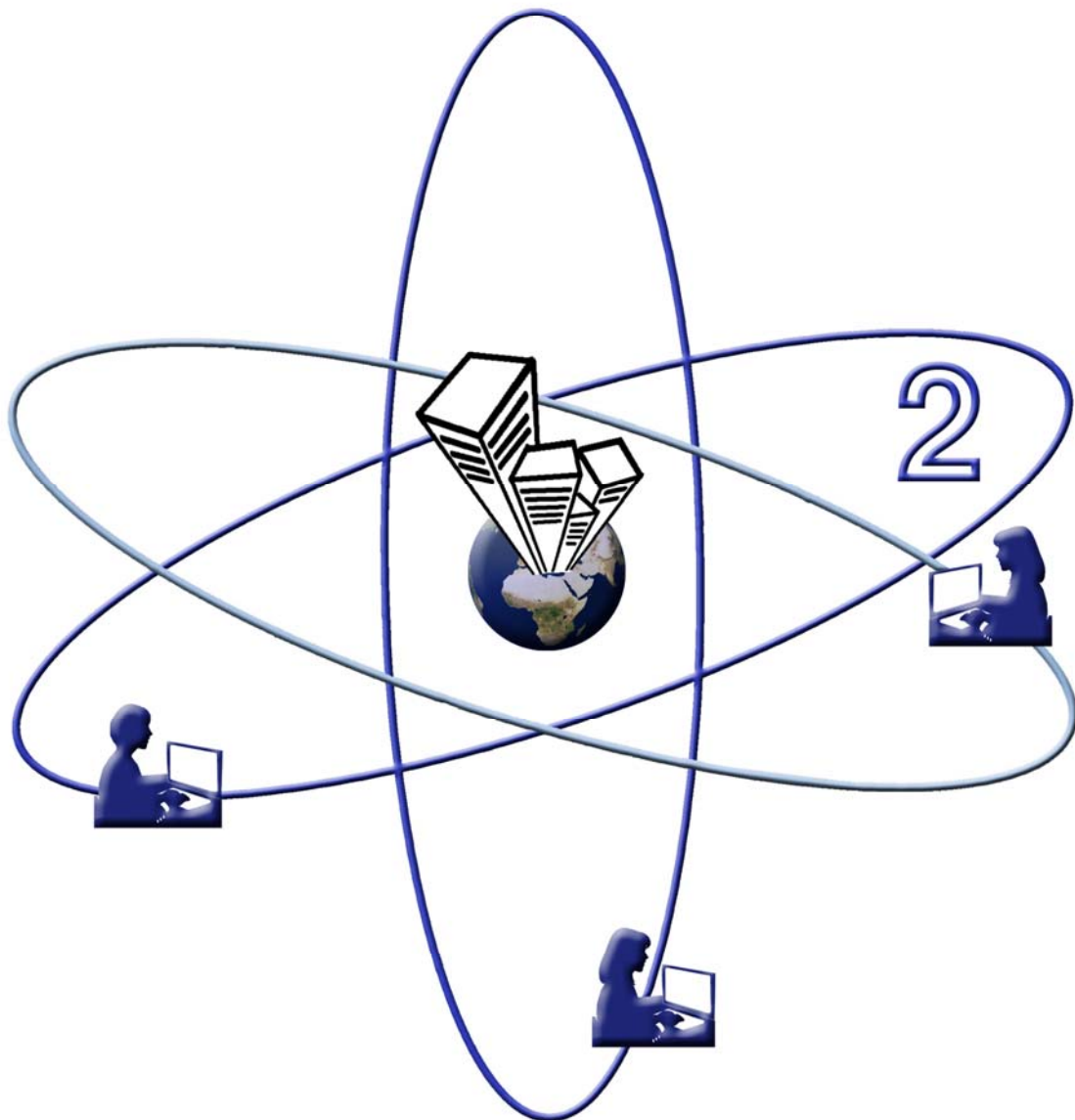# The management of people, processes and places in the virtual workplace

RESEARCH METHODOLOGY

2

CHAPTER 2: RESEARCH METHODOLOGY

> *Interpretivism uses participant observation and hermeneutics, all of which give explicit recognition to the world of consciousness and humanly created meaning. Central to the hermeneutic approach is the creation of a mutual understanding, meaning "one person reaching an understanding of what another person meant".*
>
> **Ngwenyama & Lee (1997:150)**

2.1   INTRODUCTION

A wealth of research methodologies exist to assist researchers in their quest to explore unknown territories, thereby enriching their experiences to learn and obtain knowledge.   The quest to explore management of **people, processes and places** as part of the virtual workplace will be conducted in a qualitative, descriptive and interpretive manner using a case study, focus group discussions, interviews and an online survey or blog as instruments. This is the research approach of choice as derived from the discussion related to quantitative and qualitative research methodologies in section 1.5.

2.2   RESEARCH METHOD

Research in the information systems (IS) domain can be regarded as interpretive when our knowledge of reality is gained only through social constructions such a language, consciousness, shared meanings and documents (Klein & Myers, 1999:69). As indicated in chapter 1 qualitative research will be done for the research conducted for this thesis. The research method will be interpretive, referring to the interpretation of qualitative data collected through the focus group discussions and interviews (thus language and shared meanings) and documentation provided. The qualitative approach to do research for this thesis has interpretivism as the philosophical basis with the hermeneutic circle as method of analysis to create meaning of the text (table 1, Cole & Avison, 2007:821).

The learning experience with its different phases resulting in the creation of meaning and understanding is discussed in the following section. Learning,

hermeneutics and the derived Extended Hermeneutic Circle of Learning will be covered.

2.2.1 Learning

Learning, whether formal or informal, is a key element of our existence and growth. The understanding created through learning could refer to learning being personal experience, academically supported through literature or spiritual. Handy (1991:46) offers a very concise example of how learning is achieved. His Wheel of Learning portrays the four phases of learning, namely:

o Learning starts with a *question* or problem that needs to be solved or a challenge that needs to be met with the emphasis on the question being the researcher's own and not that of someone else.

o Once the question has been defined, theory development commences and the emphasis of this phase is the *investigation* of possible ideas through free-thinking, re-framing and speculation.

o The next step is the *testing* of the theories in reality, that is to determine what will work and what not.

o Through *reflection* we know why and by understanding what works, we have learnt. Meaning is built through learning and learning leads to understanding.

