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An investigation of factors that facilitate or constrain how adults learn in relation to training in PeopleSoft systems

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SSHCHE001

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COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signed by candidate

Signature Removed

Signature: Date: 26 November 2012

DEDICATION

This work is dedicated to two people:

1. My late father who dedicated his life to our family so that we could have a better life and for teaching us that nothing is impossible.

2. My beautiful child, Alyssa – may you learn that we achieve true education when we can use that which we learn to enrich the lives of others.

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University of Cape Town

Abstract

The rapid advance in technology and its concomitant influence on performance at the workplace demands continuous upkeep of technology in the workplace. In keeping with best practice trends, the University of Cape Town implemented the PeopleSoft system. This study looked at how administrative staff navigated and negotiated the demands of a workplace utilising the PeopleSoft system, how they conceived of the processes of workplace learning they engaged in, factors they believed facilitated or constrained their learning processes and how these factors were dealt with. The study examined the literacy practices of these staff and sought to understand the learning process of people, whether they learnt new functionality by drawing on prior or existing knowledge, how they drew on such knowledge if and when necessary, the challenges they faced in the learning process and the ways in which they overcame such challenges. The learning processes of this particular group of adult learners are theorised within two complementary bodies of knowledge, these being New Literacy Studies (NLS) and learning in a community of practice (COP). Using a purposive sample, the qualitative method of interviews was used with departmental administrators across departments at UCT. The grounded theory method was used to analyse data. Findings from the study suggest that the UCT language was a difficult one and new staff members found it difficult to understand and engage with. Interviewees valued the prior knowledge that they brought to this workplace but found that this was undervalued, perhaps because it was assumed to work against legitimating the experience and practice at the institution. The findings of the study suggest that although formal and espoused structures of assistance were in place, people chose to gain support from informal systems, perhaps due to fear of being seen as inexpert or "not knowing". The study looked at attributes that contribute to an effective community of practice and helps one understand why some users choose to remain on the periphery and never really ever become part of the community of practice, as others may desire.

University of Cape Town

Contents

Chapter One: Introduction 3
1. Background and Context 3
2. Brief history of student data systems over the last twenty years 4
3. Research problem 6
4. Justification for the problem 6
5. Purpose of the study 7
6. Research questions 7
7. Limitations of the study 8
8. Structure of the thesis 9
9. Summary of Chapter one 10
Chapter 2: Literature review 11
1. Introduction 11
2. What is literacy? 12
3. New Literacy Studies theory 13
3.1 Involvement of staff and management in the development of literacy programmes 17
3.2 Literacy mediators in the work environment 17
3.3 A summary of adult literacy programmes that have failed since the 1900s 20
4. The link between failed literacy programmes and NLS 23
5. Community of practice 25
5.1 What is a community of practice? 25
5.2 Why are communities of practice important? 26
5.3 Why are communities of practice not more prevalent? 27
5.4 How can communities of practice be cultivated? 28
6. Comparison and contrast of both theoretical perspectives 31
7. Literacy as technology 31
8. Discourse at UCT 32
Chapter 3: Research methodology 33
1. Introduction 33
2. Research design 33
3. Method 34
4. Population 35
5. Choice of methodology 39

University of Cape Town

6. Interview schedule design 40
7. Problems and errors in interviewing 43
8. Pre-test 43
9. Analysis 45
10. Ethical considerations 49
Chapter 4: Presentation of results 51
1. Literacy as socially situated cultural practice 51
1. Building on existing knowledge 53
2. Literacy mediators in society 55
3. Putting learning into context 57
4. Strategies used by interviewees in the learning process 59
2. Learning in a community of practice 60
1. Legitimate peripheral participation 62
2. Tacit knowledge 66
3. Learning from the younger generation 66
4. The learning environment 68
Chapter 5: Recommendations and conclusions 70
1. Introduction 70
2. Re-visiting the study 70
3. Summary of the findings 70
4. Conclusions 72
1. The value of prior knowledge 72
2. The value of literacy mediators in the learning process 73
3. Attributes that make an effective community of practice 74
4. Legitimate peripheral participation – but still an "outsider" 75
5. Who should 'maintain' the community of practice? 76
5. Limitations of the study 76
6. Recommendations for further research 77
Bibliography 78

University of Cape Town

Chapter One: Introduction

1. Background and Context

The University of Cape Town (UCT) was founded in 1829 and is the oldest university in South Africa (http://www.southafrica.info/about/education/universities.htm). The university has been a place of study and home to thousands of graduates for nearly 200 years. Records of every student have been kept since the opening of the institution because, as with any academic institution, recordkeeping is integral and administrative systems at this institution have taken various forms.

