capability to create value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Payne et al., 2008; Frow et al., 2010)

The research has indicated that customers learning styles in do-it-yourself activities reflected learning styles represented in experiential learning theory (ELT) (Kolb, 1984). ELT stipulates that individuals learn by experiencing, reflecting, thinking, and acting. Knowledge is seen as a transformation of experience along two continua: (1) how individuals best grasp experiences (i.e., concrete experience versus abstract conceptualisation), and (2) how individuals best transform experiences (i.e., reflective observation versus active experimentation). The study identified five distinct learning styles adopted by DIY members, which differ along these two continua and are reflective or active-orientated. Adhering to existing typologies, these were labelled as *Diverging*, *Assimilating*, *Converging*, *Accommodating*, and *Balancing* styles and helped shape customers' learning self-management and self-regulation processes and use of learning resources.

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Publications

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Glossary of Terms

The following glossary offers a summary of the definitions and key terms used within the study, due to the conceptual perspective of the study and the range of literature and terms involved.

Service

'The application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself' (Lusch and Vargo, 2006, p.283).

Service Providers

Service providers are the actors within the value system, who offer their resources for the benefit of others in value co-creating encounters (Vargo and Lusch, 2008). They include firms, practitioners, professionals, NGOs, the media, and members of professional and social networks (e.g. friends and family), whose role is to support others in the value network (Ostrom et al., 2010; Frow et al., 2010).

Resource Integration

Resource integration involves the customer's 'proficiency in deploying resources as they engage in value-generating processes' (Hibbert et al., 2012, p.2), on their own or with other involved parties, to support and enhance their value creating experiences (Arnould et al., 2006; Baron and Harris, 2008).

Learning Resource Integration

The process by which the customer develops their knowledge and skills through integrating resources with involved members of the value network to create value.

Learning Terms

Self-Directed Learning

'A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes' (Knowles, 1975, p.18).

Self-Regulated Learning

Self-Regulated Learning encompasses the use of strategies to achieve goals on the basis of self-efficacy or confidence towards the learning process (Zimmerman, 1989).

Metacognition

Metacognition refers to the process of "thinking about your thinking" (Flavell, 1979) and is the learner's knowledge of, and control and regulation of, their cognitions (Flavell, 1979; Ford et al., 1998; Schmidt and Ford, 2003). Metacognition can be divided into four categories: knowledge (of task, personal and strategic), experience, goals, and strategies (Flavell, 1979; Pintrich, 1999).

Experiential Learning Theory

ELT posits learning as a constructivist and holistic process that 'helps learners how to learn' (Kolb and Kolb, 2009, p.297), consisting of opposing modes of reflection/action and feeling/thinking that influence interactions between the learner (and their existing experiences and knowledge) and the environment as learners 'spiral' through the learning process based on their preference for single or multiple learning styles (Kolb, 1984; Kolb and Kolb, 2009).

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Chapter 1 - Introduction

1.1 - Customer Focused Service-Dominant Logic

Recent marketing thought (e.g. Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Grönroos, 2009; Vargo et al., 2008) has dismissed the notion that value only occurs 'in-exchange' in goods-dominated transactions involving a series of value adding activities between members of a supply chain for their own needs' satisfaction (Sheth and Uslay, 2007). Instead, contemporary literature investigates how firms can market to their customers within a service-orientated approach, a view Lusch and Vargo (2006) define as 'the application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself' (p.283). This approach involves value that is realised in-use (Vargo and Lusch, 2004; 2008), with customers as the central facet to the creation of value (Vargo and Lusch, 2008). From this perspective value 'created by the customer is exchanged for value created for the supplier, with service as a mediating factor in this process' (Grönroos, 2009, p.7). These exchanges between the service provider and the customer are central to creating value for both parties (Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004).

One of the key aspects of this notion of value exchange is that the customer has to participate to effectively realise value (Zeithaml et al., 2004; Frow et al., 2010; Van Beuningen et al, 2011; Vargo and Lusch, 2004). Participation is essential to the success of value creating processes (e.g. health management, Do-It-Yourself, energy saving); as if the roles are not performed correctly then the nature of the service will be affected (Bitner et al. 1997). For customers to participate in these value creating environments, it requires that they are motivated (Kelley et al. 1992; Lengnick-Hall et al., 2000) and clear about the role they are required to perform (Hibbert et al., 2012), and often in value creating contexts, the customer may be required to develop their knowledge

and skills in order to participate in value creating opportunities (Zeithaml et al., 2004; Frow et al., 2010; Van Beuningen et al, 2011; Vargo and Lusch, 2004). The success of these resource integration processes is determined by the customer's 'proficiency in deploying resources as they engage in value-generating processes' (Hibbert et al., 2012, p.2), on their own or with other involved parties, to support and enhance their value creating experiences (Arnould et al., 2006; Baron and Harris, 2008).

Resource integration follows two paths; collaboration and exchange. When collaborating, resources are exchanged and value activities are jointly performed in co-creation activities. Value comes from being part of the collective (Baron and Harris, 2008) and this collaborative notion, often from a firm perspective, is well documented in the co-creation literature (e.g. Dong et al., 2008; Meuter et al., 2005). Exchange practices, however, involve value gained from the integration of resources (Arnould et al., 2006), and focus on the customer and what they offer to the process, typically necessitating the ability to use and integrate resources in exchange encounters containing social and economic actors (Kleinaltenkamp et al., 2012; Vargo and Lusch, 2008; Hibbert et al., 2012; Arnould et al., 2006; Sheth and Uslay, 2007; Ostrom et al., 2010; Frow et al., 2010), who co-create value for each other (Cheung and McColl-Kennedy, 2011; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004).

However despite the acknowledgement of the customer as a creator of value, little is known about this process of resource integration and exchange (Hibbert et al., 2012; Arnould et al., 2006). Recent literature (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris 2008) suggests a focus on these exchange practices to ascertain how customers engage in resource integration in order to participate in value-creation opportunities, and to help firms 'anticipate customers' desired values and help to create value in use' (Arnould et al., 2006; p.93). As Kleinaltenkamp et al., (2012) note 'it is the human and social experience resulting from the interaction with engagement platforms that is crucial. Therefore, we need to understand more about the experiences of the actors within the integrating process' (p.203).

An appreciation of this customer value process is crucial to the efficiency of the firms' operations, especially in complex service offerings (Ostrom et al., 2010; Vargo, 2011), and the support of customers' capability to create value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Frow et al., 2010) is proposed as a more definitive source of competitive advantage (Ballantyne and Varey, 2006; Dong et al., 2008). Arnould et al., (2006) suggest a focus on these exchange practices will help to develop a greater understanding of 'in what contexts consumers expend relatively greater operant resources and on what do they expend them?' In doing so this offers greater insights into the role of customers' goal-orientated use of operant resources, as 'since customers' life projects/goals are a configuration of operant resources, focus on these operant resources will enable firms to anticipate customers' desired values and help to create value in use' (Arnould et al., 2006, p.93).

1.2 - Customer Learning

One approach in developing knowledge and skills is customer education (Vargo and Lusch, 2004; Payne et al., 2008; Auh et al., 2007; Eisingerich and Bell, 2006) that can take many forms depending on the task and the requirements of the customer. For instance, for simple value creation environments in which service providers offer supporting information at the point of service, such as on-screen prompts at a supermarket self-checkout or information bubbles on airline on-line booking forms (Burton, 2002), value is realised from the exchange of resources with other participants in the value network (Vargo et al., 2008; Ballantyne and Varey, 2006; Lusch, 2007), helping to develop the customer's knowledge and skills that help to complete the service offering. However customer learning differs from these educational approaches, as the latter indicates that knowledge is disseminated from the service provider to the customer, with the service provider controlling the learning process of the customer. However in a range of environments, the customer is often required, or chooses, to develop their knowledge and skills themselves in order to participate and realise value.

This requirement may stem from an intrinsic interest in the task, such as a hobby or the desire to develop one's capabilities. Alternatively it could be the result of a performance need, for instance participating in DIY to repair one's home, rather than calling in a tradesman. In these instances the resource integration process of customers may involve participation in a range of activities (Payne et al., 2008) with the firm and providers of relevant resources to develop their knowledge and skills to participate in value creating activities. This perspective of customer learning resource integration implies that the customer takes control of their learning process to create value (Arnould et al., 2006; Payne et al., 2008), and may search for other resources than those prescribed by the firm to help to support their learning process.

The adult learning literature offers perspectives and constructs that help to develop an understanding of how customers acquire knowledge and skills in order to effectively participate in value creating activities. In particular, self-directed learning (SDL) (Knowles, 1975; Garrison, 1997) provides frameworks that offer explanations of what customers do in value creating exchange activities (Kleinaltenkamp et al., 2012; Arnould et al., 2006), and how service providers can play a supporting role in this process (Vargo and Lusch, 2008). SDL recognises that motivated learners self-manage and self-monitor their learning (Garrison, 1997), utilising their resources and the resources of others to construct knowledge (Confessore and Kops, 1998; Candy, 1991; Garrison, 1997; Ellinger, 2004) and is defined as 'a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes' (Knowles, 1975, p.18).

Contemporary SDL literature proposes interactive and multidimensional frameworks to address the often-disordered processes of learning (Candy, 1991; Brockett and Hiemstra, 1991; Garrison, 1997; Merriam et al., 2007; Guglielmino, 1977; Bolhuis, 2003). These approaches recognise that learning is influenced by a range of internal, and external, factors (Merriam et al., 2007; Candy, 1991), and does not necessitate that they operate autonomously, but use

resources to increase their knowledge and skills (Merriam et al., 2007; Confessore and Kops, 1998; Candy, 1991; Garrison, 1997; Ellinger, 2004).

The internal processes of learners are well documented in the literature (e.g. Guillermo, 1977; Zimmerman, 1989) and offer dimensions that help to define the construct of SDL. In essence, these involve the learner making sense of their own resources and those of others (i.e. available support and assistance for learning) as key dynamics in knowledge construction and the effective self-management and monitoring of learning (Tough, 1971; Knowles, 1975; Garrison, 1993; 1997; Pintrich et al., 1991). This process involves the motivated (or unmotivated) learner managing (Candy, 1991; McGregor, 2005; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975) and control of available internal and external resources (Ruohotie, 2002; Garrison, 1993; 1997; Schraw and Moshman, 1995; Vonderwell and Turner, 2005) that support the development of learning (Schraw and Moshman, 1995; Zimmerman et al., 1992; Loyens et al., 2008) and participation in SDL activities (Merriam et al., 2007; Hibbert et al., 2012).

Garrison (1997) defines this process as consisting of two concepts, self-management (control) and self-monitoring (regulation), which facilitate knowledge construction (Jarvis, 2004; Merriam and Caffarella, 1999; Vonderwell and Turner, 2005), enabling the successful realisation of learning goals (Boekaerts, 1999; Pintrich, 1999). Garrison's (1997) model views SDL as incorporating entering (cognitive) and task (control) motivations. Entering motivation concerns commitment to goals and intention to act. Research that focuses on motivation in self-regulating environments has found that the goals (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003), perceived self-efficacy (Bandura, 1997; 1994; Zimmerman, 2000), and emotions (Cohen et al., 2008) of learners are key variables in their motivation to learn.

Task motivation focuses on the motivation to continue to participate in the learning environment and features in the self-management and self-monitoring stages of the SDL process. This concept of task motivation is well documented in the literature and draws on social cognitive theory (Bandura, 1977), which

purports that learners use self-regulatory processes (e.g. self-efficacy perceptions, goal-setting, self-evaluation, self-monitoring) to effectively regulate their learning (Zimmerman, 1989) and govern motivation and behaviour (Bandura and Wood, 1989; Clardy, 2000).

When learners are motivated to participate in SDL, the external task control, or self-management, that they have over their learning activities enables them to meet their goals (Garrison, 1997; Boden, 2003; Song and Hill, 2007). Self-management concerns these external task control issues by focusing on 'the social and behavioural implementation of learning intentions…(and) the enactment of learning goals and the management of learning resources and support' (Garrison, 1997, p.22). This control involves resource management strategies that help the learner to control and make sense of relevant metacognitive resources (e.g. knowledge of the task, knowledge of the self as a learner, strategic knowledge of how to acquire further resources) and external resources in order to construct knowledge (Candy, 1991; Merriam et al., 2007; Garrison, 1997; Schraw and Moshman, 1995). Within these control activities, knowledge is socially constructed as the learner makes 'sense of the perplexing variety and constantly changing texture of their experience' (Candy, 1991, p.255).

In conjunction with these knowledge variables, self-monitoring practices address how individuals utilise knowledge to direct metacognitive self-regulatory processes including planning, monitoring, and evaluating (Garrison, 1997; Pintrich, 2000; Song and Hill, 2007; Schraw and Moshman, 1995; Schraw and Dennison, 1994). Self-regulatory planning activities involve learners, motivated by goals, self-efficacy perceptions and emotions towards learning (Zimmerman, 1989), allocating internal and external resources in order to effectively engage in, and control, the learning process to reach a desired goal (Ruohotie, 2002). This planning process incorporates the assessment of metacognitive knowledge (e.g. personal, task, and strategic) and available resources that can help support the realisation of goals.

The SDL literature proposes that learners constantly revisit learning objectives

and goals, adapting their self-regulatory processes dependent on their context-specific learning requirement (Merriam et al., 2007; Candy, 1991). This involves monitoring processes which assist learners to make informed decisions regarding what strategies to use (Haynie et al., 2012), how to adapt the learning if required, and assessing and making sense of the resources gained against goals set (Ruohotie, 2002; Haynie et al., 2012). These evaluative processes are compared against previous learning attempts or to the resources of others (i.e. feedback). In this process the learner interprets the success or failure of the learning and the reasons behind this (Knowles, 1975; Brockett and Hiemstra, 1991; Candy, 1991). Attributing these successes or failures to particular processes enables the learner to adapt their approaches and find alternative solutions if required (Ruohotie, 2002).

Despite the focus of Candy (1991) and Garrison (1997) on the external aspects of control and regulation, what the learner does in this SDL process is somewhat ambiguous in the literature. One reason for this is the interplay that self-management has with self-monitoring in the construction of meaning (Garrison, 1997). As Garrison accentuates, 'while in practice self-management cannot be separated from cognitive (self-monitoring) and conative (motivation and volition) control strategies, it is intended to reflect the social setting and what leaners do during the learning process' (Garrison, 1997, p.23). Adopting Garrison's (1997) framework of self-directed learning can help to offer insights into the processes of customers when they choose to develop knowledge and skills in order to participate in value creation processes. A focus on customer processes, and in particular on how they develop their knowledge and skills, has emerged as a key area of research in service orientated literature (Hibbert et al., 2012) to develop the focus of customer value processes, as opposed to earlier work that took a firm-centric approach and an educational approach to customer learning (e.g. Dong et al., 2008).

1.3 - Overview of Research

The purpose of this study is to develop an understanding of the processes of customers in developing their knowledge and skills that enable them to participate in value creating activities. Recent conceptual literature has called for a focus on these customer engagement processes and how resource integration activities can help facilitate and support the creation of value (Kleinaltenkamp et al., 2012; Hibbert et al., 2012). With the customer placed centrally in the value creation paradigm (Vargo and Lusch, 2004), an understanding of how and why they participate, and the resources they draw on to support and develop their learning, is essential for the construction of a comprehensive customer perspective of value creation.

This empirical study contributes to this emerging focus on customers (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2008; Arnould et al., 2006) by investigating how and why they choose to develop their knowledge and skills, through learning resource integration activities, which enable them to participate in value creating activities. From a managerial perspective, by understanding customer learning processes, service providers (e.g. firms, NGOs, the media) can deliver resources that support and assist customers in developing their knowledge and skills in value creating environments (Payne et al., 2008). Customers who lack the characteristics or motivation (Garrison, 1997; Zimmerman, 1989) to participate and self-direct their learning to create value can be identified and supported through additional, and relevant, resources. For example alongside offering how-to videos and supporting information on their website, Apple offer 'Genius' support staff and workshops to help both novice and more experienced users with additional support for certain software packages and hardware. Furthermore this offers opportunities to increase their own efficiency (Ostrom et al., 2010; Vargo, 2011; Kleinaltenkamp et al., 2012) by enabling relevant approaches that can support their customers and enable competitive advantage (Ballantyne and Varey, 2006; Dong et al., 2008).

To address the research gaps within the value creation literature and provide an insight into the processes of customers in creating value, three key questions have guided the study and methods:

- What are the motivational characteristics of customers who choose to develop their knowledge and skills to participate in value-creation activities?
- By what processes do these customers learn?
- How do learning resource integration activities involved in customer learning enable value co-creation?

1.4 - Methodological Approach

To address these questions, this study adapted Garrison's (1997) Dimensions of Self-Directed Learning model, and adopted a social constructivist perspective that views reality as constructed and interpreted subjectively, in and by individuals (Silverman, 2010; Burrell and Morgan, 1979; Rubin and Rubin, 2005), with knowledge being seen as a 'process of constructing meaning; it is how people make sense of their experience' (Merriam and Caffarella, 1999, p.261). Furthermore learning within the social environment was a crucial part of the proposed Customer Value Learning (CVL) framework that addressed how and why customers engage in resource integration activities to enable participation in value creation. Socially constructing knowledge is engrained within resource integration (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2008), as customers develop their knowledge and skills through a range of service providers (e.g. firms, the media, social networks). Sometimes customers may use their own metacognitive skills to learn and participate, but in complex contexts this often means engaging in resource integration activities with a range of service providers in order to participate in value creating activities (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2008; Arnould et al., 2006).

The study adopted a mixed method approach. Initially, a survey was conducted with 249 members of a DIY online forum to explore the motivational characteristics of customers who chose to develop their knowledge and skills in an environment in which they were required to learn and participate to enable value creation. Principal component analysis was used to identify key motivational factors that incorporated learning and performance goals, level of perceived self-efficacy, and positive, negative, and frustrative emotions towards SDL. Cluster analysis then established two sets of learners who experienced contrasting motivations towards participation in SDL. Self-assured learners participated for performance and learning reasons, and were confident and positive towards learning goals. 'Have-to' learners, however, who engaged for performance goals, were less confident and displayed more emotional tendencies towards the prospect of learning.

Following this, semi-structured interviews were conducted, based on approaches to learning in naturalistic settings (Lincoln and Guba, 1985; Denzin, 1971), with a sub-sample of twenty-three of the survey respondents. These offered in-depth accounts of the learning processes, and how learning resource integration activities helped to support them. Focusing on questions to elicit purposes and roles rather than methods (Greene, 2003), the socially constructive perspective of learning viewed knowledge constructed through interactions that offered similar or different experiences (Candy, 1991; Garrison, 1997; Kolb and Kolb, 2009; Jonassen, 1999; Jonassen et al., 1995; Merriam et al., 2007). This approach provided an insight into the relationships and interactions between learners and service providers by making sense of the customers' views, experiences, and interpretations of social reality (Mason, 2005), and developing an understanding of customer learning processes for value creation with an appreciation of 'social phenomena from an actor's perspective' (Kvale and Brinkmann, 2009 p.26).

The analysis of the interview data involved systematic coding and information extraction to guide theory development, rather than seeking to confirm ideas or frameworks. This theory development involved framing the results against Kolb's (1984) model of experiential learning, which helped determine how

customers approached the construction of knowledge and skills; an important aspect for service providers to understand in order to support their customer's knowledge acquisition process. This approach posits that learning occurs through two related strategies for grasping experience (how learners acquire knowledge): Concrete Experience (CE) and Abstract Conceptualisation (AC), and two processes of transforming experience (how learners utilise and process knowledge): Reflective Observation (RO) and Active Experimentation (AE) (Kolb, 1984; Kolb et al., 2001; Kolb and Kolb, 2009). Within these two continua, knowledge is 'created through the transformation of experience (and) results from the combination of grasping and transforming experience' (Kolb, 1984, p.41). These processes (Kolb, 1984; Kolb and Kolb, 2009) determine the 'learning style(s)' adopted to make sense of experiences.

Using the experiential model as a guide for how customers learn when faced with challenging learning situations offers firms five potential learning styles to support: *converging, assimilating, accommodating, diverging,* and *balancing*. The study posited that learners adopted one these five styles and that they differed in their characteristics towards learning resource integration that directed and/or supported the construction of knowledge and skills to be able to participate in value activities. For instance, learners who preferred to approach learning from a reflective and systematic approach (divergers, balancers, and assimilators) used learning resource integration activities to support their metacognitive learning processes and develop an in-depth understanding of the task. Conversely, other more active learners (e.g. convergers and accommodators) preferred to be engaged in the value activity, learning as they participated and using their metacognitive knowledge to support this. When they did use learning integration activities it was to support their metacognitive regulatory processes during the task.

For service-providers, recognising the characteristics of these styles can help to develop an understanding of their customers' learning processes, and provide support that can help them to participate and realise value. The emphasis on these customer-learning processes helped to address the gap in the literature that currently presents customer learning as implicit in the creation of value

(e.g. Dong et al., 2008; Vargo et al., 2008) and to develop a greater understanding of how, and why, customers integrate resources to create value (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2008; Arnould et al., 2006), offering an alternative empirical customer-centric perspective to resource integration for value creation.

1.5 - Structure

This introduction chapter has described the processes of the study and the perspectives taken. Chapter two reviews the literature on service-dominant logic, value creation, and resource integration, importantly highlighting the lack of focus on the customer, despite being central to value propositions (Vargo and Lusch, 2008). The review goes on to discuss adult learning literature, which offers various models to conceptualise the processes of customers when developing knowledge and skills to participate. The conceptualisation chapter (Chapter three) highlights the gaps in this literature, particularly the lack of research that focuses on the customer, and introduces the Customer Value Learning (CVL) framework based on Garrison's (1997) model of self-directed learning, alongside research questions that address calls in the research on resource integration and customer value creation. Following this, the research design and methodology chapter (Chapter 4) details the socially-orientated perspective taken for the empirical work, alongside details of the survey scale construction featuring motivation as determined by the goals, self-efficacy, and emotions of customers. The rest of this chapter clarifies the semi-structured interview questions that sought to develop an understanding of the motivations, internal control, and regulatory processes of customers, along with the context and ethical considerations of the study.

The analysis chapter (Chapter 5) details the results of the survey in which two groups of motivated learners are established. Then the presentation of the interviews which were initially driven deductively by issues identified in SDL theory (Garrison, 1997) and service research. Subsequent, inductive analysis indicated that the various SDL processes in this context reflected five learning

styles, represented in experiential learning theory (ELT) (Kolb, 1984). These styles are discussed via the experiences of the respondents that demonstrated customers' motivations, self-management, and self-regulation processes, alongside their use of resource integration activities to support their learning. The final chapter (chapter 6) summarises the research, establishes theoretical contributions, and proposes ways in which managers can adopt the research to understand their own customers. The final part of the chapter offers limitations and further guidance for additional directions to further the customer perspective within the burgeoning field of value-creation.

Chapter 2 - Literature Review

S-D logic literature recognises that one of the key aspects of value exchange is the customer, as they are the ones for who value is realised within service encounters (Kleinaltenkamp et al., 2012; Vargo and Lusch, 2008; Hibbert et al., 2012; Arnould et al., 2006; Sheth and Uslay, 2007; Ostrom et al., 2010; Frow et al., 2010). In value creating contexts, the customer may often be required to develop their knowledge and skills in order to participate in value creating activities (Hibbert et al., 2012). They therefore have to be clear about the roles they are required to perform (Hibbert et al., 2012; Kleinaltenkamp et al., 2012), especially in contexts in which they must develop their abilities in order to realise value (e.g. health, technology, DIY).

This development typically necessitates using and integrating resources in exchange encounters containing social and economic actors (Kleinaltenkamp et al., 2012; Vargo and Lusch, 2008; Hibbert et al., 2012; Arnould et al., 2006; Sheth and Uslay, 2007; Ostrom et al., 2010; Frow et al., 2010) to co-create value for each other (Cheung and McColl-Kennedy, 2011; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004). The success of this resource integration process is determined by the customer's 'proficiency in deploying resources as they engage in value-generating processes' (Hibbert et al., 2012, p.2), on their own or with other involved parties, to support and enhance their value creating experiences (Arnould et al., 2006; Baron and Harris, 2008).

However little is known of these customers' practices, with the majority of the research adopting a firm-centric perspective. What is required is a more holistic assessment of S-D logic and value-creation, one that recognises the roles and processes of customers in participating and creating value. Understanding these processes can help firms to develop an appreciation of the customer value process, and is crucial to the efficiency of the firms' operations, especially in complex service offerings (Ostrom et al., 2010; Vargo, 2011). Therefore for service providers, the support of customers' capability to create

value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Frow et al., 2010) is proposed as a more definitive source of competitive advantage (Ballantyne and Varey, 2006; Dong et al., 2008).

The following chapter centres on the literature of both service-dominant (S-D) logic and value creation, and adult education and learning literature. This latter field helps to distinguish some of the processes that can offer explanations as to how and why customers may seek to develop their knowledge and skills to be able to participate in value-creating activities. The first part of the literature review examines S-D logic (Vargo and Lusch, 2004) and its predominant role in current marketing thought (e.g. Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Grönroos, 2009, 2011; Holbrook, 1994). Although some of this literature has focused on the customer co-creating value with firms (e.g. Prahalad and Ramaswamy, 2004; Payne et al., 2008; Auh et al., 2007; Dong et al., 2008), little work has been presented that focuses on how and why customers may participate in these value activities, despite being at the heart of the S-D logic paradigm as the creator of value (Vargo and Lusch, 2008).

The review centres on this customer perspective (Hibbert et al., 2012; Grönroos, 2011) and addresses the implications of customer participation, and how they recognise and act upon deficits in their knowledge and skills to be able to participate in value creating activities. This relies on the ability of the customer to integrate and exchange resources with those provided by the firm and other involved actors in resource integration activities, and help develop their knowledge and skills to be able to participate in value creating activities. This is important not only for service providers to support the value-creating activities of their customers (Vargo and Lusch, 2008; Hibbert et al., 2012), but also as customers increasingly have to develop their abilities in order to participate in progressively sophisticated and complex value creating activities (e.g. technology, health management, Do It Yourself).

The second part of the review synthesises the S-D logic and customer resource integration with the adult learning literature, in particular self-directed learning (SDL) (Knowles, 1975; Garrison, 1997) and self-regulated learning (Zimmerman, 1989; 2000; Flavell, 1979). Crucially for value creation, this self-directed process incorporates a number of factors, which assist in conceptualising customers' learning processes so that they can participate in value-creating activities. SDL involves learners who are motivated to engage in self-directed learning in order to fulfil goals (Knowles, 1975), learning from participating and exchanging resources with other members of the learning network (Garrison, 1997; Candy, 1991; Merriam et al., 2007).

2.1 - Service-Dominance

Historically the dominant marketing thought has concerned the roles of buyers (e.g. the customer) and sellers (e.g. the firm) in goods-dominated, value-in-exchange transactions (Vargo and Lusch, 2004; Sheth and Uslay, 2007; Grönroos; 2009; Vargo et al., 2008). This perspective incorporates the creation of value as manufactured by the firm and distributed to the market via economic exchange (Vargo et al., 2008; Frow et al., 2010). A goods-dominant approach views the creation of value as a series of value adding activities between members of a supply chain (Payne et al., 2009) for their own needs' satisfaction (Sheth and Uslay, 2007).

However this position is limited in three ways. Firstly it adopts the perspective that firms determine value for the customer. Often this is not the same as their customer's idea of value. For instance the proliferation of affordable technology has enabled customers to demand more from the goods and services that they purchase and use, whether this is customisable customer goods such as shoes (e.g. Converse); having information available 24/7 (e.g. online technical support; YouTube videos); 3-D printing, or having real-time health information via 'apps' and wearable devices such as smart watches or Google Glass. Secondly a goods-dominant perspective of exchange focuses on one type of value for the buyer and the seller (i.e. value-in-exchange). The focus of recent literature (discussed in more detail in this review) emphasises

the importance of customer-centric value realised 'in-use' (Vargo and Lusch, 2004; 2008) and the role that firms can play in supporting this. Finally a goods-centred approach ignores the roles that customers (and other involved actors within the value system) play in generating value. Understanding these roles can help service providers to develop relationships that can help support these actors in the value-creating process (Hibbert et al., 2012).

Shifts in technological advances, emerging markets and the increasing specialisation (or outsourcing) of services has encouraged firms to become more market and/or customer oriented, offering additional value through service (Vargo and Lusch, 2004; Lusch, 2007). This resulted in a move by firms to offer more value-in-use via operant resources (e.g. knowledge and skills), experiences and interactions rather than only via the traditional offering to stay competitive. These have led to a shift in focus of marketing thought; from one predominantly concerned with the notion of *exchange* (Bagozzi, 1975; Sheth and Uslay, 2007) and how firms market *to* customers, toward one of value-in-use and service (Vargo and Lusch, 2004; 2008)

This paradigm shift emerged from theories that focused on customer-firm relationships and interactions including service encounters (e.g. Bitner et al. 1997); experiences (e.g. Pine and Gilmore 1998); internal (e.g. Berry 1981); interactive marketing (e.g. Grönroos, 1982); and relationship marketing (e.g. Ravald and Grönroos, 1996). This latter approach helped to conceptualise the emerging shift by emphasising customer value-generating processes as the central component of marketing. Relationship marketing purports that value in-use is customer-centric, realised over time in interactive relationship networks (Gummersson, 1999). Customers are integral to enhancing and maintaining relationships (Ravald and Grönroos, 1996) in networks of involved actors (Morgan and Hunt, 1994; Håkansson and Snehota, 1995; Grönroos, 2004) that help to support the value-creation process.

Vargo and Lusch (2004) have argued that for a firm to become (and stay) competitive they need to place the customer at the heart of what they do, by understanding their needs and providing support for their value-creating

activities. They proposed a service-orientated approach that encompassed 'the application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself' (Lusch and Vargo, 2006, p.283). These exchanges and relationships between the service provider and customer (or end user) are central to creating value for both parties (Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004). 'Value created by the customer is exchanged for value created for the supplier, with service as a mediating factor in this process' (Grönroos, 2009, p.7). Attempting to advance the literature, Vargo and Lusch (2008) proposed ten foundational premises that offer to interpret the roles that the service-customer relationships play in the construction of value (Table. 2.1).

Table 2.1 – Service-Dominant Logic Foundational Premises (Vargo and Lusch, 2008, p.7)

Foundational Premise (FP)	Description
FP1	Service is the fundamental basis for exchange.
FP2	Indirect exchange masks the fundamental basis for exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise cannot deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer orientated and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.

2.2 - Customer Participation

These foundational premises espouse service as the fundamental unit of exchange; inherently customer orientated with value determined in-use and by the recipient of the service through the integration of resources (Vargo and Lusch, 2008; Lusch and Vargo, 2006).

One of the key customer characteristics of value creation is that customer participation is to some extent required in order to realise value (Van Beuningen et al, 2011). S-D logic literature highlights the essential nature of participation and interaction, with the customer as *a* co-creator of value (Vargo and Lusch, 2006; 2008). Within this customer creating value process, value is realised in-use (Lusch, 2007) and therefore the customer has to participate to realise this (Van Beuningen, 2011). Furthermore customer participation is essential when knowledge and skills are mandatory (such as health behaviours and energy saving), as if the roles are not performed correctly then the nature of the service will be affected (Bitner et al. 1997). This research has, until recently, been dominated by the firm-centric view of the customer as a partial employee, involved in the co-production of goods and services (e.g. Lovelock and Young, 1979; Mills and Morris, 1986; Kelley et al., 1990). These works have centred on how firms may cut costs, and improve productivity, by offsetting labour to customers (e.g. self-service checkouts, ATMs).

More recent work has begun to develop an understanding of the customer, and the participatory roles that they play, in creating value. In particular, S-D logic literature highlights the essential nature of customer participation and interaction (Vargo and Lusch, 2004) throughout a range of co-created activities, which aids the customer to effectively gain relevant value (Zeithaml et al., 2004; Frow et al., 2010). Furthermore research has also highlighted the role of the customer in deriving personalised value from the participation process and the antecedents that promote and support this (e.g. Eisingerich and Bell, 2006, Zhao et al., 2008).

For them to participate and co-create effectively customers are required to be motivated (Kelley et al. 1992; Lengnick-Hall et al., 2000) and clear about the role they are required to perform and this typically necessitates customer education (Auh et al. 2007). Understanding how these roles are defined, developed, and communicated to individuals is one of the key factors that firms may consider to effectively contribute to the customer experience. For example, role readiness behaviours (e.g. role clarity, ability and motivation) have been shown to be contributing factors for the individual to participate in new behaviours (Meuter et al., 2005). These behaviours assist the consumer in being ready to adopt and use resources to engage in encounters with the service provider (Kelley et al. 1992; Lengnick-Hall et al., 2000).

2.3 - Resource Integration

A key aspect of a customer's ability to participate in these activities is the information, knowledge, and skills that they can access and use (Bitner et al., 1997; Payne et al., 2008). When lacking the ability to participate, they draw on available resources (Baron and Harris, 2008; Arnould, 2008) to supplement and develop their knowledge, skills, and behaviours (Bitner et al., 1997; Meuter et al., 2005). This involves integrating resources (Vargo and Lusch, 2008; Hibbert et al., 2012; Sheth and Uslay, 2007) in networks containing social and economic actors, who come together in an exchange encounter to co-create value for each other (Cheung and McColl-Kennedy, 2011; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004). These *service providers* are actors within the value system, who offer and exchange their resources for the benefit of others in value co-creating encounters (Vargo and Lusch, 2008; Ostrom et al., 2010; Frow et al., 2010), and include firms, practitioners, professionals, NGO's, the media and members of professional and social networks (e.g. friends and family).

Within these environments customers integrate knowledge and skills with these service providers in order to develop their abilities to participate and realise

value. These operant resources are intangible resources that produce effects (Baron and Harris, 2008). For firms, these include human (e.g. skills and knowledge of employees), organisational (e.g. policies and culture), informational (e.g. consumer intelligence), and relational (e.g. relationships between the firm and other actors) resources, which they may make available for customers. Vargo and Lusch (2008) propose that these operant resources enable customers to 'take advantage of increasing value-creation opportunities through resource integration' (p.33), reinforcing consumers' operant resources (Arnould et al., 2006).

Arnould et al., (2006) suggest that in these instances the customer is an operant resource for the firm and also the firm is an operant resource for the customer to co-produce value, a view shared by others (e.g. Vargo and Lusch, 2008; Kleinaltenkamp et al., 2012). Therefore, it is 'through [the] integration and application of resources made available through exchange, that value is created' (Vargo et al., 2008, p.150). This knowledge generation, sharing, and application is proposed as a more definitive source of competitive advantage for firms (Ballantyne and Varey, 2006; Dong et al., 2008) in supporting customer's capability to create value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Frow et al., 2010). This value may emerge in different ways, for instance the value from participation, from learning, or from realising a specific task.

From a customer perspective, this process involves the customer's 'proficiency in deploying resources as they engage in value-generating processes' (Hibbert et al., 2012, p.2), on their own or with other involved parties, to support and enhance their participation in value creating experiences (Arnould et al., 2006; Kleinaltenkamp et al., 2012; Baron and Harris, 2008), and enabling them to effectively use, maintain, repair, and adapt the offering to suit their value-based goals (Hibbert et al., 2012; Arnould et al., 2006; Vargo and Lusch, 2004; Payne et al., 2008; Bitner et al., 1997; Meuter et al., 2005). These practices of resource integration emerge from two perspectives (Baron and Harris, 2008; Hibbert et al., 2012) within service-to-service exchanges - *exchange practices* in which resources are exchanged, and *collaborative practices* in which service

providers and customers jointly perform activities to co-create value (Hibbert et al., 2012; Payne et al., 2008).

Collaborative practices involve integrating operant and operand (tangible) resources with other participants in the value network to co-consume experiences. Value comes from being part of the collective (Baron and Harris, 2008). Payne et al., (2008) and Frow et al., (2010) expand on work by Sheth and Uslay (2007) by conceptualising the collaborative integration practices of these value co-creating opportunities. These twelve activities cover the broad range of opportunities for value creation for both the customer and service provider(s) (Figure 2.1).

These activities highlight the opportunities for customers to engage and integrate their resources with other network actors in 'a series of activities performed by the customer to achieve a particular goal' (Payne et al., 2008 p.86). With the support of service providers, the increase in value from the integration of resources puts customers in the position to be able to participate in value co-creating activities (Payne et al., 2008). This is actualised in many contexts during the delivery and production of services as the customer develops their knowledge in order to participate, for instance at self-service checkouts in supermarkets (Kelley et al., 1990), or customer education (e.g. Dong et al., 2008).

However, this collaborative perspective of resource integration has so far been dominated by a firm-centric approach, describing the process of resource integration as creating value for both parties. While this helps to distinguish the benefits to the firms in encouraging resource integration activities, the customer perspective is somewhat lost (Kleinaltenkamp et al., 2012), with a lack of focus on why they choose to participate and the processes within this.

Figure 2.1 – Collaborative Co-creation Activities (Payne et al., 2008)

Customer processes

Goals in life	Travel plans	Decision making	Preparations	Journey	Follow-up
• Relaxation • New experiences • Holiday plans • Keeping up friendships • Social intercourse • Developing hobbies • Keeping up language skills	• Deciding time & destination • Checking financial situation • Collecting info • Applying for credit card, passport • Deciding number of participants • Considering age of children, health, safety, insurance	• Applying for vacation • Choosing destination • Informing the family • Booking • Booking someone to take care of the house, flowers, dog • Making use of benefits	• Paying • Insurance & vaccinations • Currency, passport, visa • Luggage acquisition • Preparations for journey • Packing • Buying film • Gathering info • Getting babysitter	• Wakingup& transportation • Airport transportation • Finding the hotel • Accommodation • Buying a map • Buying duty-free • Destination services • Participating in trips on site • Send postcards	• Giving feedback • Laundry, un-packing • Giving souvenirs • Groceries • Informing relatives • Personal follow-up (solarium, sickness) • Currency exchange • Taking care of mail and bills

Encounters

• Advertisement • Direct mail (letter) • Contact request	• Discussing plans • Budget proposal • Brochure • Direct mail (letter) • Good to know - document • Who are we - advertisement	• Brochure • Sales call (phone or meeting) • Application forms	• Billing • Ticket • Good-to-know document • Discussions about arrangements • Insurance • We're-on-holiday postcard	• Check list for those at home • Check calls • Escort/guides • Map • Good-to-know document	• Feedback form • Feedback discussions • Welcome home letter/package • Offering • Credit note / additional bill • Home transportation

Supplier processes

Support of guidelines	Planning support	Support of decision making	Preparation support	Implementation support	Follow up support
• Supporting the mission of customers that want to travel • Improving brand recognition • Attractive marketing commincation	• Planning budget • Own contact person at travel agency • Travel consulting • Updating customer information • Sending offering • Sending Good-to-know material • Checking customer ís timetable	• Consultative sales • Information support • Idea generation	• Taking care of travel documents • Exchanging currency • Booking tickets • Insurance informing • Insurance acquisition • Sending Good-to-know material • Sending checklist	• Informing, sending material • Copying maps • Giving contact information • Organizing airport transportation	• Welcome home -letter • Airport transportation • Contacting • Taking care of feedback • Billing / crediting

Resource integration exchange practices offer insights into these roles of customers who look to develop their knowledge and skills so that they can participate and realise value. These involve the personal physical, social, or cultural value gained from integrating resources (Arnould et al., 2006). Assessments of this resource integration process are formed through encounters with other service providers and the subsequent cognitive, emotional, and behavioural influences throughout the co-creative relationship (Ballantyne and Varey, 2006). It is these exchange processes that promote and facilitate customer learning, sustain relationships, and create value (Payne et al., 2008). Service providers and other network actors who recognise these practices can develop strategies to assist and support customers in developing their resources to successfully realise value (Arnould et al., 2006; Hibbert et al., 2012; Payne et al., 2008).

Although a service-orientated approach to value is recognised as a relevant and current approach to the traditional customer-firm relationship, there is still a tendency in the literature to focus on value creation from the perspective of the firm, only one of many operant resources that customers draw on to acquire knowledge (Kleinaltenkamp et al., 2012; Arnould et al., 2006; Hibbert et al., 2012, Lusch et al., 2007). What is missing from the literature, which holds the customer at the heart of the value-creation paradigm (Vargo and Lusch, 2004; 2008), is an understanding of how customers develop their knowledge and skills to be able to participate in value-creating activities. Little is known about these processes and how customers engage in resource integration value creating processes (Kleinaltenkamp et al., 2012). In contexts in which the customer is required to develop their abilities in order to participate (e.g. health management, technology, sports, languages), understanding how they integrate resources is essential in order for service providers to successfully support their learning processes.

Recent literature has called for attempts to address this with Arnould et al., (2006) suggesting that 'we know relatively little about the interaction among various types of consumer operant resources. Furthermore, we do not know

about how consumers selectively manage expenditures of various types of operant resources...in what contexts do consumers expend relatively greater operant resources and on what do they expend them?' (p.98). This view is shared by Baron and Harris (2008), who suggest that research focuses on consumers' integration of resources with the firm's resources in the creation of value. Meanwhile, Hibbert et al., (2012) propose an exploration of how customers engage in resource integration in order to participate in value-creation opportunities. Their conceptual model on customer learning and resource integration builds on work by Bolhuis (2003), highlighting goal setting, evaluation, orientation, and execution as key determinants. However, as they suggest, more work is needed to fully understand the factors that influence resource integration processes.

Building on these perspectives, Kleinaltenkamp et al., (2012) suggest that resource integration priorities focus on five themes to help conceptualise and develop both the literature and managerial focus further (Table 2.2).

Table 2.2 – Resource Integration Research Priorities (Kleinaltenkamp et al., 2012)

Theme	Research Priorities
Resource integrators	What is the role of technology in resource integration – can technology be a resource integrator and/or a resource? What do we know about the motivation and behavior of resource integrators and what are the implications for theory and practice?
Resources	What is the nature of a resource in the context of S-D logic and what is its relationship with actors? Can technology provide an operant resource or does the application of an operant resource require human agency?
Integrating resources	What is the role of practices in resource integration? How can business model design and configuration processes assist the resource integration process?
Value	What is the role of value propositions in resource integration within a service system? Is value the outcome of resource integration or intrinsic within the interaction experience?

Evaluation	What tools assist in measuring value within a service system?
	What is the impact on co-created value of the evaluation by each actor within a service system?
	What methods allow researchers to understand most clearly the nature and evaluation of phenomenological value?

In order to understand and address some of these points, there is a requirement to study customers separately, away from service-provider based co-creation interactions (Grönroos, 2011). Arnould et al (2006) suggest this will enable assessments to be formed on 'what contexts […] consumers expend relatively greater operant resources [in] and on what do they expend them?' (p.98). Furthermore it will provide greater insights into the role of customer's goal-orientated use of operant resources, as 'since customers' life projects/goals are a configuration of operant resources, focus on these operant resources will enable firms to anticipate customers' desired values and help to create value in use' (Arnould et al., 2006, p.93).

2.4 - 'Educating' Customers

One approach in developing customers' context specific knowledge and skills is customer education (Vargo and Lusch, 2004; Payne et al., 2008; Auh et al., 2007; Eisingerich and Bell, 2006). Vargo and Lusch (2008) note the importance of education in value-creation activities as 'the co-creative nature of service directs the firm to increase employees' operant resources—through continual education—to enable innovation and also to continually foster increased customer operant resources to enable them to take advantage of increasing value-creation opportunities through resource integration*' (p.33). Furthermore educating customers is likely to increase co-creation behaviours and participation in those behaviours (Auh et al., 2007).

Education can take many forms depending on the requirements of the customer to acquire knowledge and skills to effectively participate. In some contexts (e.g. airline self-check in; self-service ATMs, smartphone applications), education may involve simple processes in which service providers offer supporting information (Burton, 2002; Lovelock and Young, 1979) and

collaborative resource integration practices at the point of interaction (e.g. on-screen prompts at a supermarket self-checkout or information bubbles on airline on-line booking forms). This helps to provide and/or clarify customers' role expectations, and the knowledge and skills required to effectively realise value from the service. These processes have since become engrained and automated in the customer's consciousness to an extent where these actions require little or no education.

However these approaches are limited to simple, and educational, learning transactions, as prescribed by the firm. As has been noted, customer value is not created and delivered exclusively by the service provider, but is realised from the exchange of resources with other participants in the value network (Vargo et al., 2008; Ballantyne and Varey, 2006; Lusch, 2007). In contexts involving more detailed and often complex learning requirements (e.g. health; computer software; energy saving; technology; Do-It-Yourself), the requirement for learning and participation is greater for the customer (Bitner et al. 1997; Burton, 2002), and may involve learning processes that evolve over time and encompass multiple learning episodes, with multiple service providers. Therefore it is often down to the learner to decide how they make sense of the information acquired and use this to participate in value creating activities.

2.5 - Customer Learning

Customer learning differs from the aforementioned educational perspectives as the latter implies that knowledge is disseminated from the service provider to the customer, with little or no interaction between the two parties (see non-formal learning below). Customer learning on the other hand suggests that the customer takes control of their learning process to create value (Arnould et al., 2006; Payne et al., 2008). In these learning environments, service providers help to support the value generating processes of the customer (Vargo and Lusch, 2008; Grönroos, 2009; Cova and Dali, 2009).

One of the challenges of providing this support is the differential nature of how and why customers acquire and develop their knowledge and skills to participate in value creation activities. To date, generally the literature regarding value creation has not sought to distinguish how customers develop their abilities in order to create value, only the stages of value-creation (e.g. Frow et al., 2010; Payne et al., 2009) (Grönroos, 2011), or how educating the customer mediates role clarity (Auh et al., 2007; Meuter et al., 2005; Dellande et al., 2004), motivation (Meuter et al., 2005; Dellande et al., 2004), and ability (Hennig-Thurau, 2000) in co-creative activities. These studies have generally reflected the role of the service provider (e.g. Frow et al., 2010; Payne et al., 2009), with little attention paid toward the customers seeking alternative resources and support from multiple service providers (Zhao et al., 2008).

While the opportunities presented in Payne et al's (2008) model (Figure 2.1) highlight how and when service providers can interact with the end-user, the roles of customer have not been fully conceptualised (Hibbert et al., 2012; Kleinaltenkamp et al., 2012), as the extant empirical approaches focus on the firms' role in providing these learning opportunities for customers (e.g. Madhavaram and Hunt, 2008; Frow et al., 2010; Zhao et al., 2008). To address this, literature that focuses on adult learning in a range of contexts is presented to conceptualise the learning process of customers and provide grounding for the integration with value creation processes.