The four steps of Handy's wheel of learning as discussed above are depicted in figure 2.1 below.
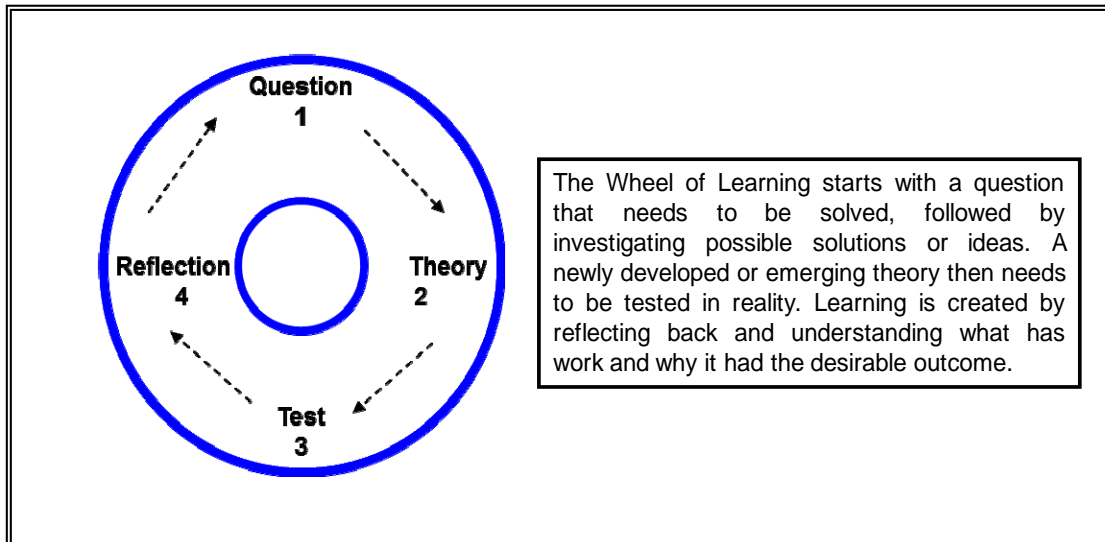
Figure 2.1: Wheel of learning
Handy (1991:46)

As stated above, meaning is created through learning with learning leading to understanding. Following the hermeneutic philosophy, understanding is promoted through interpretation, thereby "rendering what is unclear clear", allowing people to make sense of and obtain an understanding of the information being conveyed (Bauman in Butler, 1998:86). This notion of interpretation shows a relationship with interpretivism followed for the creation of understanding as part of this thesis.

2.2.2 Hermeneutics

Hermeneutics has Greek origins, meaning the art and science of interpretation and understanding (Delius, Gatzemeier, Sertcan & Wünscher, 2000:114; Runes, 2001:221). According to Gadamer the process of interpretation moves from an initial understanding of the parts in terms of the whole, back from a global understanding of the whole to an improved understanding of the parts (Klein & Meyers, 1999:71,72). Hermeneutic understanding thus comes into being through active interpretation (Introna, 1997:70) providing the real means of *"engaging in transcendental interpretations with the prospect of future application"* instead of resolving immediate practical problems. Simply put, hermeneutics is a theory of interpreting text with an interpreter rendering words understandable and meaningful (Cole & Avison, 2007:820, 821).

Active interpretation leading to understanding is reflected in the hermeneutic circle which starts off with the interpreter's initial understanding and prejudgement or *Erlebnis,* that is *lived experience* to establish a preliminary understanding of the text or part he or she is confronted with (Introna, 1997:56, 67). Prejudices are grounded in two places, namely our world and our lived experiences (or *Erlebnis*) and are passed on in language and images relevant to our existing time and our generation's experience of the world (Cole & Avison, 2007:822). When this is related to the interpreter's current situation or form of life a new understanding of the context or whole is born. Moving between the part and whole creates an opportunity for understanding, provided the interpreter is open to this interaction and the opportunities that may be presented (Introna, 1997:65-67). The more the process is repeated, the more logical the part becomes and the better the interpreter understands the part and an understanding of the whole comes into existence. This circle of understanding does not necessarily seek to create new knowledge, but to understand existing knowledge better, thereby suggesting that we come to a better understanding of a complex whole from preconceptions about the meanings of its part and its interrelationships (Cole & Avison, 2007:823; Klein & Meyers, 1999:71). The interactive process of creating understanding, as discussed by Introna and Klein and Meyers above, correlates with theory development through continuous iteration between data collection and analysis as cited by Myers (1997b:6). Should this interactive process of creating understanding however be terminated too early or hastily, understanding will be incomplete, giving rise to confusion.

The greatest benefit offered by hermeneutics is the freedom to explore unusual comments and findings, thereby offering the researcher the opportunity to put his own interpretation on the data being analysed. Thus, a platform for future discussion is established (Cole & Avison, 2007:820).

In context of this thesis the parts, namely people, processes and places need to be understood in terms of the whole, that is in terms of the virtual workplace. This translates into moving between people, processes and places and interpreting it in the context of each other and in the context of the virtual

workplace. The understanding created related to the virtual workplace then needs to be interpreted in terms of the people, processes and places parts to obtain an improved understanding of the parts. With repetitive movement between the parts and the whole, the more logical the parts become and the better the understanding of the whole is created. Thus, the opportunity is created to understand the whole, that is to understand the people, processes and places relationship in the virtual workplace. This can be summarised as each of the parts being understood in terms of the others, thereby creating understanding of the whole (Blackburn, 1996:172).

The hermeneutic circle depicting interpretation with the movement between the part and the whole can be seen in figure 2.2 below.
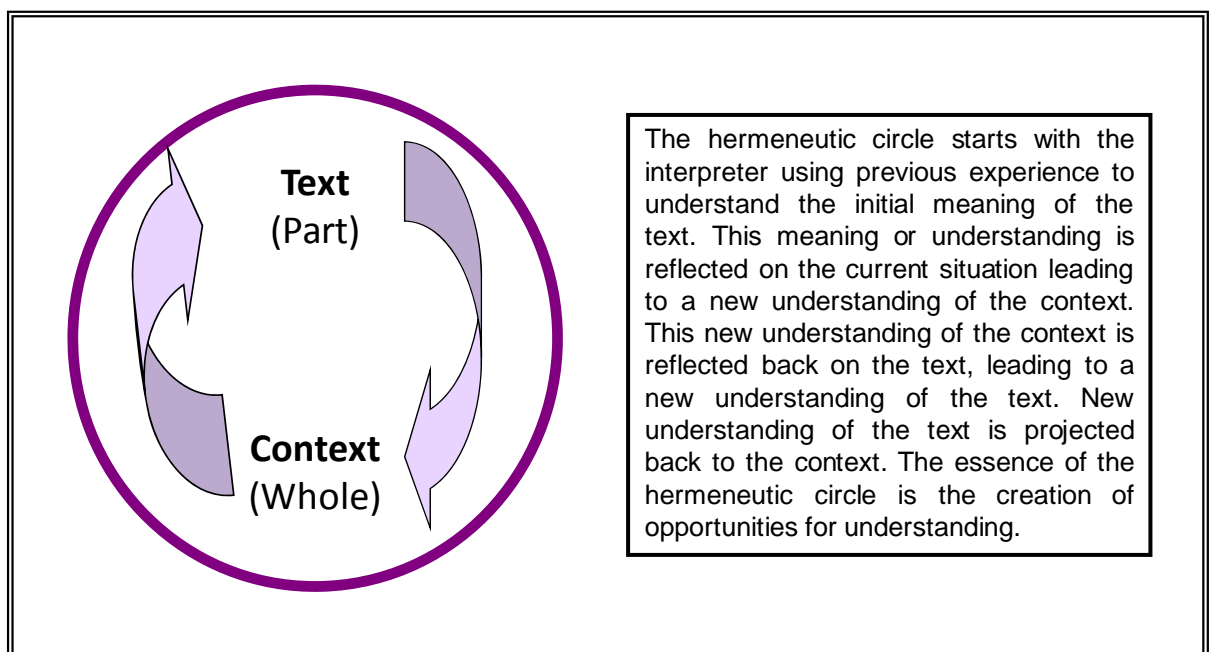
Text
(Part)

Context
(Whole)

The hermeneutic circle starts with the interpreter using previous experience to understand the initial meaning of the text. This meaning or understanding is reflected on the current situation leading to a new understanding of the context. This new understanding of the context is reflected back on the text, leading to a new understanding of the text. New understanding of the text is projected back to the context. The essence of the hermeneutic circle is the creation of opportunities for understanding.