The institution has moved from paper-based administrative systems to automated systems. In an institution as large as UCT, academic staff play a role in teaching and research and administrative staff play a role in ensuring that administrative functions relating to the institution are adhered to. The number of administrative staff has increased over the last decades and UCT currently has an administrative staff complement of approximately 1500 people. This means that the move from paper-based systems, to computerised DOS systems and current Web based systems, has impacted on the work of administrative staff. There has been a need for ongoing learning in order for administrative users to do their work. Sometimes one does not always understand how employees at an institution like UCT cope with these changes and learn to use new systems and functionality. Neither does one always understand how people adapt their practices to do their work and cope with change and new learning.

In keeping with best practice trends to ensure that administrative systems are as current as possible, UCT moved away from a DOS-based system that was used since the late 1980's and implemented PeopleSoft, an American system, in 2005. Heritage, the home-grown system that had been implemented in the late 1980's, had become difficult to maintain and no longer met the needs of the users or the institution.

University of Cape Town

The implementation of technology and systems like Heritage and PeopleSoft offered new functionality and revolutionised the scope of work of administrators at UCT. Changes in systems, processes and procedures meant changes to work tasks and responsibilities and called for things to be done differently. Most importantly, the implementation of the new system meant new learning for employees at UCT.

2. Brief history of student data systems over the last twenty years

UCT has used numerous systems to hold student data and preserve student university records over the years. Whilst many of these systems were manual or paper-based systems initially, the introduction of technology to the workplace led to the move from paper-based systems to computerised systems. In this introductory chapter where I give a brief overview of the university and student systems used by the university, I concentrate on the last two decades where automated systems were used to hold student information. Initially, a DOS-based system, called Heritage, was used to hold student data. This system, which was mainly centrally operated, was used until 2005 and because the system no longer met the needs of the university, it was replaced by a new system called PeopleSoft.

University of Cape Town

Extensive research was done by members of the Integrated Student Information System (ISIS) project team in order to decide on a system that would be most suitable to the needs of the institution (www.sss.uct.ac.za). After visits to many institutions and comparisons with other systems, the project team gauged the strengths and weaknesses of the various systems and reached a decision that the PeopleSoft system would be best suited to UCT.

PeopleSoft is an Oracle system. The student systems package was chosen by the institution, whilst another system called SAP was used for Financials and Human Resources. The system

is used by approximately 25000 students and approximately 1500 staff. Whilst some universities opt for decentralised support systems where support staff members work in different faculties and departments, UCT has opted for a centralised support office. This support office, called Student Systems Support, falls under the division of the Office of the Registrar and a support model is in place to assist staff to do their work. These include three trainers, two helpdesk administrators, a training manager and a director form the core structure of this office. Support is offered in the form of training, reference documentation and a helpdesk to PeopleSoft users who are staff. Student assistance is available in the form of self-help documentation and a support desk. No formal training is offered to the student population.

Training of new PeopleSoft staff users, refresher courses aimed at previously trained PeopleSoft staff users, workshops and information sessions are offered to staff during different cycles in the student administration process, be it application processing, student registration, record keeping or preparation for graduation. Documentation, trouble-shooting notes, a 'frequently asked questions" (FAQ) page and reference guides are also available and contain information on how to use various pieces of PeopleSoft functionality.

PeopleSoft is used by four universities in South Africa as well as by major corporate companies in the country. These institutions and corporations have staff that use the system and various support models are used based on the needs of the various institutions and their system users. This study that forms the focus of this dissertation, will be beneficial to the focus institutions as it will contribute to an understanding of how adults learn to navigate and negotiate the demands of a workplace utilising the PeopleSoft system and focuses on the learning processes of adults when they use a new technology or a piece of functionality. This information can then be used to understand how the current support models in place for continuing learning can be improved to help adults learn better and to improve their learning process.

University of Cape Town

3. Research problem

The advancement of technology has changed the ways in which people work. Universities have moved from manual administrative systems to automated systems and administrators have thus had to learn new ways of working. It is important to understand how adult employees adapt to new ways of working, learn how to use technology and deal with challenges when learning how to use technological systems. It is also important to understand the adult learner's thought process when learning how to use technological systems or any new technology. The theoretical focus of this study has been that of learning as socially situated practice and learning in a community of practice. In Chapter 2 where I delve further into these two theories, I highlight the importance of a person's thought process during learning and how the thought process can positively or negatively affect the learning that takes place.

4. Justification for the problem

A poor understanding of navigation through a piece of functionality can lead to incorrect usage of the functionality. Incorrect usage of the functionality can have dire consequences for the university, where smooth administrative processes can be marred and funding which is claimed from the Department of Higher Education and Training (DoHET) can be lost. The Higher Education Management Information System (HEMIS) is a system used by universities in South Africa in order to gain subsidy for all students at university, or those who have graduated from university. Incorrect manipulation of data on the PeopleSoft system can have very serious consequences as this can result in universities losing millions of rands in funding as a result of incorrect data capture, or claiming the incorrect amount of money from DoHET. Institutions like UCT therefore have a vested interest in understanding how their system administrators learn and what makes for effective learning.