The catalysts for developing abilities emerge from both a range of internal factors e.g. motivation (Tough, 1971), cognitive interest or development (Morstain and Smart, 1974), and experiences (Kolb, 1984); and/or external factors e.g. social networks, service providers, and the media (Spear and Mocker, 1984; Candy, 1991; Merriam et al., 2007; Brookfield, 1995; Garrison, 1997). To simplify these factors, Mocker and Spear (1982) proposed four distinct learner/organisational classifications based on the goals and participation requirements of context specific learning: *formal*, *non-formal*, *informal*, and *self-directed*. Although applied to organisational learning, the roles of the organisation and employees are similar to the roles that service providers and customers play when integrating resources (Figure 2.3).

Table 2.3 – Four Types of Learning (adapted from Mocker and Spear, 1982)

Type of Learning	Service Provider	Customer	Example
Formal	Controls both the objective and the process	Passive receiver of information	A university module lecture
Informal	Controls the objective	Controls the process	A student writing an essay
Non-Formal	Controls the learning process	Controls the end objective	A plastering course
Self-Directed	Provides support and information	Controls the objective and the process	Re-designing a room

The notion of formal learning in which service providers control both the learning process and the objective, is often concerned with educational contexts (e.g. schools and universities) and some instances of healthcare. For instance, an individual who is required to lose weight due to a health condition who does not understand the participation and learning requirements in order to gain value and lose weight. In this instance they may adopt a formal learning approach in which a healthcare provider controls the objective i.e. the target weight and the process dietary and exercise plans, regular check-ups, etc. As such this perspective does not lend itself to the notion of learners as creators of value, rather they are understood as recipients. Similarly in informal learning, in which the individual controls the learning process and the service provider controls the objective, the service provider directs the learning but does not support it.

In the majority of learning situations, knowledge is constructed not through formal learning (e.g. the classroom), but via non-formal and complementary learning processes (Tough, 1971; Merriam et al., 2007) such as social learning (Bandura, 1977), trial and error (Cseh et al., 2000), and self-directed learning (Tough, 1971; Knowles, 1975). One of the key characteristics of customer-based contexts is that the customer has a choice of whether they participate in learning or choose, and in most cases pay, for service providers to engage in the process on their behalf (e.g. liposuction, building work, tax returns).

In non-formal learning, these choices rely on contextual conditions and the abilities and characteristics of the learner. For instance, confidence in abilities and knowledge to participate in DIY may not translate to other contexts such as dietary planning. Therefore the learner may adopt the role of a non-formal learner when they attempt to lose weight (e.g. weight-watchers). Alternatively a runner who aims to complete a marathon may approach a running club which offers training regimes, motivational exercises, food plans, and competitions to support their goal. In these non-formal adult education situations, participation rates have been found to be higher than other learning styles especially in community-based learning programs (Hamil-Luker and Uhlenberg, 2002).

When involved in situations in which they need to acquire knowledge and skills, the learner is often unaware of the learning requirements. As such they require support, which lends itself to non-formal and self-directed approaches that emphasise the role of the service provider in supporting the learning process. However these individuals do not just use the information provided by one service provider, they utilise other resources to assist in their learning and this necessitates that they self-direct their learning. In healthcare settings, a patient may seek additional resources such as books, social networks, or online resources to supplement their knowledge prescribed by health-care service providers (Rager, 2003).

2.6 - Self-Directed Learning

As has been discerned, the requirement for developing knowledge and skills in more complex contexts (e.g. health behaviours, DIY, computer usage) is essential for customers to successfully participate and realise value. Engagement in these learning processes is often voluntary and initiated by the individual. Self-directed learning (SDL) (Knowles, 1975), views this as self-regulating and controlling both their objectives and the processes taken to achieve these (Garrison, 1997; Candy, 1991; Brockett and Hiemstra, 1991; Mocker and Spear, 1982). This learning occurs when motivated learners have the primary responsibility for planning, enacting, and evaluating their learning experiences (Guglielmino, 1977; Merriam and Caffarella, 1999). SDL

recognises that learners are required to control and self-regulate their learning (Garrison, 1997), utilising the resources of others to successfully develop knowledge (Confessore and Kops, 1998; Candy, 1991; Garrison, 1997; Ellinger, 2004). This development involves service providers and other network actors who provide operant and operand resources to the individual, who in turn constructs knowledge by controlling and self-regulating their learning approach. In customer contexts the option to engage in self-directed learning offers the opportunity for service providers and other network actors to provide customers with additional knowledge and support, while at the same time interacting and building relationships; a process that is essential to the mutual creation of value for both parties (Ballantyne and Varey, 2006). For instance when redesigning a room for the first time, an individual may seek assistance from service providers (e.g. DIY shops, practitioners) and build knowledge of tips from other resources (e.g. social networks, the internet) to develop plans to participate. In this way, they are self-directing their own learning by controlling the objective and process.

2.6.1 - SDL in the literature

The acknowledgement of the roles of individuals in shaping their own learning process was first proposed by Tough (1971) and confirmed by other scholars (e.g. Peters and Gordon, 1974; Knowles, 1975) who noted that individuals who engaged in learning did so because of their need for 'basic human competence – the ability to learn on one's own' (Knowles, 1975, p.17). Knowles (1975) defined this notion of SDL as:

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

The first models that began to develop the concept of SDL were linear in nature. Studies by Tough (1971), Peters and Gordon (1974), and Knowles

(1975) described how learners progressed through specific stages in order to reach their learning goals. For example Knowles (1975) described six major steps for the self-directed learner: climate setting; diagnosing learning needs; formulating learning goals; identifying human and material resources for learning; choosing and implementing appropriate learning strategies; and evaluating outcomes. These and other studies spawned a number of predominantly descriptive and process orientated investigations in the following years (Merriam, 2001; Clardy, 2000).

Later work saw self-direction materialise as a central aspect of the adult education literature with explanations of theories, concepts, and processes becoming prevalent in the literature (Brookfield, 1985; Candy, 1991; Brockett and Hiemstra, 1991). Although empirical work helped to define the characteristics of self-directed learners, for example their readiness for learning (Guglielmino, 1977), the actual process of learning was relatively under-researched considering the size of the field (Owen 2002; Garrison, 1997), and often ignored the role of other resources and the 'doing' process of learning (Garrison, 1997; Song and Hill, 2007).

This led to SDL being accused of becoming too inwardly focused (Merriam, 2001; Brookfield, 1995) and neglecting the prominent role of social and environmental factors that help to guide and support the individual in the learning process (Mocker and Spear, 1982; Brookfield, 1985; Knowles, 1975). Consequently scholars proposed more interactive approaches to SDL. These perspectives (e.g. Candy, 1991; Brockett and Hiemstra, 1991; Garrison, 1997) built on the foundations set out by Tough (1971), Knowles (1975), and others, and began to query the linear nature of SDL. This body of literature proposed interactive and multidimensional frameworks that focused on the often-disordered processes, characteristics, motivations, and self-regulation of self-directed learners (Merriam et al., 2007; Guglielmino, 1977; Garrison, 1997; Candy, 1991). These frameworks differed from linear models as they recognised the interactive nature of learning, influenced by a range of internal and external factors (Merriam et al., 2007; Candy, 1991) and with processes that did not always follow each other (Bolhuis, 2003; Garrison, 1997).

Furthermore, SDL does not necessitate that learners operate autonomously, as this may limit their capacity for learning as knowledge and the learner's notions of the self are socially and culturally formed (Candy, 1991), and despite often-solitary learning situations, the individual was still connected via relationships with some sort of social group, community, or organisation (Rowland and Volet, 1996). Moreover learners may not possess the 'social ability' (Ruohotie, 2002, p.53) to interpret the correct conclusions from learning episodes and may learn the wrong skills or gain irrelevant information. Instead they use resources to increase their knowledge and skills (Merriam et al., 2007; Confessore and Kops, 1998; Candy, 1991; Garrison, 1997; Ellinger, 2004). For instance, in the context of health care, Rager (2003) found that participants engaged in SDL by networking and sharing information with other patients, family members, and health care professionals, as well as using online resources in order to develop their knowledge and skills. Similarly Valente (2006) found that resources helped to support learner's motivation to engage and participate with others: 'motivation for healthy living begins with making a personal commitment to improving one's health combined with a wide range of other motivators such as an event, friends, mentors, beliefs, culture, and environment' (p.419).

Furthermore, since the proliferation of the internet and online services, this social process is arguably more prevalent in the development of knowledge and skills. The use of online and technological learning resources allows customers to control and increase their abilities due to information richness, choice, and an increased level of control over their learning (Berge, 1999; Song and Hill, 2007; Fuller et al., 2010; Fuchs et al., 2010). Contrasting to the traditional dyad of one-way communications, this offers the flexibility to enable this particular form of learning by allowing users to take on the role of creators of value (Fuller et al., 2010). For instance resources in the form of online delivery may provide information that is relevant to an individual's situation, needs, and behaviours.

The learner is able to watch tutorials on YouTube; compare specifications of a service on providers' websites or via intermediaries such as Amazon; integrate

with other users through communities, blogs, and social networking sites such as Facebook, Twitter, Pinterest, and Instagram. Moreover service providers are able to deliver their services at a lower cost, and to a large number of customers (Meuter et al., 2005; Zhao et al., 2008). As with ATMs these processes are becoming engrained within customer's own knowledge, so much so that in certain situations (e.g. self-check in for low cost airlines, energy saving feedback, online dietary calculators) this is the only option for value to be realised.

2.6.2 - SDL Models

In attempting to conceptualise these interactive practices, both Brockett and Hiemstra (1991) and Garrison (1997) have proposed models that helped to develop an understanding of the internal and external aspects of SDL. Brockett and Hiemstra's (1991) Personal Responsibility Orientation (PRO) model addressed both the process and the characteristics of learners, describing SDL as an interactive activity 'in which a learner assumes primary responsibility for planning, implementing, and evaluating the learning process' (p.24).

The PRO model incorporates external resources as interactive facilitators that assist the SDL process (Fogerson, 2005; Stockdale and Brockett, 2011). The characteristics of the learners are encompassed in learner self-direction, which 'centers on a learner's desire or preference for assuming responsibility for learning' (p.24). This viewpoint sees SDL as 'both the external characteristics of an instructional process and the internal characteristics of the learner'. As Owen (2002) notes, this work is a synthesis of other multidimensional conceptualisations that measured the internal characteristics of learners towards SDL (e.g. Long and Agyekum, 1983; Oddi, 1987; Guglielmino, 1977).

While recognising Brockett and Hiemstra's (1991) model as a genuine attempt to present both the personal attributes and the external processes involved in self-directed learning, Garrison (1997) proposed a framework that involved three developed personal attributes that highlight the SDL process – self-management or *control* of external activities (i.e. the 'doing' aspect of

learning); self-monitoring (i.e. reviewing and feedback); and motivation to participate (Ellinger, 2004; Warr and Bruce, 1995; Song and Hill, 2007) (Figure 2.2). This process differed from the PRO model as it recognised the instructional process as an interactive activity that contributes to the learner's construction of knowledge.

Figure 2.2 – Dimensions of SDL (Garrison, 1997)
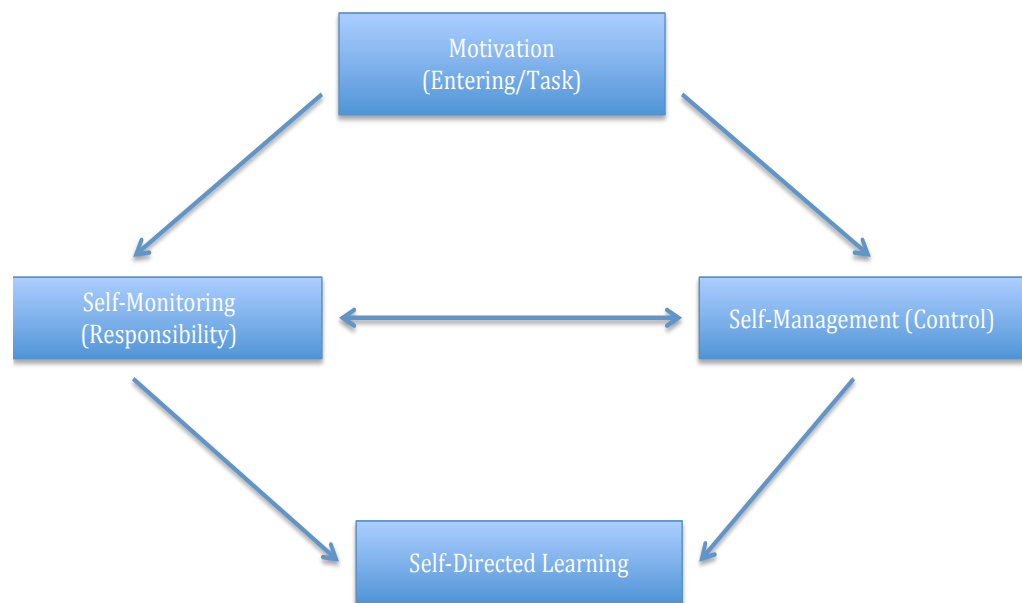
Garrison proposed that this SDL process involved motivated learners constructing knowledge in the self-management of learning, adding to the knowledge by monitoring their learning process in a continuous process. Unlike other perspectives that focus on the readiness of the learner (Guglielmino, 1977). or whether the learner has the characteristics to self-direct their learning (Zimmerman, 1990), this model offered perspectives to explain how and why individuals engage in self-directed learning. Garrison's (1997) model relies on the learner participating in metacognitive control and regulating activities in order to construct knowledge, however often the actual 'doing' (Garrison, 1997) is implicit within the SDL literature, without detailing what actually happens within this knowledge generating process. Even Garrison's work (1993; 1997) is rather ambiguous on the internal aspects of

these processes. These control and regulating aspects are discussed in the following sections.

2.7 - Metacognition

Metacognition refers to "thinking about your thinking" (Flavell, 1979) and comprises the learner's knowledge of, and control over, their cognitions (Flavell, 1979; Schmidt and Ford, 2003; Ford et al., 1998). Schmidt and Ford (2003) propose that in learner controlled environments, metacognition is an essential aspect of learning:

> We contend that metacognition may be particularly critical in learner controlled environments, where little external structure or feedback is given to guide the learner on how to best progress through training. Metacognitive monitoring helps learners make more informed decisions regarding what control strategies to utilize to progress in their learning, which should result in increased acquisition of the targeted knowledge and skills (p.407).

Metacognition can be divided into four broad categories; knowledge, experience, goals, and strategies (Flavell, 1979; Pintrich, 1999). Metacognitive knowledge is encompassed within three control variables (task, personal, and strategic) that allows the learner to comprehend how their involvement and knowledge of the task aids engagement in learning environments (Flavell, 1979; Schmidt and Ford, 2003; Ford et al., 1998; Haynie et al., 2012). *Task knowledge* is knowledge of the task, from previous experiences and existing knowledge, and of oneself as a learner (Flavell, 1987; Haynie et al., 2012). Learners who possess this knowledge are likely to experience higher levels of self-efficacy in their abilities and increased motivation towards the task itself (Schraw and Moshman, 1995). Moreover knowledge of the task enables the use of appropriate learning strategies to increase abilities (Lorch et al., 1993). *Personal knowledge* constitutes knowledge about oneself as a learner, and what factors influence performance (Schraw and Moshman, 1995). This comprises knowledge drawn from related memories, experiences, and emotions that is

employed as a resource to make sense of the task (Flavell, 1979; Haynie et al., 2012). Moreover learners who possess this knowledge are more likely to utilise it to direct new opportunities (Garner, 1987). For example when learning how to use a new weights machine at a gym, an individual may already be familiar with how to set it up to suit their needs based on previous knowledge of similar machines. Related to these two metacognitive knowledge factors is *strategic knowledge*, which is concerned with how learners use appropriate strategies to construct new knowledge from their task and personal knowledge, or look to acquire new knowledge by utilising self-regulatory variables (i.e. planning, monitoring, and regulating).

The other metacognitive processes are incorporated within other learning factors (Flavell, 1979; Pintrich, 1999). Metacognitive experience and goals are motivational factors of learning. Previous experiences influence the self-efficacy of the learner and the goals that they set themselves (Bandura, 1997), as well as the control aspects of learning. Strategies meanwhile are the metacognitive regulatory practices of the learner that allow them to plan, monitor, and evaluate their existing knowledge. Flavell (1979) explains how these metacognitive processes come together in the learning process:

> Let us begin at the point where some self-imposed or externally imposed task or goal is established. Your existing meta-cognitive knowledge concerning this class of goals leads to conscious meta-cognitive experience that this is difficult to achieve. That meta-cognitive experience, combined with additional meta-cognitive knowledge causes you to select and use the cognitive strategy of asking questions of knowledgeable other people. Their answers to your questions trigger additional meta-cognitive experiences about how the endeavor is faring. These experiences, again informed and guided by pertinent meta-cognitive knowledge, instigate the meta-cognitive strategies of surveying all that you have learned to see if it fits together into a coherent whole, if it seems plausible and consistent with your prior knowledge and expectations, and if it provides an avenue to the goal. The survey turns up difficulties on one or more of these points, with consequent activation by meta-

cognitive knowledge and experiences of the same or different cognitive and/or meta-cognitive strategies, and so the interplay continues until the enterprise comes to an end (p.909).

2.8 - Self-Regulation of Learning

A similar, and often misinterpreted (Loyens et al., 2008), approach in the learning literature that utilises metacognition is self-regulated learning (SRL). SRL encompasses many of the same aspects of SDL, as it involves the motivated learner controlling and monitoring their learning throughout the learning process (Loyens et al., 2008). For example Zimmerman (1989) defines students' use of SRL practices as 'the use of specified strategies to achieve academic goals on the basis of self-efficacy perceptions' (p.329). Moreover, as will be discussed in the next section, Bandura's (1986) social cognitive theory posits that behaviour is determined by personal (e.g. cognition and affect), behavioural (e.g. actions), and environmental (e.g. tangible and intangible resources) factors. At its core, self-regulation of learning also encompasses the control the learner has over these factors (Clark and Zimmerman, 1990).

However self-regulation differs from SDL for three reasons. First, SDL focuses on the goal dimension of learning, as opposed to SRL, which is more concerned with action (Bolhuis, 2003) and as a result research on SRL (predominantly in health or academic settings) is more preoccupied with the outcomes of learning and not the learning process itself. Second, SRL assumes that learners are 'metacognitively, motivationally, and behaviorally active participants in their own learning process' (Zimmerman, 1989, p.229). Often this is not the case, as the learner may be reluctant towards learning, participating out of necessity (e.g. to fix a leaking sink themselves due to save money on calling a plumber). Research has shown that these learners often fail or lack the motivation to learn (Zimmerman et al., 1992; Zimmerman, 2000). Third concerns the notion that SRL involves the learner planning and systematically monitoring and adapting their learning (Ruohotie, 2002). If the learner is demotivated, lacks the ability to control the learning environment, or is unsure of the learning process or where to acquire resources, then they may

not be able to effectively plan, monitor, or adapt their learning to achieve their goals. SDL therefore involves some similarities with SRL and will be referred to where relevant in this review, but the two are not interchangeable. SRL does however offer perspectives on the regulation of learning and can be incorporated in the conceptualisation of customer learning for value creation.

2.9 - SDL Constructs

In essence, SDL involves the learner making sense of their own resources and those of others (i.e. available support and assistance for learning) as key dynamics in knowledge construction (Tough, 1971; Knowles, 1975; Garrison, 1993; 1997; Pintrich et al., 1991). This process involves the motivated learner managing (Garrison, 1997; Candy, 1991; Merriam et al., 2007; Brookfield, 1995) and controlling available internal and external resources (Ruohotie, 2002; Garrison, 1993; 1997; Schraw and Moshman, 1995; Vonderwell and Turner, 2005) that support the development of learning (Schraw and Moshman, 1995; Zimmerman et al., 1992; Loyens et al., 2008) and participation in SDL activities (Merriam et al., 2007; Hibbert et al., 2012). Garrison (1997) proposes that this process consists of two interrelated concepts - self-management (control) and self-monitoring (responsibility) that together enable learners to construct personal meaning (Jarvis, 2004; Merriam and Caffarella, 1999; Vonderwell and Turner, 2005). The following section discusses the process of SDL proposed by Garrison (1997), detailing first the motivating factors that learners experience toward the prospect of learning, and then the aforementioned control and monitoring concepts highlighting what learners do within the SDL process.

2.10 - Motivation

Garrison (1997) accentuates that the motivational aspect of SDL consists of two stages: *entering* (cognitive) and *task* (control). Entering motivation concerns the commitment to learning goals and intention to act. Learning goals may be set here dependent on previous experience, knowledge, and support from external resources (e.g. social networks, firms, media). Research in self-

regulating environments has found that the goals (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003), confidence (Bandura, 1997; Zimmerman, 2000), and emotions (Cohen et al., 2008) act as key motivating variables that help to conceptualise the entering motivational processes of SDL.

Task motivation on the other hand concerns the motivation to continue with the learning, reflecting the 'perceived value and anticipated success of learning goals at the time learning is initiated and mediates between context (control) and cognition (responsibility) during the learning process' (Garrison, 1997, p.26). This latter motivating aspect features in the self-management and self-monitoring stage of the SDL process, and draws on social cognitive theory (Bandura, 1977), which purports that learners use self-regulatory processes (e.g. self-efficacy perceptions, goal-setting, self-evaluation, self-monitoring) to effectively regulate their learning (Zimmerman, 1989) and govern motivation and behaviour (Bandura and Wood, 1989; Clardy, 2000).

2.10.1 - Goals

At a fundamental level, individuals are motivated to participate in SDL to realise a variety of learning and performance goals (Tough, 1971; Garrison, 1997; Dweck, 1986). As Ruohotie et al., (2002) note 'motivation to learn is an individual's desire to work towards a learning/development goal. Underlying motives set the tone for, direct, and maintain the learning activity' (p.52). To engage in SDL and develop goals, they must first recognise the need for learning.

This catalyst prompts the formation of goals that are determined by the learner's intrinsic cognitive needs (e.g. to learn a new skill) and/or extrinsic performance requirements (e.g. a leaky sink) (e.g. Dweck, 1986; Hayamizu and Weiner, 1991; Hiemstra, 1994; Ruohotie, 2002; Valle et al., 2003; Ingles et al., 2009). The type of goal, and commitment to this, determines the motivation of the learner when participating in learning environments (Locke and Latham, 2006; Molden and Dweck, 2006). These are influenced by many factors e.g. social relationships; external expectations; social welfare; professional

advancement; escape stimulation; cognitive interest (Morstain and Smart, 1974); or simply a life transition (Aslanian and Brickell, 1980 in Garrison, 1997). Moreover, learners experience a range of external forces that help to shape their goals and help to highlight and provide participation expectations for SDL (Candy, 1991; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975). These include social networks, service providers, and the media (Spear and Mocker, 1984; Candy, 1991; Merriam et al., 2007; Brookfield, 1995; Garrison, 1997).

2.10.2 - Emotions

Emotions that the learner experiences toward the self and the prospect of learning also contribute to their motivation to participate (Garrison, 1997; Richins, 1997; Cohen et al., 2008). These emotions promote or inhibit (Bagozzi and Pieters 1998; Richins, 1997) the learner's goal setting (Cohen et al., 2008; Oatley, 1992), goal pursuit (Bagozzi et al., 1998; Carver et al., 1996), and self-regulation (Pekrun et al., 2002); functioning in 'complex ways to motivate, direct, and regulate actions in the service of goal pursuit' (Bagozzi et al., 1998, p.2).

Emotions have been studied through a range of perspectives including academic learning (Pekrun et al., 2002; Bagozzi and Peters, 1998) and consumption (Richins, 1997), and are generally distinguished negatively or positively (Richins, 1997; Bagozzi et al., 1998; Cohen et al., 2008). These research streams have established that learners who experience positive emotions are more confident learners and better able to adapt in the face of problems or issues (Bagozzi et al., 1998; Bandura, 1994). Moreover they require less support due to their increase in ability to self-monitor and self-manage their learning (Pekrun et al., 2002). Conversely, negative emotions towards learning impact on subsequent engagement as learners who experience negative emotions require more support in their learning (Pekrun et al., 2002).

2.10.3 - Perceived self-efficacy

In addition to goals and emotions, the motivation to participate in SDL is also determined by the learners' experiences, knowledge, and confidence towards context specific SDL (Bandura 1997; Chu and Tsai 2009). Together these concepts inform the learner's *perceived self-efficacy* that they can 'produce designated levels of performance' (Bandura, 1994, p.71). Perceived self-efficacy is not reflective of learner's confidence in realising the overall objective, as they may be confident with some learning tasks but not others. Instead it demonstrates the confidence that learners have in their abilities to participate in the learning environment to realise goals (Bandura, 1994).

The self-regulated learning literature provides key insights that emphasise the key role of perceived self-efficacy in the motivation to learn. Social cognitive theory posits learner's perceived self-efficacy as their 'beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave' (Bandura, 1994, p.71). This encompasses three dimensions: – *level* (how confident the learner feels regarding the forthcoming task) (Bandura, 1994; Zimmerman, 2000), *strength* (successful performance of the task) (Bandura, 1997; Zimmerman, 2000) and *generality* (transferrable skills from one task to another) (Bandura, 1997; Chen et al., 2001). A wide range of studies have focused on the features (Pajares, 1996) and contextual characteristics of the learning task (Bandura, 1997; Zimmerman, 2000; Guglielmino, 1977; Zimmerman et al., 1992; Gutiérrez-Doña et al., 2009; Stockdale and Brockett, 2011).

For instance when investigating student SRL processes, Zimmerman (1989) noted that students with higher levels of self-efficacy had increased motivation for goal setting, and this was a common finding in other research. Furthermore these learners often had an intrinsic interest in controlling and regulating their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011), approaching learning tasks as challenges to be mastered rather than to be avoided (Bandura, 1994). In the face of adverse conditions and setbacks,

learners with higher levels of self-efficacy take measures to correct and overcome these obstacles (Bandura, 1994) using their transferrable knowledge and skills.

On the other hand, learners with low levels of perceived self-efficacy may shy away from tasks in which they are not confident due to a lack of ability, obstacles to participation, or previous experiences (Bandura, 1994). Learners who have low levels of perceived self-efficacy are more likely to require support in the learning process. Such support comes from the operant and operand resources available to the learner that are often essential in supporting the learner's perceived self-efficacy to participate in SDL. Understanding these perspectives of perceived self-efficacy is important as they can identify the need for additional resources that can increase the learner's self-efficacy to participate. Deficits in the learner's abilities to achieve these goals may be rectified in the learning process (Bandura and Wood, 1989; Zimmerman, 1990), strengthening the learner's perceived self-efficacy and increasing further participation (Van Beuningen et al., 2011).

2.11 - Self-Management

When learners participate in SDL, the external task control or self-management that they have over their learning processes enables them to meet their learning or performance goals (Garrison, 1997; Song and Hill, 2007). Self-management concerns the external task control issues by focusing on 'the social and behavioural implementation of learning intentions…(and) the enactment of learning goals and the management of learning resources and support' (Garrison, 1997, p.22). Control over learning does not mean independence, as despite often-solitary learning situations, the learner is still connected via relationships with some sort of social group, community, or organisation (Candy, 1991; Rowland and Volet, 1996) and this is exacerbated by the proliferation of technology. Instead control concerns management strategies that help learners to construct knowledge (Candy, 1991; Merriam et al., 2007; Garrison, 1997; Schraw and Moshman, 1995). This knowledge is socially

constructed as the learner makes 'sense of the perplexing variety and constantly changing texture of their experience' (Candy, 1991, p.255). In these learning environments, self-management is evident where there is an opportunity for sustained communication with resources in the learning process (Garrison, 1997).

Garrison (1993) identified control proficiency (abilities and skills of the involved parties), resources (support and assistance available in the educational setting), and interdependence (social and institutional norms and standards as well as learner integrity and choice) as key dynamics for the effective external self-management of SDL activities. Despite offering conceptualisations of this control process, the learning process is ambiguous, with most of the 'doing' aspect of learning – i.e. the construction of knowledge (Garrison, 1997), implicit in the SDL literature. Furthermore it is difficult to separate the interactive control and monitoring processes of SDL (Garrison, 1997). As Garrison emphasises, 'while in practice self-management cannot be separated from cognitive (self-monitoring) and conative (motivation and volition) control strategies, it is intended to reflect the social setting (resource management) and what leaners do during the learning process' (1997, p.23).

The aforementioned self-regulating literature offers perspectives that help to establish how learners control their metacognitive personal (knowledge of the self), task (knowledge of the task), and strategic (strategies to construct knowledge) types of knowledge (Flavell, 1979; 1987; Schmidt and Ford, 2003; Ford et al., 1998; Haynie et al., 2012) within SDL processes. These forms of knowledge highlight how metacognitive approaches of control and regulation interact in a constant activity with regulatory processes as the learner utilises knowledge of the learning process, the perceptions of their abilities toward the task, the requirement for learning, and the strategies required to achieve this (Flavell, 1987).

2.12 - Self-Monitoring

Garrison's (1997) model emphasises the interaction between the learners' control and external resource management strategies and how they monitor this learning process, with the construction of knowledge developed within this interaction. Learners who participate in SDL activities use metacognitive self-monitoring processes that include planning, monitoring, and evaluating to help assess their level of knowledge and whether they need to add to and/or modify existing socially constructed knowledge (Garrison, 1997; Pintrich, 2000; Song and Hill, 2007; Schraw and Moshman, 1995; Schraw and Dennison, 1994). This is a constant interactive process with the control (self-management) of SDL as the learner makes sense of internal and external resources and plans, and monitors and evaluates these against their SDL goals through 'critical reflection and collaborative confirmation' (Garrison, 1997, p.24).

The learning literature emphasises the three metacognitive approaches that explain the processes of self-monitoring – planning, monitoring, and evaluating (Pintrich, 1999; Haynie et al., 2012; Clark and Zimmerman, 1990). These processes are influenced by the goals of the learner and whether they develop strategies for deep-level processes and seek meaning in the subject matter (Candy, 1991), or surface learning which involves the learner reproducing content made available by resources e.g. social modeling (Zimmerman, 2000) or reproduction (Loyens, et al., 2008).

Self-regulatory planning activities involve learners being motivated by self-efficacy perceptions and emotions toward learning (Zimmerman, 1989), allocating internal and external resources in order to effectively engage in, and control, their learning to reach a desired goal (Ruohotie, 2002). Planning is a key aspect of regulation as it directs how the learner will acquire 'have-to' information that they need in order to participate and construct knowledge. This planning process relies on the selection of appropriate strategies to engage in the learning process (Zimmerman, 1989; Ruohotie, 2002) and incorporates the metacognitive assessment of control factors (i.e. personal, task, and strategic knowledge; available resources). SRL research has identified that

confident learners engage in more planning and metacognitive activities than poor learners (Ruohotie, 2002), setting themselves challenging learning strategies to accomplish these goals (Zimmerman, 1989). Luszczynska et al., (2010) found that individuals with low self-efficacy do not benefit from planning; yet planning and a highly self-efficacious outlook contribute significantly to successful self-regulatory processes (Bandura, 1997).

The SDL literature proposes that learners constantly revisit learning objectives and goals, adapting their self-regulatory processes dependent on their context-specific learning requirements (Merriam et al., 2007; Candy, 1991). This involves monitoring processes that assess and make sense of the resources gained against goals set (Ruohotie, 2002; Haynie et al., 2012) and support the learner in making informed decisions regarding what strategies to use (Haynie et al., 2012). For example when plastering a wall for the first time, a DIY enthusiast may, due to the skills involved, monitor their progress by assessing how smooth the finish is and whether any improvements can be made. As with other self-regulatory undertakings, monitoring activities are often reliant on control processes that act as a mechanism for learners to determine whether any adaptations are required (Ruohotie, 2002). Learners who self-monitor their knowledge may also employ feedback from prior performances to direct new efforts and establish where problems exist, adjusting learning strategies accordingly (Merriam et al., 2007; Schmidt and Ford, 2003; Ruohotie, 2000). Those who are unmotivated to participate do not monitor their learning or adjust their strategies and goals when faced with difficulties in their learning and instead rely on random information regarding performance (Ruohotie, 2000).

Learners evaluate this increase in operant resources against pre-assigned learning goals. These evaluative processes are compared against previous learning attempts or to the resources of others (i.e. feedback). In this process the learner interprets the success or failure of the learning and the reasons behind this (Knowles, 1975; Brockett and Hiemstra, 1991; Candy, 1991). Attributing these successes or failures to particular processes enables the learner to adapt their approaches and find alternative solutions if required. If

the learner determines that they require additional information then they go through the same SDL process. For example a person who is trying to lose weight may, after initial success, be struggling to lose more. They therefore evaluate their existing knowledge and approaches to the task and decide to look online for further tips to help with the weight loss and thus start the SDL process again. Individuals who are strong self-evaluators base these evaluations on clear goals, comparing their learning experience to previous performance or external resources. Those with weaker self-evaluative skills do not compare their learning to previous experiences, but rather to the performance of others only (Ruohotie, 2000).

2.13 - Overview of the Literature

The S-D logic literature identifies that customer value is determined in use and by the customer (Vargo and Lusch, 2004; 2008; Grönroos, 2009). Customers are partly responsible for this value creation, and integrate resources (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2008; Arnould et al., 2006) with other members of the value network to develop their abilities in order to participate in value creating activities. However, the way in which this resource integration facilitates and supports customer's learning in the creation of value is fragmented in the S-D logic literature, despite recent attempts to address this (e.g. Kleinaltenkamp et al., 2012; Hibbert et al., 2012; Arnould et al, 2006). Although studies have addressed this topic (e.g. Zhao et al., 2008), they do so from a firm-centric and value co-creation perspective (Hibbert et al., 2012). Understanding why and how customers develop their skills is important for firms to offer support for their existing customers and potential new ones. For the service provider, a service-orientated approach is proposed as a more definitive source of competitive advantage (Ballantyne and Varey, 2006; Dong et al., 2008) by supporting and improving a customer's capability to create this value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007; Prahalad and Ramaswamy, 2004; Frow et al., 2010).

The adult learning literature, and in particular self-directed learning (Knowles, 1975), offers perspectives to conceptualise this process. Self-directed leaning involves the motivated learner taking control of their goals and learning processes through metacognitive control and regulatory processes (Garrison, 1997), the success of which determines the ability of the learner to participate in tasks (i.e. value activities). Control aspects involve the learner making sense of their metacognitive knowledge constructs (Candy, 1991; Garrison, 1997) as the 'doing' aspect of learning. This is performed in conjunction with regulatory processes that involve the learner planning, monitoring, and evaluating their learning and knowledge development and whether any adaptations are required to ensure that they are ready to participate in the task. Furthermore, they use other individuals and groups to assist in this learning process (Merriam et al., 2007, Candy, 1991; Garrison, 1997). It is in this collaborative learning environment that knowledge is constructed and goals are further defined (Candy, 1991). Moreover, SDL notes that learners participate and develop their abilities in conjunction with external resources (Garrison, 1997; Candy, 1991; Rager, 2003).

To date, however, empirical investigations concerning the external factors of SDL are sparse (e.g. Rager, 2003; Valente, 2006) despite being an integral part of more contemporary models that have sought to conceptualise the internal and external factors of SDL. To date these roles have not been extensively studied, save a few qualitative studies (e.g. Rager, 2003) and then these have focused on organisational learning and health behaviours, with a lack of appreciation for contexts in which customers choose to learn in order to participate and create context-specific value. Furthermore, of these, as with S-D logic literature, the focus has primarily been on learning that is generally defined by the service provider (e.g. health care, education, organisational settings) (Zimmerman, 1989; 1990; Ratwani et al., 2010).

The following conceptualisation chapter utilises these two research streams to develop a conceptual framework that offers insights into the processes of customers when developing their abilities to effectively participate in value creation activities. This addresses the demands in the literature for the

clarification of resources and insights into the motivation and behaviour of resource integrators (Kleinaltenkamp et al., 2012, Hibbert et al., 2012). This framework, based on Garrison's (1997) SDL model, details the customer learning process that facilitates participation in value-creating activities, and the resource integration activities, adding to the emerging literature that seeks to conceptualise this process (e.g. Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Arnould et al., 2006).

Chapter 3 - Conceptualisation

The value creation literature calls for a focus on the roles of customers to progress an understanding of how customers develop their knowledge and skills in order to participate in value-creating activities (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Baron and Harris, 2006; Arnould et al., 2006). Often customers are in control of this process and seek to integrate resources in order to facilitate this learning. The literature review offered adult learning literature and self-directed learning (SDL) (Garrison, 1997; Knowles, 1975; Candy, 1991) as one way in which to understand the processes of customers' development of their abilities, including key motivational and metacognitive factors that help to explain this process.

This chapter draws on these streams of research to propose a conceptual framework, based on Garrison's (1997) model of SDL, which offers explanations to uncover how customers develop their abilities to be able to participate in value creation activities. Understanding how learning resources are used can enable service providers to develop their own offerings that can assist and support their customers in successfully participating in value activities (Hibbert et al., 2012; Payne et al., 2008; Arnould et al., 2006). The proposed Customer Value Learning (CVL) framework offers explanations to the processes of learning and resource integration when customers are required to develop their knowledge and skills in order to effectively participate in value creating opportunities. This framework recognises the motivations of customers to control and regulate their learning and posits learning resource integration as a central factor for customer learning for value creating activities.

First, this chapter details the CVL and its constructs, derived from the S-D logic and learning literature. These motivational, control, and regulatory factors help the customer to develop their knowledge and skills that are facilitated by learning resource integration activities, and that are central to the customer learning process. Following this, the research questions are proposed which seek to determine the learning processes of customers when they are

required to develop their knowledge and skills to enable participation in value creating activities, answering calls in the literature for more focus on the customer to develop a more holistic view of value creation (Kleinaltenkamp et al., 2012; Hibbert et al., 2012).

3.1 - Customer Value Learning Framework

In value creating contexts the customer is often required to develop their knowledge and skills in order to participate in value creating opportunities (Zeithaml et al., 2004; Frow et al., 2010; Van Beuningen et al, 2011; Vargo and Lusch, 2004). They therefore have to be clear about the roles they are required to perform (Kleinaltenkamp et al., 2012; Bitner et al., 1997). In these situations customers have a choice of whether to develop their abilities or to pay for the value to be created on their behalf. For instance, when purchasing a 'Smart' TV or computer from a retail store, a customer might learn how to install the device themselves, or alternatively they may pay the store to install and set up the device on their behalf. Furthermore, in these contexts, customers may also be limited by the options that are available to them and may have no choice but to develop their skills in order to effectively realise the end value. In DIY for instance an individual may not be able to afford the services of tradesmen to install a kitchen or to decorate a room, and instead they set about developing their knowledge and skills to complete the task themselves, reducing the cost of the project.

In order to participate and realise this value and develop their abilities, customers integrate resources (Hennig-Thurau et al., 2010; Arnould et al., 2006) throughout a range of activities with multiple service providers (Hibbert et al., 2012; Payne et al., 2008; Zeithaml et al., 2004; Cova and Dali, 2009; Frow et al., 2010). The effectiveness of these activities is determined by the customer's proficiency in exchanging resources in the value generating process to develop and reinforce knowledge and skills (Arnould et al., 2006; Hibbert et al., 2012). This learning resource integration process involves knowledge generation, sharing and application between involved actors, and supporting and improving a customer's capability to participate and realise value (Arnould

et al., 2006; Baron and Harris, 2008; Hibbert et al., 2012; Vargo and Lusch, 2008; Sheth and Uslay, 2007; Payne et al., 2008; Frow et al., 2010).

Despite the acknowledgement in the literature that emphasises customers as co-creators of value (Vargo and Lusch, 2004; 2008; Frow et al., 2010) and central to the S-D logic perspective (Vargo and Lusch, 2008), customer-orientated research is fragmented in the S-D logic literature (Hibbert et al., 2012; Kleinaltenkamp et al., 2012), despite recent attempts to address this (e.g. Vargo, 2007; Arnould et al, 2006; Baron and Harris, 2008). Studies that have approached this do so from a firm-centric and value co-creation perspective in which firms provide resources to customers (e.g. Madhavaram and Hunt, 2008; Frow et al., 2010; Zhao et al., 2008; Vargo et al., 2008; Maglio and Spohrer, 2008; Meuter et al., 2005; Eisingerich and Bell, 2006; Auh et al., 2007). However, this does not assist in understanding the process of customers in value creation activities (Grönroos, 2011); only their role as a receiver of resources (Hibbert et al., 2012; Baron and Harris, 2008).

Understanding these customer resource integration processes is a key theme in the S-D logic literature. In particular, the research calls for more focus on the roles of customers in creating their own value (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Arnould et al., 2006) to develop a more holistic perspective of S-D logic. From a managerial perspective, an understanding of how customers develop their knowledge and skills can help to facilitate resource integration processes and opportunities for co-creation to support these value-creating activities (Payne et al., 2008; Ballantyne and Varey, 2006; Dong et al., 2008). Furthermore, an appreciation of the customer value process is crucial to the efficiency of the firms' operations, especially in complex service offerings (Ostrom et al., 2010; Vargo, 2011).

Self-directed learning (SDL) (Knowles, 1975) is proposed as one way to develop an understanding of these customer processes (Hibbert et al., 2012), as it offers explanations as to how and why customers develop their knowledge and skills to participate in value creation activities. Approaches to SDL view learning as socially constructed (Candy, 1991; Brookfield, 1985; Garrison,

1997; Mocker and Spear, 1982) as the motivated learner makes sense of information through metacognitive control (i.e. construction of knowledge) and self-regulating activities (i.e. responsibility for constructing knowledge) (Garrison, 1997; Zimmerman, 1989; Bandura, 1997). In contexts where customers are required to participate and develop knowledge and skills in order to create and realise value, customers seek resources that are relevant to their learning preferences (Mocker and Spear, 1982) in order to understand, question, and appraise their roles in the learning processes (Tough, 1971; Merriam et al., 2007).

The conceptual CVL framework, presented in Figure 3.1 below, is grounded by this SDL literature (Garrison, 1997) and details the motivational, control, and regulatory processes of customers, proposing explanations of how customers learn and develop knowledge and skills in order to participate in value creation activities. This framework is not intended to address what value is within this learning process, as value may be achieved throughout the process from participation, learning new skills and knowledge, and/or integrating resources. Instead value is perceived as the end-result that the development of knowledge and skills provides to enable participation in value-realising activities. The following sections detail the constructs that support and guide the customer in building knowledge. Following this, the research questions are proposed that aim to develop the customer value creation literature, in particular the emerging focus of resource integration.

Figure 3.1 – Customer Value Learning (CVL) framework
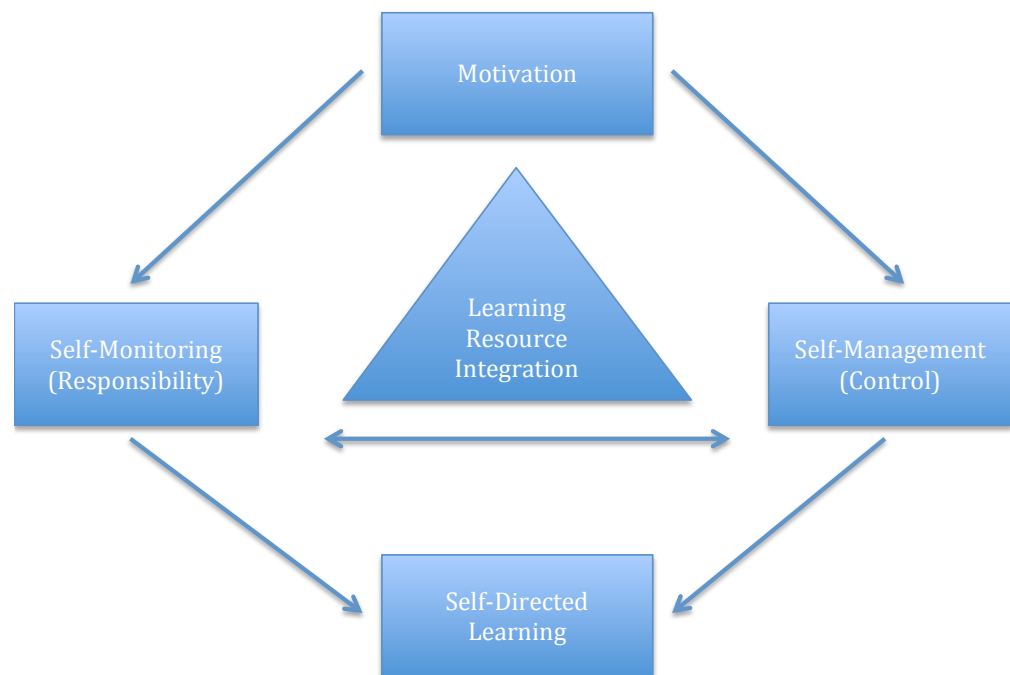
3.2 - Motivation

Initial participation in learning is determined by the ability and motivation of the customer to take control of their learning and the choice about what directions and resources that they use (Garrison, 1997; Merriam et al., 2007; Hiemstra, 1994). Research that focuses on SDL highlights confidence (Zimmerman, 2000), goals (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003), and emotions (Cohen et al., 2008) as key variables in the motivation for entering the learning environment (Garrison, 1997). In this instance 'motivation reflects perceived value and anticipated success of learning goals at the time learning is initiated' (Garrison, 1997, p.26).

3.2.1 - Goals

The motivation to participate in SDL is often to realise goals (Tough, 1971; Garrison, 1997; Dweck, 1986), in particular those that are learning and performance oriented (e.g. Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003; Ingles et al., 2009). Learning goals emerge through cognitive

reasoning such as learning or developing a skill, or increasing existing knowledge in a particular area. Performance goals are formed by the perceived ability of learners (Dweck, 1986; Valle et al., 2003) and their will to succeed (Valle et al., 2003), and concerns the performance needs of participation (e.g. fixing a leaking sink or losing weight). These two goal perspectives are not exclusive concepts, as learning goals help to realise the performance goals of the learner. Furthermore, as learners participate for both performance and cognitive factors (e.g. learning how to fix a leaking tap), the end value is often the same. Learners, whose primary goal is performance, may also experience value in other forms throughout the learning process for instance an increase in self-efficacy (Van Beuningen et al., 2011).

The type of goal, and commitment to this, are influenced by other motivational factors (e.g. self-efficacy, emotions), the existing knowledge and experiences of the learner (discussed in self-management below), and the external resources that they can access to help assist in their learning (Spear and Mocker, 1984; Candy, 1991; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975). Within this process, the learner constructs new knowledge to form and enable the realisation of these goals (Candy, 1991; Garrison, 1997; Locke and Latham, 2006; Molden and Dweck, 2006).

The CVL model perceives goals as either performance-orientated, with learning goals playing a supporting role, or learning-orientated in which customers may choose to develop their existing knowledge and skills without necessarily utilising these skills immediately (e.g. hobbies). The formation of these are supported by other motivational factors of SDL (i.e. emotions and perceived self-efficacy), the existing knowledge of the customer, and the external resources they can access and use (Candy, 1991; Merriam et al., 2007; Brookfield, 1995).