Figure 2.2: Hermeneutic circle
Introna (1997:65-67)

2.2.3 Hermeneutic circle of learning

"Each individual, through personal experience of the 'give and take' of interacting with others, and through the hermeneutic circle, builds his/her own ongoing knowledge" (Chalmers, 2004:212). Interpretation and learning through the hermeneutic circle of learning encompasses firstly, interpretation as the interaction between activity (part), context (whole) and the prejudice or

"horizon" of the interpreter and secondly the content, context and background of the information or "horizon" provided by the text. Meaning is given to text through every act of reading or hearing thereby creating the "fusion of horizons" (Gadamer in Chalmers, 2004:212).

The learning cycle (section 2.2.1) relates to hermeneutics (section 2.2.2) with understanding created through learning. Following on this, there is a close correlation between hermeneutics and the hermeneutic circle of learning with understanding embedded in the hermeneutic circle (Introna, 1997:65–67). Understanding is achieved through the hermeneutic dialogue which develops between the interpreter of the data (part or text) and the provider of the data (Introna, 1992:2,13). Data (part or text), when analysed and examined becomes information. Interpreting the information leads to understanding. Thus, turning data (part or text) into information becomes the first step in the process of gaining understanding.

In the context of this thesis, the researcher has a pre-understanding of the people, processes and places parts related to the virtual workplace. Through a process of discourse with various groups and individuals, the researcher will investigate the virtual workplace and the parts associated with it. Each of the parts will be interpreted in relation to each other and to the whole, and its meaning be integrated to obtain an understanding of people, processes and places in the virtual workplace as a whole (Cole & Avison, 2007:823). This process of "*subjective reflex*" as it is described by Gadamer, is adopted by the researcher toward the phenomena under investigation. "*Subjective reflex*" means the researcher's "*intuitive anticipation of the whole and its subsequent articulation in the parts*" (Cole & Avison, 2007:823).

Combining the principles of Handy's wheel of learning and Heidegger's hermeneutic circle provides the "Hermeneutic circle of learning" in figure 2.3 below. This figure illustrates for example that the text or part in the inner circle relates to Question 1 which again relates to an initial understanding of the text or part.
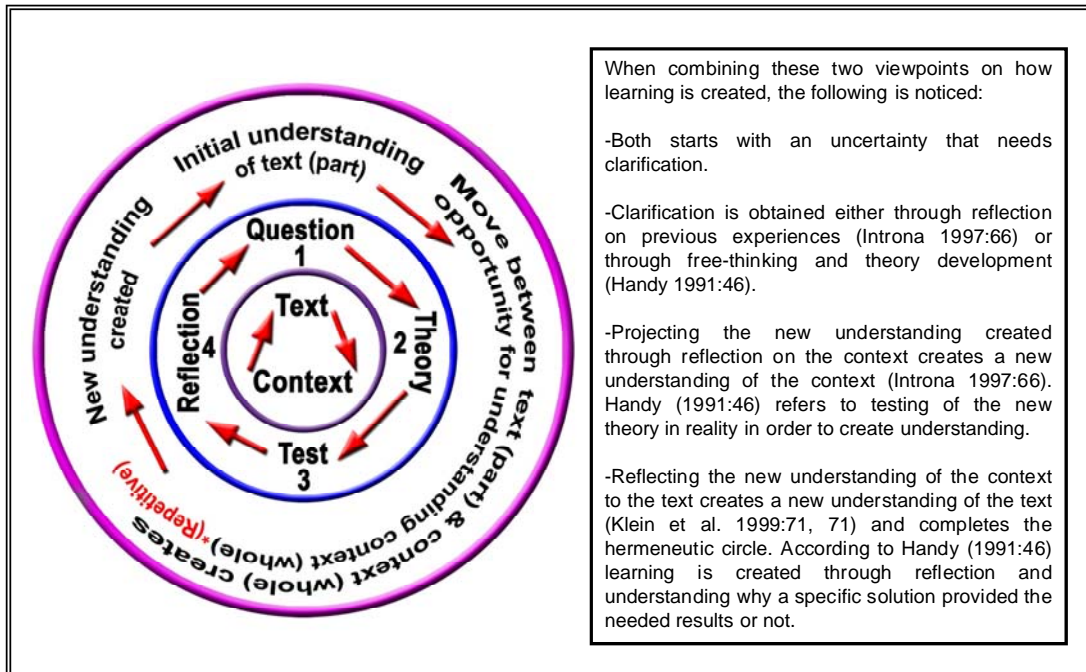
When combining these two viewpoints on how learning is created, the following is noticed:

-Both starts with an uncertainty that needs clarification.

-Clarification is obtained either through reflection on previous experiences (Introna 1997:66) or through free-thinking and theory development (Handy 1991:46).

-Projecting the new understanding created through reflection on the context creates a new understanding of the context (Introna 1997:66). Handy (1991:46) refers to testing of the new theory in reality in order to create understanding.

-Reflecting the new understanding of the context to the text creates a new understanding of the text (Klein et al. 1999:71, 71) and completes the hermeneutic circle. According to Handy (1991:46) learning is created through reflection and understanding why a specific solution provided the needed results or not.

Initial understanding of text (part) · Move between text (part) for understanding of context (whole) · (Repetitive)* · Context & context (whole) creates · New understanding created

Question 1 · Theory 2 · Test 3 · Reflection 4 · Text · Context

Figure 2.3: Hermeneutic circle of learning
Handy (1991:46), Introna (1997:65–67), Klein and Meyers (1999:71, 72)

Gaining understanding through learning as explained in the discussion reflecting on the hermeneutic circle of learning will be conducted following a set of steps which are incorporated into the hermeneutic circle of learning.