University of Cape Town

It is also very important for the self-confidence and self-esteem of individuals, for them to be able to understand the technology they work with, in order for them to do their work. In order to assist administrators to do their work better and in order to improve the quality of data that is entered into the PeopleSoft system, it is important to understand how adults learn to use technology, what challenges they face, how they deal with such challenges and whom they look to for assistance. The obtaining of such information helps one understand the learning process of individuals and the challenges they face. Furthermore, understanding the challenges faced allows one to assist such people in their learning process.

5. Purpose of the study

This study looked at the literacy practices of administrative staff at the workplace that used the PeopleSoft system. The study sought to understand the learning process of people, whether they learnt new functionality by drawing on prior or existing knowledge, how they drew on such knowledge if and when necessary, the challenges they faced in the learning process and the ways in which they overcame such challenges. The learning processes of this particular group of adult learners are theorised within two complementary bodies of knowledge, these being New Literacy Studies (NLS) and learning in a community of practice (COP). These bodies of knowledge are discussed in detail in Chapter 2.

University of Cape Town

6. Research questions

The question I asked was:

How do administrative staff learn how to navigate and negotiate the demands of a workplace utilising the PeopleSoft system?

The three sub-questions that I asked were:

1. How did administrative users at UCT conceive of the processes of workplace learning they engaged in?
2. What were the factors they believed facilitated or constrained their learning processes as administrators at UCT?
3. How did these users deal with such factors during their learning process?

7. Limitations of the study

A limitation of this study involved the user base of systems around the university. Many systems were used by the university e.g. SAP Finance, SAP HR, Vula and PeopleSoft to name a few. It was impossible to do a study of the learning practices of users of all systems due to the complexity of such a study. For that reason just one system, that being the PeopleSoft system, was chosen as a case study.

Another limitation identified in the study was that some people may not have felt as free to speak about their learning process and learning practices. At the outset, I identified that my role as the PeopleSoft training manager may have affected the manner in which people perceived my study. I therefore emphasised the fact that this study was undertaken in my capacity as a student and not as a staff member. However, I acknowledged that my role as the training manager could be viewed as a limitation. I chose to address this limitation by allowing interviewees an opportunity to decline the interview or withdraw their consent at any time before the interview, during the interview or a month after the interview was complete. I also chose to address the limitation of any discomfort that they may have experienced with my role as the training manager by allowing them to complete a post-interview survey of any concern or issue they would have liked to raise after the interview that they may not have wanted to address on a face-to-face basis.

University of Cape Town

People also mentioned the stressful conditions they worked under and the great deal of pressure they worked under due to deadlines and the demands of students requiring assistance. It therefore must be noted that the environment in which these users found themselves working could be seen as a limitation because the environment in which they worked could have made it difficult for them to reflect on the work which they were doing. Most interviews were held in the offices of the interviewees so although they had afforded me time, there were disruptions from the telephones, visitors and students in some instances and I acknowledge that these factors could have hindered their thought process when they were asked to reflect on their learning.

8. Structure of the thesis

University of Cape Town

To achieve more information and to understand the key issues addressed in the study and to present the conclusions and recommendations, this dissertation is organised as follows:

Chapter One – Introduction

This chapter discusses the background and outlines the context of the study. The research problem, rationale for the study, purpose of the study, limitations of the study and the key questions addressed in the research are presented.

Chapter Two – Literature review

Attention is paid to the relevant literature and its contribution to the research is considered. Literature primarily from the South African sphere, but including literature from the international sphere, is analysed.

Chapter Three – Research methodology

This chapter expands on the research methods used in the study and explores qualitative data collection methods in particular. A qualitative method using semi-structured interviews is employed to gather the relevant data required for the study. A report of a pilot test is included in this chapter.

Chapter Four – Presentation of results

This chapter focuses on the results of the data collected from the respondents, presents the data collected and provides an analysis of this data.

Chapter Five – Conclusion and recommendations

The last chapter provides a summary of the findings and theorises the findings against (NLS) and Communities of Practice (COP) theory, based on the analysis of the data.

9. Summary of Chapter one

This chapter introduced the study, its purpose, the research questions and the limitations of the study. The background, context and history serve as a tool for the reader to understand the context and environment in which the study is set and the research questions help one understand what the focus of the study is, with a justification as to why such a study is needed.

University of Cape Town

Chapter 2: Literature review

1. Introduction

This study sought to understand the learning practices of adult learners at UCT who use PeopleSoft technology, the challenges experienced during the learning process and the ways in which such challenges were resolved. Two bodies of literature formed the framework for this study. These frameworks concerning learning are:

1. NLS – learning as the acquisition of a literacy/literacies. It is acknowledged that some may argue that NLS is not really a theory of learning but a socio-linguistic theory of acquisition and "acculturation"
2. Community of Practice (COP) – learning as induction and incremental participation in a COP

Whilst I acknowledge that NLS is a socio-linguistic theory of acquisition and "acculturation" and not a theory of learning, I still regard this theory as important for this thesis. I found many similarities between COP theory and NLS and found that the NLS theory could not be ignored for this reason.