3.2.2 - Emotions

Emotions are the learners' internal feelings towards the self and task (Garrison, 1997; Richins, 1997; Cohen et al., 2008), which promote or inhibit (Bagozzi et

al., 1998; Richins, 1997) goal setting (Cohen et al., 2008; Oatley, 1992) and self-regulation (Pekrun et al., 2002). 'Emotions function in complex ways to motivate, direct, and regulate actions in the service of goal pursuit' (Bagozzi et al., 1998, p.2). Broadly speaking, emotions are distinguished negatively or positively and are dependent on the context of the task requirement (Richins, 1997; Cohen et al., 2008). Positive (e.g. joy, optimism, excitement) and negative (e.g. anger, sadness, fear, and worry) emotions reflect how learners feel towards engaging in SDL.

Due to these influences on the learning process, the CVL framework emphasises that positive and negative emotional perspectives contribute to the motivation of customers to participate in SDL activities. How the customer feels toward this learning process is reflected in the goals that they set and their confidence towards the learning process. Customers who exhibit positive emotions will be more engaged and better self-directed learners (Pekrun et al., 2002) than those who display negative emotions and who as a result may require more support when participating and persisting in SDL activities (Pekrun et al., 2002; Rager, 2003).

3.2.3 - Perceived Self-Efficacy

The self-regulated learning literature highlights that learners are guided by their perceived self-efficacy, or confidence, in 'task-specific performance expectations' (Zimmerman, 2000, p.84) to 'produce designated levels of performance' (Bandura, 1994, p.71). This confidence helps to define and influence goals and motivates participation in learning activities (Zimmerman, 2000; Bandura, 1997; Chu and Tsai, 2009; Zimmerman et al., 1992; Gutiérrez-Doña et al., 2009; Stockdale and Brockett, 2011). Learners with higher levels of perceived self-efficacy towards the learning often have an intrinsic interest in the task (Bandura, 1994), are more likely to control their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011), and may receive added value provided by the learning (Van Beuningen et al., 2011). Moreover, in the face of adverse conditions and setbacks, they take measures to correct and overcome these obstacles, drawing on resources and

adapting their goals in the process (Bandura, 1994).

On the other hand, learners with low levels of perceived self-efficacy shy away from tasks in which they are not confident due to a lack of ability, the obstacles to participation, or previous experiences (Bandura, 1994), and are more likely to require support in the learning process. The acquisition of resources plays an important part in helping to support and increase the learner's self-efficacy towards the learning task. For example using the internet as a resource (e.g. blogs, wikis, fora, video tutorials) allows learners to increase their self-efficacy due to information richness, choice, and an increased level of control over their learning (Berge, 1999; Song and Hill, 2007; Fuller et al., 2010; Fuchs et al., 2010).

Within the motivational construct of the CVL framework, perceived self-efficacy is not reflective of the customer's confidence in realising overall value objectives, as they may be confident with some learning tasks but not others. Instead, it reflects the confidence in customers' perceived abilities to develop learning and/or performance goals (Zimmerman, 1989; Bandura, 1977; 1997; Schunk, 1991) to develop knowledge and skills that help the learner to participate in value creating activities. Any deficits in these abilities are rectified within the learning process (Bandura and Wood, 1989; Zimmerman, 1990) and contribute to increasing the customer's belief that they can participate in value creation activities. The role of resources is essential in this process as they help to support the customer's perceived self-efficacy and to clarify and form expectations of participation. For example an individual who is unconfident in using fitness equipment at a gym may use the assistance of a personal trainer who can alleviate fears and help with learning goals by offering advice, support, and motivation.

3.3 - Self-Management

The nature of participation in customer learning is to increase the ability of the learner to participate in value creating activities (Hibbert et al., 2012). This entails the motivated learner self-managing their learning environment in order

to construct knowledge (Garrison, 1997; Candy, 1991). Knowledge involves personal (e.g. availability of resources or learning environments, tools to do the job), task (e.g. the demands of the task and requirements of learning), and strategy variables (e.g. when and where to use strategies) (Flavell, 1979).

Personal variables are the learner's declarative knowledge of what is known about themselves as learners that may help them to participate in SDL (Schraw, 1998). These involve learners' memories, experiences, and emotions that are employed as resources to make sense of the task (Flavell, 1987; Haynie et al., 2012). In conjunction with this, task knowledge (Haynie et al., 2012) incorporates what is known about the specific task that helps the learner to participate (e.g. previous participation experience, existing knowledge, and resources). The assessment of this knowledge aids the learner to acquire and retrieve resources and, in conjunction with appropriate learning strategies (Haynie et al., 2012), address deficiencies in their existing knowledge and skills (Weinstein and Mayer, 1986; Garrison, 1997; Saperstein et al., 2007; Loyens et al., 2008). The reasoning behind strategy use is determined by the goals of the learner and whether they develop strategies for *deep-level processing* or *surface learning* (Candy, 1991; Loyens et al., 2008). Learners who engage in deep-level processing seek meaning in the subject matter (Candy, 1991) and rely on their ability to construct knowledge and provide an in-depth perspective of the learning requirement. For these learners, the development of knowledge is an essential factor of learning. Surface learning on the other hand involves reproducing the content made available by resources. These strategies, for example social modeling (Zimmerman, 2000) and reproduction (Loyens, et al., 2008), involve simple learning processes that contribute to the successful realisation of performance goals (Dweck, 1986; Valle et al., 2003).

At its core, this self-management process encompasses the control that the learner has over the constant learning interactivity with self-monitoring, as the learner makes sense of resources and assesses them against both learning and performance goals. This control process relies on resources as key dynamics in knowledge construction and effective self-management of learning (Garrison,

1993; 1997; Candy, 1991; Pintrich, 1999). These internal (e.g. existing knowledge of the task, self, and strategy use) and external (e.g. service providers, NGOs, media, and social networks) resources provide and facilitate learning environments to support the learner in constructing knowledge (Candy, 1991; Garrison, 1997; 1993; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975). This is reliant on the learner's motivations for SDL, and the interactions with the metacognitive self-regulatory processes of learning.

The CVL framework proposes that learning does not happen for customers in isolation, they utilise learning resource integration activities to develop knowledge and skills in order to create value, whether this is by following instructions on a website, or searching for supplementary information. Customers control their knowledge and develop their abilities to participate by drawing on their own resources (e.g. knowledge of the task, personal and strategic) and those of involved service providers in order to socially construct knowledge. In this process they assess their knowledge by utilising metacognitive self-regulatory processes (e.g. planning, monitoring, and evaluating) in a constant interactive transaction that enables customers to construct personal meaning from the learning experience (Jarvis, 2004; Ruohotie, 2002).

3.4 - Self-Monitoring

Within SDL, learners use metacognitive self-regulatory processes (Garrison, 1997; Song and Hill, 2007; Schraw and Moshman, 1995; Schraw and Dennison, 1994), to control, manage, and make sense of the knowledge obtained (Weinstein and Mayer, 1986; Dart, 1998). This constant process of interaction with metacognitive control processes enables learners to adapt their strategies and approaches in response to changing learning requirements by utilising metacognitive regulatory planning, monitoring, and evaluative approaches to achieve their goals (Clark and Zimmerman, 1990).

Within self-regulatory planning activities, learners allocate resources in order to effectively engage in, and control, the learning process to reach a desired goal (Ruohotie, 2002). Planning in SDL is context specific (Rager, 2003) and is influenced by the learners' self-efficacy perceptions (Zimmerman, 1989) that involve the assessment of internal (e.g. personal, task, and strategic knowledge) and external resources, and the selection of appropriate strategies to engage (Zimmerman, 1990; Ruohotie, 2002). For example, the self-regulatory learning literature suggests that confident self-directed learners engage in more planning and metacognitive activities than poor learners (Ruohotie, 2002), setting themselves challenging learning strategies to accomplish goals (Bandura, 1997; Zimmerman, 1990). Unconfident learners on the other hand do not benefit from planning activities (Luszczynska et al., 2010), adopting other strategies to learn.

Moreover self-regulatory monitoring activities ensure that the learning process is proceeding in line with expectations. Monitoring involves the learner making sense of internal and external resources against the SDL goals that have been set (Ruohotie, 2002; Haynie et al., 2012) and making informed decisions regarding changes to learning strategies (Haynie et al., 2012). As with these other self-regulatory undertakings, monitoring activities utilise resources to support the assessment of the learning process and ensure goals are being met. These resources provide feedback which act as a mechanism for learners to make any adaptations to the learning (Ruohotie, 2002). Learners who self-monitor their knowledge also use feedback from prior performances to direct new efforts, enabling them to establish where problems exist and adjust learning strategies accordingly (Merriam et al., 2007; Candy, 1991; Garrison, 1997; Schmidt and Ford, 2003). Conversely learners who do not monitor, relying instead on random information regarding performance (Ruohotie, 2002), are often unmotivated to participate or adjust their strategies and goals when faced with difficulties in their learning (Ruohotie, 2002). In this process, the learner interprets success or failure of the learning and the reasons behind this (Knowles, 1975; Brockett and Hiemstra, 1991; Candy, 1991). Attributing these successes or failures to particular processes motivates the learner to adapt their approaches and find alternative solutions if required.

The CVL, drawing on SDL (Garrison, 1997) and self-regulated learning (Ruohotie, 2002) literature, views self-regulatory processes in customer learning involving metacognitive self-regulatory approaches (i.e. planning, monitoring, and evaluation) that interact with resource management strategies within the controlling processes of learning (Garrison, 1997). Strong self-directed learners engage in more planning and more metacognitive activities than poor learners (Ruohotie, 2002). In addition these strong learners are more adaptive to changing circumstances, and evaluate both the learning processes and the outcomes of these processes (Ruohotie, 2002). In unfamiliar contexts customers may plan, monitor, and evaluate their learning processes, using resources and feedback, which they then use to help evaluate their learning. Customers who do not plan or monitor their learning may require the increased assistance from service providers to help with their regulatory activities.

3.5 - Research Questions

In conceptualising the service-dominant literature, questions were raised as to the depth and focus directed towards how customers create value (Kleinaltenkamp et al., 2012; Hibbert et al., 2012). In contexts where customers are required to learn, understanding the processes (how they go about developing their abilities to successfully participate) and resources that customers use to create value is essential (Kleinaltenkamp et al., 2012). Despite a handful of other studies (e.g. Frow et al., 2010; Payne et al., 2009), this perspective, and the accompanying interactions with resources, lacks development in the literature (Hibbert et al., 2012). With the customer placed centrally in S-D logic (Vargo and Lusch, 2008), an understanding of how and why they participate and the resources they draw on to support and develop their learning is essential within more complex value creation contexts (e.g. DIY, computer software, rehabilitation), and therefore an understanding of how their customers learn is an important consideration for firms when supporting value creation activities (Hibbert et al., 2012).

To address the issues raised above, the key questions that guided the study and methods were:

- What are the motivational characteristics of customers who choose to develop their knowledge and skills to participate in value-creation activities?
- By what processes do these customers learn?
- How do learning resource integration activities that are involved in customer learning enable value co-creation?

To answer these questions, this study adapted Garrison's (1997) Dimensions of Self-Directed Learning model and proposed a customer value learning (CVL) framework to conceptualise customer learning, and the resource integration processes, which enable participation in value creation activities. The framework presented in figure 3.1, with the support of learning resource integration activities, exemplifies the learning processes of customers when they are required to develop their knowledge and skills in order to participate in value creation activities. The self-directed learning literature provided constructs to establish why and how customers learn to create value (Hibbert et al., 2012).

This framework proposes that when motivated (influenced by their goals, perceived self-efficacy, and emotions toward the learning), customers go through a constant process of controlling and self-regulating their learning processes (Garrison, 1997) to effectively construct knowledge to effectively participate in value creation opportunities (Hibbert et al., 2012). These self-regulatory behaviours influence the learning process and how learners participate and develop new skills and behaviours in conjunction with external resources (Garrison, 1997; Candy, 1991; Rager, 2003). This relies on the learning resource integration methods of customers in order for them to learn to engage in value creating activities. Customers experience greater access to knowledge and support by utilising these resources (Arnould et al., 2006; Ratwani et al., 2010) as they act as a guide for learning, helping to support the construction of context specific knowledge and skills, and facilitated by unique

experiences and encounters at multiple points of interaction (Prahalad and Ramaswamy, 2004; Payne et al., 2008; Frow et al., 2010).

The following chapter details the mixed-method approaches that helped to empirically test this model and to offer additional insights into the roles of customers when developing their knowledge and skills in order to effectively participate in value creating activities.

Chapter 4 - Research Design and Methodology

The conceptualisation chapter highlighted the requirement to understand the customer value creating processes (Hibbert et al., 2012; Kleinaltenkamp et al., 2012). To engage in these activities, customers are required to be clear about the roles that they are required to perform, and this often involves developing their knowledge and skills to be able to participate in value creating activities (Hibbert et al., 2012). The purpose of this chapter is to identify the research philosophy that helped to elicit a deeper understanding of the aforementioned CVL framework and answer some of the calls in the literature (e.g. Hibbert et al., 2012; Kleinaltenkamp et al., 2012) to adopt a customer perspective and understand the notion of value and exchange. This framework draws from self-directed learning (Garrison, 1997) and service dominant logic literature (Hibbert et al., 2012) to offer explanations as to how customers, as self-directed learners, acquire and integrate knowledge and skills to create and realise value. On the basis of this, the framework aims to address the research questions detailed in the previous chapter, namely:

- What are the motivational characteristics of customers who choose to develop their knowledge and skills to participate in value-creation activities?
- By what processes do these customers learn?
- How do learning resource integration activities that are involved in customer learning enable value co-creation?

To address these research questions, the study adopted an interpretivist paradigm, incorporating a mixed-methods study featuring a multi-scale survey and follow up semi-structured interviews with a range of customers to understand their learning and resource integration processes. By adopting an interpretive approach, the resources customers used in their SDL processes and the how these resources supported the customer and contributed to value creation was emphasised.

The first half of this chapter details the theoretical approach adopted in order to provide an understanding of customer SDL processes. Following this the appreciation of different philosophical perspectives and the epistemological stance of the researcher in relation to the context and research questions are addressed. Finally the chosen context of the study, DIY (Do-It-Yourself) in the home, is described. This is followed by Chapter 5, which focuses on the research design and mixed methodological approach. The second half of the chapter focuses on the metacognitive phase of the model (i.e. control and regulatory processes) and the role of resources in SDL is investigated in more detail through in-depth interviews following the surveys, as the research questions (RQ2 and RQ3) call for a deeper understanding of customer's involvement in their ability to participate in value creating activities.

4.1 - Research Philosophy and Epistemology

Empirical research is 'primarily concerned with rigorously establishing, regulating, and improving the methods of knowledge creation in all fields of intellectual endeavor' (Chia, 2002, p.2). In the social sciences, investigating how knowledge is created necessitates questions relating to what is being investigated, and helps to portray the nature of knowledge or 'truth'. This in turn forms the foundations for understanding individuals' judgments and activities (Somekh and Lewin, 2005) and 'the nature and justification of human knowledge' (Hofer & Pintrich, 1997 p.88).

Within SDL, a range of techniques have been utilised to investigate the learner processes, including in-depth interviews (Rager, 2003), motivation scales (Guillermo, 1977), surveys (e.g. Brockett and Hiemstra, 1991; Stockdale and Brockett, 2011), and hypothesis testing (Cross, 1981). These methods have enabled deeper insights into the complex nature of individual learning. A vast majority of these studies have focused on motivations for engagement, however interpretive techniques have been used to investigate the process. For example Spear and Mocker (1984) used open-ended interviews to elicit responses in order to understand how individuals engaged in learning. From

the responses, they found that planning was not as prominent in the learning projects as linear models in the literature had suggested. It has also been recognised, using interviews, that learning is an interactive process that is influenced by many different factors (Rager, 2003; Roberson and Merriam, 2005). The following sections detail the research positioning (facilitated by mixed-methods data collection and analysis) that reflects how knowledge is constructed in customer learning processes, facilitated by motivation and self-directed practices.

Positioning consists of two overarching perspectives, namely that social reality is objective and observable, or that reality depends on the subjectivity of the individual to come to conclusions about what they have observed (Burrell and Morgan, 1979). Generally epistemological beliefs occur on a continuum from positivism to interpretivism (Walliman, 2006), also categorised as phenomenology vs. positivism (Easterby-Smith, 1991), or naïve realism to naïve relativism (Denzin and Lincoln, 2000; Järvensivu and Törnroos, 2010). The former notions are based on quantifiable work, and the latter positioned to extract data and understanding from qualitative methods. The way in which knowledge is understood is characterised by these methodological approaches to knowledge and these are discussed below in relation to their suitability for eliciting data to answer the research questions.

4.1.1 - Positivism

To the left of the continuum lies a positivist approach, concerned with understanding knowledge and behaviours that govern the real world based on constructing testable theories (Popper, 1968). Researchers adopting this stance view the world and knowledge as quantifiable, with results interpreted from data originating from deductive testing. Observations are 'expected to be neutral and represent no particular interests or purposes; descriptions, likewise, are to be an objective or detached report of what happened' (Pratt, 1998, p.23). In this approach, knowledge of the world is relatively fixed and exists outside the of individual's own perspective as 'traditional positivist philosophies of

science…assume that the social sciences adhere to a single scientific method for the justification of their knowledge claim' (Anderson, 1986, p. 156).

Studies in adult learning focus on these positivist approaches, for instance within formal education programs (Merriam et al., 2007), and academic studies measuring self-directed (Stockdale and Brockett, 2011) and self-regulated (Zimmerman, 1989) learning. This is in part due of the ease of measurement of formal learning (e.g. Houle, 1961; Boshier, 1991) and the influence of the system controlling what is 'counted as adult education' (Merriam et al., 2007 p.74). For instance the Self-Directed Learning Readiness Scale, developed by Guglielmino (1977), used a Likert scale to assess the readiness of individuals to participate and engage in SDL activities. The Oddi Continuing Learning Inventory (OCLI) measures self-directedness as a personality trait with measures such as self-efficacy directing twenty, five-point scales (Oddi, 1987), and the positive changes in personal attributes that increasing self-efficacy brings to health behaviours (Ashford et al., 2010). These approaches can be used to elicit the motivations of learners to engage in SDL, and are well established and documented in the adult learning literature.

4.1.2 - Critical realism/Moderate Constructionism

Critical realism and moderate constructionism lie in the middle of the epistemological continuum. Critical realists (Archer et al., 2013) decipher the construction of knowledge through observational epistemology such as ethnography (Guba & Lincoln, 2000; Järvensivu and Törnroos, 2010). Whereas critical realists use interviews as a 'search-and-discovery' method, eliciting cognitive information from the individual and controlling the process to eliminate bias (Holstein & Gubrium, 1997), moderate constructionists define perceived truth as incorporating data derived from the community (Nightingale & Cromby, 1999; Schwandt, 2000), via social negotiation and interaction (Longino, 2002). These approaches, for example using interviews (e.g. Järvensivu and Törnroos, 2010) to seek in-depth perspectives of how knowledge is formed, enable moderate constructionists to construct knowledge

jointly with the subject within the social encounter of the interview (Holstein & Gubrium, 1997). An interview is not regarded as 'merely a neutral conduit or source of distortion, but is instead a site of, and occasion for, producing reportable knowledge itself' (Holstein and Gubrium, 1997, p.114).

4.1.3 - Interpretivism

Sharing similarities with critical realism and moderate constructionism, a post-positivist interpretivist approach lies at the other end of the epistemological continuum. The post-positivist movement acknowledges the social, complex, irrational, and often unpredictable nature of consumer behaviour, and gives significance to experiential aspects that underpin consumption behaviours (Venkatesh, 1992; Goulding, 1999). Whereas a positivist approach is concerned with discovery, interpretivism attempts to decipher the context through a range of approaches including ethnography, phenomenology, grounded theory, hermeneutics, ethnoscience, discourse analysis, conceptual description, ethnomethodology, thematic analysis, and constructivism (Goulding, 1999), that overlap with regard to the sources of data that are collected.

This data is derived from case studies (Dubois and Gadde, 2002; Järvensivu and Törnroos, 2010), interviews, participant observation, and analysis of documents to help to construct a qualitative narrative (Broadbent and Laughlin, 2008), with the aim of developing an understanding of the 'social phenomena from the actors' own perspectives describing the world as experienced by the subjects, with the assumption that the important reality is what people perceive it to be' (Kvale and Brinkmann, 2009, p.26). Furthermore it is important to adhere to the interpretivist method of choice, as problems occur when these methods are mixed, for instance grounded theory using ethnographic frameworks (Stern, 1994) or when percentages are provided for content analysis. Therefore, and importantly for this study, the ontological assumption of an interpretivist approach is that reality is 'socially constructed, multiple, holistic, contextual' (Tadajewski, 2006, p. 438), and considers learners'

feelings, emotions, attributes, experiences, and values as essential to interpreting and constructing knowledge of reality (Kvale and Brinkmann, 2009).

Interpretive methods have been utilised in SDL research, but the focus has generally been on more positivist approaches. However an interpretive perspective in SDL aims to understand knowledge construction in adult learning and follows two interrelated perspectives; individual and social (Merriam and Caffarella, 1999). T individual approach views learning as an intrinsically cognitive and personal process in which the individual constructs meaning by relying on previous and current knowledge and experiences (Garrison, 1997).

This constructivist perspective of learning is based on the assumption that individuals create knowledge as they attempt to make sense, and construct meaning, from their experiences (Driscoll, 2000; Jonassen et al., 1995; Merriam and Caffarella, 1999; Merriam et al., 2007). This interpretation proposes learning is an intrinsically cognitive and personal process from which meaning is constructed by the learner via knowledge and learning experiences (Garrison, 1997). This perspective is 'particularly compatible with the notion of self-direction, since it emphasizes the combined characteristics of activity inquiry, independence, and individuality in a learning task' (Candy, 1991, p.278), viewing learning as 'a process of constructing meaning; it is how people make sense of their experience' (Merriam and Caffarella, 1999, p.261).

Whilst this offers useful insights into the cognitive processes of the learner, the current research is also concerned with how the external environment, and in particular resources, contribute to the customer's SDL processes. Learning within the social environment is a crucial part of the CVL framework that attempts to understand why and how individuals exchange resources to enable participation in value creating activities, and serves as a key part of interactive SDL perspectives (e.g. Garrison, 1997; Candy, 1991). This perspective views learning as socially constructed through the ongoing interaction with external factors, such as social groups (Berger and Luckmann, 1967). Reality in these

groups differs based on the individual's understanding of their world and their experiences of it (Berger and Luckmann, 1967). These 'social realities, identities and knowledge are created and maintained in interactions, and are culturally, historically, and linguistically influenced' (Cunliffe, 2008, p.201). In this environment, individuals create multiple realities of how they make sense of relationships, interactions, and activities that take place in social contexts (Krauss, 2005; Greene, 2003).

Related to this socially constructed perspective is social constructivism. Similar to social construction, social constructivism seeks to understand how individuals learn from their interactions with others. Social constructivists seek to understand human actions and interactions by understanding the experiences and perspectives of involved actors in a given context, focusing on construction 'as an individual cognitive process influenced by social relationships' (Cunliffe, 2008, p.201). Stemming from the work of Vygotsky (1978), who argued that cognitive learning is formed through relationships, interactions, languages, and culture (Fosnot & Perry, 2005; Krauss, 2005), post-modern constructivists identify learning as inherently social (Candy, 1991; Burr, 2003; Palinscar, 1998).

Learning occurs through interaction with other actors that can offer similar or different experiences and knowledge (Jonassen, 1999; Jonassen et al., 1995; Merriam et al., 2007). As such, social constructivists seek to discern actions and interactions by developing an understanding of the experiences and viewpoints of the actors involved in a given context. This stance determines knowledge construction 'as an individual cognitive process influenced by social relationships' (Cunliffe, 2008, p.201). Learning takes place in dynamic socially and culturally shaped contexts (Palinscar, 1998). Whereas social constructionism is concerned with group dynamics, social constructivism is more concerned with the individual and their learning process within the group (Young and Collin, 2004).

A number of approaches have used a social constructivist perspective to develop an understanding of this social role in individuals' learning processes. For example, socio-cultural theory focuses on the interdependence of social and individual processes in the co-construction of knowledge (John-Steiner & Mahn, 1996), while activity theory involves the learner, task, and mediating object, and is developed with an appreciation of both the individual and social formation of knowledge (Merriam et al., 2007).

As with other perspectives of investigating phenomena, social constructivism involves various approaches, based on the issues being investigated. At one end of this spectrum is trivial constructivism, representing a perspective that views knowledge as accurate representations of the phenomena by seeking meaning. At the other end is a radical constructivist approach that rejects objective knowledge to focus on the exchange with others. The current study falls in the middle of this approach, adopting both an individual perspective to examine cognitive and metacognitive processes, but also an appreciation of the social role of learning, itself crucial to gaining contextual knowledge. By focusing on questions that aim to elicit purposes and roles rather than methods (Greene, 2003), this social approach has formed the basis of the interpretive research (detailed below), allowing the elaboration of customers' experiences and the role of resources in their self-directed learning process. As such, this social influence is a crucial part of the framework and, along with the survey approach set out later in the chapter, attempts to understand why and how motivated customers learn to enable participation in the creation of value.

4.2 - Philosophical Perspective – Positivism and Phenomenology

In the adult learning literature, Cross (1981) identifies four methods that have been employed to investigate learning: in-depth interviews, motivation scales, surveys, and hypothesis testing. These methods set to define customer learning from both an objective (motivation scales, survey, and hypothesis testing) and subjective (in-depth interviews) viewpoint. For the current study, attempting to develop an understanding for SDL via certain positivist methods (e.g. surveys

and hypothesis testing), may not contribute to the depth of insight into the learning process that is required to understand how customers develop their knowledge and skills to participate in value creating activities, as this neglects the learners' perspectives on their learning process. Although the aforementioned studies and methods assist in understanding the motivations and personal attributes of learning, the creation of value and learning processes are not easily measured by survey data, and hence research techniques that can provoke and prompt deeper insights into learning are required. The understanding of SDL offers challenges to researchers, as individuals often participate without realising that they are engaged in learning as it is often embedded in their everyday life (Merriam et al., 2007, p.60), for example searching Google, YouTube, or specialist forums for answers is now a common practice for many (Garcia et al., 2009; Kerka, 1999), even more so due to the proliferation of smartphones and tablets.

Rather than adopt a specific and all-encompassing stance, this research adopts a perspective that views reality as constructed and interpreted subjectively, in and by individuals (Silverman, 2010; Burrell and Morgan, 1979; Rubin and Rubin, 2005). Moreover it subscribes, in the debate surrounding positivism and interpretivism, to the view of Creswell (2003) and others, who suggest that researchers should not focus on the method, but rather on what is being studied, with the first requirement of social science being to commit to the phenomena and not methodological principles (Goulding, 1999; Atkinson and Hammersley, 1995). The study therefore adopts a mixed-methods approach, first by utilising survey data to explore the motivational characteristics of customers, followed by interviews to obtain in-depth accounts of customer learning processes and the resources used to discern everyday activities and experiences in naturalistic settings (Lincoln and Guba, 1985; Denzin, 1971; Gregova, 1996). As such the approach views learning as incorporating a range of learner characteristics (e.g. motivations, self-regulation) and the resources that help to support their SDL.

The positivist aspect of the survey data is based on existing constructs from both the self-directed and the self-regulated learning literature. These constructs are well established and are discussed in more detail in the section below. The aim of this approach was to understand the motives towards participating in learning activities to facilitate the construction of knowledge and skills to enable participation in value creation. An understanding of knowledge constructions is established by the adoption of an interpretive phenomenological approach to the interview data (Thompson et al. 1990; Goulding, 1999), as value that customers seek to realise is phenomenologically defined (Vargo and Lusch, 2004).

'Phenomenology has its own unique characteristics and philosophy, which may be beneficial in terms of theory building based around lived experiences' (Goulding, 2005, p.304). The goal of this approach is to deepen an understanding of immediate experiences (Spiegelberg, 1982), offering a critical reflection of conscious features (Jopling, 1996), with the basic assumption of this approach revolving around a 'socially constructed totality in which experiences interrelate coherently and meaningfully' (Goulding, 2005, p. 302).

The use of this phenomenological approach includes three stages: intentionality, emergent dialogue, and hermeneutic endeavour (Thompson et al., 1990). Intentionality views the conceptual categories as secondary to the experiential ones, as often experiences may be different to prescribed theoretical constructs. Therefore it is important that the methods of understanding experiences are open to change based on emergent dialogue. Hermeneutic endeavours then attempts to relate a part of the text to the whole, with interpretations revised, as more of the text is understood. This interpretation involves reflections of theoretical or existential literature, which are often encompassed within other fields outside of mainstream marketing (Goulding, 1999) and are used to further experiential descriptions and compatibility with the findings of the research, before the synthesis of the data to identify common instances that can provide an understanding of the phenomena and contributing to the development of theory. Morse (1994) notes that this approach incorporates the examination of transcripts to seek instances

that will provide or enhance an understanding of the experience, and 'it is the text that provides the focus for interpretation and the analysts must show where participants' descriptions support the thematic interpretation (and) should be visible and comprehensible to other readers' (Goulding, 1999, p.865).

In adopting a method to approach this (Figure 4.1) (Colaizzi, 1978), seven steps were conducted for the interpretive analysis of the data to develop an understanding of the relationships and interactions between customers and service providers (Kleinaltenkamp et al., 2012), when constructing knowledge and skills to enable participation in value creating activities, which are then further investigated and conceptualised. These are discussed in more detail in the results and analysis chapter (Chapter 5).

Figure 4.1 – Seven Steps to a Phenomenological Approach (Colaizzi, 1978)

(1) Narratives (i.e. interview data) are read to develop an understanding of their experiences.

⬇

(2) The identification of key words and sentences relating to the phenomenon under study.

⬇

(3) Meanings are formulated for significant statements.

⬇

(4) This process is repeated across the rest of the data to identify recurrent themes.

⬇

(5) These themes offer a rich description of the phenomenon.

⬇

(6) Themes are reduced to essential structures that help to explain the experiences of the respondents.

⬇

(7) Finally, the researcher may conduct further interviews in order to cross check interpretation.

4.3 - Context

As highlighted in the literature review, extant studies in SDL focus on a range of different learning contexts, for instance health (Rager, 2003), adult education (Roberson and Merriam, 2005; Lai, 2011), and organisational learning (Ratwani et al., 2010, Ellinger, 2004). However, to address the research questions, a context was required that involved the customer choosing to direct their learning, and that also incorporated a wide-range of customers who all recognised the need for learning in order to participate in value creating activities. Furthermore, as knowledge is socially constructed by the learner in SDL (Mocker and Spear, 1982; Merriam et al., 2007, Garrison, 1997; Candy, 1991), the context should sufficiently facilitate the development of in-depth insights into the processes of learners in SDL, and a wide range of available resources that support the learner to develop their knowledge and skills to participate in value creation. These resources include practitioners, firms, NGOs, the media, friends and family, blogs, social networking sites, forums, smartphone 'apps', online forums, social network, newsgroups, and communities online (Garcia et al., 2009).

Furthermore, Candy (1991) notes that learner's autonomy is context specific as an individual may be a confident self-directed learner in one context, however in another context they may be an informal or formal learner (Spear and Mocker, 1984). This distinction, and the characteristics of the learner, directs the resources that they use and the roles that these resources play in the learning environment. Therefore a context that sufficiently encompassed a range of learning styles that challenged the learner's abilities and required them to learn was selected.

4.4 - Do-It-Yourself in the Home

Individuals have always engaged in do-it-yourself projects within a range of guises, for instance repairing clothes or cars; gardening; programming and modifying computers; exercising; or redesigning and repairing their homes.

DIY encompasses a range of individuals who generally choose to participate and develop their knowledge and skills, receive feedback, educate others, and meet other individuals with similar interests (Kuznetsov and Paulos, 2010). By 'doing it yourself', the individual is required to participate and learn in order to effectively complete the task and realise performance goals. To do this, they must first develop their knowledge and skills in order to understand the participation requirements of the task. They may achieve this by watching a family member or friend complete a project, use Google searches, watch a video on YouTube, buy a book, or they may attempt to teach themselves and learn through trial and error.

The home renovation sector was worth over £2bn in the UK in 2009 with over £8bn in sales (ONS, 2013), and represents a large and competitive market in which a range of customers, with a wide variety of learning approaches and needs, participate and realise value from tasks. In a study of individuals who engaged in various home DIY projects, Kuznetsov and Paulos (2010) found that motivations for engagement included information exchange, receiving feedback, educating others, and meeting other like-minded individuals. Furthermore the emergence of the internet as a tool to facilitate these interactions, for instance via YouTube videos or online websites such as ifixit.com, has enabled individuals to gain more knowledge and undertake DIY projects with the information and support from a range of resources. This resource integration, facilitated by technical resources, is a key feature in the extant literature that calls for more focus on customer value creating processes (Kleinaltenkamp et al., 2012). As such, home DIY was chosen as the context for the present study.

The essence of the current study is to understand how customers develop their knowledge and skills in order to participate in activities in which they can realise value. The research design therefore requires an approach that reflects these requirements. Table 4.1 highlights the research questions and the methodological approaches taken to extrapolate data that could be used to understand these customer value processes. The first research question aims to develop an understanding of the motivational characteristics of customers who

participate in learning environments. This was facilitated by a survey presented in the following sections that define the scale constructs used (i.e. goals, perceived self-efficacy and emotions). Following this the focus is on interviews, and how they are constructed to allow interpretations of the learning processes within the DIY context, in which customers are required to develop their knowledge and skills in order to participate in value activities.

Table 4.1 – Research questions and justification

Research Question	Data Sources and Methods	Justification
What are the motivational characteristics of customers who choose to develop their knowledge and skills to participate in value-creation activities?	Survey of customers who participate in DIY SDL.	Identifies the motivations of customers to learn in order to participate in value-creating activities.
By what processes do these customers learn?	Semi-structured interviews with survey respondents who have agreed to participate.	Understands how customers use their knowledge and self-regulatory processes to participate in learning to create value.
How do learning resource integration activities that are involved in customer learning enable value co-creation?	Semi-structured interviews with survey respondents who have agreed to participate.	Identifies the current perception of service providers and how they support the learning processes of customers within SDL.

4.5 - Survey

As has been highlighted in previous chapters, motivation is a key influence on the SDL processes of learners. Motivation for SDL incorporates the learner's commitment to goals and their intention to act (Garrison, 1997), directed by internal (i.e. perceived self-efficacy and emotions toward the learning) and external (i.e. resource integration) motivational factors (Merriam et al., 2007; Bagozzi and Dholakia, 1999). These external factors are included within the interview questions, as the survey was used to determine the internal motivations of customers to participate in DIY SDL for three primary reasons. Firstly it provided an understanding of customers' motivational characteristics

(i.e. goals, emotions, and perceived self-efficacy) when participating in DIY and helped to address the first research question. Secondly the survey offered an opportunity to contact respondents to participate in follow-up in-depth semi-structured interviews in order to develop a richer understanding of their SDL processes. Finally, in addition to this, the initial survey helped to identify customers at different ends of the learning spectrum and with different motivations which helped with the development of semi-structured interview questions that related specifically to their learning processes (see the interview chapter for more detail on the last two points).

Based on the SDL and SRL motivational literature outlined in previous chapters, the following section includes a scale construction for the survey, and the theoretical customer-based grounding behind item construction that focuses on the initial motivation for customers entering the learning environment (Garrison, 1997). Following this, an overview of the distribution of the survey and the subsequent sample of the respondents is presented. This section and the subsequent quantitative research approach helped to elicit an understanding in relation to the first research question – what motivates customers to engage in SDL?

4.6 - Scale Constructs

The survey was developed from existing learning and motivational literature in order to comprehend the (context specific) motivations for customer learning. Initially, the focus was on the valence of the customer. Valence encompassed the attractiveness and pursuit of learning goals (question one). In conjunction with this, the emotional (affective) state of customers prior to learning was also addressed (question two). Question three focused on the self-efficacy or confidence of the respondent, which influences the goals (Zimmerman et al., 1992; Garrison, 1997) and emotions (Richins, 1997; Pekrun et al., 2002) of customers toward learning. Overall these factors combined to determine a customers' motivation to engage in metacognitive control and regulating practices. Further demographic information was also collected to identify potential patterns of customer DIY motivational preferences.

4.6.1 - Goals

Question one of the survey addressed the personal needs of customers that contributed to their motivation to engage in SDL (Garrison, 1997). Personal needs are the initial goals that individuals set themselves when seeking to engage in SDL activities (Spear and Mocker, 1984). Goals are key components that influence how individuals make use of their knowledge and gain new knowledge and skills (Garrison, 1997; Candy, 1991; Dweck, 1986; Locke and Latham, 2006). In the SDL literature, goals help to determine what strategies learners will adopt depending on the participation requirement of the context. For instance some learners are only required to learn a little in order to participate, whereas others will need more support.

Goal Tendencies Theory (Ingles et al., 2009; Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003) views these goals as direct by learning and/or performance. Learning goals increase competences or the attainment of something new (Dweck, 1986) by participating in the learning environment to realise mastery goal(s) (Dweck, 1986). Learning goals are therefore understood through cognitive motives (e.g. interest) that determine engagement in SDL (Midgley et al., 1998). Performance goals on the other hand focus on the ability (Dweck, 1986; Valle et al., 2003) and will to succeed by increasing skills and knowledge (Valle et al., 2003). In addition learners seek to gain favourable judgements or to avoid unfavourable judgements of their competence (Dweck, 1986). Alongside the performance reasons for engagement, such as a task requirement, these goals are measured by how customers relate their learning process to others, and the need to learn and gain favourable or unfavourable judgements (Ingles et al., 2009). Based on this literature, two goal categories were identified; performance related goals (e.g. to increase value of home; through necessity - wear and tear; for security; time/money saving; helping friends and family; pride), and learning goals (problem solving; learning new skills; cognitive effort; interest).

Over a period of eight years, Midgley et al., (1998) developed and validated a scale that measured student's goal orientations from an achievement

perspective. This scale features questions that approach individual goals and whether they are task orientated, which in self-directed learning to create value meant that they readily engaged in self-directed learning to realise learning goals, or ability orientated in which they engage in self-directing their learning in order to measure themselves against others (performance goals). Whether the customer is motivated by learning new tasks or because of motivation to succeed, avoid negative judgements, or gain favourable judgements, the goals that they set influence their motivation to further participate in the learning environment.

Furthermore, alongside the adaptation of existing scales for measuring these goal orientations, preliminary research conducted by the researcher in the online DIY communities contributed additional goal directed motivations for participation in DIY. As this context is relatively untouched in the literature, these reasons are essential when building a context specific scale. These communities offered reasons why individuals participate in DIY, from both a performance and learning orientated perspective. Factors such as financial gain and time saving were identified as key performance influencers that determined participation. The final questions derived from these approaches are presented below (Table 4.2), and were measured using a twelve item seven-point Likert scale with bipolar statements ranging from strongly agree (7) to strongly disagree (1).

Table 4.2 – Q1 - Motivational goals

Question	Justification/Source
Learning Goals I like learning DIY skills, even if I make a lot of mistakes. An important reason why I do DIY is because I like to learn DIY skills. I like to learn challenging DIY skills that really make me think. An important reason why I learn is because I want to get better at DIY. I learn DIY skills because it interests me. I learn DIY skills because I am good at it. An important reason why I learn DIY skills is enjoyment.	Existing Student Task Goal Orientation scale (Midgley et al., 1998). Learning Goals (Dweck, 1986). Solving a problem (e.g. to fix creaky floorboards) (diynot.com).
I learn DIY skills to save money.	Performance Goals (Valle et al., 2003) Money saving (diydoctor.org.uk; diynot.com). Becoming more environmentally friendly (e.g. installing solar panels or insulation) (diynot.com).
I learn DIY skills to help friends and family outside of my own home.	Ability Goals (Dweck, 1986). Performance Goals (Ingles et al., 2009; Valle et al., 2003).
I learn DIY skills to improve the value of my home.	Performance Goals (Valle et al., 2003). Changing existing structure (e.g. 'I want to have a bedroom light with the normal switch by the door, and then a switch either side of the bed') (diydoctor.org.uk).
I learn DIY skills because of wear and tear to my home.	Infestation (e.g. rats, woodworm)/natural causes (e.g. wind damage, damp) (diydoctor.org.uk)
I learn DIY skills, as it is quicker and easier than calling a professional.	Time saving (diydoctor.org.uk; diynot.com).
I learn DIY skills as it makes me proud.	I feel proud doing it myself (diydoctor.org.uk).

4.6.2 - Emotions

Question two focused on the affective state, or emotions, of learners towards their context specific learning requirements. Affect describes individuals' internal feelings (Cohen et al., 2008) and emotions towards the self and task (Garrison, 1997). Emotions are powerful motivators, promoting goal setting (Cohen et al., 2008; Oatley, 1992), goal pursuit (Bagozzi and Peters, 1998), and self-regulation (Pekrun et al., 2002). 'Emotions function in complex ways to motivate, direct, and regulate actions in the service of goal pursuit' (Bagozzi and Peters, 1998, p.2).

Emotions have been studied in a range of contexts that are relevant to this study, including academic learning (Pekrun et al., 2002; Bagozzi and Peters, 1998) and consumption (Richins, 1997). In the majority of these studies, constructs containing large numbers of emotional items are used. As a result these constructs have been often been criticised for being too broad to represent specific consumption emotions and as such, they differ depending on the context in which they are applied (Richins, 1997). However at a rudimentary level, these emotions are either positive or negative (Bagozzi and Pieters, 1998; Richins, 1997).

However in the context of consumption these positive and negative emotions do not capture 'the nuance, diversity, and patterning of emotions needed to fully understand the nature of the consumption experience' (Richins, 1997, p.15). Richins (1997) examined the emotional states associated with consumption and proposed that the Customer Emotion Set (CES) is more appropriate for measuring emotions related to consumption. Although it has been described as 'somewhat ambiguous (beyond the traditional positive-negative axis)' (Cohen et al., 2008, p.16), it identifies the range of emotions that are most frequently experienced in consumption situations (Table 4.3), and can be taken in its entirety or relevant emotions related to the context can be selectively chosen (Richins, 1997).

As Richins (1997) notes, emotional categories serve as a guide for researchers investigating emotions in customer consumption situations, in this case learning to create value. Rather than focusing on actual or post performance emotions, these items focus on the positive and negative emotions that learners experience before they learn. Consequently some of the items are not included, as they are irrelevant to the current study (Richins, 1997) (e.g. romantic love, loneliness, and shame). Joy, optimism, excitement, and contentment represent positive emotions within this scale, and learners who display higher levels of these emotions were expected to be better self-directed learners (Pekrun et al., 2002). Conversely, customers who experience negative emotions (items represented by anger, sadness, fear, and worry) may require additional support in their learning.

Alongside the emotional categories set out by Richins, (1997), the scale items are also constructed from existing organisational and academic learning literature that understands emotions prior to engagement (Pekrun et al., 2002; Bagozzi and Pieters, 1998). Although this literature often views learning as defined by external factors and service providers (e.g. the organisation, academic institutions), they provide useful insights into the emotions experienced by individuals before they engage in self-directed learning.

Based on the subsections of goals, detailed both in a consumption context (Richins, 1997) and other emotional based literature related to learning (Shaver et al., 1987; Pekrun et al., 2002; Bagozzi and Pieters, 1998), the following 13 item scale (Table 4.3) addresses the concept of emotional tendencies towards participation in SDL. As this initial part of the study is concerned with exploratory data, a 7-point Likert scale is used (rated from 7 – Strongly Agree to 1 – Strongly Disagree) to give more variation in the data and to allow customers to remain neutral (Lewin, 2005). In the final survey the questions are presented in a random order.

Table 4.3 – Q2 – Emotions toward DIY learning

Adapted For Consumer Context Questionnaire (DIY)	The Consumption Emotions Set (Richins, 1997)	Emotional Categories (Shaver et al., 1987; Pekrun et al., 2002)
I feel happy at the prospect of learning DIY skills.	Joy (happy, pleased, joyful).	Joy (enjoyment, satisfaction, pride, excitement).
I feel content at the prospect of learning DIY skills.	Contentment (fulfilled, contented).	NA
I feel irritated at the prospect of learning DIY skills. I feel annoyed at the prospect of learning DIY skills.	Anger (frustrated, angry, irritated).	Anger (irritation, annoyance, dislike, hate).
I feel unhappy at the prospect of learning DIY skills.	Sadness (depressed, sad, miserable).	Sadness (hopelessness, unhappiness, disappointment, dejection).
I feel scared of learning DIY skills.	Fear (scared, afraid, panicky).	Fear (harm, anxiety, worry).
I feel optimistic at the prospect of learning new DIY skills.	Optimism (optimistic, encouraged, hopeful).	NA
I am enthusiastic at the prospect of learning DIY skills. I am excited at the prospect of learning DIY skills.	Excitement (excited, thrilled, enthusiastic).	Encompassed within joy.
I feel nervous at the prospect of learning DIY skills. I feel worried at the prospect of learning DIY skills.	Worry (nervous, worried, tense)	Encompassed within fear.

4.6.3 - Perceived Self-Efficacy

Question three of the survey pertains to the expectancy of the customer that they have the personal characteristics (based on contextual characteristics of DIY) to engage in self-directed learning. Personal characteristics are the

competencies (perceived self-efficacy) of the learner that is conducive to their motivation for learning and engagement in SDL (Zimmerman, 1989). 'Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave' (Bandura, 1994, p.71). In SDL, perceived self-efficacy (i.e. has the learner got the abilities required to realise goals) influences the goals for learning and the self-regulatory processes used in order to realise them (Zimmerman, 1989; 1992; Bandura, 1977; 1997), and the increase in learner's knowledge and skills to participate is partly determined by the belief that they can master and self-regulate learning tasks (Schunk, 1991).

Learners who exhibit high levels of self-efficacy often have an intrinsic interest in the task (Bandura, 1994), are likely to control their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011) and engage in self-regulating behaviours (Zimmerman, 1989), taking measures to correct and overcome obstacles when required (Bandura, 1994). Moreover, learners with high levels of perceived self-efficacy (i.e. confidence in their capabilities), approach tasks as challenges to be mastered rather than avoided (Bandura, 1994), sharing similarities with learning goals (Dweck, 1986; Midgley et al., 1998). On the other hand, individuals with low levels of perceived self-efficacy shy away from tasks in which they are not confident due to a lack of ability, a focus on the obstacles to participation, or previous experiences (Bandura, 1994). When faced with insufficient capabilities, unconfident learners rely on the resources of others to supplement their deficiencies (Baron and Harris, 2008). For instance in DIY, a learner may be unconfident fixing a leaking sink, but the alternative may be a costly repair. So they attempt to fix it themselves, drawing on the support of resources to address shortcomings in their own resources that influence their motivational perceived self-efficacy to participate. This process of resource integration and exchange is further investigated in the next chapter, and some items that seek to understand the interaction of resources for the customer (Arnould et al., 2006; Baron and Harris, 2008) are included in question three of the survey.