2.2.4 Theory building

Pandit (1996:2–5) uses a specific approach to theory building which includes grounded theory as defined by Corbin and Strauss (1990:3–21). Acknowledgement is given to Pandit's application of grounded theory. However, the author of this thesis is applying the five steps and nine phases as identified by Pandit for the creation of the Extended Hermeneutic Circle of Learning and not as grounded theory. Adding the different phases for theory building to the hermeneutic circle of learning as depicted in figure 2.3, assist in obtaining a structured guideline for exploring *people, processes and places* as part of the virtual workplace (Pandit, 1996:2–5).

These phases do not necessarily follow a specific sequence. Within the five phases, nine different steps have been identified as indicated below each phase. The details reflected below are according to Pandit's identification thereof. The researcher's application of these steps is discussed in chapter 6.

- **Phase 1: Research design**

  Step 1: Review of literature

    Research effort is focussed through defining of the research question. The research question should be narrow enough to focus, yet broad enough for flexibility.

  Step 2: Selecting cases[1]

    Purposive and not random sampling assisted in focussing the research effort on useful cases or units of data. Purposive sampling allowed the researcher to "hand-pick" the sample that would produce valuable data for the research (Oates, 2009:98).

- **Phase 2: Data collection**

  Step 3: Develop a rigorous data collection protocol

    This step focuses on the creation of a data collection protocol to increase reliability and construct validity. Triangulation of evidence in qualitative research relates to directly observed relationships whereas quantitative research relates to understanding rational and underlying relationships.

  Step 4: Enter the field

    This step has as activity the collection of data and adjustment of data collections in order to take advantage of emerging themes.

- **Phase 3: Data ordering**

  Step 5: Data ordering

    This step encompasses the chronological arrangement of events for easier data analysis.

- **Phase 4: Data analysis**

  Step 6: Analyse data relating to first case

---

[1] The cases used as part the research conducted for this research do not refer to case studies. Cases are used as described by Pandit (1996:2–5).

Various types of coding can be used to analyse the data of the first case, such as open, axial or selective coding. Coding is used for the development of concepts, categories and properties.

Step 7: Theoretical sampling

Literal and theoretical replication across units of data (cases) is done to confirm and extend the theoretical framework.

Steps 2 to 7 are repeated until theoretical saturation is achieved.

Step 8: Reaching closure

Closure is reached when improvement margins have decreased and theoretical saturation becomes possible.

o **Phase 5: Literature comparison**

Step 9: Compare emergent theory with existing literature

Comparison with conflicting and similar frameworks is done leading to improved construct definitions as well as improvement of internal and external validity. Findings can be generalised.

These five phases and nine steps are depicted in the Extended Hermeneutic Circle of Learning below and will be used for theory building related to the management of people, processes and places in the virtual workplace.

2.2.5 Extended Hermeneutic Circle of Learning

Mapping these five phases and nine steps to the already defined hermeneutic circle of learning as seen in figure 2.3, provides us with the ***Extended Hermeneutic Circle of Learning*** as can be seen in figure 2.4. Moving back and forth between the parts and the whole (Introna, 1997:65); or investigating new ideas, testing those ideas and reflecting on it (Handy, 1991:46); or following the nine steps of theory building (Pandit, 1996:2–5) all have the same purpose – creating new understanding. New understanding is therefore created through interpretation, reflection and analysis. Importantly, realising and understanding the difference between the parts as it was originally, the

changes brought about through reflection and the impact of the changes on the parts and understanding the parts in terms of the whole is the key to learning.

The phases and steps as indicated above provide a structure or framework which will be used as guideline for this research project to create an understanding of the parts, namely people, processes and places in terms of the whole, that being the virtual workplace.

When reflecting on the Extended Hermeneutic Circle of Learning the following correlations between the different frameworks as discussed above are observed. The text in the inner circle correlates with the question which is the starting point in the next circle. The question correlates with the problem or dilemma in the third circle referring to the research problem that requires investigation. The research design reflects on how the problem will be investigated with steps one and two indicating the activities related to the research design. Text, the question, problem and research design culminates in obtaining an initial understanding of the part or text.

This is followed by moving between the part (text) and the whole (context) which correlates with theory. Investigation is done through data collection and data ordering with steps three, four and five indicating the activities involved. Understanding the whole, testing and correlating theory are obtained through data analysis as indicated in steps six and seven. Moving back and forth between the parts and the whole, that is between steps two to seven assists in obtaining an understanding of the parts in the context of the whole and vice versa. This translates into obtaining an understanding of the people, process and place parts in terms of the whole, namely in terms of the virtual workplace; and the virtual workplace in terms of people, processes and places.

Interpretation and reflection relates to learning and understanding achieved reaching closure with the new understanding that has been created.

These nine steps relate to learning and moving towards a new understanding by obtaining an initial understanding of the parts, followed by movement between the parts and the whole until closure is reached, resulting in new understanding of the parts in relation to the whole and the whole in terms of the parts.
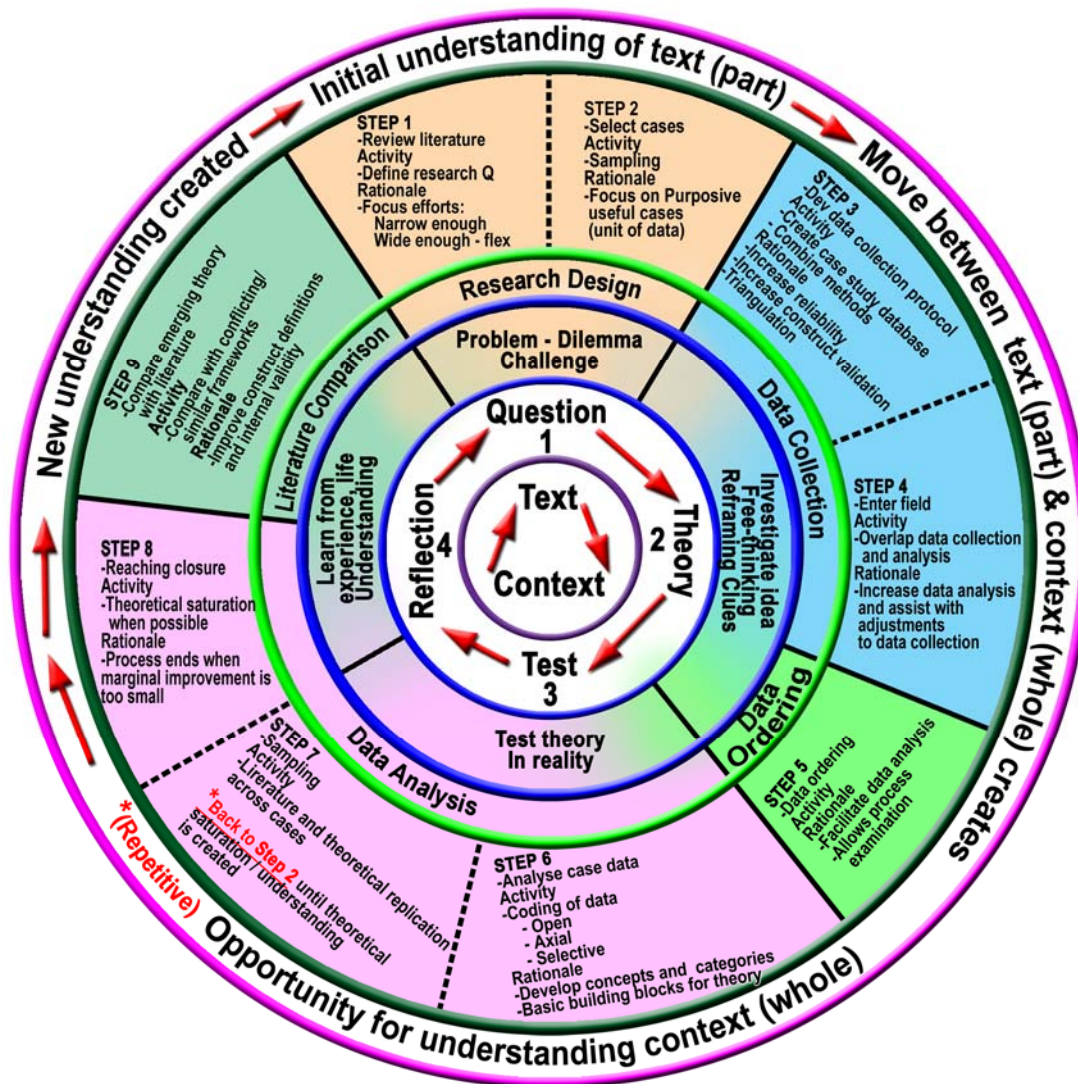
Figure 2.4: Extended Hermeneutic Circle of Learning
Derived from Handy (1991:46), Introna (1997:65) and Pandit (1996:2–5)