When people generally use a phrase to explain if someone understands or is knowledgeable about something, they classify a person as "literate" or "illiterate". The terms "literacy" and "illiteracy" have been defined and understood very differently by people. This study therefore sought to look at these different definitions and understandings of the terms literacy and illiteracy, in order to understand the literacy practices of administrative users at UCT who used PeopleSoft.

In order to understand the learning practices, it was important to understand how people perceived learning and what definitions of learning and literacy exist. These definitions are covered in this chapter.

University of Cape Town

2. What is literacy?

According to Barton, Hamilton and Ivanic (2000: 2) literacy is a set of social practices that are observable in events mediated by written texts. Whilst some literacies are more dominant, visible and influential than others due to power relations, Barton, Hamilton and Ivanic (2000: 3) argue that "there are different literacies associated with different domains of life". I have written about "illiteracy" still existing in our current context and it is important to explain what I mean by this term and how the literature defines "literacy" and "illiteracy". The term "illiterate" has been cited by various authors as someone who is unable to read and write, or someone who has not received any formal education. I do not share this view of literacy and in this literature review I cite various authors including researchers of the Social Uses of Literacy (SOUL) research project (1996) who refer to more holistic forms of literacy beyond the ability to read and write and not only to those who have attended formal schooling and attained a formal education.

Research reflects that people interpret the term literacy differently. According to Bormuth (1974: 13) the term "literate" may be used to refer to "a number of different kinds of behaviour, ranging from the ability to employ basic reading or writing skills to the knowledge of some body of literature". Like Bormuth, some researchers associate literacy solely with the ability to read and write and anybody that is unable to do so is therefore classified as "illiterate". Gibson (1996: 55) highlights this perception by describing an interview with a farm worker who describes illiteracy as "a handicap" that needs to be removed so that "literacy can make people full members of the community". Being "illiterate" in this sense is perceived as negative due to the inability to live, survive or progress in life.

Searle (1999: 2) reflects on the history of literacy in Western societies is one of power and control and he describes the move to industrialization in Western Europe and the introduction of mass education. Searle (1999: 2) acknowledges that mass literacy campaigns, particularly in developing Third World countries focused on "inoculating" people

University of Cape Town

with literacy to achieve economic and social development. Limage (1993: 23) argues that when these individuals recognized that this process was only aimed at making them "better workers", the majority of such experiments failed.

This current study challenges the above perceptions of literacy or illiteracy and advocates that different types of literacy exist. Learning something new in work or in one's personal life, completing a new task or even learning how to use a new programme on a computer system – this study argues that these are all different forms of literacy. This study further showed that the learning that took place did not have to take place in a formal environment or in a formal course – learning could take place anywhere and everywhere and at any time. Gibson (1996: 55) in her study showed that although the farm worker considered himself handicapped due to his inability to read and write, he was able to perform tasks, learn new processes and procedures and complete his work successfully. My study with the administrators at UCT sought to understand the learning processes of administrators when using the PeopleSoft system and also sought to understand whether people considered themselves "handicapped" if they did not know or understand how to do something e.g. learning a process, understanding a process or using a piece of functionality.

University of Cape Town

This research is based on two theoretical frameworks:

1. That learning how to use the PeopleSoft system was learning a new literacy
2. Learning in this environment occurs in a COP

3. New Literacy Studies theory

According to Street (1985: 1), what has been termed to be NLS is a new tradition of considering the nature of literacy, focusing not so much on the acquisition of skills, as in dominant approaches, but rather on what it means to think of literacy as a social practice.

The NLS theory was proposed as a framework for understanding how adults learnt a new literacy. The shift in NLS theory has been the rejection by writers such as Street (1993), of "the dominant view of literacy as a neutral, technical skill and the conceptualisation of literacy as an ideological practice, implicated in power relations and embedded in specific cultural meanings and practices". According to Street (1997: 1), from the NLS perspective, "the relationship between written and oral language differs according to context and social and material conditions affect, if not determine, the significance of a given form of communication". He further argues that NLS takes nothing for granted with respect to literacy and the social practices with which it becomes associated problematising what counts as literacy at any time and place and asking "whose literacies" are dominant and whose are marginalised and resistant. (Street 1997: 1). The work of Street (1985) develops a distinction between literacy events and literacy practices and between the autonomous and ideological models. Street (1997: 1) cites the standard view in many fields like that of schooling to development programmes where assumptions are made that literacy itself will have effects on social and cognitive practices in the sense that "introducing literacy to poor, illiterate people will have an effect on enhancing their cognitive skills thereby improving their economic prospects, making them better citizens, regardless of the social and economic conditions that accounted for their illiteracy in the first place" (Street 1997: 1). He refers to this as the autonomous model. The research presented by NLS theory challenges these assumptions and suggests that literacy varies from one context to another and from one culture to another.