Perceived self-efficacy for self-direction in learning is measured by confidence in the abilities and the nature (i.e. the contextual characteristics) of the learning task (Bandura, 1997; Zimmerman, 2000; Zimmerman et al., 1992; Gutiérrez-Doña et al., 2009; Stockdale and Brockett, 2011). These measures focus on the 'task-specific performance expectations' (Zimmerman, 2000, p.84) of the individual (essentially one of the goals that customers set themselves in the valence aspect of entering motivation). It is therefore context specific (Bandura 1997; Chu and Tsai 2009; Zimmerman, 2000) and reflects both the task and the demand on the individual (Pajares, 1996). Likert-type scales are generally used to measure this context specific perceived self-efficacy (Zimmerman, 2000). Stockdale and Brockett (2011) note that the Self-Directed Learning Readiness Scale (SDLRS) (Guglielmino, 1977) is the measurement of choice for the majority of research conducted to assess a learner's readiness for self-directed learning and has been used extensively (see Literature Review).

However in this customer context of DIY, learners are already committed to engage in the process of participating to create value and choose to do so. Whether they are ready or not relies on the strength of their perceived self-efficacy (Zimmerman, 2000) that they can engage in the self-directed learning environment to realise value. The strength of perceived self-efficacy 'is measured by the amount of one's certainty about performing a given task' (Zimmerman, 2000, p.83). From a customer perspective, self-efficacy research in the creation of value is somewhat lacking (McKee et al., 2006). Therefore scale items, drawn from the extant self-efficacy literature (in particular related to self-regulated learning), are used to develop an understanding of the personal characteristics or the self-efficacy of the individual. Self-efficacy in SDL is measured as the perceived ability to participate in new SDL. Previous investigations have adopted questions such as '*I feel confident…*(Liang et al., 2011, p. 770) or '*how well can you…*' (Zimmerman et al., 1992, p. 668). In particular, Zimmerman et al (1992) measured self-efficacy related to self-regulation (covering customer-centric aspects such as planning, participation, and information-seeking) and this offers useful directions for the current scale. This research uses this approach but changes the wording using the 'I feel confident approach' (Liang et al., 2011), as it fits more structurally with the

questions than the other expressions. Furthermore, the scale items are based on social cognitive theory (Bandura, 1997), which sees self-efficacy as encompassing three dimensions: *level*, *strength,* and *generality*.

Level refers to the confidence regarding the forthcoming task (Bandura, 1997). Individuals with higher levels of self-efficacy in this instance set themselves more challenging goals (Bandura, 1997; Zimmerman, 2000). Strength relates to the confidence in the successful performance of the task (Bandura, 1997). Individuals with higher levels of strength self-efficacy are more motivated to participate (Bandura, 1997) and self-regulate learning processes (Zimmerman, 1989). These questions therefore reflect the aspect of self-efficacy that occurs in the latter parts of the model and as such, the strength questions offer an opportunity for further discussion and clarification in the latter interview stage of the study. The third approach (generality) refers to the generalisation of beliefs to other tasks. This perspective has been investigated through General Self-Efficacy (GSE) measures (e.g. Chen et al., 2001). However this dimension is not included in the current scale as the focus of the research is directed towards specific (Zimmerman, 2000) learning (i.e. for DIY) (see Table 4.4). As with the other scales, questioning on perceived self-efficacy is measured on a bipolar 7-point Likert scale with 7 as Very Confident, and 1 as Very unconfident (see Table 4.4).

Table 4.4 - Three Dimensions of Self-Efficacy (Bandura, 1986; 1997)

How confident are you… (Liang et al., 2011)	Three Dimensions of Self-Efficacy (Bandura, 1986; 1997)
in general with your existing DIY skills? in completing DIY tasks on your own? in general about learning new skills for DIY?	Level of Self-Efficacy (Bandura, 1997; Zimmerman, 2000). How confident the individual is toward the task?

when you have learnt new DIY skills, that you can complete the task? in planning your learning for DIY skills? in acquiring additional information or support learning new DIY skills? in overcoming obstacles when learning DIY skills?	Strength of Self-Efficacy (Bandura, 1986; 1997; Zimmerman et al., 1992; Zimmerman, 1989). How confident is the individual toward task performance? (i.e. self-motivation and self-monitoring)
Not applicable, as specific task related learning.	Generality of Self-Efficacy (Bandura, 1997; Chen et al., 2001). Is the self-efficacy general enough to be transferrable to other contexts? (e.g. general self-efficacy).

4.7 - Additional questions and pre-testing

In addition to these three exploratory questions, participants were asked in question four to describe their most difficult DIY task that they had attempted. This question helped to assess the respondents' perceived and actual level of ability and was important in understanding the complexities of tasks. In addition to these questions set out in this chapter, classification questions were included to develop an overall picture of the sample. Understanding individuals' age ranges, homeowner status, and income were essential in developing an overall picture of how and why individuals with different circumstances and motivations engaged in self-directed learning.

The measurement scales were pre-tested to ensure that they offered an explanation of the motivations of customers in developing their knowledge and skills to participate in value creating activities. This testing involved utilising the existing social networks of the researcher in order to establish the scale's validity, and what it offered to further the study. Twelve participants filled in the survey and results indicated that the scales were sufficient, with some adaptation and clarification of the wording, to provide the motivational information required to develop an understanding of participation motivations for engagement in self-directed learning to realise participation in value creating activities.

4.8 - In-Depth Semi-Structured Interviews

The following segment builds on the survey conducted with members of the DIYDoctor online community, to further investigate the learning processes of customers when faced with the requirement to learn in order to realise value. As such it highlights the theoretical approach of adopting in-depth semi-structured interviews to develop an appropriate method to elicit understanding of these activities. This second half of the methodology chapter is structured as follows. First, a summary of the theoretical arguments for the proposed phenomenological approach, based on the discussion earlier in the chapter, is presented. As noted, this viewpoint is an essential part of qualitative research as its positioning helps to determine and shape the method, data collection, and analysis, and uncovers not only the cognitive processes of individuals (and build on the survey results), but also how the social and external environment supports the learning process. Following this is an emphasis on the literature employed to develop rigorous semi-structured interview questions that sufficiently examine the learning processes of customers. The remainder of the chapter offers an overview of the research approach including the ethical considerations adopted and initial investigations.

4.9 - Theoretical Reasoning

A large segment of research on adult education focuses on formal education programs (Merriam et al., 2007; Brookfield, 1995) such as class-based learning and academic studies (Zimmerman, 1989). However, as discussed in previous chapters, self-directed learning for customers is a complex process, incorporating a range of environmental factors that influence it in order to facilitate participation in value creating activities. Learning is often embedded in everyday life (Merriam et al., 2007, p. 60) for instance with the facilitation of technological resources (e.g. smartphones, tablets, 'wearables') – these are often the first stop for information (Garcia et al., 2009; Kerka, 1999). Therefore an appreciation of these complex interactions is essential to provide a greater understanding of customer learning processes.

Interviews are concerned with interpreting the experiences and learning perceptions of the individuals and as such are subjective in nature and defined by the researcher and participants. Qualitative interviewing helps to understand individuals' knowledge, views, experiences, and interpretations which make up the social reality of what is being studied (Mason, 2005). In this case, the focus is on learning and the resources that are used to achieve this, aiding an understanding of 'social phenomena from an actor's perspective, describing the world as experienced by the subjects, with the assumption that the important reality is what people perceive it to be' (Kvale and Brinkmann, 2009 p.26). Studies investigating SDL and SRL have adopted this approach, resulting in additional insights into the process of self-directed learning (e.g. Spear and Mocker, 1984; Rager, 2003; Roberson and Merriam, 2005). Therefore, interviews contribute to the understanding of how and why learners participate in SDL, the roles that they play, and the resources that they use in this process.

In order to facilitate an understanding and elicit phenomenological depth from the interview, a relationship between the interviewer and interviewee is required in order to enable the interviewee to talk more freely, and thus provide more in-depth insights into learning. The investigative interview involves exchanges between the interviewer and interviewee, or conversational partners (Rubin and Rubin, 2005, p.14) and evolves depending on the responses. The term conversational partner is used, as Rubin and Rubin (2005) note this emphasises the cooperation of both interviewer and interviewee and the uniqueness of each individual in contributing to the process. This relationship needs to be flexible in its approach in order to direct the later interview questions. Responsive interviewing is flexible, adaptive, and depends on exchange relationships between conversation partners (Rubin and Rubin, 2005). It focuses on the style of interviewing and self-reflection by the interviewer, with the goal of depth of understanding being facilitated by the flexibility of design. As such the richness and depth of the data is dependent not only on the data collated, but also on the interviewer to guide and shape the interview. The following section details the semi-structured question formation for the interviews based on the theoretical model set out in the conceptualisation chapter.

4.10 - Motivation

Self-directed learning is determined by the ability and motivation of an individual to take control of their learning, and the choice about the directions and resources that they use (Hiemstra, 1994). Various researches that focus on self-directed learners highlight the abilities (Bandura, 1994), confidence (Zimmerman, 2000), goals (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003), and emotions (Cohen et al., 2008) of individuals as key variables in their motivation to participate in learning episodes, and this often adopts a positivist perspective such as the SDLRS (Guglielmino, 1977) and OCLI (Oddi, 1987). The more motivated a learner is, the more cognitive and metacognitive methods are deployed in the learning process (Covington, 2000; Valle et al., 2003).

Garrison (1997) views this motivational process as comprising two stages: entering (cognitive) and task (control). Entering motivation concerns the commitment to learning goals and the intention to act, whereas task motivation involves motivation within the learning environment itself. In the literature review chapter, entering motivation was highlighted as directed by goals (Garrison, 1997; Dweck, 1986). This encompasses learning goals in which the individual participates due to an interest or wanting to learn new skills, and performance goals in which the motivation is a result of the requirements of participation such as repair. In line with the literature, results from the surveys highlighted that individuals, when faced with learning for DIY, were influenced by these goals; that alongside emotions and self-efficacy (or confidence) were key factors that motivated them to participate, and self-direct their learning.

4.10.1 - Goals

Individuals are predominantly motivated to participate in SDL to realise goals (Tough, 1971; Garrison, 1997). The type, and commitment to learning, influence the participation behaviours required to achieve these goals (Locke

and Latham, 2006; Molden and Dweck, 2006). Various learning contexts have highlighted engagement in learning as directed by learning and/or performance-orientated goals (e.g. Ames and Archer, 1988; Hayamizu and Weiner, 1991; Hofmann and Strickland, 1995; Valle et al., 2003; Ingles et al., 2009; Dweck, 1986). Learning goals emerge through cognitive reasoning such as wanting to learn a new skill or increasing existing knowledge in a particular area. To realise these goals, individuals monitor their learning (Butler, 1993), seek feedback (Butler, 1993; Dweck & Leggett, 1988), and use deep-level and surface learning processing strategies (Wolters, 1998).

Performance goals on the other hand stem from a performance requirement, rather than to learn a new skill. Individuals who engage for performance reasons do so because of necessity. They may be required to learn in the current context because of the need to repair a leaky tap for example. Moreover, these goals are influenced by resources (Spear and Mocker, 1984; Aslanian and Brickell, 1980 in Merriam et al., 2007; Houle, 1961) that offer support and highlight the participation requirements for the learning environment (Candy, 1991; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975). For example, when a patient is advised to lose weight on advice from their GP, the doctor's influence on this learning requirement (e.g. recommendations for dietary plans and fitness) contributes to the goals of the individual. As a result of this, and with increased resources, the learner may change their learning goals (Rager, 2003).

The CVL Framework views SDL as comprising individual learning goals, which when combined with other factors (i.e. affective states and self-efficacy), motivate the customer to participate in the learning environment. Within this framework, goals are determined by learning needs (e.g. to learn a new skill), performance requirements (e.g. to fix a leaky sink), and by resources such as social networks, firms and the media (Candy, 1991; Merriam et al., 2007; Brookfield, 1995). In the learning environment, these goals may change as the learner gains and makes sense of additional resources. They may, for example, enjoy a performance task so much that they wish to learn more similar tasks. Furthermore, subsequent learning goals are influenced by the

resources obtained in the self-management process and how these are understood in the self-monitoring process of learning. As such, goals in task motivation are determined by the self-management and self-monitoring of resources gained in the learning environment.

In line with the literature, the results from the preliminary survey confirmed that motivation for engaging in learning DIY skills was determined in part by their learning and performance goals. Questions therefore reflect how mastery and performance goals and resources in the learning environment influence the goal orientations of the customer.

Table 4.5 – Performance and learning goals questions

Questions	Sources
Performance/Learning Goals Why did you decide to learn this skill? Why were you interested in gaining this skill?	Ames and Archer, 1988; Hayamizu and Weiner, 1991; Hofmann and Strickland, 1995; Valle et al., 2003; Ingles et al., 2009; Dweck, 1986
Resources What, if anything, influenced your decision to learn this skill?	Spear and Mocker, 1984; Aslanian and Brickell, 1980 in Merriam et al., 2007; Houle, 1961.

4.10.2 - Emotions

SDL research has highlighted the emotions that learners experience towards the task influence the motivation to participate (Garrison, 1997; Richins, 1997; Cohen et al., 2008). These emotions promote or inhibit individuals' goal setting (Bagozzi and Pieters, 1998; Richins, 1997; Cohen et al., 2008; Oatley, 1992), goal pursuit (Bagozzi and Pieters, 1998; Carver et al., 1996), and self-regulation (Pekrun et al., 2002; Bagozzi and Pieters, 1998). From a task perspective, emotions relating to the learning environment or resources can be considered extrinsic emotions, whereas cognitive intrinsic emotions such as task-related enjoyment relate to how the individual makes sense of their learning (Pekrun, 1998). These emotions help to direct motivation for the learning and engage in tasks, facilitating learning, and performance (Pekrun et

al., 2002).

Broadly speaking these emotions are distinguished negatively or positively and are dependent on the context of the task's requirement (Richins, 1997; Cohen et al., 2008). The survey questions addressed the emotions that are required to participate in SDL, and these were further investigated during the interviews. However, emotions also occur within the task, as the learner seeks to develop knowledge and skills. In studying emotions in academic learning, Pekrun et al., (2002) proposed that task emotions consisted of positive activating emotions (e.g. enjoyment, hope for success, pride), positive deactivating emotions (e.g., relief, relaxation, contentment), negative activating emotions (e.g. anger, anxiety, shame) and negative deactivating emotions (e.g., boredom, hopelessness).

Individuals who experience positive task emotions are more confident in the task and in the face of problems or issues (Bandura, 1994). Pekrun et al., (2002) found that these individuals required less support due to their increase in ability to self-monitor and self-manage their learning, and supported the use of flexible and creative learning strategies and metacognitive monitoring. Consequently individuals who display higher levels of positive emotions are expected to be better self-directed learners (Pekrun et al., 2002). Alternatively negative emotions towards the learning requirement impacts on subsequent engagement and may lead to a lack of persistence to continue in the learning process (Rager, 2003), more 'rigid' learning strategies, and the requirement of more support for their learning (Pekrun et al., 2002). As with goal formation and self-efficacy, this support comes from resources that the individual draw upon which influences their emotions within the learning environment.

Table 4.6 – Task emotion questions

Questions	Source
Positive/Negative activating emotions How did you feel when you realised that you had to learn a new skill?	Pekrun et al., 2002; Bagozzi and Pieters, 1998.

Positive/Negative deactivating emotions	
How did you feel after you had learnt the skill?	Pekrun et al., 2002; Rager, 2003.
How did you feel about completing the task?	

4.10.3 - Self-Efficacy

As individuals engage in learning processes, not only do they build skills and knowledge toward goals, they may also receive added value from increases in self-efficacy (Van Beuningen et al., 2011). This increase in self-efficacy can help to redefine goals and influence motivation in learning environments (Bandura, 1977; 1997; Chu and Tsai 2009; Zimmerman, 1989; 2000; Zimmerman et al, 1992; Schunk, 1991). Support for this comes from the operant and operand resources available to the customer (Baron and Harris, 2008). By engaging with these multiple resources they find support for their learning which influences their self-efficacy towards the learning task. For example, a customer who is unconfident in using fitness equipment at a gym may use the assistance of a personal trainer. This trainer can alleviate fears and support the goals of the individual by offering advice, support, and motivation. In addition the gym user may search the internet as a resource (e.g. blogs, wikis, video tutorials) increasing their strength of self-efficacy due to information richness, choice, and an increased level of control over their learning (Berge, 1999; Song and Hill, 2007; Fuller et al., 2010; Fuchs et al., 2010). This process of resource integration increases their perceived self-efficacy towards the learning requirement and as such influences their motivation to participate.

Understanding how customers' self-efficacy is impacted by their experiences and resources gained in SDL is essential to developing a perspective of the motivating factors *within* the learning environment. Questions based on the strength of an individual's self-efficacy towards the learning task encompass the support that they receive from resources, and the confidence that they experience in the learning environment. This confidence impacts on the learning attempts and goals of an individual as they participate in these

learning processes. Hence the questions relating to self-efficacy seek to understand how individuals gain and use resources in relation to increasing their self-efficacy to contribute and engage in the learning environment.

Table 4.7 – Self-efficacy questions

Questions	Sources
How confident were you that you could learn the skill? Why?	Bandura, 1977; 1997;
Did you have previous knowledge of this task or similar?	Chu and Tsai 2009;
Would you feel confident in attempting a similar task that involved additional learning in the future?	Zimmerman, 1989; 2000; Zimmerman et al, 1992;
How confident are you about learning new skills in general (i.e. outside of DIY).	Schunk, 1986.

4.11 - Self-Management (Metacognitive Knowledge)

The nature of participating in self-directed learning is to acquire, construct, and develop (operand and operant) resources to enable effective contribution in SDL (Tough, 1971; Knowles, 1975; Garrison, 1993; Hibbert et al., 2012). The CVL Framework posits that when motivated to learn in order to create value, customers participate in SDL to acquire, construct, and develop processes that enable effective participation (Tough, 1971; Knowles, 1975; Garrison, 1993; Hibbert et al., 2012). These processes are determined by the learner's personal and task knowledge (Flavell, 1979) and how the learner makes sense of this (strategic knowledge) (Garrison, 1997; Schraw and Dennison, 1994).

When the learner experiences a deficit in these knowledge factors, they search for and utilise operant and operand resources of service providers (e.g. social networks, NGOs, media, specialists) to support their learning requirements (Garrison, 1997; Hibbert et al., 2012). Self-directed learners do not operate autonomously (Knowles, 1975; Candy, 1991), but draw upon a range of relevant operant and operand resources from involved network actors (e.g. service providers, NGOs, media, and social networks) to support their knowledge requirements (Garrison, 1997; Hibbert et al., 2012). This process is

facilitated by metacognitive strategic knowledge (Schraw and Moshman, 1995) in which the learner manages (Candy, 1991; McGregor, 2005; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975) and controls available resources (Ruohotie, 2002; Garrison, 1997; Schraw and Moshman, 1995; Vonderwell and Turner, 2005) in order to develop their knowledge and skills (Merriam et al., 2007; Hibbert et al., 2012).

This process is facilitated by deep-level processing or surface learning (Candy, 1991; Loyens et al., 2008) strategies (Schraw and Moshman, 1995), in which the learner manages (Candy, 1991; McGregor, 2005; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975) and controls available resources (Ruohotie, 2002; Garrison, 1997; Schraw and Moshman, 1995; Vonderwell and Turner, 2005) in order to gain skills and knowledge to participate in SDL (Merriam et al., 2007; Hibbert et al., 2012). Learners use these metacognitive strategies, and engage in SDL, to address deficiencies in their resources by attending to and retrieving further resources to support knowledge construction (Weinstein and Mayer, 1986; Garrison, 1997; Saperstein et al., 2007). These strategies are dependent on the goals of the learners and are facilitated by learning activities such as listening, watching, touching, or experiencing, that support the development of knowledge (Schraw and Moshman, 1995). The effectiveness of this resource use is determined by the customer's proficiency in exchanging and managing resources to develop and reinforce existing operant resources (Hibbert et al., 2012). This is a constant activity, involving cognitive and meta-cognitive self-monitoring processes, which see the individual make sense of the resources obtained (measured against both learning and value goals).

Questions concerning metacognitive knowledge focus on how the customer self-manages their personal knowledge and their knowledge of the task in order to participate. Furthermore, questions focus on the role of resources and how customers draw on these in order to make sense of the learning and address any deficits in their existing knowledge. In DIY learning environments, these questions will help to determine how customers self-manage their learning. In addition, the understanding of learning resource integration processes will develop an appreciation of how they supplement and increase their knowledge

and skills to participate in value creating activities. An appreciation of this can enable service providers to develop resources to assist and support customers' learning processes (Payne et al., 2009; Arnould et al., 2006). For instance a learner may be experienced at DIY, but unsure of the task requirements. They may then use their personal knowledge of similar tasks, plus their strategic knowledge of where to find appropriate resources, to help construct task-related knowledge. Alternatively a learner may have experienced the task previously, but may need to develop their strategies after an unsuccessful first attempt. They then approach resources to help with their strategy and find alternative ways in which to carry out the task successfully.

Table 4.8 – Metacognitive knowledge questions

Questions	Sources
Task Knowledge Did you have any previous knowledge of the task? What did you learn about the task beforehand?	Garrison, 1997; Ruohotie, 2002; Knowles, 1975 Candy, 1991; McGregor, 2005; Merriam et al., 2007; Brookfield, 1995; Ruohotie, 2002; Schraw and Moshman, 1995; Vonderwell and Turner, 2005.
Personal Knowledge Were there any related skills that you could use? Did you ask any clarifying questions?	
Strategic Knowledge How easy was it getting any help or support that you needed? Who did you consult and why? Were there differences in opinions? How did you know/decide which one to use?	

4.12 - Self-Monitoring

In conjunction with metacognitive knowledge (of the task, their abilities, and strategy use), learners use metacognitive self-regulatory processes in order to make sense of their learning experiences. Metacognitive regulation is widely accepted as encompassing the ability to plan, evaluate, and monitor learning processes (Zimmerman, 1989; Ruohotie, 2002; Candy, 1991; Merriam et al.,

2007; Garrison, 1997). Planning activities involve learners assessing their abilities (e.g. knowledge, skills), goals, and available resources, and selecting appropriate cognitive learning strategies to develop knowledge and skills (Zimmerman, 1989; Ruohotie, 2002). This regulatory approach occurs throughout the SDL process, from before task engagement to reacting to learning situations that they encounter (Rager, 2003). These approaches may involve the learner using their own knowledge, for instance drawing plans to aid with task progression. Alternatively they may look for the resources of others in order to plan, for example buying ready-made plans from specialists to support their value creating experiences.

The ability to self-monitor knowledge acquisition aids the learner in ensuring that the development of their abilities is proceeding in line with expectations drawn from their metacognitive knowledge. Monitoring involves the learner assessing and making sense of the resources gained against the goals set and integrating them with prior knowledge (Ruohotie, 2002; Haynie et al., 2012), supporting informed decisions regarding what strategies to use (Haynie et al., 2012). Feedback from prior performance directs new efforts, and enables the learner to make sense of knowledge acquisition and whether any adaptations to strategies or learning goals are required (Ruohotie, 2002; Merriam et al., 2007; Candy, 1991; Garrison, 1997). Learners who self-monitor their knowledge use feedback to determine where problems exist and adjust learning strategies accordingly (Schmidt and Ford, 2003; Ruohotie, 2000). A poor learner (i.e. one who does not possess the self-efficacy and/or motivation) does not monitor his or her learning; instead relying on random information regarding performance (Ruohotie, 2000).

Furthermore, as with other self-regulatory processes, these monitoring activities are often reliant on resources to help with assessment, and to ensure that learning goals are being met. When individuals obtain these resources they evaluate these against pre-assigned learning goals, previous learning attempts, or to the resources of others (i.e. feedback). Within this evaluation, the learner interprets success or failure on their pre-assigned goals, and if possible, the reasons behind this (Knowles, 1975; Brockett and Hiemstra, 1991; Candy,

1991). This evaluation process enables the adaptation of approaches and identification of alternative solutions if required. Individuals who are strong self-evaluators base their evaluations on clear goals, comparing learning to previous performance or external resources. Those with weaker self-evaluative skills do not compare their learning to previous experiences, but rather to the performance of others (Ruohotie, 2002).

Questions that seek to assess the role of self-monitoring within the self-directed learning model are centred on the metacognitive regulation processes described above. In line with SDL and SRL literature (e.g. Zimmerman, 2000; Bandura, 1997; Candy, 1991), the CVL Framework views the self-monitoring stage of learning as a constant interaction of customer's metacognitive knowledge (personal, task, and strategy), and the influence that it has on the metacognitive regulation of the learning (planning, monitoring, and evaluation). These two metacognitive processes contribute to the construction of knowledge when assessing and making sense of existing and acquired resources. As such, questioning regarding self-monitoring focuses on the metacognitive regulatory processes of the individual when engaging in SDL, and how they utilised learning resource integration activities to support this.

Table 4.9 – Self-monitoring questions

Questions	Sources
Planning Did you plan your approach to learning? If so, how?	Zimmerman, 1989; Garrison, 1997; Ruohotie, 2002; Rager, 2003
Monitoring What did you do to monitor your progress? What problems did you encounter? Did this make you change your plans? How did you know that what you were learning was correct?	Garrison, 1997; Ruohotie, 2002; Haynie et al., 2012; Merriam et al., 2007; Candy, 1991; Schmidt and Ford, 2003.
Evaluating How did you feel regarding the learning experience? Would you have done anything differently?	Garrison, 1997; Brockett and Hiemstra, 1991; Ruohotie, 2002; Candy, 1991

4.13 - Ethical Considerations and Initial Approach

As with any study that deals with individuals, a certain degree of caution is required to ensure that the study does not compromise the ethical integrity of the participants. These ethics have guided the study to ensure that the research not only protected the participants from harm, but also to ensure that the research followed the guidelines set out in the literature for valid and ethically sound empirical work. Although there has been criticism over a set of rules for researcher ethics (Korac-Kakabadse et al., 2002), a few general perspectives are essential to the current research approach due to its mixed methodological approaches. These approaches and the ethical considerations are discussed below.

This study uses the UK's Economic Social Research Councils' (ESRC) ethical guidelines and similar themes from the literature (e.g. Kvale and Brinkman, 2009; Silverman, 2001; 2010; Kent, 1996) to define the steps taken to ensure these ethical considerations within the empirical work. These incorporate the UK Data Protection Act (1988), which states that in order to protect participants and any potential sensitive or identifiable documents, data collected must be obtained and relevant for a purpose, must not be kept longer than essential, and must be kept safe from unauthorised access. These points formed the foundation of the ethical appreciations for the survey and interviews and are detailed in Table 4.10 below.

Table 4.10 - Ethical research guidelines (adapted from ESRC, 2005)

Procedure	Relevance to Methodological Approach
Research should be designed, reviewed and undertaken to ensure integrity, quality, and transparency.	Participants were explained the objectives of the study and the interview process. They were offered the opportunity to review the interview transcripts and the conclusions drawn from them.

Research staff and participants must normally be informed fully about the purpose, methods, and intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved.	An information sheet was emailed to participants explaining the study and the requirements of the participants. It also confirmed that the participant's identities would remain anonymous, and all data would be securely kept. They were also informed of their right to withdraw from the study at any time.

In line with these ethical considerations, the first stage of the interview process, which was a key focus of the ethical approach due to the information acquired, involved contacting a sub-sample of customers that were identified from the two motivational groups that emerged from the survey results (see chapter 5). Participants who had completed the survey, and indicated a willingness to participate in further interviews, were contacted using the telephone numbers provided in the survey to gain consent and arrange a suitable time to conduct the telephone interviews.

Gaining this informed consent ensured that the interviewees were aware of the research objectives, confidentially process, how they would help to contribute to the study (Kvale and Brinkmann, 2009), the main features of the design plus any risks, or benefits, that may occur from participation (Silverman, 2010). The participants were also offered the opportunity to view the consequences of the research and results. Participants were notified of their right to review and omit any of these transcripts from the final study, if upon discussion they did not feel as though it represented their learning experiences. This ensured not only the anonymity of the interviewee, but also led to better descriptions of the process by providing the opportunity for implied meaning. Furthermore they were advised that they could withdraw at any time during the interview or subsequent analysis (Silverman, 2010). Contact details were provided for respondents if this scenario occurred. The consequences of this approach ensured that the interviewee was shielded from harm from any publication details and identifiable links to the study. By not exposing or identifying the individual (except pseudonyms where applicable) the potential for harm was reduced.

Finally the role of the researcher and how they influence the interview was addressed. As with any type of interaction, the way in which the participants and the interviewer interact is crucial to the development of valid data that leads to theoretical contributions. In order to facilitate understanding and elicit depth in the interview, a relationship between the conversational partners needed to be developed in order to help the interviewee to talk more freely (Rubin and Rubin, 2005), and thus provide more in-depth insights into learning. This relationship is required to be flexible in its approach in order to direct and adapt phenomenological perspectives in response to the relationships between conversational partners (Rubin and Rubin, 2005). Furthermore, focusing on the style of interviewing and self-reflection by the interviewer, with the goal of depth of understanding facilitated by the flexibility of design, added to the richness and depth of the data.

4.14 - Survey Distribution Process

The purpose of the survey was twofold. In the first instance it was to gain an understanding of the motivations of individuals to participate in SDL in order to develop knowledge and skills to participate in value-creating activities. Importantly this context is one in which customers have the choice to learn, and are motivated by a range of factors such as goals, emotions, resources, and personal and contextual characteristics (Garrison, 1997). The second objective was to identify respondents who, with their consent, were able to offer additional explanations of their learning experiences in order to define the customer learning process that contributed to enabling participation in value creation. This is covered in more detail in the qualitative section of the study.

Before the survey was distributed, testing took place with sixteen SDL learners in the author's social circles to 'assess both individual questions and how the measurement tools functions' (May, 2011, p.107). This enabled adjustments to the survey to be made, and feedback relating to the structure and questions enabled a tighter question structure and wording and easier to complete and navigate (May, 2011). These adjustments included some of the wording used in

the constructs and the order in which they appeared. This latter point was important to encourage thoughtful answers. Participation in the interviews was voluntary, however to boost the number of participants and acquire a wider range of learning processes, those that were contacted were offered the chance to win DIY vouchers in a prize draw. Again pre-testing of the interpretive research was conducted with three of the author's social network. This testing focused on questions, and probed the interviewees to help work out strategies for the actual interviews with the DIY participants. Furthermore this offered the opportunity to ensure that the questions were logical, with an informal structure in place.

4.14.1 - Profile of Sample

To address the research questions defined in the previous chapter, a sample of DIY customers was required that offered the opportunity to investigate their motivations toward self-directing their learning in a customer context. Rather than attempting to generalise explanations of behaviour for a population (Lewin, 2005), the sample employed here deals with complex and personal issues that attempt to explain why individuals self-direct their learning to create value. As highlighted in the literature review, in customer-learning environments individuals have the choice of whether or not to engage in the self-directed learning process. Within this contextual perspective, DIY is accessible to all individuals and can involve simple learning tasks (for example what paint to use) and more complex tasks (such as installing a new kitchen). Determining the complexity of these tasks depends on the self-efficacy of the customer (e.g. previous experiences) and how confident they are in the learning situation (Bandura, 1997).

Hence the sample for the survey adopted purposive sampling aimed at individuals who are engaging in DIY activities or have engaged in the past. This method of sampling was chosen, as the customers to be studied are required to be involved in the DIY process. Furthermore, this context encompasses a wide range of learning abilities (e.g. experts, novices) that offer

the opportunity to understand different learning approaches and requirements. Whether it involves complex or simple learning processes, DIY encompasses a wide range of available resources that support different levels of learning abilities and in different environments. These resources include, but are not limited to, specialist retailers (e.g. Wickes, B&Q, Homebase); further education or evening classes; online communities, forums and tutorials (e.g. YouTube); and social networks including friends, family, work colleagues, and online social networking.

4.14.2 - Online Communities

The aim for the finalised survey was to distribute it to a wide range of relevant participants to establish motivational tendencies towards participation in SDL, and to provide opportunities for later semi-structured interviews with a sub-sample of these respondents. Online communities were chosen as a recruitment environment for this study, as they represented a vast and mixed-ability customer base, that involved multiple interactions and feedback from a range of abilities, from novices to experts, and who were involved in exchanging resources with one another to develop knowledge and skills. The DIY sector contains many of these communities and forums, which offer support, related products, and services in addition to the forum pages. An amalgamation of searches for online DIY communities (obtained from the top ten listed on three major search engines) and a list of potential communities and their features, were assessed against the requirements previously defined. To reduce the number of these sites, forums and communities that did not contain an in-depth forum (i.e. lacking topics, posts, and members), were not updated regularly, or were not UK based, were omitted from the final list. This left three sites and forums (ultimatehandyman.co.uk, diydoctor.org.uk, and diynot.com) that represented the most relevant interactive UK-based DIY communities, and had the depth and resources required for the empirical study. Furthermore, an analysis of these communities and their topics helped to corroborate some of the scale items used in question one, for instance financial and wear and tear, and problem solving.

These website hosts were contacted with collaboration requests that detailed the purpose of the study, why understanding self-directed learning from a customer perspective was important to both the organisation and its customers, and finally the requirements of the collaboration (i.e. the assistance in the distribution of the survey to DIY learners). Diynot.com did not respond to contact, while DIYDoctor.org.uk and ultimatehandyman.co.uk both replied, with the latter indicating that the research could be promoted on their site as a forum topic. DIYDoctor meanwhile offered to distribute the survey to its database of over thirty thousand members, and promote it through their social media channels, alongside a national exhibition that they were involved with. Although this was based on exclusivity in relation to recruiting participants through online communities, it was seen as offering the best chance to reach as wide a range of learners as possible using existing databases (May, 2011), and the collaboration was agreed.

4.14.3 - Summery of Respondents

The online survey was facilitated through surveymonkey.com, and promoted by DIYDoctor to their 23,000-member database by an initial email on 20th September 2012 and via their social networking profiles on Twitter, Google +, and Facebook. A follow-up reminder email was sent on the 25th September 2012, before closing the survey on 27th September 2012. These correspondences explained the purpose of the survey and the partnership between the DIYDoctor.org and the University of Nottingham Business School. In total there were 271 responses with a completed survey rate of 248 (91.5%). One of the problems with administering a survey online is that at any point the user can terminate the survey by closing the browser window and this was apparent in some of the responses, In these cases, these were omitted from the final analysis. The next chapter details this analysis and the results of these approaches and uncovers interpretations of the learning and resource integration processes of customers when developing their knowledge in order to participate.

Chapter 5 – Analysis

The CVL model, adapted from Garrison (1997) and presented in the conceptualisation chapter, was used to orientate the empirical investigation and to develop an understanding as to how, and why, consumers choose to develop their skills and knowledge in often-disordered learning processes (Bolhuis, 2003; Garrison, 1997). The SDL literature (e.g. Garrison, 1997; Ellinger, 2004; Song and Hill, 2007; Merriam et al., 2007) advanced three essential personal attributes that emphasised the interactive process of SDL and enhance learning outcomes for the individual: motivation to participate, and continue, in the learning process, and two interrelated metacognitive learning concepts – control and monitoring.

The metacognitive control process involves managing and implementing external activities associated with the learning process (Garrison, 1997). Monitoring determines how the learner controls, manages, and makes sense of their learning process (Weinstein and Mayer, 1986; Dart, 1998) by planning, monitoring, and evaluating knowledge against their performance and learning goals (Seibert, 1996; Ruohotie, 2002). Understanding how customers develop their knowledge and skills in order to participate and the resources that they draw on to support their learning, can help service-providers to offer services that reflect the learning requirements of their customers in creating value. In a range of value contexts, this customer participation is essential to value creation. Furthermore, this offers an alternative perspective of SDL, one in which the customer can choose to participate, rather than the existing SDL literature that adopts a more self-regulatory approach with service providers as educators.

This chapter is organised into two parts, reflecting on the approaches to the study outlined in chapter 4. Part 1 reports the findings of the initial survey-based approach that was used as a basis for profiling customers in terms of their motivations for participating in SDL. This section reports the results of the cluster analysis that helped to distinguish learners with differing

motivations as well as helping to facilitate sampling for the qualitative study. Part 2 presents the findings of the qualitative data analysis, based on in-depth semi-structured interviews, which characterises how learners with differing motivations develop their learning processes to acquire knowledge and skills that enable them to participate in value creating environments.

Part One – Survey Data Analysis

The purpose of the exploratory survey was to investigate and profile respondents in terms of their motivations (incorporating goals, emotions, and perceived self-efficacy) when faced with these learning requirements. As previously established, the survey was developed from existing learning and motivation literature to comprehend the (context specific) aspects of motivation for learning. These motivations are primary drivers of participation in self-directing learning (Garrison, 1997; Dweck, 1986), and concern commitment to goals and intention to act (Garrison, 1997).

The first part of the following analysis focuses on this motivation for customers, i.e. entering the learning environment or entering motivation (Garrison, 1997; Figure 5.1). Entering motivation is influenced by *valence* and *expectancy* factors, and concerns commitment to goals and intention to act (Garrison, 1997). Valance encompasses personal needs such as the consumer's goals or why the consumer engages, and the affective state, or emotions, towards the self as a learner and the task. Scales to measure these aspects (detailed in Chapter 4) were encompassed within question one and two of the survey (Appendix 1). Question three addressed perceived expectancy, or self-efficacy (Bandura, 1997; Garrison, 1997), and control over the learning process (Garrison, 1997). This anticipated that control is an important part of learning as it influences the goals of consumers, their motivation to continue and, as will become clearer in the discussion at the end of this chapter, the ensuing control, regulatory, and resource integration elements of the CVL framework.

Figure 5.1 – Entering Motivation Factors (Garrison, 1997)
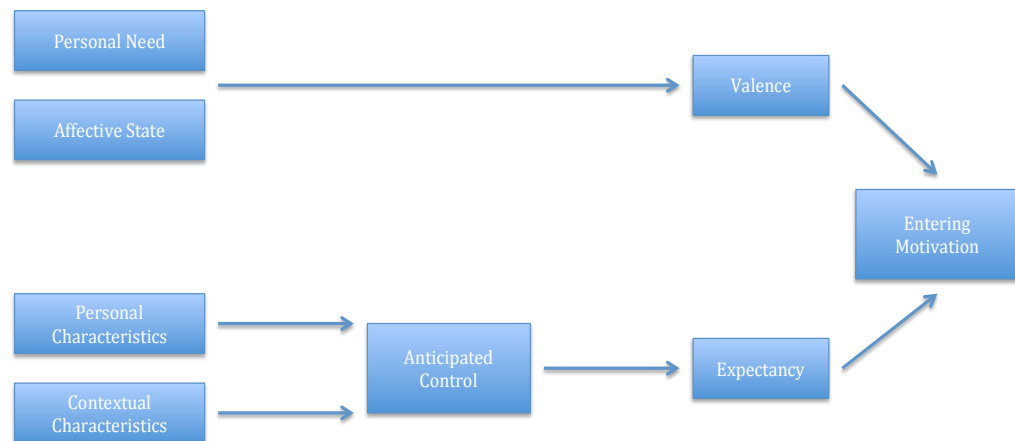
The objective of the analysis was to categorise respondents based on their motivations to develop their knowledge and skills in order to participate in learning activities that facilitated creating value (i.e. unfamiliar DIY tasks). These motivational factors were then used to provide grounding for categorising respondents based on their motivations towards learning so that these could be investigated further in the follow up interviews, and to begin to provide a foundation for a holistic perspective on learning for value creation.

5.1 - Results

After constructing and testing the survey (detailed in the previous chapter), DIYDoctor distributed the online survey to their 23,000-member database in September 2012, yielding 271 responses with a completion rate of 248 (91.5%). In addressing the three multi-scale survey items that sought to clarify the motivations of customers participating in SDL for value creation, and to help form motivational constructs that would help to characterise learners and provide insights for the interview stage, exploratory factor analysis (EFA) was adopted. This emphasised the 'underlying structure among variables in the analysis' (Hair et al., 2006, p.104), and reduced the complexity of the variables (Kerlinger, 1979) in order to simplify the highly interrelated (Hair et al., 2006) motivational constructs for learning within a DIY context. In contrast to confirmatory factor analysis, which is used to test theory when there is a

theoretical basis for the definition of variables that comprise factors (Henson and Roberts, 2006), EFA aided in identifying 'the factor structure or model for a set of variables' (Bandalos, 1996, p.389) and providing 'the empirical basis for assessing the structure of variables and the potential for creating these composite measures or selecting a subset of representative variables for further analysis' (Hair et al., 2006, p.109).

Employing PCA (using IBM SPSS Version 22) retained as much variation in the dataset as possible by extracting the most important information from the data. The data was reduced into simplified inter-correlated principal components for further analysis (Hair et al., 2006; Abdi and Williams, 2010; Yeung and Ruzzo, 2001), and overarching factors were extracted for each construct of the survey (goals, emotion, and self-efficacy). This was run on each of the three constructs that contained variables from the motivational survey on learning DIY. This retained six overarching factors with strong reliability; two goal-related (performance and learning), three emotional (positive, negative, and frustrative) and one concerning perceived self-efficacy towards the prospect of learning. The six factors were subjected to a number of checks to ensure that they best represented the motivations of customers to participate in SDL activities. Further analysis involved data reduction to identify factor loadings as 'a basis for either identifying variables for cluster analysis (Hair et al., 2006). This was conducted to classify respondents based on their motivational preferences. The following sections discuss these steps for each construct that helps to explain the motivations of customers in developing their knowledge and skills to be able to participate in value activities.

5.1.1 - Goals

The first question PCA, with an Oblimin rotation of the 13 Likert motivational goal items, was conducted on data gathered from the sample. After experimenting with other factor solutions (three, four, and five), a two factor solution was deemed to be the best fit because of existing theoretical support towards goals (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003;

Ingles et al., 2009, Garrison, 1997), the examination of the scree plot that indicated a two factor solution as optimal, and the insufficient number of primary loadings on the other factors. Five items that did not offer strong correlations with other items were removed from further analysis. To simplify the variables, factors were rotated using an Oblimin rotation method to improve the interpretation by reducing ambiguities from the un-rotated factor solutions (Hair et al., 2006). This was an appropriate method (and emotional factors below) as the assumption from the recognised motivational literature is that the underlying dimensions of goals are correlated with each other. The rotated pattern matrix (Table 5.1) confirmed that items were consistent with the goal related motivational aspects (e.g. performance and learning goals).

Factor 1 contained items that highlighted the learning aspirations of customers towards DIY and comprised of five variables that emphasised personal gains from participation in learning. For example, 'I do DIY because it interests me' and 'I like to do challenging DIY that really makes me think'. This factor was labelled *learning goals*. Factor 2, meanwhile, contained three items that represented the performance nature of motivations for learning. For instance, 'I do DIY because of wear and tear to my home' and 'I do DIY because it saves me money'. This factor was labelled *performance goals*. Reliability analysis was conducted on each of the two factors, creating composite scores based on the mean value. These were further exemplified with the other constructs (e.g. emotions and self-efficacy) prior to further analysis later in the chapter.

Table 5.1 – Principal component analysis - goals

	Learning Goals	Performance Goals
1E - I do DIY because it interests me.	**0.91**	0.38
1B - An important reason why I do DIY is because I like to learn new DIY skills.	**0.88**	0.29
1C - I like to do challenging DIY that really makes me think.	**0.88**	0.34
1G - An important reason I do DIY is because I enjoy it.	**0.84**	0.35
1D - An important reason why I do DIY is because I want to get better at it.	**0.82**	0.39
1K - I do DIY because of wear and tear to my home.	0.37	**0.84**
1H - I do DIY because it saves me money.	0.23	**0.80**
1J - I do DIY to improve the value of my home.	0.41	**0.79**
Mean	5.72	5.76
Std. Dev.	1.16	1.01
Cronbach's Alpha	0.92	0.74
Total Variance Explained (%)	54.8	18.0

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation
Rotation converged in 3 iterations.
Major loadings in bold

Discussion

The results from this exploratory factor analysis on the first survey item concluded that when faced with learning new skills and knowledge for DIY, customer goals were formed through two factors: learning goals and performance goals. Learning goals represented motivating aspects of interest (1E - I do DIY because it interests me) and desire to better oneself (1D - An important reason why I do DIY is because I want to get better at it) (Midgley et al., 1998; Dweck, 1986; Covington, 2000). The sample highlighted that these items were a key determinant for learning as represented by their relatively high mean scores.

Performance goals meanwhile highlighted the need, or requirement, of learning (e.g. cost savings) in order to participate in value activities. The context of DIY involves participation to improve dwellings, for example to freshen up a room or install a new fence, and these items (1K - I do DIY because of wear and tear to my home and 1J - I do DIY to improve the value of my home) represented a key factor for respondents. However, the key motivator from a performance perspective was to save money, as represented by the high mean score for item

1H - I do DIY because it saves me money. However, it was important to not only establish learners' preferences for these two motivational goal items (discussed in the later analysis) when faced with learning, but also to begin to develop an understanding of how much of an influencing factor this was on the learning process of customers. These goals, therefore, are further explored in the interviews in Part B of this analysis.

5.1.2 - Emotions

PCA with an Oblimin rotation of the 11 Likert motivational emotional items was conducted on the sample. A three-factor solution was deemed the best fit after an examination of the scree plot and the insufficient number of primary loadings on the other factors. As with the previous question on goals, the data was analysed for any items that did not offer strong correlations and could therefore be removed. Again, in order to provide this data and simplify the variables, the factors were rotated using an Oblimin rotation method, due to the established emotional perspectives towards learning in the literature (e.g. Richins, 1997; Cohen et al., 2008; Bagozzi et al., 1998). Factor 1 contained three items that highlighted the negative perspectives associated with learning, namely nervousness and worry, and was labelled *negative emotions*. Factor 2 contained four items that represented the positive nature towards learning, such as excitement and enthusiasm, and was labelled *positive emotions*. Finally, Factor 3 comprised two items that represented the *frustrative emotions* of customers towards learning, examples of which were annoyance and irritation. Reliability analysis was conducted and composite scores created for the factors based on their mean value (Table 5.2).