The qualitative, interpretivist research approach as mentioned earlier will be used for learning and to obtain knowledge on *people, processes and places* as part of the virtual workplace. This approach and the usage of The Extended Hermeneutic Circle of Learning are discussed in chapter 6.

2.3   RESEARCH APPROACH

2.3.1   Research design

The literature survey distinguishing between qualitative and quantitative research approaches (section 1.5) was done to select the most suitable

research approach. Through the literature survey an understanding was gained that a qualitative approach would be the appropriate choice.

For the purpose of this research a qualitative and descriptive method will be followed to gain insight into the virtual workplace, reflecting on people, processes and places. A multi-method research approach with different instruments will be used, namely focus group interviews, structured interviews and a weblog as discussed in sections 2.3.1.1 and 2.3.1.2 respectively, and data generation in section 2.3.2. Using a multi-method approach enables us to look at the research area in different ways. The advantage of using a multi-method approach is that a larger volume of data can be generated, thereby improving the quality of the research. However, the disadvantage is that it could be more time consuming and expensive to analyse the data. The findings from one method can be compared with the findings of another method, such as comparing the findings of the focus group discussions with the interviews or the case study. Corroborating the findings of the different methods enhances the validity and is called method triangulation. Method triangulation relates to the using of two or more data generation methods (Oates, 2009:36–37)

The multi-method approach is useful to obtaining insight into business process ideas *(process)* relevant to the two different workplaces *(place)* and obtains insight into the opinions and experiences of the participants *(people)*.

Focus group interviews will be conducted with groups from different industries working in both the traditional and virtual workplaces within South Africa as discussed in section 1.6.2, population for research. Structured interviews will be conducted with participants outside the borders of South Africa and a weblog will be used for online interaction.

Research findings will be presented in the thesis reflecting on the people, processes and places relevant to the virtual workplace.

2.3.1.1   Focus groups

Focus group interviews are conducted with a small homogenous group of people, usually three to six (Oates, 2009:194) or six to eight participants, on a specific topic (Patton, 1987:135), who meet for 90 minutes to 2 hours (Cooper & Schindler, 2001:142).   Different focus groups are conducted for different topics emphasising homogenous group dynamics. During focus group interviews participants reflect on questions posed and not problem-solving or decision-making. Participants therefore do not necessarily agree or disagree (Cooper & Schindler, 2001:142; Patton, 1987:135; Patton, 2002:236). The qualitative data collected during focus group interviews enriches all levels of research questions and comparisons (Cooper & Schindler, 2001:142). Recording of all group interviews and structured interviews will provide opportunity for the researcher to be actively involved in discussions in addition to having a second researcher to assist with making notes (Oates, 2009: 195; Patton, 1987: 136; Cooper & Schindler, 2001:145).

Focus group interviews offer the advantages of being a flexible, relatively inexpensively method (Cooper & Schindler, 2001:145) to gather qualitative data from more than one person at a time, thereby increasing the volume of data collected during one interview. Additional to receiving more varied responses to questions, consensus can be obtained regarding the subject at hand and the opportunity can arise to do brainstorming of the subject (Oates, 2009:194).   False or extreme views can be weeded out as participants tend to provide checks and balances which contribute to keeping the focus on the topics at hand (Patton, 1987:135).

The disadvantages of focus group interviews relate to a limited number of questions, usually not more than 10 questions in two hours, which can be discussed. Caution needs to be exercised to prevent discussions from being dominated by individuals as part of their play for power, thereby diverting discussions. Confidentiality and anonymity

could pose a problem when participants know each other (Oates, 2009:195; Patton, 1987:135,136). As focus group interviews relate to a qualitative research and data collection method with limited sampling it should not be used as a replacement for quantitative analysis (Cooper & Schindler, 2001:145).

For the research as part of this thesis, focus group interviews were conducted with homogenous groups of four to five participants within a company, within an industry, for example, a homogeneous group of four participants from Company A, with Company A being in the consulting industry. The focus group participants in the different industries were selected based on their exposure to business processes (process), their workplaces (place) and their experiences (people). Care was taken to obtain a diversity of traditional and virtual segments. Examples of the roles performed by individuals identified for this research are business analysts, business process analysts or architects, business process owners and BPM consultants.

2.3.1.2 Online groups – weblog (blog)

Weblogs, also known as blogs, originated as a social online writing tool used by bloggers or users who maintain a blog (Duffy & Bruns, 2006:32) to keep chronologic dated records (Herring, Scheidt, Bonus & Wright, 2004:1) of their published material on any topic as discussed on a website. Blogging, which is the online participation on a blog, changed the traditional way of communication through writing, as written content is instantaneously available through the use of the internet, enabling the sharing of knowledge.

Apart from allowing bloggers to quickly and easily create and share written content, that is called blogging, they can also incorporate images, videos and hyperlinks. A blog typically consists of the following components (Duffy & Bruns, 2006:32) that assist to add structure to the blog and online journals posted to the blog:

- o post date depicting the date and time entries were posted on the blog
- o category indicating the type of content posted on the blog
- o title of the record posted
- o body or content of the record posted on the blog
- o trackbacks which are links back to other sites
- o comments added by readers and bloggers
- o permalink which is the full URL of an individual article posted to the blog
- o footer at the bottom of the page which contains the components listed above, that is the posting date and time, category, author and statistics, such as the number of reads or hits in the blog and comments received

A blog can have three usages, firstly that of a social writing tool, secondly for the sharing of information instantaneously over the internet and thirdly for research and to stimulate thinking, which links to the educational component and its use as part of research conducted for this thesis (Richardson, 2006:20).