University of Cape Town

According to Street (1997: 1) the alternative, ideological model offers a more culturally sensitive view of literacy practices as they vary from one context to another. This model presents a more sensitive view of literacy practices and posits literacy as a socially situated practice and not simply a technical or neutral skill. Street (2003: 78) suggests that it is rather about knowledge and the ways in which people address reading and writing and how they themselves are rooted in the conceptions of knowledge, identity and being.

There is a growing body of work which sees literacy as a social practice (Street, 1985, 2000, 2005; Heath, 1983; Barton and Hamilton, 1988). Street's work began by describing literacy as a social practice from his ethnographic work in Iran, where he considered literacy in different texts and identified "a tendency for governments to reify literacy as a set of skills which he described as autonomous" (Pahl and Roswell : 2006, 1). Street, through his seminal research showed that literacy is in fact culturally and ideologically situated (Street: 1984, 1993).

Street (1995 : 13) argues that "short term claims were made that illiterates were lacking in cognitive skills, living in darkness and backward and that the acquisition of literacy would lead to major impacts in terms of social and cognitive skills, so as to draw public attention and to encourage financial and organisational resources into the field". The argument led by Street (1995: 14) is that whilst such claims may cause concern for government and force them into action, "the long term effects on the field of study is damaging – both to the adults in the field and the expectations that it raises".

Pahl and Roswell (2006: 3) argue that NLS "represents a tradition of considering the nature of the literacy not as a neutral set of skills that we acquire in school or in different contexts, but instead as how people use literacy in different contexts for different purposes". Pahl and Roswell (2006: 4) argue that the implication of NLS is that "literacy functions in all contexts in different ways are guided by different discursive practices".

In a study of the social uses of literacy, Prinsloo and Breier (1996) embarked on a research project to understand how adults used literacy practices socially across South Africa in various contexts. This approach looked at literacy as not only "a set of technical skills learnt in formal education, but social practices embedded in specific contexts, discourses and positions" (Street, 1995: 1). Literacy practices were described as any context or situation where a person was able to understand various texts, dialogue or pieces of work, irrespective of their formal qualifications. The Social Uses of Literacy (SOUL) project

University of Cape Town

presents various contexts that reflect the role literacy practices play in the everyday lives of individuals who may be considered “illiterate” in the sense that they may not have attended formal schools or gained a formal education. The research study by Prinsloo and Breier (1996) looks at literacy practices within the workplace, within communities, how literacies are mediated and policy lessons that could be learnt from literacy practices. By looking at literacy practices in the workplace, how literacies are mediated and contextualised, I plan to describe the arena in which learning a new literacy, in this instance the PeopleSoft technology, was acquired and how the literacy practices of the PeopleSoft community could be understood.

This research has its roots in the NLS theory, which is an ethnographic research perspective. This theory is fairly new and has been in existence for approximately three decades (Gee: 1999). NLS is based on the view that introducing literacy programmes to people is most useful when related to the social and cultural context of which the participants are a part (Gee: 1999). The NLS theory contests assumptions that being literate means having solely the ability to read and write and rather conceptualises literacy as “sets of social practices that are contextually embedded and situationally variable, rather than as an autonomous skill, practice or social technology whose forms, functions and effects are unchanging and neutral across social settings” (Street, 1985: 5). The following examples taken from different research using NLS theory illustrate how literacy can be a set of social practices, rather than just being about the ability to read and/or write.

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Research in NLS shows that management plays a great role in the learning process of employees in their organisations. There is evidence in the studies of Breier and Sait (1996) and Gibson (1996) that the success of a literacy programme in an organisation or workplace can succeed or fail as a result of management support or participation as will be illustrated in the examples below.

3.1 Involvement of staff and management in the development of literacy programmes

Breier and Sait (1996) suggest that managers need to be involved in literacy programmes and initiatives and also that managers need to understand literacy practices of their staff as well as the existing knowledge and experience they hold. I concur with the view of Breier and Sait (1996) and based on their study, argue that when developing any literacy programme, the current literacy practices of the people should be understood and built on and not cast aside. Breier and Sait (1996) argue that a programme cannot be built on one's terms alone but should be a combined effort where knowledge, in this instance between management and employees, is shared and understood. One of the reasons Breier and Sait (1996) cite for the literacy programme not working in this factory is that the programme was built on management's terms alone. Employees were not included in the development and structure of the programme – it was only management who decided what should be taught and how it should be taught. This resulted in a literacy programme that was dominated by management discourse and learners did not respond positively to this. I was therefore interested in how learning took place at UCT and how employees reacted to and felt about the literacy programmes/courses offered to them.