Table 5.2 - Principal component analysis - emotions

	Negative Emotions	Positive Emotions	Frustrative Emotions
2C - I feel nervous at the prospect of learning DIY skills.	**0.95**	0.01	-0.10
2A - I feel worried at the prospect of learning DIY skills.	**0.85**	-0.10	0.02
2E - I feel scared at the prospect of learning DIY skills.	**0.78**	0.05	0.24
2D - I feel excited at the prospect of learning DIY skills.	0.08	**0.93**	0.05
2I - I feel enthusiastic at the prospect of learning DIY skills.	0.08	**0.87**	-0.07
2K - I feel content at the prospect of learning DIY skills.	-0.06	**0.81**	-0.05
2B - I feel happy at the prospect of learning DIY skills.	-0.19	**0.79**	0.03
2H - I feel annoyed at the prospect of learning DIY skills.	-0.02	0.0	**0.98**
2J - I feel irritated at the prospect of learning DIY skills.	0.07	-0.07	**0.90**
Mean	2.41	5.53	1.82
Std. Dev.	1.24	1.02	1.10
Cronbach's Alpha	0.87	0.88	0.92
Total Variance Explained (%)	20.2	49.6	12.0

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation
Rotation converged in 7 iterations.

Discussion

In line with the extant consumer emotion literature (Bagozzi et al., 1998; Richens et al., 1997; Pekrun et al., 2002; Weiner, 1985), the survey data distinguished emotions based on the positive and negative tendencies experienced by customers when faced with developing their knowledge and skills to participate in value activities. As will be discussed in part two of the analysis, these emotional factors are based on experiences, affective state (attitude towards themselves as learners, and to the task), and the expectancy of successful engagement (Garrison, 1997).

Positive emotions were the key emotional factor highlighted by the sample, explaining nearly half of the total variance and concerned happiness, excitement, enthusiasm, and contentment. As the context and application of the study involves SDL, learners were expected to be reasonably positive towards

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engagement within the learning environment as the nature of SDL denotes the learner choosing to participate (Mocker and Spear, 1982). However, as performance goals were a key motivator, this positivity may not always be prevalent when faced with learning (e.g. learning of necessity).

Negative emotions, meanwhile, explained a fifth of the total variance, suggesting that for some of the sample, negative emotions (e.g. worry, nervousness, and fear) (Weiner, 1985) were prevalent in their assessment of the prospect of learning. Understanding negative perspectives is important as they exemplify why the learner, when faced with the prospect of learning, may experience negative emotions that influence their participation. This may occur due to a lack of confidence in abilities or the availability of resources. As such, this represents an important barrier that service providers need to overcome in order to support customer learning.

The third factor, frustrative emotions, corresponded to a tenth of the total variance and incorporated emotional variables of annoyance and irritation (Weiner, 1985; Bagozzi et al., 1998). Frustration may occur in learning because of a lack of access to resources, a lack of confidence, or a lack of knowledge, both as a learner (e.g. strategies that may be taken to address the frustrations) and towards the task. This frustrative emotional tendency offers an interesting perspective regarding the emotions that are prevalent in customer learning and, alongside the other emotional traits, are investigated further in the subsequent semi-structured interviews.

5.1.3 - Perceived Self-Efficacy

To measure the perceived self-efficacy variable, or confidence, towards the prospect of learning, PCA was conducted on 7 Likert and identified one prominent factor, (labelled *perceived self-efficacy*), accounting for 81% of the variance, with strong consistency and reliability that corresponded with existing theoretical support towards perceived self-efficacy (e.g. Bandura, 1997; Zimmerman, 2000). (Table 5.3)

Table 5.3 – Principal component analysis – perceived self-efficacy

	Perceived Self-Efficacy
3C - In general about learning new skills for DIY?	**.933**
3D - That you can complete DIY projects when you have to learn new DIY skills?	**.925**
3B - In completing DIY tasks on your own?	**.919**
3G - In overcoming obstacles when doing DIY?	**.901**
3F - In acquiring additional information or support to complete DIY tasks?	**.889**
3A - In general with your existing DIY skills?	**.869**
3E - In planning DIY tasks/work?	**.865**
Mean	5.64
Std. Dev.	1.01
Cronbach's Alpha	0.96
Total Variance Explained (%)	81.0

Extraction Method: Principal Component Analysis.

Discussion

This unidimensional factor of perceived self-efficacy concurs with the existing literature highlighted in previous chapters that views perceived self-efficacy as the learner's judgments of their ability to participate and realise goals (Bandura, 1977; 1997; Zimmerman, 2000). The findings from this question supported the notion that when customers are faced with learning, they are either confident or unconfident about the learning process. In this context, respondents were generally confident toward this process, which is understandable since they chose to direct their own learning. However, if they were unconfident or unsure of their abilities, they may choose to contact a professional or decide not to tackle the performance goal at all. Furthermore, they may not be confident in seeking the resources that will aid their learning. As with the other factors, these issues are discussed in subsequent sections of the analysis.

5.1.4 - *K*-means Cluster Analysis

With the scale items confirmed, further investigations were conducted in order to group respondents based on their overall motivations for learning and to investigate whether there were any similarities between them. While factor analysis represented structure within variables, cluster analysis exemplified structure with group objects (participants) based on their proximity, rather than on correlations (Hair et al., 2006). The aim of this approach was to reveal associations and structure in the data and group individuals 'to maximize the homogeneity of objects within the clusters while also maximizing the heterogeneity between the clusters' (Hair et al., 2006, p.555).

Utilising the motivational factors' mean scores, identified by the exploratory factor analysis, a *k*-means cluster analysis was used to classify and organise data into meaningful groups or clusters. This particular type of clustering is a unique multivariate approach to grouping objects (i.e. respondents) that adopts a non-hierarchical method in which respondents are assigned to a pre-determined number of clusters to enable the exploration of alternative solutions in order to determine the correct fit of the data (Jain and Dubes, 1988). As the aim of the survey was to find out what motivates different types of learners, the mean scores that represented the values of the six motivational factors were used as seeds for the analysis. One of the key aspects of a *k*-means cluster analysis is that the seeds can be specified in advance, provided that they are well defined, and therefore different solutions containing a range of clusters can be generated. Although sometimes perceived as an exploratory technique, as in all data, some clustering will be found (Hair et al., 2006) and the reasoning of the survey was to explore the motivations of customers and provide opportunities and information for further investigations via semi-structured interviews with some of the respondents. Clustering, therefore, offered insights into ways in which groups of customers differ in terms of their learning goals, emotions, and self-confidence when engaging in learning for DIY.

A number of cluster solutions ranging from two to six were generated. Choosing the appropriate number of clusters that would sufficiently offer differing perspectives of the respondents' motivations required solutions that would not only differ based on the motivational factors, but also provide adequate sized clusters for inference. Of these cluster iterations, four to seven solutions were discounted due to the small cluster sizes. Two and three cluster solutions were examined to assess whether they offered explanations of similarities within groups, and although three clusters offered some distinct differences in the way that respondents were motivated, two of the groups had similarities and one of these groups had a cluster size that was deemed inadequate (Hair et al., 2006). Therefore, the two-cluster solution was adopted as there was a high degree of similarity of the clusters and clear distinctions between the two groups, which were subsequently labelled as *self-assured* and *'have-to' learners*. Independent t-tests between these and the factors revealed significant differences, suggesting that these clusters were indeed characterised by differing motivations towards learning.

Self-assured learners (SAL) (n=167) were exemplified by their motivations that were driven primarily by setting performance and learning goals, and their high levels of perceived self-efficacy towards the prospect of learning. The results revealed that performance goals were key factors in motivating SAL to participate in learning. These goals included wear and tear, cost savings, and to improve and increase the value of dwellings. Furthermore, the significance of learning goals (e.g. development, interest, challenge, and enjoyment) as a key motivator implied that the development of knowledge and skills (Bagozzi et al., 1998; Weiner, 1985) was also a key factor in the decision to participate in learning environments to realise value from the task. These goal factors were further enhanced by the emotional perspective of the respondents towards the prospect of learning.

In line with their high levels of self-efficacy, SALs were generally positive towards the prospect of learning and revealed low levels of both negative and frustrative emotions. Independent-sample t-tests on this cluster revealed a significant difference in the scores for negative emotions for males (M=1.89,

SD=0.86) and females (M=2.36, SD=1.08) t (175) = -2.32, Sig 0.02, and this was investigated in more depth in the follow up interviews. Demographic data identified differences in male and female SALs. The group primarily consisted of males over 50 who owned their own home (mortgage or outright) in the Midlands or South of England, and were either retired or in full-time employment earning less than £40,000 per annum. Female SALs tended to be younger, in some sort of employment earning less than £40,000 per year and living in an owned property in Wales or the North-West of England. These differences are discussed in the interview results.

The smaller cluster, 'have-to' learners (NL) (n=81), encompassed respondents who possessed differing motivational perspectives toward learning. For NL, setting learning goals was a smaller priority as they were primarily motivated to participate in learning activities to realise performance goals (e.g. cost saving and wear and tear). This suggests that for these learners, the priority was completing the task rather than consciously seeking to develop their knowledge and skills. Although NLs were reasonably confident, they were far less so than SAL and exhibited more negative and frustrative emotions in their outlook towards learning. Understanding if and how these emotions are manifested within the learning process is important as 'negative emotions such as feelings of frustration or helplessness may result in individuals no longer putting effort into a task' (Schutte et al., 2001). Although indifferent in regards to positive emotions towards the prospect of learning, an independent-sample t-test of male and female NL revealed a significant difference in the scores for positive emotions for males (M=4.33, SD=0.83) and females (M=3.80, SD=0.89) t (79) = -2.32, Sig 0.02. Again, these helped shaped some of the further questioning in the interviews.

This cluster differed from the self-assured learners, not just on the motivational aspects but also demographically as well, notably containing a higher ratio of male to female learners. The male learners were predominantly homeowners, living in the Midlands or the south of the UK, aged between 50 and 70, in full time employment or retired, and earning less that £40,000 per year. The females represent a fifth of the total and were of varying ages from 30-69, in

some form of employment or retired, and with an income of less than £40,000. They all owned their own home and the sample comprised of respondents, like the self-assured females, that were spread from around the UK including the North. Again this demographic information was investigated in more depth in the interviews.

The factor analysis, and subsequent cluster analysis, was used as an initial coding effort to not only characterise the motivations of the sample, but also to categorise the respondents based on their motivations for learning. The results indicated that the factors that acted as key motivators for learning in DIY involved positive enacting motivators (incorporating goals, positive emotions, and high levels of perceived self-efficacy towards the learning) and/or detrimental motivators (including low levels of perceived self-efficacy, and negative and frustrative emotions). The former was more prevalent in SAL, while the latter emotional traits were more pronounced in NL.

The results raised a number of questions in relation to these groups and the survey findings in general. For instance, do SAL, knowing their confidence in their abilities and the desire to learn knowledge and skills, seek to form challenging performance goals? When engaged in the learning for the task, is this confidence carried forward, and does it influence how the learner goes about learning in order to participate in value creating activities? For NL, why were learning goals not a key factor in their motivations for learning, and did this impact on their ensuing learning processes? Moreover, what role, if any, did negative emotions play in the learning processes of both male and female NL? Would these emotions create obstacles for their performance goals and influence the control and regulation of the learning? Attempting to develop a richer understanding of the motivational traits within the learning process, as well as preceding it, is one of the key aspects to the follow up semi-structured interviews discussed in the next section.

Part Two – Qualitative Data Analysis

Building on the two motivational clusters revealed by the survey data, self-directed (Garrison, 1997; Candy, 1991) and self-regulated learning (Zimmerman, 1989, 2000) literature formed the basis of further investigations of the means of learning for customers who sought to participate in value-creating activities. The second stage of data collection involved semi-structured interviews (with a selection of the participants who provided permission for further questioning), which explored and developed an understanding within a customer-learning context of participants' knowledge, views, experiences, and interpretations of social reality (Mason, 2005; Kvale and Brinkmann, 2009). This social perspective is significant (and detailed in Chapter 4) as although learning is an individual and cognitive process, it is influenced by social interactions that offer the learner similar or different experiences in the construction of knowledge (Candy, 1991; Garrison, 1997; Jonassen, 1999; Jonassen et al., 1995; Merriam et al., 2007; Cunliffe, 2008).

A number of studies adopt a social constructivist perspective (e.g. Palinscar, 1998; John-Steiner & Mahn, 1996; Bandura, 1997) to advance an understanding of the integral social influences on learning via the experiences, interactions, and perspectives of the actors involved in social environments. As an SDL approach also recognises that knowledge is socially constructed (Garrison, 1997; Candy, 1991), the interviews focused on questions that elicited purposes and roles rather than methods (Greene, 2003). This perspective of learning and knowledge construction formed the basis of the interpretive and inductive analysis.

5.2 – Coding

The analysis of the data involved systematic coding to 'extract meaning and implications, to reveal patterns, (and) to stitch together descriptions of events into a coherent narrative' (Rubin and Rubin, 2005, p.201). The analysis then followed methods set out by Spiggle (1994) that involved *categorisation* (classifying the data based on coherent meaning), *abstraction* (developing

more encompassing and general categories), *comparison* (within and between categories), and finally *dimensionalisation* (conceptualising the finalised categories).

Briefly, this involved transcribing, and then investigating, the interviews to establish tentative codes (Kvale and Brinkman, 2009; Saldaña, 2012; Silverman, 2010) in order to begin to develop further insights into how customers develop their knowledge and skills in order to participate in value-creation activities. Initial categorisation involved classifying units of data based on their coherent meaning that was 'belonging to, representing, or being an example of some more general phenomenon' (Spiggle, 1994, p.493). Although an inductive approach was used to categorise the data and guide theory development, rather than seeking to confirm ideas or frameworks (Saldaña, 2012), deductive codes based on SDL and value-creation literature were initially devised. From this categorisation, higher order abstract dimensions that incorporated more general categories were compared and conceptualised. These categories not only highlighted the motivation, control, and regulation aspects of customer learning in line with the extant SDL literature, but also the key role of resources and experience in learning skills and knowledge to enable participation in value creating activities. This experiential perspective is used to frame the learning preferences and styles of customers when they seek to develop their knowledge and skills. These styles are dimensionalised as five customer typologies, grounded by Kolb's (1984) experiential learning theory (ELT), which are distinguished by preferred motivations towards learning and how they seek to direct and/or support the construction of knowledge and skills to participate in value creation activities. This process is summarised in Figure 5.2.