Online participation in a blog has the disadvantage that the researcher is not able to conduct in person interviews with bloggers. However, blogging, and its unconventional way of expressing opinions, provides flexibility benefits as bloggers' participation is not dependent on time and places.

The use of this type of technology *(process)* will provide invaluable inputs from participants *(people)* across the globe *(place)*.

2.3.1.3 Case study

Yin (2003:13) defines a case study as "*an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident*". Various methods of data generation, such as

interviewing, observation and documentation analysis can be used to study a case and a case study has the following characteristics, according to Oates (2009:141, 142):

- o Focus on depth rather than breadth, thus obtaining as much possible details of the phenomenon under investigation.
- o Use natural settings and not laboratory or artificial settings.
- o It is a holistic study thereby focussing on complexity of relationships and its interrelatedness.
- o It uses multiple sources and methods, such as interviewing, observation, departmental meetings and briefing notes.

Oates (2009:142) further discusses different types of case studies, namely explanatory, historical and contemporary case studies, with a descriptive case study containing a detail analysis of the particular phenomenon and its context.

Advantages offered by case studies include dealing with complex situations where it is difficult to study a single factor in isolation; that it fits situations where the researcher has little control over events; that it is suitable for theory building and testing and allows the researcher to show the complexities of life and explore alternative meaning. It also produces data that is close to people's experiences (Oates, 2009:150).

The disadvantages in case study research include that it can be perceived as lacking rigour leading to generalisation with poor credibility; there is difficulty in getting access to people and documentation; the presence of the researcher can affect people and their behaviour and there are no set rules for the researcher to follow to determine quality in advance (Oates, 2009:150).

The descriptive case study fits with the research conducted for this thesis. The case study information is used as data in this research as discussed section 2.3.2.3. Thus, it is used as a data generation method.

Following on this discussion of the research design is the data generation method used for this thesis.

2.3.2 Data generation method

The data generation methods for the research conducted as part of this thesis are discussed in the following section. The focus group discussions, interviews and weblog latched onto the case study forming a multi-method data generation, exploring the people, processes and places and its relationship in the virtual workplace. The focus group interviews and other interviews focussed on a specific subset of peole as indictated in section 1.6.2. This could be seen as a limitation and has been address in Limitations (section 6.11) and Future Research (section 6.12).

2.3.2.1 Focus groups

All focus group interviews were recorded to ensure recording of quotations from participants. The population of the focus groups is discussed in section 1.6.2. Table 2.1 indicates the focus group discussions with participants working virtual within South Africa. A total number of nine interviewees participated in the focus group interviews.

INDUSTRY	WORK RELATED ENVIRONMENT	LOCATION
Consulting		
Company A	Virtual	South Africa
Consulting		
Company E	Virtual	South Africa
Total number of interviewees: 9		

Table 2.1: Focus groups

The agenda for the focus group sessions was compiled in order to provide structure to the focus group discussions with the questions grouped according to the people, processes and places components. The agenda is represented in table 2.2. Company profiles were compiled of the participating companies focussing on the companies' heritage, values, mission, vision, business reason and the reason for selection as part of this research. The company profiles are presented in table 2.3: Profile Company A: Consulting and table 2.4: Profile Company E: Consulting.

AGENDA FOR FOCUS GROUP SESSIONS	TIME ALLOCATION (minutes)
General orientation	
Welcome and introduction of participants	2
Motivation for research	2
Data collection conversation	
People	
Q1: What challenges do you experience with regards to BPM in the workplace?	10
Q2: What challenges do you experience with regards to BPM in the virtual workplace?	10
Q3: What management style is needed In the virtual workplace?	10
Q4: What management principles are needed in the virtual workplace?	10
Process	
Q5: Identify business processes unique to the virtual workplace	10
Q6: What characteristic make these business processes unique?	10
Q7: What change control process is followed for the management of business processes in the virtual workplace?	5
Place	
Q8 What unique challenges do you have working virtual?	10
Q9 How does business processes help you working virtual?	10
Q10: What is the most common way you work virtual?	5
Closure	2
TOTAL TIME ALLOCATION	90

Table 2.2: Agenda for focus group discussions

	PROFILE COMPANY A: CONSULTING
HERITAGE	Company A was founded in 2008 after like-minded individuals and leaders in Business Process Management (BPM) and Enterprise Architecture (EA) decided to join forces and establish an identity that communicated their activities, strengths and values. They established a reputation as providers of world-class BPM and related solutions and their client base includes many large and well-known South African corporate clients with their global subsidiaries. Firm on their foundations they expanded to include a stake from a 100% black-owned technology provider and enterprise resource planning specialist company. Today Company A has approximately 50 employees specialising in BPM, working virtual while supporting their clients.
VALUES	At the core of Company A's corporate values are integrity, collaboration, learning and growth and, most importantly, sharing in success. The founders are all value-driven individuals who want to deliver tangible benefits to their clients. These characteristics form the cornerstones of their belief system. They believe that these values and belief systems will give life to their mission.
MISSION	Company A's mission is to be recognised as a leader in delivering real, tangible business benefits for their customers.
VISION	Company A will achieve their mission through the delivering of sustainable, value adding-solutions based on business process management (BPM), value engineering (VE) and enterprise architecture (EA) related products and services. Company A strives to provide sound foundations for sustainable outcomes by building on architectural integration, proven methods, innovative meta constructs, model driven architecture and people focussed mentoring.
BUSINESS REASON	Company A delivers value-adding solutions to their clients that is a considered blend of expertise in understanding business strategy, the role business processes fulfil, skilled design thereof through the application of BPM techniques and many years of experience in facilitating process-oriented analysis and design. Company A is a specialised provider of world-class business process management (BPM) and enterprise architecture (EA) solutions with a wealth of experience, expertise and product knowledge who delivers strategic business application solutions that creates value for their clients by helping them to implement their strategic visions.
REASON FOR SELECTION	Company A was selected for participation in this research based on their expertise and passion for business processes and their belief in the value that business processes have for the organisation and its clients. Company A also has a large number of virtual workers with

	many years of experience in the virtual workplace. Their wealth of knowledge relating to people, process and the virtual workplace is deemed invaluable for the research conducted for this thesis.