University of Cape Town

3.2 Literacy mediators in the work environment

The common practice of using literacy mediators or brokers, whom Papen (2010) describes as *"scribes or agents who read and write for someone else",* is often overlooked and underestimated. Literacy has been mediated and brokered in communities for centuries. Dating back to the last century, Besnier (1993) writes about mediators in the form of missionaries, who introduced writing to the people of Nukulaelae and then left. On the other hand, Prinsloo and Kell (1999) paint a picture of missionaries who came to South Africa during colonial times and introduced reading and writing "in the context of effective colonial conquest". Modern day literacy mediators are no longer the colonizers, missionaries or priests in churches who told people what they should think, read and write. Today the literacy mediators come in the form of family members, colleagues, friends, bankers, lawyers and pharmacists to name a few. Colleagues in a work environment who

assist each other with jobs or tasks can also be considered to be literacy mediators. Gibson (1996) uses the example of an "illiterate" farm worker who developed specialized "work knowledge" in order to effectively do his work. This worker, whilst admitting that he was unable to read or write explained that if he had learnt something from someone in one instance he was able to adapt it to another case (Gibson: 1996). In a case such as this Gibson (1996) describes the farm worker as the observer and the worker whom he observes, as the mediator.

Another example of how literacy mediators are used in mediating literacy texts can be found in the study conducted by Breier and Sait (1996). The Breier and Sait (1996) study highlights how employees in a factory in Cape Town coped with everyday life in the factory, whilst being unable to read or write. The study shows the number of signs, texts and notices that the factory workers had to deal with in doing their daily jobs. Whilst many of these people were unable to read and write, they had developed coping mechanisms to help themselves understand the texts. Most importantly, they had employed literacy mediators to broker the knowledge. The safety representative at the Cape factory was a mediator because he was able to read and write and brought information to the workers whilst also taking information from the workers to help management understand the concerns of the workers (Breier and Sait 1996: 71). Although the effectiveness of the safety representative could be questioned because of the lack of effect his concerns had on management, he was a literacy mediator nonetheless. The study of Breier and Sait (1996) is a good example of how literacy mediators are employed in the workplace. These workers assisted fellow workers to read and understand notices, read their pay slips, read and reply to letters from their families and assist with calculations relating to the savings clubs and therefore acted as literacy mediators. Breier and Sait (1996: 79) explain that being a part of the collective savings scheme "required literacy in the communal sense". In this instance the workers who had limited literacy skills benefited from those who were able to read and write. My study sought to understand whether literacy mediators existed for the PeopleSoft student system at UCT, who these literacy mediators were and what role these mediators played daily.

University of Cape Town

Perry (2010) describes the concept of “brokering” and explains how a Sudanese refugee family used their children to help them develop literary practices. I argue that the children in families such as this Sudanese family can also be considered as literacy mediators because they act as mediators to their parents and families and share literacy with them. My study sought to further understand whether children of the interviewees played such a role in the lives of their parents in providing such literacy to them.

Breier, Taetsane and Sait (1996) in their study of reading and writing practices in the taxi industry, emphasized the concern about the relationship between literacy and power in this industry. This study showed the survival strategies that taxi drivers, who were unable to read and write, used in a world inundated with literacy practices. Traffic officials who offered oral learner license tests instead of written tests to those who could not read and write acted as literacy mediators. Support systems in the form of “literate” family members, colleagues and passengers also assisted as literacy mediators. Colleagues who had been in the taxi industry longer and coached newer taxi drivers and those involved in “rank talk” where lessons were shared and learnt, were also considered literacy mediators. These kinds of literacy mediators were effective in an industry where people considered themselves fearful and powerless because of their inability to read and write. Many gained confidence by learning from these mediators (Breier, Taetsane and Sait 1996: 221). Breier, Taetsane and Sait (1996) after an interview with former transport officials of the Council for Scientific and Industrial Research (CSIR), were able to understand how taxi owners who were unable to read and write took their children to training courses for taxi owners, so that these children could act as literacy mediators. This was primarily because such businesses were usually family-run and the children acted as the literacy mediators to their parents. My research looked at how literacy mediators assisted users who were unable to cope with the technology, if at all and also sought to understand the extent to which literacy mediators were used in offices across the university to assist colleagues.

University of Cape Town

In this study, I then looked at some literacy programmes that had been introduced in South Africa in the recent years and assessed their failures and successes. I assessed whether there was an absence of NLS theory application in these programmes and looked at whether this could have been a contributing factor to the failure of such programmes.

3.3 A summary of adult literacy programmes that have failed since the 1900s

According to the literature, literacy programmes and literacy practices do not have to take place in formal environments like classrooms and laboratories in order for effective learning to take place. The literature on South African literacy programmes that have existed since the 1900s reflects that formal literacy programmes in the past have been introduced and some have failed dismally because basic principles such as planning, preparation, budgets, language and building on existing user knowledge had not been considered. There are currently some literacy initiatives that are in existence and their effectiveness is still in question. The literature also reflects that people who have never engaged in any kind of formal learning programmes are also quite capable of engaging in every day literacy practices.