Figure 5.2 - Interview Data Collection, Coding, and Dimensionalising Method

```
┌─────────────────────────────────────────────────────────┐
│           Identify and Contact Participants               │
│   Representative of self-assured and 'have-to' learners.  │
└─────────────────────────────────────────────────────────┘
                            ↓
┌─────────────────────────────────────────────────────────┐
│                  Telephone Interviews                      │
│   Initial telephone interviews with self-assured learners.│
└─────────────────────────────────────────────────────────┘
                            ↓
┌─────────────────────────────────────────────────────────┐
│                    Primary Coding                          │
│   Transcription and initial deductive codes devised.       │
└─────────────────────────────────────────────────────────┘
                            ↓
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│                      Interviews                            │
│           Remainder of interviews completed.               │
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│                    Categorisation                          │
│   Inductive and deductive codes based on CVL and ELT formed.│
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│                     Abstraction                            │
│   Higher order codes based on CVL and ELT established.     │
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│             Dimensionalising and Comparison                │
│ Five customer learning styles are classified, defined, and compared.│
└─────────────────────────────────────────────────────────┘
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5.2.1 - Deductive Categorisation

In total, sixty-eight participants from the two motivational groups, split approximately sixty (self-assured learners) and forty ('have-to' learners) percent, indicated a willingness to participate in further telephone interviews and discuss their learning processes when approaching new DIY tasks. Forty participants across these groups were then contacted by telephone or email to gauge willingness and arrange appointments for interviews. These digitally recorded, in-depth telephone interviews were conducted over a six-week period (December 2012 – January 2013) with thirteen self-assured learners and ten 'have-to' learners who had provided consent and were sent the interviewees participant information packs (Appendix 3) that detailed the study and ethical considerations. Appendix 4 details the interview schedule with these participants.

The interviews were reviewed and transcribed by the author after occurrence and then individually subjected to categorisation as an initial phase of analysis (Spiggle, 1994). Manual and in-vivo coding ascertained emerging constructs that encompassed terms used by the participants themselves to describe their processes (Strauss, 1987; Bazeley, 2011; Saldaña, 2012). This initial process resulted in the construction of tentative codes in order to broadly categorise the rest of the data and address the research questions (Spiggle, 1994; Silverman, 2000; Saldaña, 2012; Marshall and Rossman, 1999). Therefore the purpose of this was to derive concept driven codes (Strauss and Corbin, 1998; Kvale and Brinkmann, 2009) and break the data into manageable parts in order to identify similarities and differences that could provoke further exploration (Glaser, 1978; Spiggle, 1994; Saldaña, 2012). Codes were grounded by the CVL framework that encompassed SDL and S-D Logic literature, with the intention of highlighting emergent themes that could also be adopted in subsequent interviews (Kvale and Brinkmann, 2009). Furthermore, categorisation (discussed later in the chapter) also revealed the essential role of experience within the learning process, and as such analysis involved simultaneous methods (Saldaña, 2012), that covered both the CVL model and also this experiential aspect.

Consistent with the survey that classified participants by their learning motivations, codes concerning motivation sought to establish goals for learning and participation in value activities (e.g. learning and/or performance goals), and also distinguish their self-efficacy and emotional tendencies towards the learning proposition.

Using NVivo software (to help both manage and query the complete transcriptions), a search for items related to these factors, based on the survey and extant literature, was conducted. In line with the survey data, initial investigations found performance goals (e.g. money saving, home improvement) were the key factors that motivated learning for DIY. Furthermore, learning goals played an integral role in the approaches to learning. These two perspectives offered categories that helped to further develop the performance/learning motivational notion within learning for the realisation of value creation. Again using the survey as a foundation, emotional aspects were categorised based on the three emotional factors. These were predominantly positive, but there were also instances of negative and frustrative emotions that offered some key differences towards how certain learners (e.g. 'have-to') viewed the prospect of learning. Perceived self-efficacy towards the learning was the final pre-engagement motivational factor that offered a strong theoretical background, as well as importance, to learning, and provided an in-depth category to discern the reasoning behind the confidence in the proposition of learning. These factors are discussed in-depth in relation to specific learning styles later in the chapter.

Moving on to the learning itself, deductive classifications concerning the self-regulation of learning included instances in which the respondent planned, monitored, or evaluated their learning. Planning was an essential aspect for a high number of learners, generally occurring before the learner participated as they sought to understand the requirements of the task and begin to develop knowledge that would enable them to engage in value-creating activities. Moreover, there were also instances in which the customer revisited their planning process, such as when encountering an unexpected problem that required monitoring, evaluating, and also further knowledge and skill

development. As such, planning was coded using instances in which plans were devised and also revisited at stages in the learning process. The monitoring categories included instances in which the learner revisited their knowledge, assessing whether additional knowledge and skills would be required in order to successfully participate. Related to this was evaluation, from which categorisation enveloped instances in which the learner evaluated their learning process, seeking to participate once again if there was a mismatch between their learning and goals, when there was a problem that occurred or when they successfully completed the task.

Coding the control (self-management) included the strategies that learners used to construct and acquire knowledge. These involved observation, validation, and development that were facilitated by engagement with a range of resources in order to construct knowledge. After initially reviewing the transcripts, a review of the learning literature (based on the literature detailed in Chapter 2) identified tentative categories that could potentially offer additional explanations of the learning processes of consumers when seeking to develop their knowledge and skills.

5.2.2 - Inductive Categorisation

Results from this data reduction process (Spiggle, 1994; Kvale and Brinkmann, 2009) offered concepts, themes, and alternative explanations (Marshall and Rossman, 1999) that suggested a number of learning approaches employed by DIY learners. These emphasised not only self-regulatory approaches to learning (planning and monitoring), but also resource integration activities that helped to support the development of knowledge and skills. For instance, the majority of 'have-to' participants approached tasks with a preference for an intrinsic and self-directed learning approach by seeking to understand the task in-depth, and utilising their own knowledge with learning resource integration activities, so that later they could apply what they had learned to successfully participate. Other more self-assured learners generally relied less on planning and preferred to learn by actively participating in value creating activities as primary sources for knowledge and skill development. Their confidence in

their approach to learning was partially enabled by their ability to draw on appropriate, available, and familiar learning resource integration activities to help support the construction of knowledge and facilitate swift participation in the task.

An overarching theme that emerged from the responses of all learners was that the construction of knowledge involved employing intrinsic and/or extrinsic experiences to help to develop the skills and knowledge necessary to participate in value creating activities. Due to this inductive development, the learning literature was revisited and further coding categories emerged that were based on an experiential perspective and described below. These abstract categories helped to dimensionalise the differing SDL processes of learners as they sought to develop their knowledge and skills in order to participate in DIY activities, and formed the basis of further analysis by providing a means to categorise consumers based on their preferred approaches to learning.

5.2.3 - Experiential Learning

It is well documented in the adult education literature, that learning involves knowledge created via transformative experiences (Knowles, 1975; Kolb, 1984; Kolb et al., 2001; Jarvis, 2012). For example Jarvis (1987) emphasises that 'all learning begins with experience' (p.16), while Knowles (1989) posits that learning occurs partly from past experiences. Furthermore, self-efficacy is also heavily influenced by previous experiences that are a key factor, especially for novice users (Bandura, 1997), in the confidence of the learner to participate (Van Beuningen et al., 2009). To conceptualise this, Fenwick (2001) details five experiential perspectives that offer avenues which help to distinguish the nature and influences of experience in the construction of knowledge:

- A *constructivist* approach involves reflecting on experiences in the construction of knowledge (Kolb, 1984; Jarvis, 1987).
- A *situated* approach interprets knowledge as exchanged and based upon

the performance value it has for the customer (Usher et al., 1997) with the goal of exchanging knowledge and participating in communities of practice (Lave and Wenger, 1991).

- An unconscious *psychoanalytical* approach emphasises conflicting desires that impact on learning processes.
- *Critical cultural* approaches concern learning as resisting the dominant social norms.
- *Relationships* between cognition and the environment in complex systems.

Although these perspectives offer promising opportunities for exploration in relation to learning, with the exception of a constructivist perspective, they are not considered for the current study, as they do not offer sufficient insights of the internal processes of knowledge construction. For instance, according to a situational perspective, learners combine 'resources in their natural environments with those supplied by institutions, from educational materials to people who can assist them with their learning' (Merriam et al., 2007, p.37). This approach perceives learning as constructed through experiences within the dominant social context of communities of practice (e.g. online and offline fora) (Lave and Wenger, 1991) that involves the construction of knowledge via engagement as part of the group collective, ultimately aspiring to become members of the community (in this instance a DIY online forum).

However, despite its promising perspectives towards understanding how learners socially construct knowledge in order to participate in value creating activities, this approach does not adequately explain the metacognitive control and regulatory processes of customers, instead focusing on knowledge construction from a predominantly social perspective, with little focus on the internal cognitive methods of the learner (Fenwick, 2001). Furthermore, although recruited from such online communities, the initial analysis found that the learners did not indicate aspirations to become involved deeply within communities of practice, and instead chose to focus on completing the task directed by the (predominantly) performance nature of their goals. This is discussed in more detail in Chapter 6.

As with a situated perspective, three of the other approaches set out by Fenwick (2001) offer perspectives on experience that are also unsuitable for this enquiry (e.g. resisting social norms as the context of DIY involves the justification of learning approaches by drawing on experiences and conforming to social norms rather than resisting them), or, as with psychoanalytical approaches, are encompassed within the cognitive motivational aspects of SDL (e.g. motivation of the consumers to participate in SDL activities).

The prominent notion of experiential learning in the literature (the constructivist perspective) (Fenwick, 2001), is proposed as a key method to frame the learning preferences that facilitate participation in value creating activities. This viewpoint involves the learner drawing on contextual meaning taken from experiences (Zepke and Leach, 2002), and incorporates 'a view of learning that involves the learner in active, individual processes of knowledge construction based on their previous experience' (Arlidge, 2000, p.33). This is 'particularly compatible with the notion of self-direction, since it emphasises the combined characteristics of activity, inquiry, independence, and individuality in a learning task' (Candy, 1991, p.278). Furthermore:

> meaning making is central to experiential learning and to the internal dimension of self-directed learning, connecting the two. In experiential learning it features as the process, which turns experience into learning. In self-directed learning it constructs personal understandings of the world. Meaning making is also a key element in constructivist thinking, which holds that learners construct meanings from their experiences. Constructivism therefore provides the intellectual framework for rethinking self-directed and experiential learning as contextualised meaning making (Zepke and Leach, 2002, p.209).

5.2.4 - Experiential Learning Theory

One of the more prominent streams of literature that demonstrates the role of experience in learning from a constructivist perspective centres on Kolb's (1984) experiential learning theory (ELT). The ELT approach has been used in over 2,500 studies (see Kolb and Kolb, 2008 a/b for a full overview), and has advanced learning research (Kolb et al., 2001) within a variety of disciplines including academic specialties, management, computing, medicine, nursing, and accounting. The model proposes that learners may move through cyclical stages of learning and development in which 'immediate or concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn. These implications can be actively tested and serve as guides in creating new experiences' (Kolb and Kolb, 2009, p.298). Kolb and Kolb (2009) further note that 'by using a model based on ELT, learners can better understand the learning process, themselves as learners, and the appropriate use of learning strategies based on the learning task and environment' (p.303).

Figure 5.3 – Experiential Learning Theory Model (Kolb, 1984)
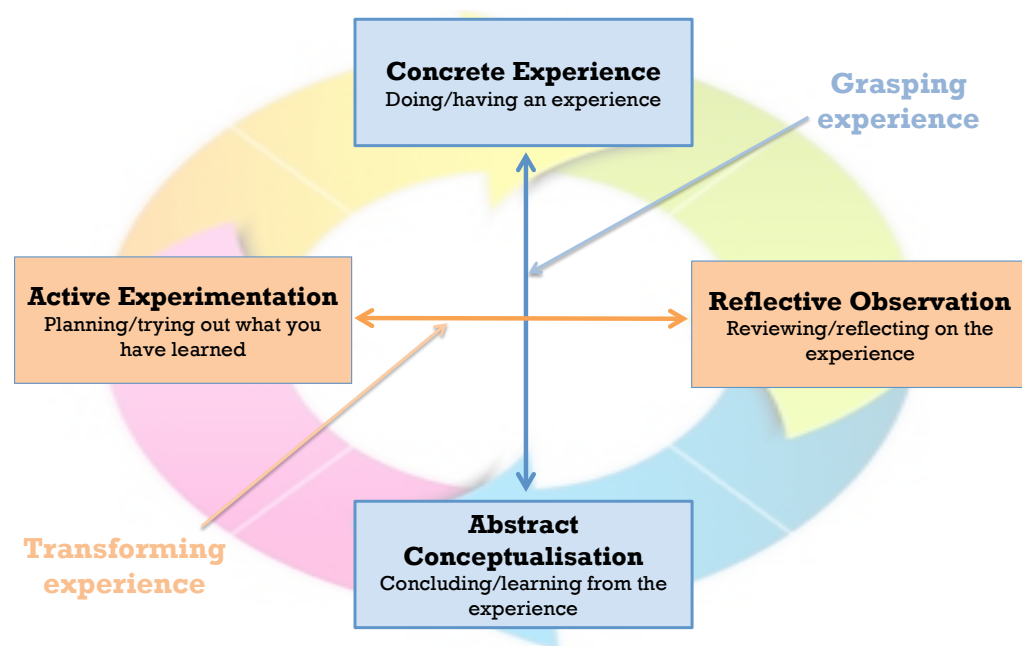
5.2.5 - Learning Styles

Learning within this experiential process is distinguished by two related strategies for grasping experience (how learners acquire knowledge): Concrete Experience (CE) and Abstract Conceptualisation (AC), and two processes of transforming experience (how learners utilise and process knowledge): Reflective Observation (RO) and Active Experimentation (AE) (Kolb, 1984; Kolb et al., 2001; Kolb and Kolb, 2009). Within these two continua, knowledge is 'created through the transformation of experience (and) results from the combination of grasping and transforming experience' (Kolb, 1984, p.41). These processes (Kolb, 1984; Kolb and Kolb, 2009) determine the 'learning style(s)' adopted to make sense of experiences. Four of these learning styles employ either one grasping or one transforming element (*CE, RO, AC, AE* noted in Figure 5.2) and are defined by Kolb and Kolb (2009) in Table 5.5.

Table 5.5 – One-dimensional learning styles (Kolb and Kolb, 2009, p.317)

One-Dimensional Learning Style	Description
Experiencers	Learners with an *Experiencing* style emphasize feeling (CE) while balancing acting (AE) and reflecting (RO). Their greatest strengths reside in their ability to deeply involve themselves in concrete experiences while being equally comfortable in the outer world of action and the inner world of reflection. They are particularly adept in forging relationships with people. They learn by actively involving themselves in new and challenging situations and by stepping back and reflecting on their experiences from differing points of view. They love hands-on activities but also learn by carefully observing the world around them. In the formal learning situations, working in groups, role-playing, brainstorming, and fieldwork may appeal to them. Because they place the least emphasis on AC, they sometimes are disorganized, lacking plans and theories to guide them.

Reflectors	Learners with a *Reflecting* style emphasize reflection (RO) while balancing feeling (CE) and thinking (AC). The learning strengths of this style are a capacity for deep reflection informed by the ability to be both feeling oriented and conceptual. They learn by combining the abilities of creative idea generation and putting ideas into concise, logical form. They feel equally at home in reflection on experiencing and thinking. As a result, they have a rich and intuitive understanding of matters of importance to them. They enjoy exploring "why" things are the way they are but also thrive in uncovering "what" makes the world turn. They thrive in learning environments rich in discussions, interactions, and through readings that provide them with a deeper understanding of themselves and the world around them. Because of their low emphasis on AE, they have trouble putting plans into action, spending much time buried in thought. Because action is short-circuited in the learning cycle, their thoughts are about their feelings rather than about their direct actions. This imbalanced cycle lacks the rejuvenation provided by testing ideas in action.
Thinkers	Learners with a *Thinking* style emphasize thinking (AC) while balancing reflecting (RO) and acting (AE). They are deep thinkers who are able to inductively develop a particular concept or idea and deductively evaluate its validity and practicality by testing it in the real world. They can draw both on the rich inner world of reflection and abstraction and an outer world of action. They thrive on creating conceptual models that can be applied or generalized to other situations. Because they place little emphasis on feeling in their style, they value being logical and unemotional. They may be uncomfortable with personal relationships and prefer working alone. They learn best in a well-structured learning environment in which they can design or conduct scientific experiments or manipulate data.
Actors	Learners with an *Acting* style emphasize acting (AE) while balancing feeling (CE) and thinking (AC). They combine the ability to find solutions to questions or problems based on their technical analysis with attention to the needs of people and sources of information in concrete situations. They are equally comfortable in functioning in a practical world that can make use of their feelings and actions as well as in a subjective world that requires their thinking abilities. As a result, they excel in identifying and integrating task and people's needs. Their low emphasis on reflection can sometimes be a problem when they become overcommitted to their idea of how things should be done. In formal learning situations, they learn best through real-life projects, field trips, and hands-on experiments.

These four perspectives adopt the notion that learners rely predominantly on one method in the construction of knowledge (Jarvis, 1987). In contexts in which the customer is required to learn in order to participate in the creation of value, learners are required to control and monitor their learning by drawing on learning resource integration activities in order to successfully participate in value creating activities. Furthermore, these styles are 'not a psychological trait but a dynamic state resulting from synergistic transactions between the person and the environment…(arising) from an individual's preferential resolution of the dual dialectics of experiencing-conceptualizing and acting-reflecting' (Kolb and Kolb, 2009, p.315).

As such, the vast literature that utilises ELT adopts the perspective that an ELT approach encompasses nine learning styles (Kolb et al, 2001; Kolb and Kolb, 2009) (Figure 5.3). Four of these styles are discussed above, while the other five styles incorporate at least one grasping and one transforming dimension (*diverging*, *assimilating*, *converging*, *accommodating,* and *balancing*) (Figure 5.3 and Table 5.6). These styles represent a 'dynamic state resulting from synergistic transactions between the person and the environment' (Kolb and Kolb, 2009, p.315). Adopting one or more of these five styles provides the individual with the ability to construct knowledge from their experiences and form concepts from which conclusions of the learning experience can be drawn and actively tested in further experiences (Kolb et al., 2001; Kolb and Kolb, 2009).

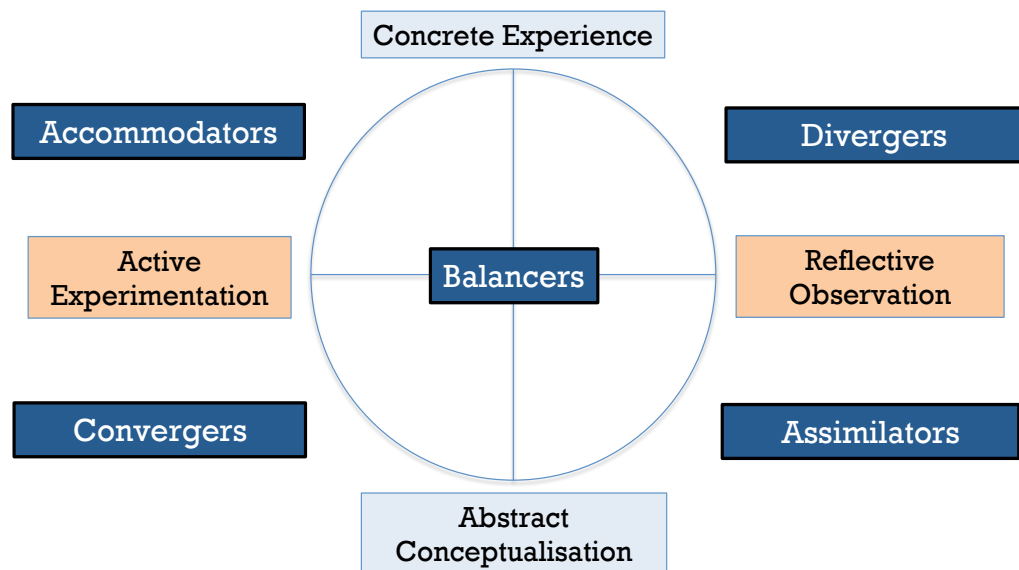**Figure 5.3 – Nine experiential learning styles**

Table 5.6 – Duel Process Learning Style (Kolb and Kolb, 2009, p.317-318)

Duel-Process Learning Style	Description
Divergers	Learners with a *Diverging* style learn primarily through feeling (CE) and reflecting (RO). They are best at viewing concrete situations and exploring them from many different points of view. Their approach to situations is to observe rather than take action. People with this style enjoy situations that call for generating a wide range of feelings and ideas, such as brainstorming sessions. They are imaginative and sensitive to feelings, have broad cultural interests, and like to gather information. In formal learning situations, they like to receive personalized attention and feedback. They prefer working in groups to gather information and listening with an open mind.
Assimilators	Learners with an *Assimilating* style learn primarily through thinking (AC) and reflecting (RO). They are best at understanding a wide range of information and putting it into concise, logical form. They are less focused on people and more interested in abstract ideas and concepts. Generally, they find it more important that a theory have elegance and logical soundness than practical value. Because they place less emphasis on feeling and acting in their style, they may prefer to work alone. They do not make quick decisions but think things through. In formal learning situations, they may prefer lectures, readings, exploring analytical models, and having time to think things through.
Convergers	Learners with a *Converging* style emphasize thinking (AC) and acting (AE) in learning situations. People with this style are best at finding practical uses for ideas and theories. They like to solve problems and make decisions based on finding logical solutions to issues or problems. They prefer dealing with technical tasks and problems than with social and interpersonal issues. Because they place less emphasis on feeling and reflection in their learning style, they can be uncomfortable in ambiguous situations and interpersonal issues. In formal learning situations, they may prefer to experiment with ideas and engage in simulations, laboratory assignments, and practical applications.

Accommodators	Learners with an *Accommodating* style learn primarily through acting (AE) and feeling (CE). They have the ability to learn from "hands-on" experience and function well in ambiguous and uncertain situations. They enjoy achieving goals and involving themselves in new and challenging experiences. Their tendency may be to act on intuitive "gut" feelings rather than on logical analysis. In solving problems, individuals with an accommodating learning style rely more heavily on people for information than on their own technical analysis. Because they place less emphasis on reflection and thinking in their approach to learning, they can sometimes be dis-organized and act before thinking. In formal learning situations, people with this learning style prefer to work with others to get assignments done, to set goals, to do field work, and to test out different approaches to completing a project.
Balancers	Learners with a *Balancing* style balance the extremes of the dialectics of action- reflection and concrete-abstract by finding a middle ground between them. Their central position on the four learning modes allows them to see many different perspectives on issues and bridge differences between people with different styles. They are often creative but also experience difficulty in making decisions. They are able to change their learning style to meet the learning demands of the task they face. In a team, they often adapt to fill in the missing style needed to get the task done. In formal learning environments, they can change their learning style to meet the learning demands of the task they face.

These constructivist experiential perspectives of ELT resonate with the CVL framework, as they rely on the learner's metacognitive awareness to make sense of their experiences through control and self-regulatory activities (Kolb et al., 2001). ELT incorporates these metacognitive processes as a basis for learning via experiencing, reflecting, thinking, and acting. The two continua within experiential learning share similarities to the metacognitive constructs of SDL. The concrete-abstract grasping continuum involves learners experiencing and thinking in order to acquire resources and knowledge. Learners may develop their metacognitive task knowledge by becoming involved in learning process (e.g. concrete experiences), or by making conclusions from experiences (abstract conceptualisation). The reflective-

active continuum, meanwhile, establishes how individuals use self-regulatory skills to process and participate in SDL (Garrison, 1997). For example, learners who adopt an acting style (active experimentation) are more likely to experiment, and may not engage in as many in-depth self-regulatory activities as learners who prefer to reflect and engage in deep-level thinking activities (reflective observation).

Despite the usefulness of explaining how individuals learn, within the literature ELT has received criticism for being a linear process (Dickenson, 2000), unconnected to the context (Fenwick, 2001), internally orientated (Jarvis, 1987), and too simplistic (Jarvis, 2012; Smith, 2001). These criticisms cannot be ignored, however, when applied correctly ELT can offer insights into the internal learning styles of individuals, and their metacognitive processes, when they develop knowledge and skills in order to participate and create value.

From a linear perspective ELT posits learners as moving from experience, to reflection, then thinking and evaluating, before actively engaging. This is recognised by Kolb and Kolb (2009) and other studies (e.g.) as where learners often use preferred methods to learning by adopting one or more of these styles as a learning process. Therefore, stages within this process can be bypassed or repeated, for example trial and error, thus learning is not a linear process, echoing the SDL literature (e.g. Candy, 1991; Garrison, 1997; Merriam et al., 2007).

Furthermore, while Jarvis (2012) is correct in highlighting that ELT is internally orientated and rooted within a constructivist perspective, for the current study this internal orientation is essential for addressing the metacognitive aspects of customer learning within a social approach. The current study has sought to understand how motivated customers learn in conjunction with resource integration processes to develop their knowledge and skills to participate in value activities. Consequently, using a socially constructed approach to learning offers insights of both the internal processes of learning, and how they are shaped and supported by resource integration processes. By identifying the different styles of learners and how they adopt

and utilise resources, firms can provide materials that can help to support and enable value creation. Accordingly, it is useful to use the ELT not as a signpost to learning processes, but as a way of conceptualising preferences for learning within the CVL Framework. This is further discussed in Chapter 6.

5.2.6 - Abstraction and Dimensionalisation - Customer Learning Typology

With SDL and ELT driving the coding process, abstraction (Spiggle, 1994) was conducted to dimensionalise the learning processes of participants. Abstraction 'goes beyond the identification of patterns in the data. It groups previously identified categories into more general, conceptual classes (and) includes both incorporating more concrete categories into fewer ones and recognizing that a unit of data is an empirical indicator of a more general construct of interest' (Spiggle, 1994, p.493).

With these points in mind, ELT (alongside insights on the metacognitive processes) was used to frame the participants' approaches to learning, subjecting their responses to further categorisation in order to distinguish common themes and emerging trends (Dey, 2004, Seidman, 1998). This aided in the reorganisation of the categories to advance the dimensions (Spiggle, 1994) and 'develop a sense of categorical, thematic, conceptual, and/or theoretical organization' (Saldaña, 2012, p.149). In conjunction with evaluation of the motivations and metacognitive processes of the participants, this analysis helped to dimensionalise the participants into five duel-process learner typologies detailed in the remainder of this chapter. Four of these types (i.e. convergers, assimilators, accommodators, and divergers) were differentiated based on a preference for utilising both a transforming and grasping element to their learning continua (Kolb and Kolb, 2009), rather than adopting one predominant learning preference (e.g. CE, RO, AC, AE). Each group displayed distinct metacognitive processes that characterised how they approached and made sense of the learning task. In addition to these four groups, there were also three participants who utilised all of the learning preferences and were classed as balancers (Kolb, 1984; Kolb and Kolb, 2009).

The five learning styles are examined in detail in the corresponding sections below. Each section builds on the motivations for learning that emerged from the survey, and discusses the metacognitive (motivations, self-control, and self-regulation) and resource integration processes that are characterised within these learning approaches. Table 5.7 provides a summary of the characteristics of each learning style and the participants' grouping. The respondent's names were changed to participants 1-23 after they had been categorised into each learning style.

Table 5.7 - Participants' motivations and preferred learning styles

Learning Preference	Participant	Self-Assured Motivations	'Have-to' Motivations
Divergers Prefer feeling (CE) and reflecting (RO)	1		✓
	2	✓	
	3		✓
Convergers Prefer thinking (AC) and acting (AE)	4	✓	
	5		✓
	6	✓	
	7		✓
	8	✓	
	9		✓
	10		✓
Assimilators Prefer thinking (AC) and reflecting (RO)	11		✓
	12	✓	
	13		✓
	14	✓	
	15		✓
	16	✓	
	17	✓	
	18	✓	
Accommodators Prefer acting (AE) and feeling (CE)	19	✓	
	20	✓	
Balancers Adopts all four learning styles	21	✓	
	22	✓	
	23	✓	

5.3 - Divergers

Participants who were characterised as preferring a diverging learning style were motivationally self-assured or 'have-to' divergers, and engaged with a range of resource integration activities to provide deep-level learning experiences (including support, direction, inspiration, and instruction) that would offer support and clarity to enable the successful completion of performance goals. Kolb and Kolb (2009) describe how learners who prefer a diverging style develop knowledge and skills 'primarily through feeling (CE) and reflecting (RO). They are best at viewing concrete situations and exploring them from many different points of view. Their approach to situations is to observe rather than take action. People with this style enjoy situations that call for generating a wide range of feelings and ideas, such as brainstorming sessions' (p. 317).

5.3.1 - Motivation

Goals

The primary catalyst (Hiemstra, 1994; Ruohotie, 2002) behind the diverger's participation in learning DIY tasks was the realisation of performance goals that were influenced by cost implications (e.g. time and money). These factors determined whether they chose to develop their knowledge and skills or, if they preferred, pay a tradesman to carry out the work. When they chose to participate, divergers emphasised the importance of cost in their decision to learn and participate in the task. For instance, time (due to pregnancy) and financial savings motivated Participant 3 to develop their knowledge and skills in order to decorate their home quickly and efficiently. Moreover, when deciding to replace their rotting fascia panels, financial motivations were a key consideration for Participant 1, and likewise cost considerations were crucial for Participant 2 when installing a pond:

> I've never really done a lot of DIY before and I'm quite confident but
> I like to be able to do things rather than pay someone… When you do

DIY you have to weigh up how much is the cost, and whether it's an appropriate use of your time… we were having a baby, hence why we had moved, and needed to save some money. We spent a couple of weeks in the summer blitzing the house. (Participant 3)

If they [tradesmen] came out cheaper both for time and money then I would use them. If I was going to make a substantial saving then I wouldn't do it myself. (Participant 1)

I mean, I'm confident that I can do most DIY things to a decent standard, it's just time that is a problem. I do DIY, but generally if it's something small or something that is fairly straightforward. If it's too complicated or isn't too expensive, then I'll get someone in. (Participant 2)

However, as will be established, when they did participate they sought to develop their abilities through participation (e.g. trial and error) and by developing their task knowledge. These learning goals were constructed before the task as the participants developed plans that would enable them to engage.

Emotions

Although sometimes reluctant to participate in learning, as intimated by a preference for outsourcing DIY activities in order to utilise this time for other activities ('I can do things, it just takes me ages to get it done and I'd rather have my time on something else', Participant 2), divergers were generally positive towards the process when deciding to engage:

I do enjoy DIY. (Participant 1)

I'm quite methodical so I was quite confident that I could do it. (Participant 3)

Despite this generally positive outlook towards learning in order to achieve performance goals, divergers occasionally experienced negative and frustrative emotions:

> It usually starts with me feeling negative about doing things… [until I] get into it. (Participant 1)

Furthermore, participants 1 and 3 were both 'have-to' divergers and these emotions were occasionally evident within the task. For example, participant 1 described how, on occasions, they experienced negative and frustrative feelings towards DIY (e.g. 'I've occasionally thrown hammers and things'), describing this as their worst quality. Importantly, however, these emotions did not adversely impact the learning process as divergers ensured that they were sufficiently prepared and aware of any potential problems that may potentially cause emotional aspects to emerge. Instead, it strengthened their resolve to complete the task, even when experiencing problems and obstacles:

> Anyway, I looked on the Internet a few times to make sure I was doing it right, I think I got the hang of it on the last go. (Participant 3)

Perceived Self-Efficacy

A key factor in divergers' motivations was their perceived self-efficacy towards the learning process. Although often lacking task-specific knowledge, their confidence stemmed from the conviction in their ability to participate in a variety of deep-level learning resource integration activities to acquire the knowledge and skills to realise challenging performance goals (Zimmerman, 1989) (e.g. decorating with a deadline, building a pool-side bar, constructing a garden pond). For divergers, these resource integration activities helped to confirm any relevant metacognitive knowledge (see below), and to provide additional support (e.g. plans, demonstrations, online resources) in order to successfully participate in the value activity. For instance, Participant 3, upon seeing a homemade blind at a friend's house, was motivated to construct one for their own home due to the confidence gained through seeing their friend's

product: 'I got the design from her and made a little blind'. When forming performance goals, divergers were assured that their personal and strategic knowledge would assist this and support their capabilities as learners to plan and develop an in-depth understanding of the task. This was emphasised by Participant 2 when describing their approach to the formation of DIY performance goals, and the task related learning goals that would help to realise them:

> Once I get something in my head I'm quite determined, but couldn't justify spending what they were quoting, so I decided to do it myself… I'm quite methodological as well, so was quite confident that I could do it. So it was just a case of looking round and getting the information to do it. (Participant 2)

5.3.2 - Metacognitive Knowledge

Realising challenging performance goals to a perceived high standard was an essential motivator for divergers, and as such they sought to master the task in which they were involved (Dweck, 1986). This consisted of a deep involvement in learning, facilitated by multiple resource integration activities, which provided a greater understanding of the task and to support, and direct where required, the construction of knowledge and skills (Garrison, 1993; 1997; Candy, 1991; Kolb and Kolb, 2009). Although sometimes lacking the required task (e.g. demand of the task and requirement of learning) and personal knowledge (e.g. tools required, availability of resources), divergers utilised their strategic knowledge to acquire resources and address these deficiencies, as well as clarifying and supporting the construction of task related knowledge (Candy, 1991; Merriam et al., 2007; Spear and Mocker, 1984).

These metacognitive strategic approaches (Flavell, 1979; Haynie et al., 2012) encompassed the information acquired from a range of resource integration processes (e.g. specialists, online, friends and family), helping to develop both personal and task knowledge in a systematic process. Furthermore, these

learning resource integration activities helped to facilitate additional metacognitive regulatory processes (including planning) and highlight participation expectations to ensure the realisation of performance goals (see regulation). For Participant 1, this involved searching for inspiration from local houses and receiving quotes from tradesmen (using this opportunity to question the tradesmen on their approach) as preliminary stages of their learning process (see planning below). After assessing the complexity of the task, they further employed resources to provide direction for the learning:

> I made a few phone calls to some tradesmen to give me a quote because it might be cheaper to do it that way, but I was just needing to know what to do about the felt that sticks out from under the tiles that goes near to the guttering. That was all rotten and I needed some ideas on what to do with that. (Participant 1)

> I tell you what I've started using in the past couple of years and that's YouTube videos, they're fantastic… the way I learn, I'm much better seeing it down than looking at a diagram. (Participant 1)

Participant 3 also used a strategic approach to clarify their knowledge ('I looked on the Internet a few times to make sure I was doing it right'). This confirmation helped to offer assurances that their level of task-related knowledge was suitable, or if they were required to develop it further before participation. When faced with tasks that they perceived as beyond their abilities, Participant 3 used resources to direct their learning:

> I use YouTube because I find seeing what people do makes it easier when I do it, and there's quite a few good channels on YouTube that help with that. (Participant 3)

Similarly, Participant 2 turned to online resources and specialists to help further develop their metacognitive task knowledge to construct a garden pond:

> I searched Google… and also spoke to an electrician friend of mine… I had a look on forums and also on YouTube, I found that quite useful. (Participant 2)

5.3.3 - Metacognitive Regulation

Planning

Due to their preference for deep-level processing and developing knowledge and skills from a variety of resources to master the task, divergers ensured that planning was a key component in their learning. For example, Participant 3 discussed the importance of planning ('I'm more of a planner'), especially as the tasks were time dependent ('I made sure that I was prepared, I think only having two weeks to do it all helped to make sure that we researched everything'). This participant's plans involved employing metacognitive task knowledge ('I knew where I wanted everything; how to put the tiles on with the spacers and grouting') in conjunction with resource integration activities to effectively plan and clarify the task process:

> Before we got the tiles I had a look at how to do it. The main thing was the cutting. I looked for tile cutters online - I generally go to Amazon as I like the reviews on there and they seem to sell everything. So I found a cutter that looked good for what I needed and had good reviews… we decided where the tiles were going to go and measured up. I checked on a couple of websites, you know just on Google to check I was measuring correct [*sic*]. Then we chose the tiles and got on with it. (Participant 3)

Similarly, Participant 1 expressed how planning through researching and doing 'proper drawings' was an essential part of their learning ('I'd try and plan everything...I do try and think things out', 'until I've got it planned out I don't tend to start'). This process included exploring similar projects on YouTube and in the local area to provide inspiration and clarification:

> I do research by looking at how other people's houses are and see
> how they've done it. Some companies clearly do soffits and fascias
> really nicely, and some do them horribly. (Participant 1)

Participant 2 also revealed the importance of plans ('we talked about what style we wanted, where it would go and what we needed to do… I did a lot of research and planning on it') as they utilised both their task and personal knowledge, along with that derived from a range of available resources (e.g. friends, specialists, online forums, and YouTube), to ensure adequate preparation for the task.

Monitoring

In line with their preference for developing a deep understanding of the task, reflection of the learning process was also a key component for divergers (Kolb and Kolb, 2009). This involved monitoring tasks by utilising both internal (existing and newly acquired metacognitive knowledge) and external resources to ensure that the learning was sufficient for the realisation of performance goals. This kept the learner motivated in the belief that they could achieve these as they adopted a confident and pragmatic approach to clarifying their learning process (task motivation). For instance, when constructing the pond and encountering problems, Participant 2 used their strategic knowledge and referred back to the instructions (for the frame) ensuring that additional knowledge from online resources further validated and clarified their learning process, whilst also contributing to their self-efficacy towards the task and learning:

> I saw this happening and went online to see what I could do about it.
> (Participant 2)

> (*Talking about YouTube*) I can follow instructions no problem but
> it's always nice to be able to see how it is actually done, rather than
> just following diagrams. (Participant 2)

When attempting wallpapering for the first time, Participant 3's monitoring process involved trial and error learning processes, constantly checking with resources to successfully accomplish performance goals:

> With the wallpapering I found how they matched it up was useful because I've always thought that that was the hardest bit, but in fact it's quite easy… I checked on YouTube to see how people do it… I think I got the hang of it on the last go!(Participant 3)

Participant 1 also used similar methods as a basis for scrutinising their initial attempts. Their performance expectations for replacing the fascias were directed by a trial on their garage so that 'when [they] came to do the whole house at least [they] had had a go and realised some of the pitfalls'. However, when an unexpected issue occurred, they used metacognitive personal knowledge to adapt their initial approach and attempt to solve the problem:

> I tell you what I did struggle with was with the timber fascia boards. Because I couldn't lift the tiles, I had to rip it downwards and out; it was a shocking job. You couldn't pry it outwards because the tiles were in the way. So it was a question of hacking it out bit by bit. You could push a screwdriver through them, [but] the fascia boards were really shot. (Participant 1)

When this failed to adequately solve the problem, they utilised strategic knowledge by turning to learning resource integration processes to develop an in-depth knowledge of the task to facilitate a successful change in approach:

> I tell you what, I did look into and I made a few phone calls to some tradesmen to give me a quote because it might be cheaper to do it that way, but I was just needing to know what to do about the felt that sticks out from under the tiles that goes near to the guttering. That was all rotten and I needed some ideas on what to do with that… There was [*sic*] the two people that had given me a quote on the job and gave me two different ways of sorting it if they did it. I trusted one and not the other based on reputation and I decided to do

it that way… I just took a guess on him after talking to him. (Participant 1)

Evaluation

Divergers evaluated their learning processes based on their perceptions of how they perceived that the successful task should look and whether they had successfully completed their performance goals. Participant 1, for instance, centred their evaluation on how the fascias previously looked, and the learning process and value that replacing them provided. By appraising their efforts in relation to local houses, tradesmen, YouTube videos, and the motivational factors (goals and emotions), Participant 1 deemed the task to be a success:

> It looks smashing, it really does make the house look tidy and it's got to add value to the house because eventually you're going to get a lot of damage if you don't repair fascias. I had to do something because it looked awful and what I've done is really good. I do enjoy DIY and I think with this job, the labour would have been the expensive bit and so I'm happy that I did it. Despite the fact that you want to get the job done, you have to grit your teeth and get through it - rushing things is a nightmare and causes the issues. (Participant 1)

Participant 3 meanwhile evaluated the learning process after constructing a fireplace. Their metacognitive control and regulatory processes, and the learning resource integration processes that were used to support and direct these were essential in the construction of their knowledge, and facilitated the successful realisation of value gained from completing the task. For this learner, like the other divergers, understanding the task requirements thoroughly before engagement was the key to goal attainment:

> I think I, or rather we, did a really good job. I think it paid to be prepared and have the right tools. (Participant 3)

5.3.4 - Discussion

Divergers entered the learning environment motivated by cost-savings and to develop in-depth learning processes in order to realise high standards and challenging performance goals. Their confidence towards their ability to participate in these challenging tasks originated from a belief in their abilities as effective self-directed learners to acquire as much information as possible via a range of resource integration activities that help to support, direct, inspire, and/or instruct and provide deep-level learning experiences.

Divergers controlled their learning (Zimmerman et al., 1992; Stockdale and Brockett, 2011) by utilising their metacognitive strategic knowledge and knowledge of themselves as learners to aid the planning process. This planning process was an essential aspect to the successful realisation of goals and to the in-depth knowledge and skills development of the learner. This considered approach enabled divergers to efficiently overcome obstacles, successfully complete tasks, and realise performance goals. Reflecting positively on their learning, divergers displayed an intrinsic interest and enjoyment (Bandura, 1994; Pekrun, 1998) from being involved in the task. This evaluation was based on their perceptions that were derived from their acquired task knowledge and resource integration processes that determined how the successful task should look, and whether any changes could have been made. Figure 5.4 demonstrates a diverging learning style and the key components in this interactive process.

Figure 5.4 – Diverger's Learning Preferences and Processes
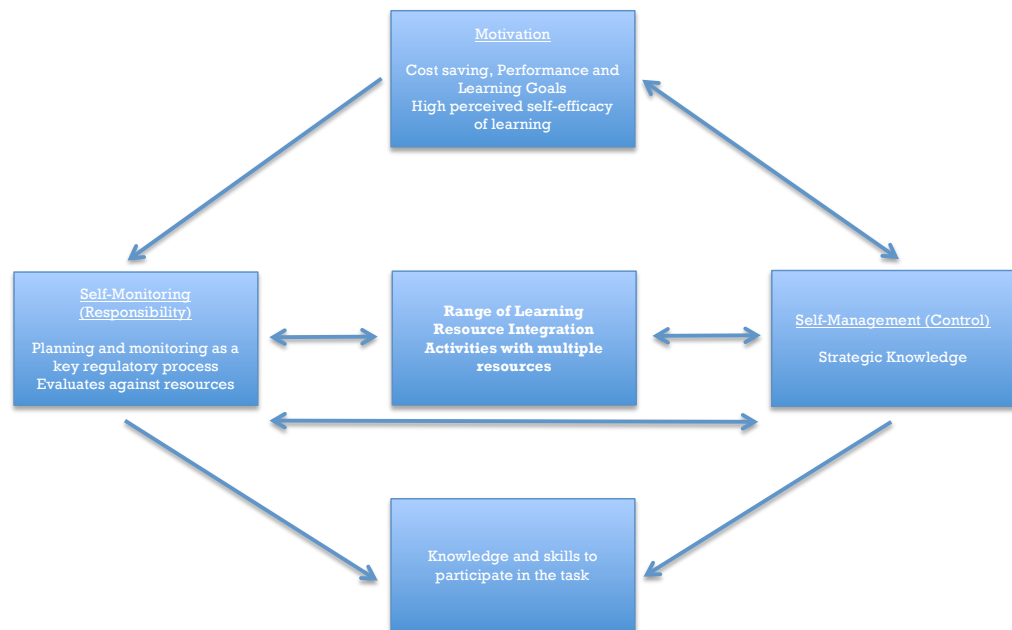
Participant 2 exemplified this when constructing a pond. Upon deciding to do it themselves, they looked for resources by using their strategic knowledge. These varieties of resources helped to build an overall picture of the task's requirements, and helped to confirm plans and evaluate the learning:

> The first thing that I did was look at pond structures to see how big we were going to go. I wanted to keep some fish in it but not too big, more of a feature…I searched Google and found a few suppliers.

> I looked at pumps and also spoke to an electrician friend of mine who said that he could fit it and run it from the house. So I found a lightweight base, ordered that and the tarpaulin thing to go inside it.

> I looked online and spoke to a couple of people in some forums, [and] this was the best option…they pointed me in the direction of some good suppliers.

> I had some instructions that came with the pond frame and got some more tips online…I had a look on forums and also on YouTube; I found that quite useful.

It was great, the waterfall looked good and then we left it for a few weeks for the water to settle and stuff before we got some fish in it… it looked good and after it had bedded in, it looked great in the garden… I did a lot of research and planning on it, I just might have been done a bit differently. But I'm still confident that I did it right – it still worked. (Participant 2)

5.4 - Convergers

Participants who were characterised by their engagement in the task and use of their metacognitive knowledge processes and technical resources (e.g. YouTube videos, DIY forums) to facilitate this were categorised as *convergers*. Their motivational perspectives towards learning split participants who preferred this style. Although they represented different motivational approaches, they were similar as they actively engaged in the task, experimenting and tailoring resource acquisition to develop their knowledge and skills as a result of this engagement. Kolb and Kolb (2009) describe this style as 'thinking (AC) and acting (AE) in learning situations. People with this style are best at finding practical uses for ideas and theories. They like to solve problems and make decisions based on finding logical solutions to issues or problems. They prefer dealing with technical tasks and problems than with social and interpersonal issues.' (p.317).

5.4.1 - Motivation

Goals

As with other learning styles, the interviews revealed that convergers were primarily motivated to participate in learning activities to realise performance goals. These goals included a variety of DIY pursuits including: tiling (Participants 4 and 5), constructing a disability ramp (Participant 7), and guttering (Participant 6). However, these goals were dependent on their motivational outlook to learning. A self-assured motivational perspective

involved participants setting learning goals in order to realise performance goals. Participant 6 was seventy-six and still sought to develop knowledge and skills primarily due to costs, but also for the experience it provided. Participant 4, meanwhile, fitted a bathroom because of performance reasons (cost) but also for the 'learning experience', while Participant 8 revealed their motivations and attitude toward learning:

> Many people can learn if they have the skills, and do a satisfactory job if they are willing to put in the work before. It doesn't come naturally.

For 'have-to' convergers, performance was the key motivational driver for participation. The interviews revealed that these learners did not recognise the development of skills as a key motivating factor, and were instead driven to competently complete performance goals. For Participant 5, it was the aesthetic look of replicating existing skirting boards and the approach to tiling. For Participants 7 and 9, involvement in DIY was down to cost savings and wanting to get the job done efficiently.

Emotions

There were scant instances of negative emotions for 'have-to' convergers towards the proposed learning process, with only Participant 7 discussing their attempts at learning how to plaster and that they were often afraid of it. However, there were negative tendencies evident when reflecting on the learning, for instance, when Participant 10 described his negative feelings when breaking tiles:

> I'd break tiles sometimes, which was annoying. We had to get another box because of that… it gets fiddly and if you don't cut it right well then you have to chuck it away or hopefully use itfor another bit somewhere. More often than not you can't, though.

Moreover, there were few instances of positive emotions towards the learning, in contrast to more self-assured convergers who welcomed learning and the positive enacting emotions (Pekrun et al., 2002) that participation in DIY activities provided. Participant 4, for instance, voiced how DIY made them feel, while Participant 6 expressed enjoyment of DIY in general:

> Yeah I like to be able to stand back and say I did that, it gives me a lot of pleasure. (Participant 4)

> I've been doing it is so long it's now a professional standard, its just a hobby really… I enjoy restoring things. (Participant 6)

Perceived Self-Efficacy

Overall, convergers were similar in their perceived self-efficacy towards the learning task, primarily due to their confidence in their metacognitive knowledge and abilities to acquire resources when required. For example, Participant 6 noted that they had developed a high standard of painting and decorating knowledge and skills over the years and this had provided transferrable personal knowledge that provided the confidence for other DIY tasks. Participant 9 also employed existing skills of fencing to erect a fence and garden shed. Likewise, Participant 4 was very confident when approaching the bathroom task, assessing it to be within their reach ('I'm pretty savvy in that way. I did a bit of research online, but most of it is common sense'), while Participant 10 summed up their attitude towards learning and participation in realising performance goals:

> I'm one of these people that I will try something myself as I always think if someone else could do it then why can't I?

Convergers' perceived self-efficacy towards learning was further exacerbated by the technical resources that they could acquire to develop their knowledge and skills and help address any concerns. These resources were used as a

solution to enable the learner to efficiently realise performance goals, and were generally the preferred option for acquiring knowledge:

> I'd seen it done before by plasterers and I thought it didn't look too hard to do, more of the action. So I had a look on the Internet and found out the quantities. (I) looked on YouTube to check out how the pros do it and then I had a go. (Participant 10)

5.4.2 - Metacognitive Knowledge

Convergers were generally experienced at DIY and could access a range of metacognitive tasks as well as personal and strategic knowledge (Flavell, 1987) to aid with their learning processes. One of the key characteristics of this style was a preference for using personal knowledge (e.g. Participant 5: 'I went ahead and was fairly confident as I'm fairly good with my hands anyway') and task knowledge ('I'd used them in the past - a couple of times', Participant 7; 'I knew how to do two-way switches', Participant 8) to find solutions for their learning process. When they perceived their existing metacognitive knowledge to be sufficient, convergers' learning often involved immediate participation in the task through methods such as trial and error. For instance, Participant 7 noted how they had repeatedly cut doorframes until successful, while Participant 5's attempt at tiling and skirting also involved being engaged in the task and learning from mistakes:

> When putting a wooden floor down, cutting under the doors' frames and you know I've messed up a three or four frames by doing it wrong, but you just learn how to do it. (Participant 7)

> Yeah, although there was a socket in there as well and I had to work out how I was going to go around that as I did it slightly different than before. (Participant 5)

> When I took the old ones off I realised how they needed to be done and I just replicated that. It was a case of looking at them and trying it out on scrap wood. (Participant 5)

When tasks were perceived as being beyond their existing capabilities, their strategic knowledge saw the implementation of technical resources (i.e. Google searches, YouTube videos) to help develop their task knowledge and enable the effective realisation of performance goals. These technical resources were an integral part of the convergers' learning strategies, as they were a source that was recognised as being able to quickly provide information to support knowledge construction. For instance, Participant 10 drew upon online resources for the efficient access to resources that it provided, whilst Participant 8 drew on existing task knowledge of two-way switches when renovating a hall and supported this by using a DIY forum:

> Everything's on the internet now and I can just type in a question and all these answers come up. (Participant 10)

> I had to use (DIYDoctor) to work out two-way switches. Well, I knew how to do two-way switches – I did a project on them at college but that was 40 years ago so you forget if you don't do them regularly. But I definitely went to the internet to DIYDoctor to get the diagrams for the two-way switches...I did an awful lot of rigorous research on all the different ways of doing it to see which way they had done it and take it from there. (Participant 8)

Moreover, Participant 9, Participant 4, and Participant 6 all espoused their use of technology and the benefits it provided them to enable efficient participation:

> I just Googled it. I pretty much use Google for everything as a first port of call. That's the beauty of technology; you can just get out your iPhone or iPad and the answer's there. YouTube is great for that. (Participant 9)

> I put into Google what I want to find out and then they just pop up. The internet's a great place for reference...I find YouTube and videos quite useful. (Participant 4)

I just searched through Google for the key words of what I want.
(Participant 6)

5.4.3 - Metacognitive Regulation

Planning

Regulatory planning activities played an important role for convergers and involved the utilisation of metacognitive knowledge and learning resource integration activities, both before and during the task itself. Due to their confidence, convergers sought to become quickly involved in the task, gathering information and using their metacognitive knowledge to plan and enable participation. The key difference, however, from a regulatory perspective, concerned how the participant's motivational approaches to learning influenced the planning, monitoring, and evaluation process.

Self-assured convergers, readied with existing knowledge and experience, employed online resources to provide them with the information that would enable them to efficiently plan and participate in the task. Planning for these learners was an essential aspect to participation, as it was perceived to save time and effort with resource integration processes that supported other regulatory activities. This planning was conducted in an efficient manner due to the preference of convergers to become involved in the task. For example, Participant 4 espoused the importance of planning using metacognitive personal and task knowledge along with online resources to effectively construct knowledge:

> The bathroom is quite small [and] we had to have a certain size bath
> so it was planned around where we wanted to position that… We
> drilled it all out, planned it and bought the tiles and go from there
> really. Everything was marked out on the wall; it was part of the
> planning process. I find YouTube and videos quite useful. I had to
> look up to see how to seal the plaster before I tiled it, and there are
> various different things that you could put on it.

For 'have-to' convergers, planning not only helped to provide clarification of their metacognitive knowledge, but also to provide direction as there were often limitations in this knowledge. For instance, Participant 10 employed various resources (e.g. online forums, Google searches, specialists, YouTube) to develop his plans and acquire an understanding of the task, both for tiling and plastering:

> I wanted to make sure that I knew what I needed to do, so I had a look on some forums and the net to find out and had a look at some pictures to see styles. I mean, obviously it depends on what your bathroom looks like, but there are some good ideas on the net and people are generally quite helpful in the forums. So I had a look on there, asked some questions regarding what I needed tools wise…We went to a tile place and had a look and asked a bit more about it. I asked the guy in the tile place about the tiles and cutting it. He said that I would need a special tile cutter and that it would be hard to drill into the tiles if I needed to.

> I had a look on the internet (in forums) and found out the quantities and looked on YouTube to check out how the pros do it and then I had a go.

Participant 9, meanwhile, noted that planning was essential as it helped to develop an approach to the task: 'I'd measured up and knew what I had to do so I had it pretty planned out'. However, upon checking with resources to clarify task knowledge just before starting, they discovered the lack of knowledge that would enable the completion of the task in a simpler and more straightforward manner:

> I looked online to check what I might need, and I'm glad I did. I went on YouTube to see if there was anything that could help and this guy on there is showing you how to do the fence. I knew about the measurements and the straight edges, that's common sense. So I'd measured up and was looking for tips and the guy says to use cement, but quick drying cement, which is a bit more expensive but

dries within the hour. I know from putting in wooden fence posts and cement to make it solid, that a) mixing it is a ball ache, with the quick drying stuff you add water – it's like some cheap ready meal; and b) it's quick so you don't have to stand around holding it for ages, you just stick some bricks in to keep it solid and pour the cement powder and then the water over. It made it a lot more straightforward.

For Participant 7, planning involved 'thinking about it for a while and then getting on with it.' As with Participant 9, this approach was not always immediately successful and contributed to some additional workload. When they did employ resources, Participant 7 preferred to use social networks (friends, colleagues, and specialists) to develop his planning process, partly due to frustrations in the information that was found online when searching for details of installing a boiler:

If I have an idea then I'll ask online and if an answer comes in then I'm usually happy with that. But I got to the point where I couldn't find what I wanted, but a couple of phone calls later to friends and I had my answer.

Participant 5 also recognised the importance of planning as, although proficient and experienced at tiling, they ensured that they were prepared due to some restrictions of acquiring resources where the task would be attempted. This planning process included obtaining tangible resources (i.e. tiles, spacers, grout), and developing task knowledge (i.e. how to correctly fit tiles around electrical sockets) through YouTube videos ('I watched the video and it said how to do sockets'; 'They showed it on the video, so I bought one so that you could spread it onto the tile in one go rather than smaller bits') and Google searches ('I did some research and they said that it was a lot better way to do it'). These resources provided Participant 5 with information and support so that they could complete the task effectively:

Yes, often when looking at techniques, there's always something on there. Sometimes it's just amateurs, and sometimes it's done by

professionals. I've done lots of tiling and recently I thought I'd just look it up on the Internet and there was some tiling companies that had done a whole load of stuff from choosing the tiles and marking it out, to cutting and how you centre them in a room which I'd not seen done.

Monitoring

For self-assured convergers, regulation was less of an issue due to the confidence that they had in their abilities to successfully use their own metacognitive knowledge to successfully monitor their learning:

> We were putting a two-way switch in, but it wasn't working so we had to find out what was wrong. So we had to trace it back and work out how they had done it and make sure we had the wires in the right place. (Participant 8)

When this knowledge was perceived to be insufficient to competently realise performance goals, or when experiencing obstacles to the task, these convergers were quick to realise this and, in line with their learning resource integration approach for planning, used resources (predominantly technical) to help make informed and efficient monitoring decisions regarding participation:

> We didn't get it quite right but we got it to work pretty well. Then I went back to do a bit more research and found out why it didn't work as well because of some of the problems that we had. But we used the Internet. (Participant 8)

> If I can't do something then I would stop, I would get the professionals in. (Participant 6)

> If I have a problem with something then I know where to look for information and what standards to work to. (Participant 6)

> I put into Google what I want to find out and then they just pop up. The internet's a great place for reference… if you come up against

difficult situations you can bet that somebody has done it before or tackled the problem. (Participant 4)

I'll always cross-reference it, I won't take the first bit of information. (Participant 4)

For these 'have-to' convergers, planning was a process that was often not as detailed as a self-assured converging style, and as such meant that the learner had to return to check their processes were correct to realise performance goals. Therefore monitoring was more significant for these participants, with resource integration activities representing an essential tool to help with this regulatory process. For these learners, resource integration activities provided further information to help monitor and contribute to their learning:

I've done lots of tiling and recently I thought I'd just look it up on the Internet and there was some tiling companies that had done a whole load I've stuff from choosing the tiles and marking it out to cutting and how you centre them in a room, which I'd not seen done. (Participant 5)

It seemed logical and it was one of the big tile retailers and I thought that if they are saying that's the way that you do it then it seems pretty straightforward that I would do it like that. (Participant 5)

As with planning, Participant 10 used resources to help his learning and plastering task:

It was just tricky to get round, I had to check on the Internet how people had done it and for tips because I wanted it to look right… I looked at videos to see how it was done and compared it to mine.

Likewise, when plastering, Participant 10 also referred back to these online video tutorials on YouTube to 'see how it's done'. After some initial attempts, he referred back to these to resolve problems and compare skills and techniques to ensure the attempt was carried out correctly:

…I had another look on the Internet…and it was because I wasn't being confident enough with it and leaving it to dry.

Evaluation

Although Kolb and Kolb (2009) note that evaluation and reflection is not a key-learning tool for convergers, the interviews highlighted that in this context, evaluation played a part in the learning process. Again, self-assured convergers were less prone to evaluate their learning. When they did evaluate, they were positive and recognised the learning acquired. For instance, when reflecting on his tiling efforts, Participant 6 noted that:

> I like to do a good job and see that it's finished and learning new skills to achieve that makes me really proud.

On the other hand, 'have-to' convergers' evaluations were based on available resources that could provide feedback and enable the learner to make sense of their attempts at performance goals, and whether any adaptations to strategies could have been made (Ruohotie, 2002; Merriam et al., 2007; Candy, 1991; Garrison, 1997). As an example, Participant 5 evaluated their finished task against similar jobs on YouTube, concluding with:

> I probably needed a bit more time. I grouted the following day but it needed 24 hours, which didn't seem a problem. I put some sealant on the bottom edge and the sides but the grout wasn't properly dried and it got into the sealant a bit, so I should have left it to dry more or got my daughter to do it. In retrospect, I should have left it because it wasn't as good a job or as clean a job as I would've liked because the grout still hadn't properly dried… You know, it looked good but in retrospect I could have done it better. If I did it now, I would do it differently and it would have taken less time and cost less.

Participant 7, also on reflection, decided that in comparison to professionals (observed online and in person) their attempt at the performance goal was of a sub-standard quality:

> I couldn't get it to go smooth. You see the pros do it and they slap it on and then walk away and have a fag or a cup of tea and then skim over it again and it's perfect. When I do it though and follow the same principals yet it doesn't move, just stays where it is... I've given up on plastering - I know my limits.

5.4.4 - Discussion