Table 2.3: Profile Company A: Consulting

	PROFILE COMPANY E: CONSULTING
HERITAGE	Company E gained recognition as the complete Information and Communications Technology (ICT) partner to a considerable client base of large technology users in the public as well as private sectors and is listed on the Johannesburg Stock Exchange (JSE). This company renders services to almost 90% of the top 100 JSE-listed companies, including nine of South Africa's leading corporations. The company aims to address its own business growth and competitive imperatives, enterprise development and the improvement of its corporate citizenship through its National Partnership Network. Company E's position as the leading listed empowered ICT company delivering a complete range of professional services and solutions is of great value to their clients, shareholders and staff. The company obtained a "AA" Empowerdex rating (Level 3 contributor to BBBEE) which is the best in the ICT industry for listed services and solutions companies and serves as testimony for their commitment. The company has partners is Australia and future endeavours could include partners in South America. The company currently employ more than three thousand eight hundred professionals.
VALUES	Company E's value statement is as follows: • The client is the key: No clients mean they have no business. Respect clients, treat them with dignity and provide excellent service at all times. • Esteem through growth: Growth is essential to maintain a healthy organisation that is profitable, adding value to its employees, shareholders and communities. • We love what we do: Happy and satisfied employees are of the utmost importance and they will make every effort to ensure that the work environment is pleasant, challenging and conducive for growth, health and happiness. • Dedication to delivery: They demonstrate their loyalty by sticking to their promises, encouraging open and honest dialogue between the company and its employees. Teamwork and commitment serve as the strengths of this company.
MISSION	The company's mission is to continually improve its client centeredness by focussing on improving its efficiency and competiveness through the offering of world-class, innovative and affordable service, premier client care, commercial acumen and

	proven technological leadership.
VISION	Company E's vision is be the most respected company in the ICT industry in their target markets by striving for unparalleled value for their clients, staff, shareholders and communities. The company strives to achieve its vision through the development of its staff, its intellectual property, its communities and with investment in its technology and service based partnerships and resources.
BUSINESS REASON	Company E has specialised knowledge in the financial, retail, mining, manufacturing and telecommunications industries. This specialised knowledge base enables them to provide comprehensive, integrated solutions to their clients throughout Southern Africa. Delivering large and complex ERP implementation on time and within budget is their mantra and these implementations are supported with one of the largest SAP support service centres in Southern Africa, functioning sixteen hours a day, seven days a week.
REASON FOR SELECTION	This company's activities are supported through the implementation of standardised processes thereby supporting the staff functioning in the SAP support hub as well as those working from distributed locations, including Australia. The company's experience in providing support for and the management of virtual workers provides invaluable insights into people and processes in the virtual workplace.

Table 2.4: Profile Company E: Consulting

2.3.2.2 Interviews

The interview participants as indicated in table 2.4 were from different industries with virtual workers or from the traditional environment. Interview participants were from South Africa as well as abroad, thereby providing the opportunity to broaden the perspective on people, processes and places and its relationship in the virtual workplace. A total number of ten participants were interviewed. Company profiles were compiled of the participating companies following the same structure as previously discussed in section 2.3.2.1, to promote consistency in the presentation of the companies. The company profiles are presented in table 2.6: Profile Company B: Financial institution, table 2.7: Profile Company C: Telecommunications and table 2.8: Profile Company D: Financial institution. Research participants are presented in table 2.9: Research G. A full list of the participants can be seen in Appendix B.

INDUSTRY	WORK RELATED ENVIRONMENT	LOCATION
Research (G)		
Interview	Virtual	Australia, Germany
Financial Company (B)		
Interview	Virtual	South Africa, Africa
Telecommunications (C)		
Interview	Traditional	South Africa, Africa
Financial Company (D)		
Interview	Traditional	South Africa
Total number of interviewees: 10		

Table 2.5: Interviews

PROFILE COMPANY B: FINANCIAL INSTITUTION	
HERITAGE	Company B is one of the largest financial institutions in South Africa, serving personal, commercial and corporate customers in South Africa and Africa. The financial institution interacts with its customers through a combination of physical and electronic channels offering a comprehensive range of banking services. The company was ranked first as a company with a strong employee involvement in community development. Company B employs approximately thirty seven thousand employees.
VALUES	Company B values its people and invests in them to ensure that they are able to deliver on organisational goals. The company's value offering to its customers includes service, affordability, choice, convenience and security.
MISSION	Company B's mission is to be the leading practitioner and thought leader in corporate social investment as informed by global trends,

	and to build strength and capabilities through collaborative partnerships. Linked to Company B's mission is its Corporate Social Investment (CSI) with projects in the following areas: education, entrepreneurship, health, employee community involvement, group-wide community initiatives, environment as well as heritage, arts and culture.
VISION	Company B strives to deliver the best possible service and financial supportive products to its customers.
BUSINESS REASON	Company B delivers basic banking products and services for the low-income personal market up to customised solutions of the commercial and corporate markets as well as wealth management products. Business process management (BPM) with supportive business process standardisation sustains business operations within African subsidiaries as well as thirteen business units in South Africa, of which seven are client facing business units.
REASON FOR SELECTION	Business process management (BPM) is crucial for the effective functioning of the financial institution, especially in view of their expansion into Africa with subsidiaries in Angola, Tanzania and Mozambique. In order to ensure compliance to legal and financial legislation, processes are 95–96% generic. Company B has business process experts working remotely, that is from countries outside the borders of South Africa. These experts are responsible for the defining, designing, implementation and monitoring of the business processes relevant to the subsidiaries. Their wealth of knowledge relating to people, processes and places, including the standardisation of business processes across subsidiaries while functioning from a virtual workplace is deemed invaluable for the research conducted for this thesis.

Table 2.6: Profile Company B: Financial institution

	PROFILE COMPANY C: TELECOMMUNICATIONS
HERITAGE	Company C was founded in 1991 and listed on the Johannesburg Stock Exchange (JSE) in March 2003. In February 2007 the company made its first acquisition outside South Africa in the form of Africa Online, the largest Pan-African Internet Service Provider in Sub-Saharan Africa. Company C expanded its footprint into West Africa in May 2007 when it acquired 75% in Multi-Links, Nigeria's second largest private telecommunications operator. This acquisition grew to 100% or fully owned in January 2009. The company's expansion into Africa was furthered when it acquired a 100% interest

	in MWEB Africa Limited on 21 April 2009. On home soil, the company launched its data centre operation, branded Cybernest, in Bellville, Cape Town on 19 November 2009. As part of the company's transformation drive, a new organisational structure came into being on 1 April 2009, consisting of three major business units, namely the South African, International and Data Centre Operations business units. Company C is Africa's largest, integrated communications company, thus providing integrated communications solutions to a wide range of customers.