University of Cape Town

Aitchison (1997: 3) argues that the past literacy programmes in South Africa have failed because they lacked anything about community empowerment and culture, possibly because the focus was seen solely as an instrument to improve living conditions. Gibson (1996) in her study of farm workers argued that literacy did not guarantee employment or higher salaries and a better life for the formally educated. She used the example of the female farm workers who had received more formal education than their male colleagues, yet were still paid less than the men and side-lined for promotions. Gibson (1996) attributed this to the power dynamic in a male-dominated workforce. The South African context and dominance of power in the workplace are important factors that require consideration. People should not be led to believe that joining any literacy classes will automatically improve chances of employment and success – perhaps this is one of the reasons the adult literacy programmes have failed after short periods of introduction –

people expect to see immediate results and when this does not happen, they lose faith in the programme and stop attending. The gender dynamic, however, was not explored in my study. The reason that the gender dynamic was not explored was because the focus of the study was mainly on how any adult learns and the study did not seek to differentiate between the learning differences of men and women at the institution. Furthermore, the majority of administrative employees at the institution are female and although much effort was made to secure interviews with male administrators, this did not prove successful. The study did, however, engage with interviewees about their learning and whether they believed learning a new function in PeopleSoft or any new technological system increased their employment opportunities. The argument of Aitchison (1997: 3) has a direct link to NLS theory in that it helped one understand whether people believed that by learning new PeopleSoft processes their lives would improve and whether they believed they could be promoted or get better jobs.

Although adult literacy programmes have existed in South Africa since the 1920's (French: 2002), many programmes have been introduced in South Africa since the post-apartheid government has come into power since 1994. Some literacy programmes have been more successful than others. This literature review delved into some of these literacy programmes that had been introduced and sought to understand reasons for the successive failures of certain literacy programmes as compared to the success of others over the last seventeen years in South Africa. The aim of this exercise was to help one understand what elements should exist in a new literacy initiative and helped in the understanding of what makes for effective learning. By gauging the effectiveness of past South African literacy programmes and the reasons for the failures and successes, I was able to look at what kinds of programmes allowed for more effective learning and whether failures could be attributed to the "problems" as identified in NLS. In this literature review, I looked at whether the failures in the literacy programmes could be attributed to the lack of NLS "practice" during these programmes.

University of Cape Town

Strategies, initiatives and policies were drafted by the new government to address the problem of "illiteracy" and some like the National Training Strategy Initiative (NTSI) had good ideas that adult learning should be more than just about reading and writing and should equip people to participate fully in society (Harley et al 1996: 162). After deliberation the Adult Basic Education and Training (ABET) policy was introduced in 1994, aiming to put in place "a fully functional system of adult education and training (Mda and Mothuta: 2000). The failure of this programme was followed by the Ithuteng "Ready to Learn" campaign, introduced by the Education Minister, Professor Sibusiso Bhengu, with the aim of teaching people to read (Baatjes 2003: 1).

The South African National Literacy Initiative (SANLI) was a ministerial project that was given a four year life span between 2001 and 2004 (Damon: 2004). The purpose of SANLI was to reduce the rate of illiteracy in South Africa and to make 15% of the "illiterate" population "literate" by 2004, with particular focus on women and youth in rural areas (Damon: 2004). Ironically, the project aimed to break stereotypes about illiteracy and learning, yet concurred with the view of Bormuth (1974: 13) that the term literate may be used to refer to "a number of different kinds of behaviour, ranging from the ability to employ basic reading or writing skills to the knowledge of some body of literature". The project classified any person unable to read or write, as illiterate. The project did not last and was unsuccessful (Damon: 2004).

University of Cape Town

The Ithuteng campaign, preceding the publication of the ABET policy, called for the delivery of high quality ABET delivery (Mda and Mothuta 2000: 16). Baatjes (2003: 13) argues that this programme and many others that were subsequently introduced failed due to poor conceptualisation. In order to understand why some literacy programmes have failed, I have summarised some of the literacy programmes that have existed, as well as reasons for their perceived failures.

4. The link between failed literacy programmes and NLS

I have looked at and summarized just a few literacy programmes that have failed post 1994. Programmes like NTSI, SANLI and the Ithutheng have failed for budgetary reasons, as discussed by Baatjes (2003), poor planning (Aitchison: 1997) and wrong focus (Damon: 2003). Prinsloo and Kell (1999: 7) further argue that a weakness with many literacy programmes is that they did not "address the complex variety of literacy needs in contemporary society but collapsed these needs into a narrow version of formalized provision". It appears that the goals of government or institutions when introducing some of these programmes were very short-sighted – with the view of maximizing output using minimum resources without the realization that the learning process is continuous and should not be short term or rushed. One group's learning needs may differ from another and this is possibly a reason people embark on literacy programmes and then give up or drop out. Breier, Taetsane and Sait (1996) found that some taxi drivers had attended literacy classes but dropped out because they found the content irrelevant and could not relate. According to French (2002: 11), "the actual integration of adult education and training does not often work in practice". He uses the example of how the theory is taught in one room whilst the practicality is taught elsewhere and argues that this may not be due to the lack of creativity on the part of the teacher but possibly because the integration is difficult and sometimes very challenging. My present study has looked at how adults take something that they have learnt in a classroom, in this instance PeopleSoft technology and how they use this in their everyday work practices and sought to understand if this made their learning process more difficult. If users did indeed find the learning process more difficult as a result of being taught technology in the classroom without proper integration with the work they did in their offices, this showed a similarity to NLS theory where the taxi drivers found that classroom training had no relevance to their lives and thus affected their learning process negatively.