Due to their preference for active experimentation and abstract conceptualisation (Kolb and Kolb, 2009), convergers sought to develop learning goals in a timely manner both before and during the task. They were motivated by performance and/or learning goals and reliant on their existing metacognitive knowledge to promptly participate in value activities. Knowledgeable and experienced, they were inclined to use their metacognitive knowledge to participate through activities such as trial and error, or alternatively search for relevant resources that could instill a confidence and provide and support planning, monitoring, and evaluative processes. These resource integration activities involved utilising a preferred learning 'partner' to support the development of their knowledge. In general, and in line with Kolb and Kolb's (2009) assessment, convergers preferred dealing with technical aspects of learning and as such utilised online resources as a key-learning tool. This process is summarised in Figure 5.5.

Figure 5.5 – Converger's Learning Preferences and Processes
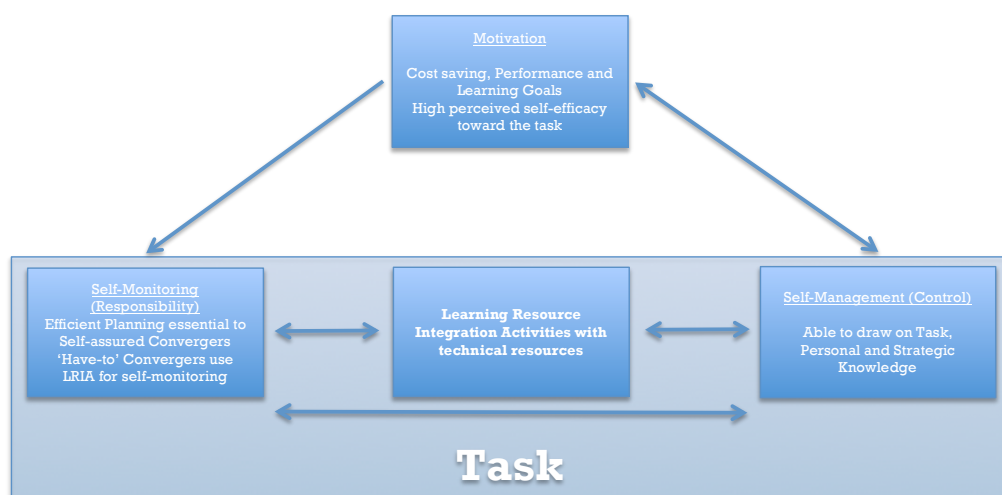
Motivational approaches determined the way in which convergers were involved in regulating their learning. Self-assured convergers adopted a more in-depth approach to their learning, as they were motivated by performance goals and the learning goals that helped to realise these. For these learners, the regulation was in the planning and ensuring that resource integration activities were conducted to enable prompt engagement in the value activity.

The 'have-to' convergers possessed extensive metacognitive knowledge and confidence in their abilities to participate in the task and, when required, develop their knowledge and skills further to realise performance goals. Whilst learning was not a priority for these convergers, their planning process was essentially constructed before or during participation in the value activity and based on their own knowledge. However, this approach was not always an effective regulatory learning tool, as their perceptions of how to realise performance goals were often misjudged and their plans insufficiently in-depth. This ensured that the learner risked being unprepared for the task or missing an essential aspect to the learning; a consequence of an active experimentation approach. Therefore, they relied heavily on regulation processes that were derived from learning resource integration activities (predominantly with online resources), to help support and direct knowledge construction to effectively participate in the task.

For instance, Participant 9 very nearly found this out when erecting a fence, while Participant 7, although experienced and confident in their approach ('I get involved and then learn as I go along'), discovered upon reflection that by taking time out to refer to resources, they could have saved time when constructing a disability ramp:

> The reason it took me so long to do it was because I had spent all my time mixing the cement up and I realised, of course, that I could have just hired a cement mixer and it took me half an hour to an hour and before that I had been mixing the cement up and shovelling it in, but I'd never thought about getting a mixer and then I suddenly thought 'ah'.

Participant 9 and Participant 7 both attempted tasks without the relevant additional supporting information. Only after they completed the task and evaluated this process (using online resources as guides) did they realise their mistakes. This critical evaluation was common with the responses of 'have-to' convergers, as they often espoused negative reflections of their learning process and the finished task.

5.5 - Assimilators

Respondents who were distinctive (in that they took a systematic and in-depth methodological approach in developing their knowledge and skills) were characterised as *assimilators* (Kolb, 1984; Kolb and Kolb, 2009). Participants who adopted an assimilating style were predominantly motivated by performance goals. Four of the participants were 'have-to' assimilators, and four were self-assured assimilators. However, these motivations did not correspond to different approaches being employed. Instead, they shared the same approach when faced with a learning requirement, ensuring that they took their time to understand the task and were fully prepared. Furthermore, they applied learning resource integration activities to provide this information to help support knowledge construction and regulatory processes, and to realise value from the successful completion of the task. Kolb and Kolb (2009)

describe this style of learning as involving knowledge construction facilitated by 'thinking (abstract conceptualisation) and reflecting (reflective observation). They are best at understanding a wide range of information and putting it into concise, logical form. They are less focused on people and more interested in abstract ideas and concepts. Because they place less emphasis on feeling and acting in their style, they may prefer to work alone. They do not make quick decisions but think things through' (p.317).

5.5.1 - Motivation

Goals

An assimilating style involves learners who are characterised by their in-depth learning processes that are centred on performance goals, i.e. costs and aesthetics. For instance, Participant 14 wanted to erect a fence and gate posts efficiently in terms of cost, labour, and time; Participant 11 needed to tile a bathroom deciding to do it themselves to save money 'I was pleased that I did it, and I'd be quite happy to do it again but it was more to get it done than learning'; Participant 13 built a log store to get a better quality and price than a shop bought one, whereas Participant 12's aim was to keep draughts out of their home. Importantly for assimilators, achieving these performance goals included developing their existing knowledge and skills through learning activities and as Participant 14, a self-assured assimilator, noted: 'acquiring a skill that other people have got'.

Self-assured assimilators generally emphasised the importance of learning in realising performance goals and reflected on this, as will be discussed. For 'have-to' assimilators, achieving the performance goal was vital, with learning not recognised as a by-product of participation. For these learners, developing their knowledge and skills were essential only for the task itself. However, as this discussion will highlight, the way in which all assimilators approached the learning process itself were the same.

Emotions

The interviews exposed DIY assimilators as positive learners who, on the whole, displayed little negative or frustrative emotions towards or within the learning process, despite some of the participants (i.e. 'have-to' assimilators) having higher emotional tendencies toward the prospect of learning. Instead, they exhibited positive intrinsic (learning related) and extrinsic (task related) emotions (Pekrun et al., 2002) (e.g. 'I enjoy doing DIY', Participant 17) that resulted from a confidence in their ability to acquire knowledge and develop plans that would enable them to construct knowledge and realise performance goals. As is discussed below, an assimilating style encompasses in-depth learning processes, and this instilled a belief in the participants that there was a realistic chance of realising performance goals when sufficiently prepared. Participant 11, for instance, described how they approached tiling and the learning that went alongside this preparation. Although hesitant about the task, they were positive towards the learning experience due to a propensity to engage in deep-level processing with a range of resource integration activities:

> I'd never done it before and therefore I had to try and understand the process and teach myself what way was the most appropriate for going about it. It was always something that I had been told was difficult to do and therefore I was a bit apprehensive and that's why I got somebody in to quote for it as it was quite a big job and, bearing in mind I was working, it was something that I wasn't keen on doing myself because of the time involved. As far as other parts of the process, I looked through my DIY book and looked at the pamphlets that various superstores supply. Also the Internet was a good source as well because you can get so much how to do it YouTube video clips and that sort of thing.

Perceived Self-Efficacy

Due to their preference for conceptualising and reflecting (Kolb, 1984), assimilators exerted a lot of effort towards their initial learning process, in particular planning. This is expanded below, but because of these structured

attempts, assimilators were confident that effort before participation in the task would ensure the effective realisation of goals:

> I have the confidence to do stuff, but it's the planning which is the most important part. (Participant 13)

> I did quite a bit of research and read up quite well beforehand and once I decided that I was going to go ahead with it, I was confident what the process was. (Participant 11)

> I was very confident because you have an actual picture of the thing and measurements and bits of wood, so I would say it's more of a jigsaw really. (Participant 15)

5.5.2 - Metacognitive Knowledge

For assimilators, the construction of knowledge to participate in the task was reflected by their preferred style of learning (i.e. thinking and reflecting) (Kolb, 1984), and involved developing a rich understanding of the task to support a detailed planning processes. This involved critically assessing personal (e.g. knowledge of the self as a learner) and task variables (including experiences, skills, and transferrable knowledge) to make sense of learning environments. To illustrate this, Participant 11 used metacognitive personal knowledge to ensure that the task would be carried out successfully:

> What I did basically was prepare some templates out of cardboard
> and placed them on some tiles to help out with the cutting process…
> it's something that I thought of myself.

Additionally, if further information was required, assimilator's used their strategic knowledge to help orientate participation in appropriate resource integration activities that would provide and support metacognitive regulatory processes. This generally involved online learning tools (e.g. Google searches, DIY forums, consumer reviews, and YouTube videos), summed up by Participant 17 describing the usefulness of this approach:

Well you can practically ask it any question and it tells you what the answer is, whereas [with] books and magazines and stuff you have to find the answers. For example, if you wanted to fit a Velux blind on your window you just type it into the Internet and you find loads of answers and you also start to take notice of suppliers on there so you can go and find prices and with a lot of things what I've done recently. I laid stair carpets on an awkward twisting staircase and I went on the internet and I watch some demonstrations on [my] iPad (YouTube) and that was really useful you know you think you should go from the top and work your way down but really you should go from the bottom and work your way up.

Participants 11 and 18 both used forums and Google, with the latter discussing how they had developed task knowledge by supplementing their limited personal knowledge (of measurements and planning activities) with acquired information to successfully plan and determine participation expectations:

I had the measurements and had a plan of the room. I'd drawn a scale drawing so that I knew where everything would go. I even drew the flooring on after I had ordered it to make it quicker to fit and make sure it was perfect. There's no point in doing something yourself if it looks shit is there? I'd done a bit of research to see how to do it properly, how to start and tips...I just put into Google 'laying a wooden floor' and loads of sites came up and I had a look at a few of them that had similar advice and went with that. Turns out they were pretty spot on.

Likewise, Participant 12, when renovating their sash windows, drew on their previous experience of the task and, looking to improve on this, acquired knowledge from online resources to determine performance expectations (i.e. to improve on her previous effort). For Participant 12, this process involved assessing her existing knowledge and experiences of the task, and if these are judged to be insufficient for their needs, set new learning and performance goals as a self-assured assimilator. Similarly, Participant 15, upon deciding to construct a bird table (see appendix 2), assessed personal and task knowledge

before using this with strategic knowledge to source and purchase plans online, carefully adjusting them where required to suit performance goals. Participant 13 summarised the appeal of these online resources:

> Everything's easier nowadays you can look stuff up on the net. Until the late '90s you would have to acquire the appropriate book and again you might get not very good information at all that sends you off in the wrong direction. That's always a potential problem. Now of course after spending half a day on the net researching something you can evaluate before you even think of starting…there is usually enough information available. If you're coming up with information that is not relevant then maybe it is the question that you are asking that is wrong or the outcome that you are looking for is not really appropriate.

Moreover, when assimilators viewed the task as beyond their abilities, they still sought to develop their task knowledge and skills in order to understand how the job should be completed. For instance, Participant 12 required repairs to their roof and understanding it to be beyond her capabilities, involved herself in a range of learning resource integration processes to find as much information as possible to ensure that they understood the task, and importantly, that it was carried out to their quality specifications:

> If I employ someone I know exactly what I want doing. For example we had the roof done in June and I had found out quite a lot about what to put on the roof and then they said something and I asked around a bit and I went to a homebuilders exhibition where they have a few stands and I asked them so that I could decide which was best. So we told the builder we don't want this sort of roof we want slate and here's where you can buy it, and that's what he did.

Similarly, Participant 13 described how they had approached tasks in which they were unable to participate, and like Participant 12, ensured that they were sufficiently prepared with knowledge of how the task should be approached:

You've usually got a pretty good idea of what outcome you want, yeah. Again at that point you don't say I want it done like this because I'm not competent enough to tell someone how to do it. I would say this is the outcome I want and that's usually enough for the professionals.

5.5.3 - Metacognitive Regulation

Planning

Assimilators exercised self-regulatory methods (Garrison, 1997) and resource integration activities to develop knowledge and skills (Spear and Mocker, 1984; Merriam et al., 2007) and devise in-depth plans. Planning for assimilators was the key to successfully completing performance goals, and the focus on effective planning involved the use of learning resource integration activities to provide supporting information to their existing task knowledge before participation in the task. For instance, Participant 17 used the internet to search for potential problems that provide 'an idea of how difficult the job is going to be'. Similarly, Participant 18 used online forums to confirm his plans, deeming them as essential to provide information to successfully realise performance goals (how to cut flooring around radiator pipes), whilst Participant 14 also utilised online resources to develop their planning process:

I spend ages planning, drawing it all out, and sussing out partly because of the economy for materials, especially the price of timber today, which is a major consideration.

Participant 11 also emphasised the importance of planning: 'I use planning for all aspects of learning, I think it's important', explaining how they had approached the prospect of tiling for the first time by ensuring that they used sufficient metacognitive planning approaches (determined by his personal knowledge) with learning resource integration activities to ensure task participation:

I spoke to my wife and did some design work and worked out what the quantities would be and what was required and the cost. We went round various superstores to look at the tiles and the type of tiles that we'd want. Then we made sure that we had all of the appropriate tools that we might need and we invested in the electric tile cutter and other tools that we might need. And so we decided yes, it's something that we want to do, so we bought the tiles and got on with it.

Participant 13 summed up the role of planning for assimilators and the detail that was required for their learning processes. This was key learning and an important consideration when participating in new learning environments:

It's the planning which is the most important part. Get the plan right and the rest will follow and then that helps me do projects… for me by far the most important part is planning…every job you need to learn, or I find you need to learn, something whether it's isometric projections for example to make my plans better…You build in certain time for learning 'have-to' skills you know…if you're doing a plan like that you just have to look how to do it and you don't do any more, but other things you need to allocate more detail depending on the complexity of the project. You make that decision.

Monitoring

The appropriation of in-depth planning processes and acquisition of knowledge prior to engagement ensured that the monitoring and evaluation of the learning itself was of less importance to assimilators. These plans helped them to maintain control within the task:

I label the incoming supply and outgoing, so when you go to modify later it's a lot easier to see what goes where. (Participant 14)

Just measuring all and drawing to scale in a little notebook, which I think I've still got floating around (Participant 16)

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Furthermore, if required, they evaluated the adequacy of their increased knowledge and skills by utilising external resources. Participant 13 looked online for consumer reviews, tips, and ratings for tools, and Participant 15 used specialists and YouTube videos to clarify their own thought process when constructing a garden planter, amending the proposed approach based on acquired resources.

Evaluation

For assimilators, assessment of their learning was reflected by both their metacognitive knowledge and plans as to how the completed task should look, and comparison to available resources when required. Assimilators were also quick to acknowledge how, when making mistakes, they learned from these experiences:

> I wasn't anywhere near that but the technique what he taught me, you know, I was doing a half decent job but the skills that he taught me showed me that I was pussyfooting around and that wasn't the way to do it. (Participant 14)

> It was something that I picked up myself and [by] learning from my mistakes. It's not until you finish the job and grout it and you realise that there's quite a few mistakes… I think ordinary DIY people learn from their mistakes. I think once you get to do it then it's all about confidence to do those things. You press on with and then realise that you are learning from your mistakes. (Participant 15)

When they deemed the task to be a success, they maintained the positive emotions that this provided in relation to their performance goals:

> [I was] pleased that I did it myself, saving money so it made it worthwhile…[it provided] a feeling of achievement. (Participant 11)

> [I felt] satisfied and proud. (Participant 15)

I think, when I look at it, I think I've done a good job and when they hang and they work properly and go up or down, I am happy with the job. (Participant 12)

5.5.4 - Discussion

Assimilators were motivated to realise performance goals by developing a rich understanding and intrinsic interest in the task (Bandura, 1994). The construction of knowledge involved these learners assessing and making sense of the task requirements, utilising in-depth metacognitive control processes (e.g. personal, task, and strategic knowledge) to develop in-depth plans and realise performance goals. These key planning procedures included the assessment of their abilities (e.g. knowledge, skills), alongside resources that they could use to support any deficiencies in their knowledge. In particular, they employed online resources (e.g. Google searches, YouTube videos) as key learning tools as they sought information to strengthen their own metacognitive knowledge.

Due to their diligence when planning, assimilators were able to adapt to changing circumstances, by evaluating and monitoring their learning (Ruohotie, 2002) using resource integration and planning methods to correct and overcome obstacles (Bandura, 1994). Due to their propensity to plan in depth and their strategic knowledge towards acquiring resources, assimilators had a great deal of control over their learning process (Garrison, 1997; Zimmerman et al., 1992; Stockdale and Brockett, 2011). Figure 5.6 highlights this assimilating learning process.

Figure 5.6 – Assimilator's Learning Preferences and Processes
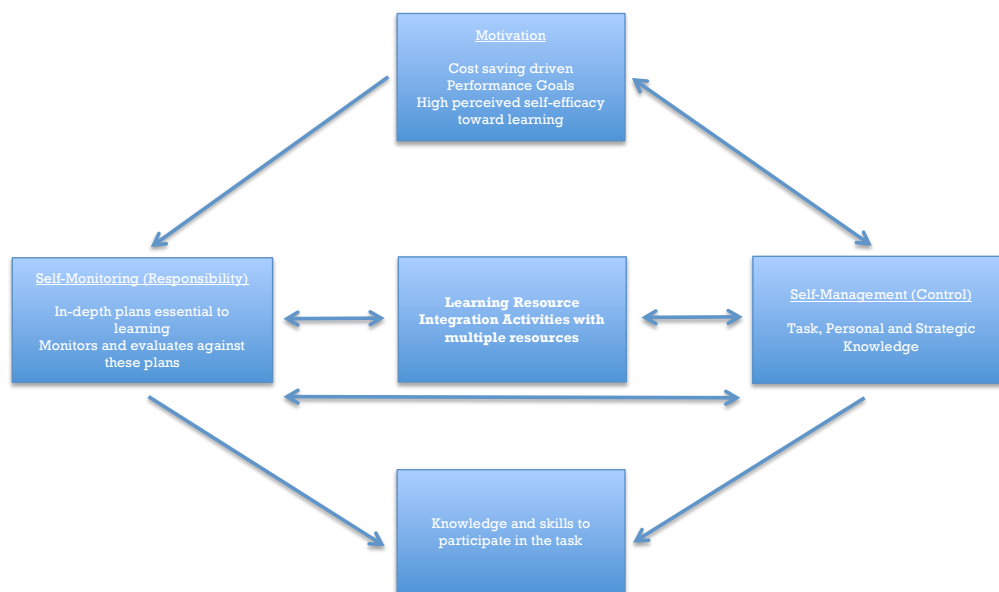
5.6 - Accommodators

Participants who were eager to actively engage in tasks to realise performance goals, and who possessed personal and task metacognitive knowledge but lacked the regulatory processes to be able to develop their knowledge and skills on their own, were classed as *accommodators*. This style generally had little time for thinking activities, and instead sought to utilise existing knowledge and skills to realise performance goals. When lacking these abilities, they reproduced, rehearsed, and memorised the content made available by resources (Loyens et al., 2008) to provide them with information and regulatory learning processes (planning, monitoring, evaluation) that supported their own knowledge and the realisation of their performance goals.

Kolb and Kolb (2009), note that learners who prefer this style 'learn primarily through acting (AE) and feeling (CE). They have the ability to learn from 'hands-on' experience and function well in ambiguous and uncertain situations. They enjoy achieving goals and involving themselves in new and challenging experiences. Their tendency may be to act on intuitive 'gut' feelings rather than on logical analysis. In solving problems, individuals with an accommodating

learning style rely more heavily on people for information than on their own technical analysis. Because they placed less emphasis on reflection and thinking in their approach to learning, they can sometimes be disorganized and act before thinking' (p.317).

5.6.1 - Motivation

Goals

Results from the interviews exemplified that an accommodating style consisted of two learners (this and the other concrete experiential approach, diverging, are discussed in the next chapter in relation to the context) who were motivationally self-assured towards the prospect of learning. Their primary goals were performance based, directed by, as noted by Participant 20, the aim 'to a) get a better job, and b) to save the cost of calling a professional'. For these learners, performance goals were often challenging as their initial source of information was their own metacognitive task and personal knowledge, and they often lacked this knowledge and the ability to develop metacognitive processes to effectively regulate learning.

Although they did not initially set learning goals (this came when accommodators experienced problems), they viewed learning as a by-product of their participation as they attempted to realise performance goals. Participant 19, for instance, sought to develop plastering skills by becoming involved in the task, learning from their mistakes. Despite not having any training, they developed sufficient skills by building on their knowledge from initial small repair work, until eventually performance goals concerned plastering the whole home. Similarly, Participant 20 also built up their knowledge of plastering due to a performance goal, each time improving their technique:

> It's something that evolved really. I started 15 years ago doing little
> bits… instead of calling a plasterer. (Participant 19)

I was decorating the room; it was a case of I needed to get on with it… I just thought that it would be a skill that would be very useful too. (Participant 20)

When required, they formed learning goals within the task itself, often when coming up against problems or gaps in their task or personal knowledge, and this involved utilising learning resource integration activities to support and direct their learning processes and this is discussed in more depth below in relation to metacognitive regulatory processes.

Emotions

Although they sought supporting knowledge for participation when faced with learning requirements, accommodators were positive towards the process and confident that their metacognitive knowledge would be sufficient to enable participation. Participant 19, for example, highlighted the importance of the positive reflective emotions that participating in new DIY tasks provided:

It's having something that requires a lot of physical energy, with a result that's tangible rather than something that you never see a true product for. Also because it is a skill each time you do it gets a little bit better. You also get lots of feedback, which is really quite nice.

Perceived Self-Efficacy

These participants were confident in their knowledge and skills, and actively based their active approach to participation on this confidence, as Participant 19 expressed, 'You need to have the confidence to go out and try it'. Participant 20, for instance, describes his confidence in plastering. Although he has little knowledge of this, confidence for this participant stemmed from the resource integration processes that provide the confidence to attempt the task:

I was extremely interested as I suppose it's like these observation ideas, is that you see someone doing it and it looks so simple, you think – I could do that.

I felt very confident…I had no experience, I had just seen the guys

doing it and I thought that doesn't look that hard.

5.6.2 - Metacognitive Knowledge

Accommodators were generally experienced and knowledgeable within the DIY context, and when faced with a performance goal-directed DIY task they initially used personal and task knowledge to instigate involvement. This often involved trial and error in order to make sense of the task, as noted in both of the learners' plastering examples. This was often a successful strategy for the participant as they focused their existing knowledge to participate. Participant 20 described their attempts at plastering:

I'd done things like bricklaying and I didn't think that I could do that. And I learnt and had spoken to other people and now I'm quite confident in building a brick wall. So I compare that skill to something like plastering and think yeah, okay, it's something that a human being does, so I must be able to do it.

However, when faced with a gap in their knowledge that posed a problem for the completion of their performance goal, accommodators would seek to acquire resources that would help to provide supporting and clarifying information to enable continued participation in the task. This process of learning resource integration involved reproducing, rehearsing, and memorising learning approaches and available content (Loyens et al., 2008), utilising valued and expert resources (e.g. DIY stores, specialists both in person and on YouTube) to provide timely learning instances and develop knowledge and skills. As an instance, Participant 19 appreciated the knowledge of specialists such as builder's merchants and tradesmen: 'they do it on a day-to-day basis.' When faced with a deficit with his task-knowledge in tiling an extension roof, Participant 19 employed a specialist tradesman to provide him with the knowledge and skills required to effectively participate:

He was there three days and he set up one corner of the roof and he showed me the skills. Before that I'd seen him and he showed me what tools to get such as the slate tool.

When Participant 20 had failed in his attempt to plaster, he too used specialist resources as part of his knowledge construction:

I hadn't used any of the pieces of equipment or materials so I had to go to a DIY store and effectively lay myself bare and say how is this done because they're professional guys… there are the old guys in there who are pretty useful you know [they've] been through it all before.

Furthermore, Participant 20 consulted YouTube to further clarify their knowledge acquisition processes, drawing on this as a key resource for knowledge construction. Without these resources, Participant 20 would have struggled to complete the plastering task as they clarified existing skills, and provided additional skills, to participate:

The information is easier to follow, you can replay information and you're actually seeing a practical demonstration and the guys seem to be well versed in putting the information across as they are doing it. So a) you can see what they are doing and b) the comments they are making [are] just right, well it is for me, anyway. They say, 'you know you need to mix this and that', so little things like that you pick up.

5.6.3 - Metacognitive Regulation

Planning

Due to the emphasis from accommodators of being involved in the task and their confidence in their abilities, this type of learner generally entered the task without any specific plans, hoping that their existing knowledge and skills would be sufficient. This method was often successful as the participant learnt

from their mistakes, such as trial and error learning processes. However, when they encountered parts of the task that impaired successful completion, or when lacking specific knowledge and skills to continue, they were forced to turn to resource integration activities to provide participation expectations (Candy, 1991; Merriam et al., 2007; Knowles, 1975) and direction for task participation. For instance, Participant 20 noted that upon devising plans, he often sought clarification from specialists (e.g. his brother-in-law builder and DIY stores). Likewise, when rendering his house, although Participant 19 had experience plastering, he utilised YouTube to help plan, repeatedly watching the video until confident to attempt the task:

> I had to render the outside of the house and I suppose the way I did that was I looked at a video clip and it had a lot of criticism about it, but I actually found it the most useful one as there was plasterers saying, 'I would never do it like that.' But in actual fact, it was a pretty good illustration of how to do it. It was a three minute video clip, which I watched two or three times and it taught me all I had to know about rendering.

Monitoring

Accommodators used resource integration activities to monitor their participation and support any problems that they struggled to decipher with their existing metacognitive knowledge. Once again, these tended to be specialists (e.g. DIY stores, builder's merchants, and tradesmen) and/or readily available online resources (e.g. YouTube videos, DIY forums) that were trusted by accommodators to provide relevant guidance to efficiently complete the task. Participant 20 used YouTube videos to check on the progression of their plastering, adjusting their approach as they viewed the video again to check their progress:

> I did do a test area first to see how well I could cope with it. I did the usual thing with plastering and kept on trying to move it around and rather than as I've learnt now put plaster on the wall, leave it alone,

walk away go and have a cup of tea and come back make your tools wet and do a skim and it's job finished you know. I was trying to do the whole thing in one hit, moving it around and obviously every time you move it, it comes unstuck… I hadn't picked it up from anywhere apart from later on, on YouTube when the guy said, 'I've just roughed it on there' and he says, 'it's now ten minutes later'. Ah, good point. You have to leave it alone, do you?

Meanwhile, Participant 19 began tiling their roof and encountered a problem which stopped the completion of the task. They employed the expertise of a builder to provide instructions to develop their task and strategic knowledge:

He was there three days and he set up one corner of the roof and he showed me the skills. Before that, I'd seen him and he showed me what tools to get such as the slate tool.

However, when experiencing difficulty, Participant 19 was forced to call the tradesman back to help complete the job:

I was having terrific difficulty getting the ridge tiles on. Basically, it was scaring the hell out of me as I didn't have scaffolding up and, err, he came along and helped me do that. He put one on the furthest point, which was the one I was having difficulty with getting enough bottle to get over.

Evaluating

Evaluating their learning, accommodators recognised the increase in metacognitive task knowledge and how it provided them with the knowledge and skills to participate in the task. Participant 19 noted the positive feedback from friends and family that was provided by learning to realise performance goals. Participant 20, meanwhile, felt that attempting to plaster a wall provided the confidence and personal knowledge to try other tasks:

I felt good that I had actually progressed [from] putting it on the wall
and then picking it up to where I could put it on the wall and leave it
alone and it stayed there and went back and polished it and it still
stayed there, so yes, I was pleased about that. And like things when
I've done other people's houses – I've not got paid for it, I've just
done it as a favour and to see somebody saying to me, 'that's
impressive', I think, well, I must have got something right and must
have learnt something… I think that boost to your own confidence is
a development of your own personality, really. You sort of think
well I could try something else now. (Participant 20)

5.6.4 - Discussion

An accommodating style saw participants guided by their perceived self-
efficacy (Zimmerman, 2000; Bandura, 1994) of the learning processes that
defined and influenced motivational performance goals and participation
(Zimmerman, 2000; Bandura, 1997; Chu and Tsai, 2009; Stockdale and
Brockett, 2011). This confidence was based on their propensity to participate in
learning resource integration activities as an essential process to direct and
support the successful achievement of challenging performance goals (Candy,
1991; Merriam et al., 2007; Brookfield, 1995).

Moreover, they showed an intrinsic interest in the task (Bandura, 1994), and
could call upon previous knowledge or experiences and often utilised this in
learning environments. Nevertheless, this was frequently insufficient for the
successful participation in the task, as the learner was often misguided in their
initial thoughts, for example, when Participant 20 realised that his knowledge
of plastering was insufficient. This was caused by either a lack of appropriate
knowledge or a lack of regulatory planning processes. Because of these
aspects, the successful realisation of performance goals was often dependent on
the resources that they could access and use. Kolb and Kolb (2009) view
accommodators as relying on social interactions to solve problems and learn,
and this was evident in an accommodating learning style for DIY who relied on

resources as key dynamics in knowledge-construction and effective self-management of learning. This is exemplified in Figure 5.7.

Figure 5.7 – Accommodator's Learning Preferences and Processes
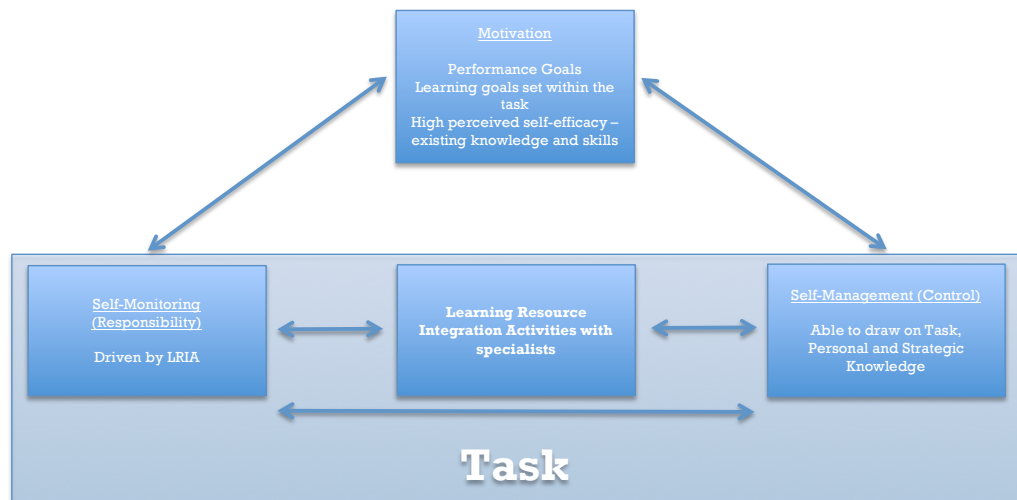
5.7 - Balancers

Participants who preferred to adopt all of the learning preferences previously described were characterised as *balancers*. Confident in their metacognitive knowledge and regulatory abilities, and determined to succeed when setting challenging performance goals, these self-assured balancers set learning goals that were based on their own perceptions of how to approach the task and their preference for a deeper understanding of the task requirements. They were adaptive to changing situations, using metacognitive knowledge and self-regulatory skills to effectively plan and counter any potential issues. Furthermore, this approach ensured that they were effective at monitoring their learning (Butler, 1993) and were quick to recognise potential problems, adjusting their learning strategies accordingly. This often involved learning resource integration activities with specialists that helped them to confirm plans and engagement processes and/or to overcome issues that they were unable to overcome themselves. Kolb and Kolb (2009) describe this style as 'the extremes of the dialectics of action-reflection and concrete-abstract by

finding a middle ground between them. Their central position on the four learning modes allows them to see many different perspectives on issues and bridge differences between people with different styles. They are often creative but also experience difficulty in making decisions. They are able to change their learning style to meet the learning demands of the task they face' (p.318).

5.7.1 - Motivation

Goals

Balancers were motivated to set challenging performance goals and sought to actively develop their knowledge and skills to realise these. They were determined in their approach to participation and learning (see perceived self-efficacy), both before and during the task. Although they participated in DIY to realise performance goals, they actively sought to develop a deeper understanding of the task and saw learning as a key element in this. This process of setting learning goals was a common factor for balancers. Participant 23 fixed and painted the external walls of their home due to damp, learning various skills in order to complete the task effectively. Participant 21 decided to construct a fireplace, and they actively sought to develop their knowledge and skills:

> My husband usually does things like that but I decided halfway
> through that I wanted to have a go at the cement.

For these participants learning was a key factor in the success of the task, and they were determined to develop their knowledge through learning experiences:

> I mean, I don't do DIY to learn especially, but I like the fact that if I
> do something, I know how to do it again. (Participant 21)

> If I can think about it logically or to my logic anyway, I will try… I
> must admit it fascinates me. (Participant 23)

This was also evident in Participant 22's approach to DIY. When filling in a hatch between their kitchen and dining room, they explained the motivational reasons behind this DIY task before going on to describe the methodical task process when assessing the task's requirements and the knowledge and skills required in order to develop a richer understanding of the performance goals:

> I tend to think outside of the box and think of a different solution to a problem.

> I can do it at my own pace, I draw things out, I go over things in my head, I look at the possibilities, [and] I look around the DIY shops.

Emotions

Emotionally, balancers were positive towards the process of learning. As they were able to recognise their limitations, they were positive and confident towards the prospect of learning for tasks that they did participate in. Additionally, this positivity was reflected in their perceptions of learning and engagement, as they were often determined to participate without calling a professional.

> It was a task that I felt more than capable of doing and why should I pay someone God knows what an hour to do it, and at the end of the day, I might not have been too happy with it, you know. I would have done this or that as you do. (Participant 22)

> I don't like not being able to do things. Well, I should say that I don't like not being able to do things that I think I can do, if that makes sense. (Participant 21)

Further to this, balancers enjoyed DIY and using their abilities to achieve performance goals, as Participant 23 and Participant 21 expressed when asked about their thoughts on learning:

Oh, and by the way, just about something to the little mix about me,
I enjoy doing it… I enjoy doing it. (Participant 23)

I like to do DIY and enjoy doing it. I mean, obviously if I had the
money I'd get someone else in, but I find it quite relaxing. Well,
some of the things, like painting and stuff. I like to see things done.
(Participant 21)

Perceived Self-Efficacy

Due to their abilities and motivation to engage, balancers were confident
learners. They recognised when tasks were beyond their perceived abilities
(especially physical tasks) and when this was the case, they sought to utilise
specialist resources to achieve their performance goals. However, when they
perceived the task as being within their grasp, they were confident that they
could acquire the knowledge and skills to be able to participate effectively.
This learning stemmed from knowledge of themselves as learners, alongside
transferrable task knowledge and the strategic knowledge that enabled the
development of their knowledge and skills in learning resource integration
activities. These are discussed in more detail below.

5.7.2 - Metacognitive Knowledge

Balancers sought to develop their knowledge of the task by utilising their own
metacognitive knowledge and engaging with in-depth learning processes. The
development of knowledge and skills relied on their metacognitive strategic
knowledge that provided them with the ability to assess how to proceed.
Despite their experience, their existing task knowledge was often insufficient
to participate, despite the perceptions of their abilities and setting challenging
performance goals. When recognising a need to rectify this deficit, balancers
engaged in deep-level processing and sought to construct meaning from the
subject matter (Candy, 1991) by using metacognitive personal and strategic
knowledge (Flavell, 1979; Schmidt and Ford, 2003; Haynie et al., 2012) to
acquire relevant resources that could support and clarify their learning

processes. For instance, participant 23 noted how they assessed whether they needed to employ the support of resources (to provide support and information) if their metacognitive knowledge proved insufficient:

> I will think and… it may take me a little longer to do it but I would, you know, look at the information and if I've done it in the past and it's not quite how I did it, I'll get back to it and I think well, that's how I must've done it. Or, if I need more help than that then I will go on the Internet.

Often these strategic approaches involved specialist resources for support and clarification, as was the case when participant 23 sought information for choosing a suitable external paint, or when participants 22 and 21 acquired tips from builders:

> I used Santex emulsion and they've got about three different products I think for external walls, one of which is a render coat you sort of paint on, and then I phoned Santex and I asked them; I explained the situation I was in. (Participant 23)

> If I do have a workman down then I'm usually on their shoulder all the time saying, 'what you doing that for?' and, 'why are you doing this? (Participant 22)

> Sometimes, if we have the builders in, I'll ask some questions. I like picking up tips and sometimes inspiration. (Participant 21)

Similarly, when articipant 22 erected a fence, their existing knowledge (task and personal) directed their metacognitive strategic knowledge of where to look for additional resources to help to clarify that their knowledge and approach to realising the task requirements was sufficient to participate:

> Unfortunately, with the garden as it is it's very up and down so it's quite rustic. If it was a fence with concrete posts, now I have done it in the past with a little help and obviously it would have to be

straight and I would have to get somebody in because of the weight involved. But, with this, I had an idea and thought, right, if I get the rustic posts and hammer into the ground, they're about 6ft 6 and if I hammer them in by half then that should be sufficient.

Nevertheless, when I went to buy them from the builders merchants I did ask, and said to them, 'I've got this idea and if I do this, blah, blah, blah, then will ramming them into the ground be sufficient enough to support them and they said yes. So, I asked the question and I got the answer so I was happy with it. Then, of course, the wire: unravel it, cable ties, good old-fashioned cable ties are wonderful, and then tightened it and there you go. I spaced out the posts and just went along. The garden does actually rise from the right, so it fits in with the rustic feel of the garden.

However, despite seeking to develop their knowledge using these and other (e.g. online) resource integration activities, balancers often went against the prescribed task processes, dismissing this advice due to the confidence in their own abilities. The acquired resources offered perspectives on the task, but ultimately it was the learner who decided how to proceed and what further knowledge they felt was needed to successfully participate. For instance, when seeking resources, participant 22 explained the difficulty in getting an answer to questions regarding the learning process, both from online and in store, and instead, after searching for this information, used their personal and strategic knowledge as a basis to direct learning processes:

You go on the website and you put in 'exterior lights polycarbonate' and it comes up with a load of rubbish and doesn't give you what you want. It comes up with anything, I find them not very specific. I mean, how much information do I need to put in to get what I want? It usually comes up with metal and I think, 'I didn't ask for that'. I went on Homebase, I went on Wickes, I went on B&Q, and none of them could give me a straight answer. Maybe I'm asking too much, I don't know.

Recently, I've found most of the customer service in the retail industry is severely lacking. I get frustrated when, and I'm not being big headed, but I know more than you do, why am I wasting my time asking you? Which is a sad way to think, but unfortunately, I sometimes think like that…Finding somebody is a problem and finding somebody with the knowledge is a big problem. You may get somebody who doesn't answer your question by telling you what it says on the tin or the label, which doesn't answer your question and you're thinking to yourself, 'Is it me? Am I asking the wrong questions? Am I asking stupid questions?

Similarly, when participant 23 repaired and painted the outside of their home, they were advised to erect scaffolding. Based on their task and personal knowledge (i.e. previous negative experiences of scaffolding and knowledge of their abilities), they decided against this and instead used metacognitive personal knowledge to develop a richer understanding of the task in order and facilitate participation:

So, going back to how I worked it out. I thought, 'Okay,' and I looked and you can buy these ladder shoes to put your ladder on to make them safe. But the thing is, if the surface underneath is a certain material, and the surface underneath mine was slate or quarry tiles, so they weren't really a grippy enough surface for these shoes. So, I looked it up on the internet and found this firm, and I thought, 'Okay, give them a ring,' and I explained the situation and he said to me, 'Lovey, if you go to do it, get some scaffolding,' and I wasn't keen as I'd already done that when I had the roof, you see. So, I thought, 'Okay, what do I have?' and I went and bought three very large compost bags. So, I bought three of those because I needed them anyway, so I stuck one underneath the ladder and moved it around and then I put climbing boots on so the arch of my foot, because when you're up a ladder your arch feels bruised. Once I've been up and I've got the confidence and I didn't go right to the top immediately, but once my confidence and I got to the first windows, then I managed the whole thing.

5.7.3 - Metacognitive Regulation

Planning

Planning for balancers involved applying their internal resources (e.g. knowledge and regulatory processes) and, if required, specialist external resources to reach pre-determined, and often changing, learning and performance goals. They controlled their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011) by planning and determining what they needed to learn and from where they could acquire information to aid with their learning processes. The level of control over the learning process helped balancers to determine the participation expectations that contributed to their deliberate approaches to participation. Participant 23 planned before involvement in the task, describing this process as involving in-depth detail, drawing on their own knowledge before turning to other resources:

> I will think and think about something in years gone by; I would think too long rather than do, you know; it would be my thinking process and idiotic as it may sound, when I'm decorating a room, because I'm a perfectionist as well. It's more than just slapping some paint on the wallpaper, or gloss is not good enough if it is not better that what has been there in the first place. It may take me a little longer to do it but I would, you know, look at the information and if I've done it in the past and it's not quite how I did it, and I'll get back to it and I think, well, that's how I must've done or if I need more help than that then I will go on the internet.

Participant 22's planning process involved the assessment of a range of information; both metacognitive knowledge and the resources acquired from specialists, against predetermined performance goals. This included spending time learning about the task by 'going around different DIY shops or supply places'. Satisfied with this resource acquisition, they felt confident in planning their participation in the task. In a like manner, this planning process was evident when Participant 21 acquired plans that were purchased on a website and amended them to their own specifications, utilising their metacognitive

personal knowledge to construct a fireplace: 'we got a design from there (online), tailored it to what we wanted, and then got on with it'. Furthermore, they noted the importance of planning in helping to highlight any problems within the task:

> I always try and plan complicated or new things. I take photos of things before so I know how they go back together. I think planning is important, especially when it's something new. Plus, I like to be able to know that I can do it, although usually, by that point, I've got to the point of no return… I like to be prepared. Plus, if I know all of the things that I have to do, then hopefully there won't be any surprises. I don't like things to go wrong, especially something unexpected.

Monitoring

Balancers' plans were sufficient to help to both direct and monitor the learning processes. Regulatory monitoring processes helped balancers to make informed decisions regarding what strategies to use (Haynie et al., 2012), and, in conjunction with metacognitive knowledge, make sense of their learning process, determining whether any adaptations to strategies or further knowledge acquisition was required (Ruohotie, 2002; Merriam et al., 2007; Candy, 1991; Garrison, 1997; Haynie et al., 2012). For example, although Participant 21 followed plans that they had obtained from online resources to support the construction of their fireplace, these were amended to fit in with their specific performance goals: 'it was a case of making sure that we followed the plans, and [we] tried to make the amendments work.' Participant 23, meanwhile, described how they monitored their learning process when changing the position of a light fixture, ensuring that they involved plans to effectively monitor the task and learning:

> What I do in those instances, is to have a blank piece of paper and actually, you know, detail where and what cable went into what and how I have to put it back.

When balancers identified problems with their monitoring practices, they were effective in taking measures to adjust their strategies (Schmidt and Ford, 2003; Ruohotie, 2000). These issues were either preempted before participation (as was the case with Participant 21), or recognised by the learner during the task. Participant 22, for instance, upon finding that purchased wire fencing was insufficient to successfully realise performance goals, changed their approach and used metacognitive knowledge attributes to amend their learning process:

> I did buy some, but I miscalculated how much I wanted, mainly because the wire fencing that I had put up was in wire rolls and the place I got it from only had two rolls left. So I took them two and realised that it wasn't enough and when I opened one of them, this persuaded me, really, that it wasn't ideal - it was too bashed up and damaged. I thought this wasn't going to be good enough and as I had only got two rolls, I took them both back and got my money back and started looking elsewhere.

> What I mainly did was look round on the internet and I came across this plastic screening which is green and in 3m lengths. It's lightweight and allows the wind to come in a little bit but it still does the job of hiding and, with it being green, of course, it blends into the garden quite well. I then attached it to the wire fencing and it really closed it off. I thought I'd use the original fence as a stabiliser and attach the other fence to it.

When participating in tasks, sometimes a balancing approach leads to performance issues that are beyond the initial capabilities of the learner and disrupt the fulfillment of performance goals. Therefore, they adjusted their strategy and involved learning resource integration activities if they recognised the requirement of support to do this. Although they were often dismissive of some suggestions, they were quick to realise when the information was sufficient for their learning needs and were able to efficiently utilise resources to successfully realise performance related tasks. For instance, Participant 23 encountered a problem with fixing the coving to the wall and ceiling, an issue that was preventing the completion of the task to their perceived standard of

how the task should look. After consulting professional resources who demonstrated this, Participant 23 was able to successfully realise the performance goals, recognising the learning that accompanied this:

> I started to do it and I had problems, which I had to ask the plasterer about because of the join in the ceilings. I thought, 'How the hell am I going to do this?' otherwise, I wouldn't have known. So, I've picked up that from him… I've got lots of crooked walls and ceilings here so you have to fiddle with the coving and get it around corners. Now I'm very relaxed about it, I've bought a gadget that helps me get the cut more or less accurate and try to get a straight line as much as possible. Sometimes, I throw away the spirit level and just go by eye because if I looked at it and it's alright, by-eye is good for me, know what I mean? So I spent quite a bit of time making these corners as good as I can with plaster-of-paris.

Evaluation

Evaluation of learning for balancers involved assessing how the task may have been improved and their reflections on their attempt:

> Hammering the post was a little bit more difficult but I think that was because I didn't have a platform…so I couldn't get the force that I wanted to and it took a little bit longer and was a little bit more difficult than I anticipated. If I had a platform, I would have been able to get a big swing at it and it would have made life a lot easier. That was the most difficult part, and really fighting with a 10m roll of wire fencing. (Participant 22)

> The reason why I wasn't successful on the duel switch was that I'd done something or other with the existing one, and the switch failed. I know what it is - I won't complicate the story - but it had to do with wet wallpaper, and not being as tidy as I should have been when not removing a switch upstairs. So, anyway, this double switch went and the one I tried to replace it with had a different internal bit

and I could work out…well that's why that went wrong. So it all went back to me understanding or being educated. (Participant 23)

When reflecting on their involvement, balancers viewed their ability to participate and acquire developmental knowledge and skills positively (Pekrun et al., 2002), helping to justify their involvement. Participant 22 assessed how they had fared using metacognitive skills in blocking up a kitchen hatch, noting their pleasure at how the task had turned out. Participant 23 noted the positive emotions toward their learning of coving techniques, while Participant 21 was proud to have built a new fireplace (with assistance) without having to call in a professional:

> One side, I was papering and it's worked quite well, surprisingly enough, and the other side I was tiling, as that was the kitchen and it worked brilliantly. And I was really pleased with the result. (Participant 22)

> I'm proud of the finish because I know I couldn't have done any better, unless I spent a great deal more time on it and then that becomes a balance issue, even though I'm not paying an individual so, in theory, I could go on and on and on and on. (Participant 23)

> My friends like it, yeah. They always laugh at my 'manly' ways in regards to DIY, but they're only joking. Anyway, I'm proud that I can do things like that and I don't have to call people in every time. (Participant 21)

5.7.4 - Discussion

A balancing style was unique for the learning preferences as it involved the learner taking control of their learning and making decisions based on their own experiences and plans of how the finished task should look. Although they participated in learning resource integration, this was often to support their learning and was only used in circumstances that prevented the learner from

participating. When planning and monitoring, these learners used their own perceptions and supplemented this with the resources of others.

Balancers were motivated to develop their knowledge and skills to realise challenging DIY performance goals, and participated in in-depth learning processes (Wolters, 1998) in order to achieve these. They experienced positive activating emotions (e.g. enjoyment, pride) (Pekrun et al., 2002) throughout the learning process, especially when reflecting and evaluating, possessing an intrinsic interest in the learning process (Bandura, 1994), and seeking to master the task through deep-level processing learning strategies that were based on their metacognitive knowledge of how to approach the learning. Balancers were reactive to the learning situations around them (Rager, 2003), using their personal and strategic metacognitive knowledge to participate. This knowledge helped them to understand what effective strategies (declarative knowledge) were required, how and when they could be used (procedural knowledge), and for what purposes (conditional knowledge) (Garner, 1987). Furthermore, these strategies were the basis of their effective monitoring of learning (Butler, 1993) and were quick to recognise potential problems, adjusting their learning strategies accordingly.

Although these respondents were effective self-directed learners, their confidence and determination to participate in DIY often impacted on their ability to learn, as they dismissed some of the information acquired through learning resource integration activities. This rejection was based on their knowledge and whether they were comfortable that the acquired information fit in with their plans and learning attempts. Sometimes, however, these learning resource integration activities supported the learner. These instances were where they had assessed their learning progress and could not continue without this input. The resources that balancers used in these situations were specialised for the task, as the learners were keen to ensure that the performance goal was completed effectively. A balancing style is summarised in Figure 5.8.

Figure 5.8 – Balancer's Learning Preferences and Processes
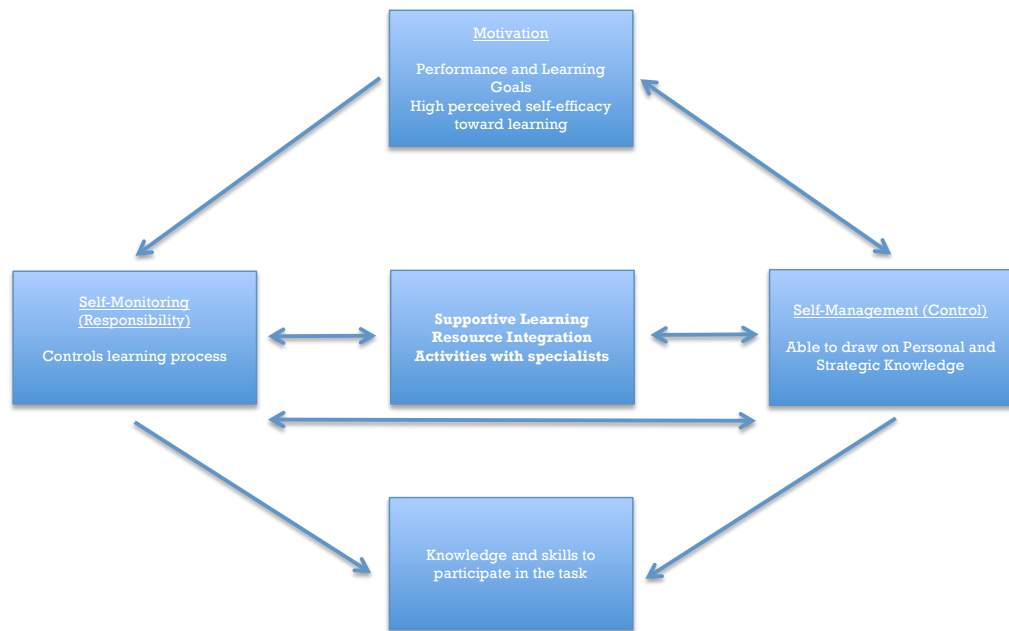
5.8 - Comparison and Summary

The results from the interviews demonstrated that when faced with the need to develop knowledge and skills in order to realise value, participants' learning processes differed in how they approached the task and participated in learning resource integration activities. The analysis revealed customers' approaches to both learning and learning resource integration as characterised by the five duel process learning styles set out by Kolb and Kolb (2009).

Within these five groups, different approaches to learning resource integration and metacognitive control and regulatory processes were identified and these were centred on active participation in the value creating task or pre-task planning and reflective activities. Most of the learners leaned towards an abstract conceptualisation (Kolb and Kolb, 2009) and/or reflective approach, preferring to plan and develop their abilities through thinking activities. Due to the context of DIY and the potential to cause damage, both to the structure and the self, as well as the risk of financial loss, this measured approach was unsurprising. Other participants preferred to adopt a more experiential approach, seeking to develop their knowledge and skills from active involvement in the task. Within both of these approaches, learners were further distinguished based on their motivations for learning and also their preference for pre-task planning, or experimenting and being involved in the task.

Following the structure set out in previous sections, these approaches are discussed below in relation to the CVL constructs of motivations and metacognitive processes. Due to the interactive nature of learning, these are not sequential processes, but instead aim to provide an overview of the interconnected methods of learners when self-directing their learning to enable participation in context specific value creating activities.

5.8.1 – Motivation Summary

The use of the exploratory motivational survey as a basis for coding motivational perspectives towards learning revealed that learners adopted two

differing approaches to learning in DIY (self-assured and 'have-to'), and these were evident in their motivational preferences towards learning and their preferred learning style. Self-assured learners were more confident in their own knowledge and skills and in some instances, in particular balancers and assimilators, they sought to develop learning goals that would increase their abilities.

Goals

A key theme that emerged from the interviews was participants' motivations for learning centred on realising goals that were performance centred (Dweck, 1986; Hayamizu and Weiner, 1991; Valle et al., 2003; Ingles et al., 2009), predominantly the financial savings that DIY offered. To support this, and depending on their motivational approach, learning goals centred on either a means to complete the task, as was generally the case with 'have-to' motivated learners, or involved the appreciation of the development of knowledge and skills that learning provided when participating in performance-directed tasks. Furthermore, these goals were also distinguished by the preferred learning style and established whether they would choose to engage in in-depth and deep-level learning experiences, or would seek immediate and often simple learning environments to facilitate participation in value activities.

For some of these learners (accommodators and convergers), active participation was a key facet in their goal attempts. They were generally experienced and self-assured motivationally, seeking to develop their knowledge and skills by becoming involved in the task, learning from participation and, if required (especially for 'have-to' convergers), from resource integration activities. Although they did not actively set learning goals, they viewed learning as a positive outcome of their participation.

Due to their preference for participation, their performance goals were directed by surface learning approaches that provided them with instant learning environments that would help their participation in the task. Reproduction (Loyens, et al., 2008) of visual aids (predominantly YouTube) involving

simple learning processes that contributed to performance goals (Dweck, 1986; Valle et al., 2003) were common approaches employed by these learners. Moreover, these learning resource integration activities contributed to their perceived self-efficacy and positive emotions towards learning and the task, helping to set challenging performance goals.

Learners who adopted a more reflective approach (divergers, assimilators, and balancers) were more considered and measured towards the prospect of learning and sought meaning in the subject matter (Candy, 1991). Confident in their attempts, they also set performance goals but, unlike more active participants, ensured that they had thought through the process in depth before engagement. Adopting this reserved approach to participation enabled more 'have-to' motivated learners who adopted these styles to plan their learning and successfully realise performance goals. Likewise, for motivationally self-assured learners, this in-depth process was their chosen method of learning but for these participants the development of knowledge and skills was also recognised as a positive cognitive outcome of performance goals.

Emotions

All of the participants were positive towards the prospect of learning, reflected in the practice of setting challenging performance goals that went beyond their existing abilities (Bagozzi et al., 1998; Garrison, 1997; Richins, 1997; Cohen et al., 2008; Oatley, 1992). In conjunction with their metacognitive knowledge, regulation (Pekrun et al., 2002) and/or learning resource integration activities, participants were confident and able to adapt in the face of problems or issues (Bagozzi et al., 1998; Bandura, 1994).

This positivity towards the metacognitive control and regulatory process of the participants and their involvement in learning resource integration activities was consistent due to their style of learning. Within each learning style, the participants expressed their confidence and positive outlook in their task knowledge and their ability to learn on their own, or by drawing on resources to help facilitate learning. The availability of such resources, in particular

online, provided the participants with a variety of ways in which to develop their skills.

The survey highlighted that 'have-to' learners sometimes experienced negativity of some kind towards the task process itself. There were a few instances of this negativity within divergers, however this negativity was a result of their experiential preference to learning and these were isolated incidents that their learning processes enabled them to overcome. Emotions are discussed in more detail in the limitations and further research section in the next chapter.

Perceived Self-Efficacy

The perceived self-efficacy beliefs of the participants towards their learning determined how they felt and motivated themselves to participate (Bandura, 1994). This was demonstrated by the assurance of their preferred style of learning to produce 'designated levels of performance' (Bandura, 1994, p.71) and realise goals (Bandura, 1994; 1997; Zimmerman, 2000). Across all of the groups, confidence towards learning and the acquisition of the required information to support the realisation of their goals was highly prevalent and shaped by metacognitive abilities and learning resource integration activities that helped to support and/or direct their knowledge and regulatory processes.

For learners who tended to favour a more reflective approach to the development of knowledge and skills, high levels of perceived self-efficacy towards the prospect of learning were determined by controlling and regulating their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011) as they approached tasks as challenges to be mastered (Bandura, 1994). Balancers, divergers, and assimilators were all self-assured in themselves, ensuring that they could sufficiently develop an in-depth knowledge of the task and plan their learning accordingly and, in conjunction with learning resource integration activities, effectively participate in tasks and fulfill performance goals.

Confidence towards the learning for more experimental learners (e.g. convergers and accommodators) stemmed from their preference for participation and learning within the task. The perceived self-efficacy for these learners was partly based on their experiences, metacognitive knowledge, and regulatory abilities. These learners were confident that by engaging in the task, and in the case of self-assured convergers developing quick and effective planning processes, they would be able to sufficiently learn and draw upon resources (if required) within this process.

5.8.2 - Self-Management Summary

The metacognitive knowledge of participants was reflected in their approach to learning and how they developed their abilities to participate in value activities. The majority of participants could draw on at least some task or personal knowledge, often built up over a lifetime of experiences in DIY. Although they were generally experienced within DIY, they adopted their metacognitive knowledge in different ways and at different stages of the learning process. For instance, plastering walls and ceilings was a common task for a lot of the learners across these groups, and the common consensus was that this was a skill. Some active learners approached this task by using trial and error, one taking 15 years to perfect. Other learners, however, who adopted a more measured approach to plastering, integrated resources in order to develop an understanding of the skills required.

When assessing their existing metacognitive knowledge, the learners' approach to the acquisition of knowledge was dependent on their style of learning and whether they adopted learning for deep-level learning processes or looked for more surface learning approaches (Candy, 1991; Loyens et al, 2008). A preference for a reflective style saw participants adopt a measured and strategic approach to learning, seeking to master the task in which they were involved (Dweck, 1986). For these learners, this in-depth knowledge acquisition and development process was a key component to the successful realisation of performance goals.

Balancers, divergers, and assimilators were confident and generally experienced with DIY, but often lacked the task knowledge to effectively participate. For these learners, the construction of this task knowledge was developed with the support of a range of learning resource integration activities for which complete control was essential for the learner. They approached this by using their own strategic knowledge and knowledge of themselves as learners (Flavell, 1979; Schmidt and Ford, 2003; Haynie et al., 2012), based, in part, on previous experiences, to decide on whether the acquired resources were sufficient for them to clarify and support the construction of task-related knowledge (Candy, 1991; Merriam et al., 2007; Spear and Mocker, 1984). These metacognitive strategic approaches (Flavell, 1979; Haynie et al., 2012) encompassed information acquired from a range of resource integration processes (e.g. specialists, online, friends and family), helping to systematically develop both personal and task knowledge, and in some instances support the metacognitive regulatory process of the learner.

This in-depth involvement provided a greater understanding of the task, supporting, and directing where required, the construction of knowledge and skills (Garrison, 1993; 1997; Candy, 1991; Kolb and Kolb, 2009) that enabled participation in the value creating activity. This supported the learner in not only developing challenging performance goals, but also helped them to develop an in-depth understanding of the task, even if they were not directly involved in the process. For instance, assimilators who were generally motivated by performance goals still sought to develop their knowledge, even when they called in professionals after deeming the task beyond their existing and potential abilities.