VALUES	Company C's value statement is as follows:
	• **Inspired to deliver value to customers**
	  Meeting the needs of customers is their core inspiration
	• **Dedicated to agile and excellent performance**
	  Diverse, positive, aligned and passionate people
	• **Determined to continuously improve**
	  Learning, changing and innovating to own the future
	• **Committed to act with integrity**
	  Honesty, empathetic and approachable in all that they do

MISSION	Company C focuses on long-term profitability through growth in existing and new markets by: • Providing differentiated high quality fixed, wireless and converged products and services directly or through their subsidiaries and partners • Striving for excellence in serving their valued domestic retail and wholesale, as well as international customers • Achieving unprecedented organic growth of existing assets • Targeting acquisitions and new partnerships to achieve core strategies • Acting as a responsible and caring corporate citizen
VISION	Company C strives to become Africa's *Information and Communications Technology* (ICT) service provider of choice with employees regarding it as the preferred employer in the ICT industry; shareholders viewing Company C as a company offering competitive returns, including Government considering the company as trustworthy and a respectful enabler of the economy; suppliers recognising Company C as a partner in delivering world-class ICT services and the company being seen as a caring and responsible South African corporation.
BUSINESS REASON	Company C delivers integrated communications services which include integrated solutions such as internet services, managed data networking, data hosting, IT security and virtual private network (VPN) service with future endeavours including expansion into the mobile market.
REASON FOR	Company C's drive towards business process management originated when a standardised set of business processes for the

SELECTION	roll-out of 2Meg lines were developed, thereby aligning the activities in the different regions. In doing this, the company used a standardised business process methodology, capturing the business processes in a central repository. The company is currently investigating opportunities for enterprise-wide business process management. Thus, exploring the company's understanding of the interaction between people, processes and places will provide valuable inputs for this research.

Table 2.7: Profile Company C: Telecommunications

PROFILE COMPANY D: FINANCIAL INSTITUTION	
HERITAGE	British Company D was founded in 1862 with a holding company established in South Africa in 1969 followed by it being listed on the Johannesburg Stock Exchange (JSE) in 1970. During 1988 Company D established links in Botswana and Swaziland and expanded its operations over the years to countries such as Kenya, Uganda, Zaire, Zambia and Zimbabwe. Investment banks were established in Russia and Brazil in 2003 and Company D took control of BankBoston in Argentina on 1 April 2007. Company D expanded its shareholding in other financial and investment institutions including emerging markets in China and Turkey. Company D values its socio-economic contribution as it sustains a large number of jobs, locally and internationally.
VALUES	Company D's people is its key differentiator with the following eight values providing its behavioural framework, namely serving its customers, growing its people, delivering to its shareholders, being proactive, working in teams, guarding against arrogance, respecting each other and holding the highest level of integrity.
MISSION	Company D's mission is to offer full financial services and to have the most satisfied customers.
VISION	Company D aspires to be a leading emerging market financial organisation by using all of its competitive advantages to the full and by focussing on delivering superior, sustainable shareholder value in serving the needs of its customers, connecting them globally where appropriate.
BUSINESS REASON	Company D is an established leader in the banking industry in South Africa. The company as a group is represented in thirty three countries of which seventeen are in Africa and sixteen in five other continents. The company offers its customers the benefits from its

	knowledge and expertise in emerging markets, coupled with a global outlook. Company D has three main pillars of business, namely personal and business banking, corporate and investment banking and wealth.
REASON FOR SELECTION	Providing emerging markets with the knowledge needed and guiding them to become proper functioning units requires appropriately defined, documented and managed business processes. Company D has business process experts working from various locations. These experts fulfil functions related to the defining, designing, documenting, implementing and monitoring of the processes relevant to its business. The company has a wealth of knowledge related to the people, processes and places components identified earlier. Activities include working from various locations or distributed workplaces, thus making its contribution invaluable for the research conducted for this thesis.

Table 2.8: Profile Company D: Financial institution

RESEARCH G	
PARTICIPANT	**DESCRIPTION**
7	BPM Consultant with four years professional experience across Europe, Asia, Africa and Australia. Involved in large scale BPM initiatives and process improvement activities. Industry sectors: aluminium, mining, automotive, capital goods, government, armed forces.
8	Senior SAP Researcher: SAP BPM, BPM technologies and future trends.
9	Research assistant at European Research Centre for Information Systems. Area of expertise: Collaborative BPM, ICT and E-Government.
10	Research assistant and PhD student at the Department of Information Systems Engineering and Financial Management. University of Augsburg. Area: Business Process Flexibility.
11	Post-doctorate fellow and BPM project manager.

Table 2.9: Profile Research G

2.3.2.3 Case study

The case study conducted with Company F was done during 2009 and 2010 in face-to-face interviews complemented with documentation provided by the company. The descriptive case study focussed on a research company in Alabama, USA, its virtual work experience including its organisational, management and business process related components.

INDUSTRY	WORK RELATED ENVIRONMENT	LOCATION
Research Company F		
Interviews	Virtual	Alabama, USA

Table 2.10: Case study: interview

The descriptive case study covered the organisation's structure and the virtual workplace including the advantages and disadvantages experienced. The manner in which business processes supported the organisation was also included. The reason for selecting this company is its extensive experience related to people, processes and places in terms of the virtual workplace. The documented case study is included in appendix A.

2.3.2.4 Online groups – weblog (blog)

A blog which contains postings exploring people, processes and places in the virtual workplace together with comments and opinions received from bloggers will be fully archived in order to ensure correct use and reference of bloggers' material posted. The blog will contain chronological postings with the most recent postings appearing on the

front page. In this manner bloggers will be acquainted with the latest postings on the blog.

The blog wascreated using Google's blogger and bloggers could participate anonymously or provide their name. Full details explaining the purpose of the blog were provided on the website as well as in the emails sent to prospective participants. The blog was updated with new postings on a weekly basis and checked regularly (almost daily) for comments.Bloggers participated by providing comments on trust and culture in the virtual workplace, the need for business processes, the type of business processes and on business process maturity. Blog statistics reflecting on the number of visitors, the countries from which the visitors were and the number of visits to the blog can be seen in appendix F. The blog statistics are included for information purposes reflecting on the user traffic related to the blog. Pure, statistical analysis of the blog statistics is not relevant to this thesis due to a qualitative, interpretive research approach being followed.

2.3.2.5   Documentation

Documentation relevant to business processes reflecting on methodologies, standards, governance and business process change control as used by the participating organisations have been indicated and referenced accordingly in chapter 4, such as the defined roles and responsibilities and governance documentation as well as the documentation in help file format available from the ARIS Method Help as part of the ARIS BPM Suite.

2.3.3 Data analysis

A qualitative and interpretive approach as discussed in section 1.5.1 will be followed to analyse of the data generated using the multi-method approach of case study, focus groups, interviews and weblog with the Extended Hermeneutic Circle of Learning as guideline as discussed earlier. Concepts and categories reflecting on the people, processes and places components related to the virtual workplace will be described.

2.4   CONCLUSION

The Extended Hermeneutic Circle of Learning was developed as part of creating an understanding of the research approach that will be followed for this thesis. The research tools, namely a case study, interviews, focus groups, weblog and documentation will be used for data generation regarding people, processes and places as part the virtual workplace. The generated data will then be analysed based on a qualitative, interpretive approach. The conceptualisation and an interpretive description of the concepts and categories relating to the people, processes and places components as obtained from the data collected during the case study, focus group discussions, interviews and blog are discussed in chapter 4.

In order to obtain an understanding of the manner in which work changed over time leading to the establishment of the virtual workplace is explored in the literature overview covered in chapter 3. The literature review will also cover business processes, including business process levels, business process characteristics and business process maturity.