A more active approach to learning saw confident participants utilise their metacognitive knowledge of the task, themselves, and their approaches (Flavell, 1987) to engage in the value creating activity. When they perceived their existing metacognitive knowledge to be sufficient, they engaged in immediate participation in the task, learning through methods such as trial and error, as for these learners completing the task was required to be an efficient and timely process. Instances in which these learners were required to develop

their knowledge and skills, such as when their own metacognitive task knowledge was insufficient, saw learning resource integration provide prompt support for their participation process. For convergers, who were more inclined to seek resources at the beginning of the task, their strategic knowledge saw the utilisation of technical resources (i.e. Google searches, YouTube videos) to help develop their task knowledge and enable the effective realisation of performance goals. These visual aids were a popular learning tool for these learners due to their accessibility and usability, and access to these clear and straightforward learning environments helped to contribute to the belief that they could participate effectively.

For accommodators who were more inclined to learn through experiences (Kolb and Kolb, 2009), knowledge was constructed by task involvement, with learning resource integration activities playing a supporting role when their approaches needed clarifying within the task. This process of learning resource integration involved reproducing, rehearsing, and memorising (Loyens et al., 2008), and employing valued and expert resources (e.g. DIY stores, specialists both in person and on YouTube) to provide timely learning instances and develop knowledge and skills.

5.8.3 - Self-Monitoring Summary

Planning

While engaging in learning activities, planning was generally an essential aspect of participation in DIY, and reflected the existing self-regulated learning literature which emphasises that confident learners engage in planning and metacognitive activities (Ruohotie, 2002), including the assessment of control factors (i.e. personal, task and strategic knowledge) that contributed significantly to their successful self-regulatory processes (Bandura, 1997). This involved allocating internal resources to determine the selection of appropriate, and often challenging, strategies (Zimmerman, 1989; Ruohotie, 2002), and in addition, depending on their learning style, external resources in order to

effectively engage in, and control, learning to fulfill performance goals (Ruohotie, 2002).

Due to their preference for seeking to master the task, reflective-orientated learners approached planning as seeking to develop an in-depth understanding by utilising self-regulatory (Garrison, 1997) and resource integration activities to develop the knowledge and skills to effectively participate (Spear and Mocker, 1984; Merriam et al., 2007). For balancers, divergers, and assimilators who sought to control their learning environment (Zimmerman et al., 1992; Stockdale and Brockett, 2011), these pre-task planning activities provided the confidence that they could successfully participate, and further regulate (monitor and evaluate) their knowledge acquisition process when required. This was reflected by their approach that involved drawing on a range of resources in order to construct detailed plans that were able to highlight and direct participation in value creating activities.

In contrast, more active-orientated learners (convergers and accommodators) preferred to be involved in the value-creating activity, rather than spend extended time on planning activities. For instance, accommodators generally entered the task without any specific plans, hoping that their existing knowledge and skills would be sufficient. However, this approach meant that when they encountered parts of the task that impaired successful completion, or when they lacked the specific knowledge and skills to continue, they were sometimes unprepared and forced to turn to resource integration activities to provide support and direction (Candy, 1991; Merriam et al., 2007; Knowles, 1975). Confidence in their abilities and towards the task helped to negate this, however, these learners reflected that this could potentially be an issue when successfully realising performance goals.

For convergers, planning did play a part in their pre-engagement process due to their preference for thinking activities (Kolb, 1984). These learners, readied with metacognitive knowledge, employed online resources (predominantly video tutorials) to provide them with simple information that would enable them to efficiently plan and participate in the task. How they approached this

task was dependent on their motivations for learning. For self-assured convergers who sought to become quickly involved in the task, planning involved gathering information and using their metacognitive knowledge to enable successful involvement in the task. This planning was proactive and involved seeking clarifying information before engagement, or like an accommodating style, reactive during the task in response to an unexpected issue. For 'have-to' convergers, planning not only helped to provide clarification of their metacognitive knowledge, but also to provide direction as there were often limitations in this knowledge.

Monitoring

Participants used monitoring processes to assess their level of comprehension for engagement in the task and whether they needed to add to and/or modify constructed knowledge (Garrison, 1997; Pintrich, 2000; Song and Hill, 2007; Schraw and Moshman, 1995; Schraw and Dennison, 1994). This was a constant interactive process in conjunction with the control (self-management) aspect of learning, as the learner measured their progress against their SDL goals through 'critical reflection and collaborative confirmation' (Garrison, 1997, p.24).

Reflective learners were less reliant on monitoring due to their confidence in their in-depth pre-engagement planning and approach to learning that would enable the successful realisation of performance goals (Pintrich, 2000; Song and Hill, 2007; Schraw and Dennison, 1994). When they did monitor their learning, they used these plans alongside assessments of their metacognitive knowledge (Merriam et al., 2007; Candy, 1991; Haynie et al., 2012) in order to assess whether any adaptations to strategies or further knowledge acquisition was required (Ruohotie, 2002; Merriam et al., 2007; Candy, 1991; Garrison, 1997; Haynie et al., 2012).

Learners who preferred a more active approach, and whose planning process (when conducted) was based on either their own metacognitive strategic processes or the resources of others, mostly viewed monitoring as a more

central aspect to their learning process. For instance, 'have-to' convergers who employed learning resource integration activities to help support the planning process viewed monitoring as an essential aspect of their learning. Generally, this was in the face of a setback to their learning and they acquired additional knowledge from trusted technical resources (who often provided the initial resources for their learning). For self-assured convergers, regulation was less of an issue due to the confidence that they had in their abilities to successfully use their own metacognitive knowledge to effectively monitor their learning. They were quick to adapt their learning resource integration approaches, using technical resources to help make informed and efficient monitoring decisions regarding their active participation.

Likewise, accommodators compared their task progress with the resources of others to adjust learning strategies (Merriam et al., 2007; Schmidt and Ford, 2003; Ruohotie, 2000), relying on unstructured information acquisition regarding performance (Ruohotie, 2000). Often this monitoring and scrutiny uncovered instances in which these learners may have approached the task incorrectly, and thus this monitoring process was often essential to effective participation. For these learners, ensuring that plans are sufficient before engagement to help to counteract these instances was a central aspect to support their successful value creating activities.

Evaluation

Evaluation differed depending on the participants' learning process, their interpretations of the success or failure of learning in the realisation of goals (Knowles, 1975; Brockett and Hiemstra, 1991; Candy, 1991). Across all learning styles, evaluation centred around the task and its success. These evaluative processes were compared against previous learning attempts and/or the resources of others. For instance, more active participants often reflected on the improvements that they could have made to improve the efficiency and finished task, with accommodators compared their finished work to that of professionals. Meanwhile, participants who were more self-assured motivationally and/or were reflective towards their learning appreciated the

learning process and what it provided. Although initial goals were predominantly based on performance, these learners recognised the increase in knowledge and skills as a consequence of their learning. For reflective learners, this evaluation involved reviewing plans and they viewed their ability to participate and acquire developmental knowledge and skills positively (Pekrun et al., 2002), helping to justify their learning process.

5.8.4 - Summary

Exploration of the interview data based on the inductive ELT approach highlighted key, and differing, learning preferences when developing knowledge and skills. The results concluded that by adopting one of five preferential learning styles (diverging, accommodating, converging, assimilating, and balancing), customers who sought to create value in DIY adopted different learning approaches that enabled participation. These preferences, highlighted by the CVL models in the discussions of individual learning styles, emphasised that motivated learners employed their own resources that involved the metacognitive control (Candy, 1991; McGregor, 2005; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975) and regulation (Ruohotie, 2002; Garrison, 1993; 1997; Schraw and Moshman, 1995; Vonderwell and Turner, 2005), along with learning resource integration activities as key dynamics in knowledge construction (Schraw and Moshman, 1995; Zimmerman et al., 1992; Loyens et al., 2008).

Essentially, four of these styles were categorised as either *active* or *reflective learners* (the fifth style, balancers, were both active and reflective). Active learners' processes involved learning from direct involvement in the task, and they engaged in simple and effective learning resource integration activities to support, and sometimes direct (Payne et al., 2008), their metacognitive knowledge. These learners were often experienced and were generally self-assured in both their participation and their ability to participate in learning resource integration processes that provided plans, instructions, and highlighted performance expectations. Again, this was a means to facilitate participation, although the learner often appreciated the increase in cognitive

ability that this provided.

Conversely, reflective learners sought to develop an in-depth understanding of the task, developing their knowledge and skills before the task, so as to negate any potential problems. These were generally 'have-to' learners, but sought to develop their knowledge and skills in a systematic way. For these learners, performance was a key motivator, but in reaching these goals, these reflective learners appreciated that engagement would involve metacognitive regulatory planning processes, and learning resource integration activities with a range of resources. This developed the knowledge and skills to participate in value creating activities and realise performance goals.

Understanding how learners use these resources to support their different learning processes and construct knowledge is essential for service providers to support their customers in increasingly complex value creating activities. The implications of these findings for service providers, and the support that they can offer to these learners in their value creating activities, are discussed in the next chapter, along with the limitations of the study and suggested further research.

Chapter 6 - Conclusions, Limitations, Managerial Implications, and Further Investigations

6.1 Summary of Empirical Work

In complex service offerings, customers are often required to learn in order to effectively participate (Hibbert et al., 2012; Dong et al., 2008). To do this they acquire knowledge and skills through interaction with other involved actors in order to develop their abilities they 'have-to' to be able to deploy goods and services in their own value creating activities (Hibbert et al., 2012). These social structures play an essential role in supporting their control and regulation of their knowledge construction (Candy, 1991; Garrison, 1997; Flavell, 1979). However as Bolton (in Ostrom et al, 2010) concedes 'little is known about how to manage co-created services because the under-lying mechanisms that link customers and organizations are not well understood' (p. 21).

Recent research has addressed this issue and emphasised a focus on the resource integration processes of customers (Hibbert et al., 2012); looking at the human agency and social structures that take place as 'it is the human and social experience resulting from the interaction with engagement platforms that is crucial. Therefore, we need to understand more about the experiences of the actors within the integrating process' (Kleinaltenkamp et al., 2012, p.203). Understanding these processes requires the development of a richer picture of resource integration for customers, and how they develop their knowledge and skills in order to participate in value creating activities (Kleinaltenkamp et al., 2012).

Understanding how firms can, through resource integration activities (Payne et al., 2008), support customer value creation is a key priority in developing the S-D paradigm (Hibbert et al., 2012; Kleinaltenkamp et al., 2012). An appreciation of this is crucial to the efficiency of the firms' operations (Ostrom et al., 2010; Vargo, 2011), and to support their customer's capability to create value (Vargo, 2007; Vargo and Lusch, 2004; 2008; Sheth and Uslay, 2007;

Prahalad and Ramaswamy, 2004; Frow et al., 2010), especially in complex service offerings (Hibbert et al., 2012). By understanding how individuals are motivated to learn and how they process knowledge and skills to be able to participate in their own value creating processes (Kleinaltenkamp et al., 2012), firms can benefit by being able to offer their own resources that can help consumers to develop their own capabilities (Payne et al., 2008; Hibbert et al., 2012). Understanding these learning processes and their preferences for resource integration activities can therefore help service providers to offer effective resources and experiences (Vargo and Lusch, 2008; Payne et al., 2008) that aid their customers in developing knowledge and skills in contexts in which there is often no immediate educator.

Based on these research priorities (Hibbert et al., 2012; Kleinaltenkamp et al., 2012), and detailed in chapter 3, the key questions that guided the study were:

- RQ1 - What are the motivational characteristics of customers who choose to develop their knowledge and skills to participate in value-creating activities?
- RQ2 - What learning processes do these customers use?
- RQ3 - How do resource integration activities that are involved in customer learning facilitate value co-creation?

Based on the empirical research, these questions are addressed below in the summary of the CVL model in relation to DIY. The nature of the customer's participation in this context was to increase knowledge and skills in order to participate in performance based tasks and realise value (Hibbert et al., 2012). This involved the motivated learner self-managing, or utilising learning resource integration activities, in order to construct knowledge (Garrison, 1997; Candy, 1991).

Further inductive categorisation (Spiggle, 1994) of the data considered these integration activities as a process of constructing contextual meaning from experiences (Zepke and Leach, 2002), influenced by interactions between the learner and the environment based on one or more of their preferred styles of

learning (Kolb, 1984; Kolb and Kolb, 2009). SDL processes that reflect learning styles were represented in experiential learning theory (ELT) (Kolb, 1984). The ELT helped to conceptualise and frame the preferences for both learning and learning resource integration, by detailing styles for learning (based on learning incorporated through experiencing, reflecting, thinking, and acting) that facilitated the construction of knowledge and enabled participation and the realisation of value in DIY activities. This knowledge construction is seen as a transformation of experience along two continua: (1) how individuals best grasp experiences (i.e., concrete experience versus abstract conceptualisation), and (2) how individuals best transform experiences (i.e., reflective observation versus active experimentation).

ELT stipulates that individuals may adopt one or more of these styles depending on their preference for learning, in order to develop the skills required to construct knowledge (Kolb and Kolb, 2009; Kolb et al, 2001; Kolb, 1984). These approaches were further categorised as five distinct learning styles adopted by DIY members, which differ along the two continua. Adhering to existing typologies (Kolb, 1984; Kolb and Kolb, 2009), these were labelled as active-orientated converging and accommodating, and reflective-orientated diverging and assimilating, plus a mixture of all styles: Balancing. These styles demonstrated ways that learning experiences shaped motivated customers' learning self-management and self-regulation processes, and their use of learning resource integration activities.

The following chapter provides an overview of the empirical study and its contributions to furthering the customer perspective of value creation. First a discussion on the customer value learning (CVL) framework and its provision for highlighting key learning processes of motivation, self-management, self-monitoring, and the learning resource integration activities that are embedded within these constructs, that help to facilitate and support learning. Following this, the paper focuses on the contributions to the literature of this framework and the managerial implications for service providers in supporting customers when required. Finally the remainder of the chapter details limitations of the

study, before further research avenues that emerged from this empirical work are discussed.

6.2 - CVL Framework

Based on the SDL (Garrison, 1997; Merriam et al., 2007; Candy, 1991) and SRL literature (Zimmerman, 2000; Bandura, 1997), the CVL framework detailed the interactive metacognitive processes that motivated customers used to develop their knowledge and skills and enable participation in value activities. This framework proposed that when motivated, the learner develops knowledge and skills through metacognitive control processes, using task, personal, and strategic knowledge in order to effectively acquire the resources that would enable them to participate in value activities. In conjunction with this, regulatory processes (both self and service-provider directed) enabled the learner to plan, monitor, and evaluate their learning, making amendments where required to facilitate their participation. Furthermore the essence of learning is to acquire information to increase cognitive capabilities, and learning resource integration activities that provided support to the customers in their learning endeavours helped to facilitate this.

6.2.1 - Motivation

Based on the existing SDL and SRL literature, motivations proved a crucial construct that determined how and why the customer would participate in value creating activities. Initial surveys were used to develop an understanding of motivations for learning, helping to characterise why customers choose to develop their knowledge and skills to participate in these activities. These motivations centred on two distinct groups, *self-assured* and *have-to* learners, who were influenced to participate in value creating activities by three central motivational components: goals (performance and learning), perceived self-efficacy (confidence in abilities to participate in the learning environment), and emotions toward the learning (positive, negative and frustrative). In characterising these groups, self-assured learners were found to be confident

and positive toward the learning process, motivated by performance but also learning goals. Results for 'have-to' learners on the other hand indicated that they were less confident, experienced increased negative and frustrative emotions towards learning, and were motivated by performance goals.

These initial insights were further investigated through semi-structured interviews that explored and confirmed the motives for participation in learning for DIY value creating activities. The interviews helped to establish a deeper understanding of these motivational perspectives, and explored how these learners explored the link between these different motivational profiles and the processes by which people learn to develop their knowledge and skills by self-regulating their learning and utilising learning resource integration activities (RQ2 and RQ3). Results from exploratory analysis and coding confirmed that in general, for learners who sought to develop their knowledge and skills in DIY activities, motivation was determined by performance goals (and it was recognised that learning goals facilitated these), in which the customer learned primarily for cost savings (e.g. financial and time). As DIY is inherently performance based, this was unsurprising and, as will be discussed in the contributions section, is similar to other value creating contexts in which the customer is required to learn in order to participate.

Furthermore the interviews highlighted that when engaging in SDL activities to realise engagement, learners were confident towards the process (Bandura, 1997), and sought to use metacognitive regulatory and control practices to address deficiencies in knowledge and enabled effective participation in value activities (i.e. the DIY task). This was due in part to their previous experiences and metacognitive knowledge, but also to confidence in their learning approaches and ability to engage in learning resource integration activities that supported their learning preferences.

For more reflective learners, such as divergers, assimilators, and balancers, perceived self-efficacy was based on existing knowledge and previous experiences as a learner, both within and out of the DIY context, and helped to direct their engagement and realise challenging goals. For active learners

(accommodators and convergers), these goals were also challenging, but these learners were confident that their existing knowledge would suffice to enable them to initially participate in the value activity. This supported the literature that saw experience direct the process, 'Thus, experienced users tend to rely on preexisting beliefs and look for confirming evidence when searching information, whereas novices are more likely to take new information into account when forming beliefs (Beatty and Smith 1987; Steckel et al., 2005; Zauberman, 2003)' (Van Beuningen et al., 2009, p.411). Although reflective learners were not novices in DIY, they used learning resource integration activities for direction and support. Active learners meanwhile often did not possess the metacognitive regulatory skills of reflective learners to direct their own learning process, and not only sought confirmatory practices based on their metacognitive knowledge but also used these learning resource integration activities for support and direction when facing obstacles.

6.2.2 - Self-Management (Control)

The CVL framework proposed that the use of SDL to facilitate value creation involved the control of existing metacognitive knowledge (Flavell, 1979; Ford et al., 1998; Schmidt and Ford, 2003) with additional knowledge acquired through learning resource integration activities with involved service providers (Candy, 1991). In learner-controlled environments where little structure is provided, this is an essential method to help customers make informed decisions regarding strategy use (Schmidt and Ford, 2003).

Kleinaltenkamp et al (2012) suggested that the role of technology be investigated and asked whether technology could be a resource integrator and/or resource. While not directly focusing on this in the study, the results suggest that technology could be both an integrator and a resource. This is in part due to its interactive nature, and ability to supply readily available information, especially with smartphones and tablets becoming the norm in today's society. From a service provider's perspective, the role of online learning allows diminished risk associated with products and services due to

larger numbers of customers than traditional informational provision methods and without significantly compromising the interaction (e.g. B&Q offer personalised online cost and material calculators). Although this requires increased cognitive effort from customers, it may offer a more tailored and satisfying experience (Prahalad and Ramaswamy, 2004), enabling the customer to learn new skills and behaviours in order to effectively create value.

The empirical study highlighted that the control processes within the CVL framework were distinguished by the learner's personal knowledge about him or herself, and the factors that influenced performance (Schraw and Moshman, 1995), for instance memories, experiences, and emotions that were employed as resources to make sense of the task (Flavell, 1979; Haynie et al., 2012). In addition, metacognitive task (e.g. previous participation experiences, existing task knowledge) (Haynie et al., 2012), and strategy variables (e.g. when and where to use strategies) (Flavell, 1979) helped with the approaches of the learners in acquiring and retrieving resources for the construction of knowledge (Haynie et al., 2012). These processes relied on the customers' preferred learning style (Kolb, 1984); Kolb and Kolb, 2009) that indicated whether the development of strategies was for in-depth and deep-level processing, or simplified surface learning approaches (Candy, 1991; Loyens et al., 2008). Moreover these styles characterised how learners utilised their own metacognitive knowledge and learning resources integration activities to direct and/or support the development of knowledge and skills to enable participation in value activities, in this case DIY tasks.

Learners who took an active approach to the realisation of performance goals and actively participated in value creating activities drew on metacognitive knowledge of the task and sought to engage in learning resource integration activities to develop their knowledge. When required, they adopted surface learning (i.e. non-formal) strategies as a key aspect of their learning process (Kolb, 1984; Kolb and Kolb, 2009). This approach involved replicating the content of tradesmen and friends through social modeling (Zimmerman, 2000), and reproductive approaches (Loyens, et al., 2008) (e.g. YouTube videos), as key learning tools. This 'observational learning is a type of cognitive learning

that occurs when individuals observe the actions of others and note the reinforcement they receive for their behaviours' (Solomon et al., 1999, p70). As active learners, this was carried out efficiently before the task (in the case of a converging style) to enable timely participation, or alternatively provide a back-up option when monitoring the task process (for an accommodating style - see below).

Learners who engaged in SDL, and who sought to develop a deep-level approach to processing meaning in the subject matter (Candy, 1991), employed their metacognitive knowledge (e.g. existing knowledge of the task, self and strategy use) with external resources (e.g. service providers, NGOs, media and social networks) to support the construction of knowledge (Candy, 1991; Garrison, 1993; 1997; Merriam et al., 2007; Brookfield, 1995; Knowles, 1975). This deliberate and methodological approach was the result of an intrinsic interest in developing their capabilities (Hiemstra, 1994; Ruohotie, 2002) in order to effectively participate in value activities and realise goals, and relied on their ability to seek and direct resource acquisition to support their learning processes. They were confident that this learning approach would facilitate participation in learning resource integration activities (i.e. where they could acquire the information), in order to successfully complete the task and performance goal(s). Moreover they took measures to regulate their learning (discussed below) that helped to develop the knowledge and skills necessary to be able to participate in value creating DIY activities.

6.2.3 - Self-Monitoring

The CVL framework, drawing from the SDL (Garrison, 1997) and SRL (Ruohotie, 2002) literature, viewed self-regulatory processes in customer learning as incorporating metacognitive self-regulatory approaches that constantly interact with the control process of learning (Garrison, 1997). The learning literature proposes that learners constantly revisit, monitor, and evaluate objectives and goals, adapting their self-regulatory processes depending on the context-specific learning requirement (Merriam et al., 2007; Candy, 1991; Schmidt and Ford, 2003; Ruohotie, 2000). Learners use these

self-regulatory processes in order to make sense of their learning experiences and knowledge acquisition (Flavell, 1979), and to establish additional knowledge requirements (Garrison, 1997; Song and Hill, 2007; Schraw and Moshman, 1995; Schraw and Dennison, 1994). The empirical work revealed distinctions between learners based on their preferred styles towards learning and their methods of involvement in self-regulatory processes. These preferences characterised how learners employed learning resource integration activities to direct and/or support regulation of learning (closely adhering to their preferred processes towards metacognitive knowledge construction).

Participants who preferred styles that would support their deep-level learning processes typically preferred thinking and planning activities, and used learning resource integration for supporting information in the construction of knowledge before they participated in the task. Self-regulatory planning activities for these respondents involved allocating internal and external resources in order to effectively engage in the learning process to realise performance goals (Ruohotie, 2002; Zimmerman, 1989; Clark and Zimmerman, 1990). Planning was influenced by the learners' self-efficacy perceptions (Zimmerman, 1989) that incorporated the metacognitive assessment of their control factors (i.e. personal, task, and strategic knowledge; available resources) (Zimmerman, 1990; Ruohotie, 2002), and the selection of appropriate strategies to engage in learning resource integration processes.

Planning for these reflective learners was a key component of their regulatory process as it directed how the learner monitored and evaluated their learning process in order to make informed decisions regarding what further strategies to use (Haynie et al., 2012). This planning process, in conjunction with self-efficacy towards metacognitive control processes, contributed to the belief that they could successfully self-regulate their learning (Bandura, 1997; Luszczynska et al., 2010) and realise goals. Reflective learners assessed goals (Ruohotie, 2002; Haynie et al., 2012) attributing the success or failure to particular processes, and enabling the learner to adapt their approaches and find alternative solutions if required. Due to the emphasis on planning, and the belief that they had in these plans, when required to do this they were prepared

to quickly realise the issues and the learning resource integration activities that would enable the resolution of these.

Active learners who utilised surface learning and non-formal approaches preferred to be involved, often learning as they engaged in the task. These practices were reliant on learning resource integration activities that offered similar or different experiences to facilitate (direct and support) knowledge construction (Candy, 1991; Garrison, 1997; Jonassen, 1999; Jonassen et al., 1995; Merriam et al., 2007). Generally, for these learners using their own metacognitive strategic knowledge, planning was of little importance, as they relied on processes directed by learning resource integration activities such as viewing online tutorials that highlighted performance expectations. Furthermore, active learners used monitoring and evaluating which involved reactive processes and comparing these against previous learning attempts and to the resources of others to interpret the success or failure of the learning and the reasons behind this (Knowles, 1975; Brockett and Hiemstra, 1991; Candy, 1991). For active learners, these processes provided feedback that acted as a mechanism for adaptations to be made (Ruohotie, 2002). Moreover when faced with difficulties in their active involvement in the task, they relied on the information provided by resources in order to overcome obstacles and develop their knowledge and skills (Ruohotie, 2000).

6.3 - Theoretical Contributions

One of the key facets of the service-dominant paradigm is that participation of the customer is essential in order to (co)create and realise value (Zeithaml et al., 2004; Frow et al., 2010; Van Beuningen et al, 2011; Vargo and Lusch, 2004). This requires that customers are motivated (Kelley et al. 1992; Lengnick-Hall et al., 2000) and clear about their roles (Hibbert et al., 2012; Kleinaltenkamp et al., 2012), especially in contexts in which they must develop knowledge and skills in order to participate (e.g. technology, DIY). However despite the acknowledgement of customers as co-creators of value (Vargo and Lusch, 2004; 2008; Frow et al., 2010) and central to the S-D logic paradigm

(Vargo and Lusch, 2008), customer-orientated research is currently fragmented in this literature (Hibbert et al., 2012; Kleinaltenkamp et al., 2012).

Existing approaches to the development of knowledge and skills that enable customers to participate in value creation activities are driven from a firm centric and value co-creation perspective in which firms provide resources to customers (e.g. Madhavaram and Hunt, 2008; Frow et al., 2010; Zhao et al., 2008; Vargo et al., 2008; Maglio and Spohrer, 2008; Meuter et al., 2005; Eisingerich and Bell, 2006; Auh et al., 2007; Payne et al., 2008; Dong et al., 2008). However this does not emphasise the process of customers in value creation activities (Grönroos, 2011), only their role as a receiver of resources (Hibbert et al., 2012; Baron and Harris, 2008), and despite recent attempts to address this (e.g. Vargo, 2007; Arnould et al, 2006; Baron and Harris, 2008) this perspective is still in its infancy, both conceptually and empirically. In particular, extant research calls for more focus on the roles of customers in creating their own value (Hibbert et al., 2012; Kleinaltenkamp et al., 2012; Arnould et al., 2006) to develop a more holistic perspective of S-D logic that can enable service-providers to support their customer's capacity to create value. This study expands this notion by presenting value that is formed by the customer and supported by the firm.

This study addressed some of the gaps in the literature by offering a framework, rooted in self-directed learning (Garrison, 1997), that highlighted the motivational and metacognitive processes of learners when seeking to develop knowledge and skills that could facilitate participation in value creating activities. In seeking to realise this value, customers are motivated by performance and learning goals, perceived self-efficacy, and emotions that contribute to their engagement in the learning process. Within this process they draw on existing knowledge and skills, and seek to develop this by regulating and making sense of acquired knowledge. Importantly for service providers, this knowledge often occurs through a variety of resource integration activities. How they approach this development is grounded by their preference for learning, and whether they seek to develop their knowledge in an active

process, as they seek to participate in the value-activity, or alternatively plan and develop their knowledge and skills prior to participation.

The Customer Value Learning (CVL) framework offered both an avenue for service-providers to support customer learning (discussed in relation to managerial implications), and to add a theoretical customer perspective of S-D logic and value-creation, a paradigm in which they are central to this process (Vargo and Lusch, 2008), and where learning is essential to the realisation of value creation, facilitated by the exchange of resources with involved network actors (Hibbert et al., 2012).

From a value-creation perspective, the CVL framework offers an explanation of how learners are motivated, and the processes that facilitate this participation, providing perspectives that adopt a customer angle to the existing firm-orientated paradigm. This understanding is important, as participation is not always determined by the firm, but by the customer. As a result the traditional dyad of the firm-customer relationship in the development of knowledge and skills is questionable in its effectiveness in some, more complex, learning contexts. Constructed using existing scales from both SDL and SRL literature, the empirical work has highlighted that goals and perceived self-efficacy (discussed in limitations) were key determinants that motivated participation in learning processes, with the ultimate goal of being able to participate in value creating activities. These goals were predominantly performance based, and were essential to explaining why customers chose to participate and seek their own resources.

Performance orientated goals have been less clear in the extant self-directed learning literature (Schmidt and Ford, 2003; Wolters, 1998), and this performance orientated perspective is in contrast to the existing value centric literature that suggests goals are shaped by service providers (e.g. Lovelock and Young, 1979 Dong et al., 2008; Payne et al., 2008). In some instances, service-providers directing the learning goals and process may be a suitable approach, such as in instances in which safety is paramount (e.g. electrical and gas repairs), or when a certain approach is recommended, for instance

tightening a washer can only be achieved in one way and as such there is no room for improvisation to reach the end result. However in learning situations in which the customer chooses to develop their knowledge and skills, or when this is a requirement for successful participation, goals are shaped by the customer within their self-directed learning process.

When motivated, how they then construct knowledge and skills that enable participation is a further key facet of the customer's learning process and a view that has so far not been addressed. Learning is a complex activity, too readily dismissed as implicit within participation and value creation literature and without being fully conceptualised and empirically tested (Hibbert et al., 2012). Understanding this is important, as supporting customers' value processes, and as a result their development of knowledge and skills, can help firms to create a differential advantage, and by understanding how they learn, businesses can offer resources to effectively serve their customers. Therefore seeking to develop an understanding of the theoretical implications of this is an essential aspect to increasing the knowledge of the field.

Existing learning literature suggests that metacognitive regulatory activities are positively associated with persistent efforts to monitor and seek feedback (Wolters, 1998; Butler, 1993; Schmidt and Ford, 2003), and this study confirmed this, adding that regulatory activities are also directed by resources in instances in which the learner lacks, or prefers not to utilise, their own metacognitive regulatory processes. This was directed by the preferred approaches to this development, with some favouring an active and instant approach to value creation, participating and learning as they engaged in the task, while others took a more reflective approach and sought to involve themselves in in-depth learning experiences.

What has been identified by the empirical work, and which is visible in everyday learning situations, is that these processes involve the motivated learner adopting a learning style that involves the assessment of knowledge with regulatory experiences, and is determined by their own approaches, or those supplied by service providers. For service-orientated literature this offers

opportunities, as will be discussed, to develop co-creative activities that support these learners' knowledge acquisition in order to participate in value creating activities (Payne et al., 2008).

Furthermore, the way in which learners employ resource integration activities in order to develop knowledge and skills to participate in value creating processes was a key characteristic that shaped their learning and the successful realisation of goals. The CVL framework highlighted that customers are not educated in these contexts, as education implies resources are provided by the firm, rather they learn through participation in learning resource integration activities. At its core, the CVL model distinguishes learning resource integration activities as a key feature of successful participation and engagement in value activities, as learning suggests that the customer develops their cognitive abilities, utilising a range of resources to support this process. This study sought to offer clarification of customer resource integration processes, including insights into its influences on motivations (Kleinaltenkamp et al., 2012, Hibbert et al., 2012), goals, similarities and differences, and the interplay between learning process elements (Hibbert et al., 2012).

As has been highlighted, the current literature approaches this resource acquisition from a firm perspective (e.g. Dong et al., 2008; Payne et al., 2008) with resources often distributed via educational efforts. However, in many learning environments learners do not utilise only firm-prescribed resources, but seek to develop their knowledge and skills from a variety of service providers. Therefore, utilising SDL and ELT offered an alternative perspective to the traditional perspective within value creation that views participation as key to a firm's efficiencies (Lovelock and Young, 1979). As the learner chooses to participate, this perspective is somewhat outdated due to the proliferation of easily accessible resources that can provide the customer with knowledge and skills by utilising resources from a range of involved network actors.

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The CVL framework also highlighted the customer's engagement in these activities to either support their own metacognitive processes that facilitated learning, and/or to direct these processes. For instance active learners who adopted surface-orientated learning approaches preferred non-formal learning (Mocker and Spear, 1982), influenced by trusted service-providers who could provide them with approaches to develop their knowledge and skills within the task. Crucially these learning resource integration processes are required to provide clear and concise guides as the learner relies on these to construct knowledge to enable participation in value creating environments. These often consisted of visual support to provide them with information and learning processes, with YouTube videos seen as a popular learning resource as they offered the learner the convenience to replay and carefully examine the requirements for learning, sometimes before but generally during the task, influencing their regulatory behaviours and providing them with the confidence to participate.

Learners, who preferred to develop an in-depth approach to the development of knowledge and skills, used learning resource integration activities to support their metacognitive learning processes. This often involved utilising online searches as the first step in developing their task knowledge. Technology is an important facilitator of knowledge, but little is known about how this supports resource integration activities (Kleinaltenkamp et al., 2012). This study identified that these technical resources played an essential role in the learning processes of customers and this perspective, and other ways in which service-providers can support the development of knowledge and skills to facilitate and support participation in value activities, is discussed in more detail in the next section.

6.4 - Managerial Implications

In certain contexts, learning is the only way in which the customer can participate and realise value, and so understanding their approaches in developing these knowledge and skills is essential for firms to consider how to

effectively contribute to the customer experience (Hibbert et al., 2012). Within the focus of the empirical research into learning, the discussions in the previous sections have proposed that learning resource integration activities play differing roles in the learning processes of customers, with the role of the service provider in these exchanges being to direct and/or support the customer. It is therefore important from a managerial perspective to recognise these interactions and how they can help to facilitate the development of customers' knowledge and skills to enable the participation in value-creating activities (Kleinaltenkamp et al., 2012; Arnould et al., 2006; Hibbert et al., 2012; Payne et al., 2008; Ballantyne and Varey, 2006).

The analysis emphasised a number of ways in which firms can benefit and capitalise on these customer learning processes. It was clear that the respondents used resources to direct and/or support their ability to participate in value tasks, and this was facilitated by their active and/or reflective orientated learning preference (Kolb, 1984; Kolb and Kolb, 2009) as a converger, assimilator, accommodator, diverger, or balancer. For service-providers, recognising the characteristics of these styles can help to develop an understanding of their learning processes and therefore assists in directing and supporting knowledge acquisition that can help their customers to participate and realise value. While not an exhaustive list of recommendations, they serve to emphasise how firms may support these active and/or reflective customer learning styles in contexts in which learning is required in order to participate in value creating activities.

Active learners, who preferred to be engaged in the task, often entered the learning environment (which for them was encompassed within the task rather than preceding it) confident that they could participate, but they often lacked the metacognitive regulatory skills to plan and monitor their learning. Instead due to their preference for learning, more actively minded learners might quickly view a video on YouTube and seek to replicate it. However the video only shows an ideal or best case scenario, and may not offer alternative explanations or highlight where problems may occur. For reflective learners who seek to plan and understand the task in depth, this may not be an issue as

they may have already developed their abilities from a range of sources. For active learners however this problem may be unexpected, and due to their propensity to actively participate in the value activity these 'customer segments that lack learning capabilities may benefit from a more structured learning environment where the firm or other network actors exert greater control over the learning process' (Hibbert et al., 2012).

For these learners, the key is to highlight performance expectations in a concise and direct way so that the learner is aware of, and understands, potential problems and how to deal with them. For accommodators, whose learning preference is rooted within an active and experiential approach, they often approach the task armed with task knowledge that enables initial participation. However often this knowledge was misinformed and could potentially cause issues with task engagement and therefore effectively providing information that highlights these risks is one way in which service providers may support their learning.

Convergers meanwhile seek to utilise online resources as a key method to develop their abilities and, as they preferred utilising technical resources in order to support their immediate participation, provide support through online resources and in particular YouTube due to its simplicity and ability to highlight performance expectations. For these learners the support that service-providers offer in monitoring and evaluating both the learning and the task is an essential aspect in successfully adapting their approaches in the face of issues. Service providers can support these active-orientated learners by providing online learning environments in which resources are readily accessible and that clearly define task requirements.

In contemporary learning environments, the role of the internet and other computer-mediated communications (CMCs) (e.g. apps, fora, plans) often act as primary sources for learning new behaviours and gaining knowledge (Garcia et al., 2009; Roberson, 2003; Valente, 2006), and represent a rich source of information for these customers. These resources allow the learner the potential to increase their knowledge due to information richness, choice, and an

increased level of control over their learning (Berge, 1999; Song and Hill, 2007; Fuller et al., 2010; Fuchs et al., 2010). For instance ifixit.com, a website devoted to the self-repair of technological items, offers user comments at each stage of the structured task process so that readers can identify any user highlighted issues with the task and how to solve these. These tips can help to highlight issues that may not be immediately evident in the original task.

For more reflective learners, service providers play an integral role in supporting their ability to create value. Due to their propensity to plan and reflect on their knowledge acquisition, for these learners resources are required that support this preference, for instance offering details of why certain approaches are used, or offering tools that may help the learner to plan their learning. For assimilators, these approaches enable a measured approach to the development of their knowledge and skills, seeking resources that will support their metacognitive knowledge and regulatory process. Although online resources appear to be the norm for the majority of these learners, specialists were also an important resource for reflective learners as they sought to utilise a range of resources. The key for service providers to support these learners is to offer a variety of resources that reflective learners can successfully utilise for their learning. For instance the UK DIY chain B&Q, one of the leading DIY specialists, offer videos via their YouTube channel, buyers guides, how to guides, costing calculators, and more. For reflective learners, offering a range of information in one place can help these learners decide, using their own metacognitive regulatory processes, what information is needed and other related information that may be relevant.

6.5 - Limitations

As with any empirical work, reflections on the approach and the appreciation of limitations are important aspects in producing a valid study. The following section discusses factors that may have potentially had an impact on the study, and the ways in which the impact was potentially reduced. Along with an appreciation of the limitations for researchers to be aware of if attempting to

replicate or utilise the CVL model and its methods, there are suggestions for further research that have emerged from the study and its limitations.

First, the results of the empirical work still leave some issues regarding the role and conceptualisation of resource integration as a tool for effective value creation, especially in relation to technological processes. The context of the study, and the recruitment of participants, was orientated to learners who chose to develop knowledge and skills in order to enable participation in value creating activities. Due to the context and recruitment of the sample, and the resulting subsample (via an online community), arguably there may be bias towards the engagement in the learning process as the customer had chosen to participate and therefore were reasonably confident that they could engage in the value activity. As such, the self-efficacy beliefs of the customer could be construed as pre-determined, as the customer was effectively confident that they could participate in DIY tasks.

Moreover the study highlighted that technology played a key role in the learning processes of customers within DIY, and was generally seen to be a positive aspect of the learning process. However, although the study was based on individuals who responded to the research calls when engaged in an online DIY community forum (DIYDoctor.org.uk), their approach to learning often did not consider this community as an instant enabler of knowledge creation. With respondents recruited through an online forum, it was interesting that there were no experts or educators who took part in the further study. Communities of practice research (Lave and Wenger, 1991) states that the learner participates to become part of the collective. For this context, a collective perspective for the learner may not be relevant due to their learning preferences and performance directed goals, however the respondents were recruited in a community of practice.

Secondly, an issue with reporting subjective customer behaviours is that the reality of the situation may be different to the reported one. This is a common concern for social scientists in both qualitative and quantitative methods, and is discussed at length in various literature streams that concern self-reported

behaviours and answering 'truthfully' (Kvale and Brinkmann, 2009; Rubin and Rubin, 2005). This was in part why a mixed methodological approach was employed in order to probe respondents in more detail regarding their learning processes and motivations in order to uncover the 'truth'. For instance the survey revealed that negative emotions were a factor in the motivation for 'have-to' learners, however when probed in the interviews there were few instances of negative emotions in the learning processes of the respondents, even when prompted, and as such emotions still require further clarification (Hibbert et al., 2012). As such the richness and depth of the data is dependent not only on the data collected but also on the interviewer to guide and shape the interview process and design in order to develop a richer understanding of the customer learning processes. This was overcome by developing interaction and depth to the interviews to help the interviewee to talk more freely and thus provide more in-depth insights into learning (Rubin and Rubin, 2005). This responsive approach was flexible, adaptive, and relied on exchange (Rubin and Rubin, 2005).

A third limitation was the differential nature of customer learning. The point of a qualitative inquiry is to uncover differences and, unlike quantitative approaches that aim to replicate studies, is accepted as a consequence of a qualitative approach (Merriam, 1995). The key aspect to come out of the research was not how many learners adopted a certain approach, but the identification of the styles which they preferred to utilise.

Fourth was the generalisability of the study. The research has highlighted the processes of motivated customers in developing their knowledge and skills, and the resource integration activities that they use to help direct and support this process. However in certain contexts learning processes may be weighted towards a certain approach or preference. For instance in DIY, the majority of learners adopted a thinking approach, and were often reflective towards the process. As this environment involves practical and often challenging tasks that often have an aesthetic and/or safety aspect, ensuring that the approach to this task was conducted thoroughly makes sense from a practical perspective. Likewise in other value creating contexts in which the learner chooses to

participate, these styles may also be appropriate. For instance when learning a language, an individual may acquire structured information from a range of service providers, including more educational and structured approaches such as evening classes or Rosetta Stone/Linguaphone courses, and supplement this with additional knowledge picked up through various resource integration activities (e.g. listening to radio programmes, reading books, using apps, viewing videos, and so on). Conversely, in other contexts, learning preferences may be more weighted to an experimental and active approach (i.e. an accommodating style). For example when learning to swim, an appreciation of techniques used is useful for adults to understand how to effectively propel themselves through the water, however it is the active and experimental approach that is adopted which may facilitate learning. Likewise when learning to play the guitar, a learner may seek a range of knowledge and resources, but essentially they develop their skills by practicing their technique and through repetition.

The fifth limitation concerned the age of respondents and the recruitment of a broad range of learners. Online surveys have the perception that data collected this way does not accurately represent the population, as it excludes groups that may not have access to, or use, the internet, such as the elderly or adults in economically poor areas. However, respondents to this study were generally retired, over 55, and utilised online resources to help develop their already fairly extensive knowledge. This substantiates a recent UK Digital Future in Focus whitepaper (2013), that found the dominant age groups for online activities and interactions were 55 and over, in contrast to the popular perception of this age group as a smaller group of online users. This large shift in usage has even prompted a shift in the categorisation of this group to develop more structured groups, for example 55-64, 65-74 and so on. Further research can build on the SDL approaches adopted by Rager (2003) and others to seek to develop a deeper understanding of this age group.

The final limitation was the sample size for the survey and interviews. Although the survey sample size was within the recommended boundaries for validation (Hair et al., 2006), an increased sample may have provided

additional insight, and further clarified the motivational groups, as the survey analysis dismissed a three-cluster solution due to the small sample size of the third cluster. Although there were minimal differences, and resulting explanations between the groups, it still may have offered alternative explanations to the data. Moreover the sample size presented challenges for recruiting a subsample for the follow up semi-structured interviews, with a key challenge being to persuade learners to participate in the interviews. Some were willing to do this, however in order to increase numbers incentives were provided, and this may have dissuaded less confident learners to discuss their learning processes. These less confident learners represent an interesting subsection for service providers and these should be investigated in further research to uncover whether they adopt similar learning preferences, for instance would these learners have adopted a more measured and reflective approach along the lines of 'have-to' learners? Furthermore there was a clear discrepancy in the male to female ratio. Although market research conducted by B&Q (2011) and Keynote (2009) identifies that women are prominent 'DIY'ers', they were unrepresented in this survey. Further research may wish to investigate these female learners in more detail.

6.6 - Further Research

The results from the empirical study offer some useful and important distinctions that help to develop both the theoretical and practical understanding of how customers are motivated and participate in learning processes to enable them to participate in value creating activities. There are however some interesting developments that have emerged from this work which are worthy of further investigations in order to further develop this fledgling topic.

Firstly how do these learning processes relate to other customer contexts? For instance rehabilitation is one environment in which the customer (i.e. the patient) is required to develop their knowledge and skills in order to participate. They may utilise resources provided by the service-provider, such

as a doctor or a physiotherapist, but they may also seek their own resources to aid their recovery. Likewise, as noted in the previous section, activities such as language development or sports involve learning that is determined by the individual. Does the CVL model still hold true for these learning environments? Arguably there may still be active and reflective learners, however time constraints may limit the learning resource integration processes available to them. Therefore, is timely resource integration and learning essential to customers in these contexts? In addition, research may wish to investigate individual learning styles in more detail, as this was beyond the remit and scope of the study, the aim of which was to highlight how and why customers develop their knowledge and skills in order to participate in value creating activities. Additional work on this may seek to understand what happens with these learners when they abandon their learning, or experience emotions that hinder their progress.

Secondly, in the past decade self-service technologies (SSTs) and internet based applications (such as home energy saving calculators and dietary plans) have combined complex behaviours with individual participative input. This culminates with customer education in the guise of feedback that effectively delivers information that is relevant to an individuals' situation, needs, and behaviours (Vargo and Lusch, 2004; Darby, 2006; Boardman and Darby, 2000). For example, Web 2.0 offers interactivity and tailored support (via a multitude of outlets) and has emerged as a key tool for learning for complex contexts. The rapidly expanding marketplace for smartphone and tablet applications has enabled increased opportunities for interaction and resource exchange (e.g. Weight-Watchers, British Gas), and research has called for more investigations of how the role of online learning and technology is directed by SDL aspects as a resource channel (Song and Hill, 2007; Ellinger, 2004). Further investigations should focus on this, as it arguably plays an essential role for learning in a range of contexts, and it is therefore essential to understand how these online interactions facilitate learning.

Work may be carried out to investigate learning preferences within these online environments, and may also seek to develop an understanding of how

customers help to facilitate and support other customers in their approaches to knowledge and skills development. For instance do individuals use the resources gained in online communities to increase their skills in offline activities, and why was this not evident in the current study? As Kozinets (2010) notes 'is there a useful distinction between online social life and the social world of 'real life'? Increasingly, it seems like the answer is no. The two have blended into one world: the world of real life, as people live it. It is a world that includes the use of technology to communicate, to commune, to socialize, to express, and to understand' (p.2). This lack of focus on these communities may be a result of less confident learners not participating in the study, therefore incorporating studies of computer mediated communications through qualitative accounts may add to the richness of the data (Garcia et al., 2009; Hine, 2000; Kozinets, 2001; Cherny, 1999; Poynter, 2010) and help to clarify some of the learning styles that utilise customer-to-customer resource integration approaches. Future research should investigate these online environments, using the CVL framework as a basis for understanding how the use of forums and communities plays a role in the development of skills and knowledge (Kozinets, 2010).

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Appendices

Appendix 1: DIY Survey

Q1: Please indicate your view for each of the following statements:	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I like learning DIY skills, even if I make a lot of mistakes.							
An important reason why I do DIY is because I like to learn new DIY skills.							
I like to do challenging DIY that really makes me think.							
An important reason why I do DIY is because I want to get better at it.							
I do DIY because it interests me.							
I like learning DIY skills as I rarely make mistakes.							
An important reason I do DIY is because I enjoy it.							
I do DIY because it saves me money.							
I like to do DIY to help friends and family outside of my own home.							
I do DIY to improve the value of my home.							
I do DIY because of wear and tear to my home.							
I do DIY because it is quicker and easier than calling a professional.							
I do DIY because it makes me proud.							

Q2: Please mark the following statements on how you feel before learning DIY:	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
I feel worried at the prospect of learning DIY skills.							
I feel happy at the prospect of learning DIY skills.							
I feel nervous at the prospect of learning DIY skills.							
I feel excited at the prospect of learning DIY skills.							
I feel scared at the prospect of learning DIY skills.							
I feel unhappy at the prospect of learning DIY skills.							
I feel optimistic at the prospect of learning new DIY skills.							
I feel annoyed at the prospect of learning DIY skills.							
I feel enthusiastic at the prospect of learning DIY skills.							
I feel irritated at the prospect of learning DIY skills.							
I feel content at the prospect of learning DIY skills.							

Q3: Please indicate how confident you are…	Very Unconfident	Unconfident	Slightly Unconfident	Neither Confident nor Unconfident	Slightly Confident	Confident	Very Confident
In general with your existing DIY skills?							
In completing DIY tasks on your own?							
In general about learning new skills for DIY?							
That you can complete DIY projects when you have to learn new DIY skills?							
In planning DIY tasks/work?							
In acquiring additional information or support to complete DIY tasks?							
In overcoming obstacles when doing DIY?							

Q4 - What is the hardest DIY task you have attempted?

Q5 – Are you male or female?

- Male
- Female

Q6 – How old are you?

- 18-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70+

Q7 – What is your household status?

- Homeowner – Outright
- Homeowner – Mortgage
- Tenant/Renting – Private Landlord
- Tenant/Renting – Housing Authority/Council
- Living with parents/relatives
- Other (please specify)

Q8 – Where do you live?

- Midlands
- London
- South-East
- South-West
- North-East
- North-West

- Wales
- Scotland
- Northern-Ireland

Q9 – What is your household income per year?

- £0 - £19,999
- £20,000 - £39,999
- £40,000 - £59,999
- £60,000 - £79,999
- £80,000 - £99,999
- £100,000 +

Q10 - Would you be willing to be contacted for further questions related to this survey and the chance to win DIY vouchers? All details are kept strictly confidential.

- Yes (if yes, please provide name, address, email/telephone)
- No

Appendix 2: Participant 15's Bird House

Appendix 3: Participant information sheet for the interviews

Information for Research Participants

Thank you for agreeing to participate in this research project on learning DIY skills. Your participation in this research is voluntary, and you may change your mind about being involved in the research at any time, and without giving a reason.
This information sheet is designed to give you full details of the research project, its goals, the research team, and what you will be asked to do as part of the research. If you have any questions that are not answered by this information sheet, please do not hesitate to ask.

What is the research project called?

Learning to Create Value.

Who is carrying out the research?

The University of Nottingham (James Bailey PhD Marketing; Dr. Sally Hibbert; Prof. Heidi Winklhofer) and DIYDoctor.org.uk.

What is the research about?

The aim of the research is to understand *why* and *how* individuals' learn skills and gain knowledge to complete service offerings, and the support that they receive in this process.

The focus on DIY is important as the research is specifically interested in situations in which the individual has a choice of whether or not to learn (the alternative being to employ a professional instead of participating in DIY).

Understanding how individuals learn, and the processes that they go through, can help organisations support the learning needs of their consumers and deliver better services. For consumers this support can help develop skills, abilities, and knowledge to successfully participate in learning opportunities.

Why have I been asked to take part?

In September 2012, you completed an online survey at DIYDoctor.org.uk about why you learnt DIY skills. You were among a group of people who indicated that you would be willing to participate in further telephone questions.

What will I be asked to do?

The researcher (James Bailey) will telephone you at a pre-agreed time (including evenings and weekends) between the 22nd October and the 7th November (on the number you provided in the survey), to ask questions about a specific DIY skill that you have learnt. The questions relate to how you gained this new skill, any problems that you may have encountered, and the support

that you received in this process. This phone call will last approximately 20-25 minutes.

At the end of the phone call, you will be entered into a draw to win B&Q gift vouchers. Five winners will be notified after the interviews have been completed (Mid-November 2012).

What will happen to the information I provide?

All answers will be confidential, anonymous, and securely stored. The information gained from the responses will help DIYDoctor.org.uk to contribute to developing a learning support processes for their users, and the researcher to develop PhD research output and peer-reviewed publications.

Direct quotes may be used in this output, but participants will be referred to by a pseudonym.

Your participation in this research is voluntary, and you may change your mind about being involved in the research at any time, and without giving a reason. You have the option to review unedited transcripts of your conversation with the researcher before any use.

Contact details

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Complaint procedure

If you wish to complain about the way in which the research is being conducted or have any concerns about the research then in the first instance please contact the researcher.

Or contact the University of Nottingham Business School's Research Ethics Officer:
Adam Golberg
Nottingham University Business School
Jubilee Campus
Nottingham NG8 1BB
Phone: 0115 846 6604
Email: adam.golberg@nottingham.ac.uk

Appendix 4: Telephone Interview Schedule

	Date	Length (minutes)
Participant 1	19/11/2012	27
Participant 2	2/12/2012	55
Participant 3	30/10/2012	68
Participant 4	03/11/2012	33
Participant 5	18/10/2102	35
Participant 6	1/11/2012	58
Participant 7	23/10/2012	19
Participant 8	29/11/2012	50
Participant 9	29/12/2012	56
Participant 10	1/11/2012	29
Participant 11	20/11/2012	24
Participant 12	20/12/2012	46
Participant 13	30/10/2012	82
Participant 14	2/11/2012	38
Participant 15	18/10/2012	52
Participant 16	29/11/2012	47
Participant 17	19/11/2012	31
Participant 18	23/10/2012	49
Participant 19	3/11/2012	40
Participant 20	13/12/2012	24
Participant 21	19/12/2012	61
Participant 22	23/10/2012	89
Participant 23	29/12/2012	43