Another reason offered for why literacy programmes have failed in South Africa is that many adult literacy initiatives are run over short spaces of time and, when results are not seen

University of Cape Town

immediately, the trend seems to be to move onto the next kind of programme/initiative. It is evident that even when some literacy programmes are introduced in companies, the aim of such programmes is not for the social mobility of people but mainly for the purpose of increasing productivity. Breier and Sait (1996) in their study at a Cape Factory found that management was very clear that the purpose of an adult literacy was solely for the purpose of enhanced productivity because they linked formal education to work success. It is understood that employers need to ensure profitability, however one has to question whether the pressure placed on the literacy programme, the student and the facilitator can be deemed fair. Breier and Sait (1996) found that workers were allowed two hours a week to attend classes and the work they did in the classroom had no link to their work or social lives and did not build on what the employees already knew. NLS theory argues that this kind of pressure on an individual affects the user negatively in terms of their learning process (Breier and Sait: 1994). Yet, management expected these workers to automatically become more productive, increase productivity margins and output a few weeks later, just by attending these classes.

I argue that timeframes for learning new functionality or programmes are important and that one needs to realise that learning a new literacy is a long term process – this is a consideration for adult literacy programmes to work and is clearly evident in the findings of Breier and Sait (1996) who found that when literacy programmes were held over short spaces of time, they failed. Perhaps many adult literacy initiatives have failed because they had not been given a chance to actually flourish and show results over a longer term. Prinsloo and Kell (1999) in a response to the Deputy Minister of Education, Father Smangaliso Mkhatshwa's, proposal to fast track ABET delivery in South Africa by shortening a ten year programme, strongly argued against such a proposal. Prinsloo and Kell (1999), with the backing of five decades of literature on approaches to literacy provision showed that the "basics" or "quick fix" programmes to the masses are doomed to fail. My study looked at whether UCT employees felt that they were pressured to learn new things under immense pressure and sought to understand how they learnt and coped in such an environment, if such existed.

University of Cape Town

A second theory that I found relevant to my study was that of learning in a COP (Lave and Wenger: 1991) and I sought to understand if communities of practice existed at the institution and if so, I tried to understand the level of their effectiveness. The following information defines a COP, helps one understand their importance, helps one understand why they are not more prevalent and provides information on how such communities can be cultivated.

5. Community of practice

5.1 What is a community of practice?

According to Wenger (1998: 2), "communities of practice are everywhere and we belong to a number of them", be it in our work environments, schools, homes, churches or hobbies. Wenger (1998:2) argues that whilst we are core members of some groups, we belong to others peripherally. He explains the difference between being a core member and a member on the periphery by using the example of a band – a core member being someone who is a member of the band and a peripheral member being one who spends time with the band listening in on rehearsals. According to Wenger (1998:2), "members of a community are informally bound by what they do together" and whilst this may involve lunchtime discussions to talk about and resolve difficult problems, it could also "involve what they have learnt through mutual engagement in these activities". Wenger (1998:2) summarises a COP as "a joint enterprise as understood and continually renegotiated by its members that functions on relationships of mutual engagement that binds members together and produces a shared repertoire of communal resources that members have developed over time e.g. routine, sensibility, artefacts, vocabulary and styles".

Wenger (1998: 2) states that "communities of practice develop around things that matter to people and as a result, their practices reflect the members' own understanding of what is important". These communities of practice exist in any organisation and membership is

University of Cape Town

based in participation rather than official status. According to Wenger (1998:3) such communities can exist within businesses, across business units where cross functional teams keep in touch with their peers and across company boundaries e.g. in fast-moving industries. For my current study, I sought to understand if communities of practice exist at UCT and, if so, I sought to understand how active such communities are.

Wenger (1998:4) argues that a COP is different from a business unit, team or network. He justifies this by explaining that in a COP members develop amongst themselves their own understanding as to what the practice is about – which is different to a business unit (1998: 4). According to Wenger (1998:4) the COP is not a team because the interest of the members and sharing of knowledge is what keeps them together, which is different from a team whose lifespan may be short-lived or become disbanded. According to Wenger (1998: 4), a network is about relationships and a COP differs because it is so much more – it has an identity, shapes identities of its members and exists because it produces a shared practice as members engage in a collective learning process.

University of Cape Town

5.2 Why are communities of practice important?

According to Wenger (1998:5), "communities of practice are important to the functioning of any organisation, but they become crucial to those that recognise that knowledge as a key asset". He writes that knowledge among these communities is "created, shared, organised, revised and passed on" and it is by these communities that knowledge is "owned" in practice (1998:5).

Wenger (1998: 6) lists the following points that reflect the importance of communities of practice:

1. Nodes for the exchange and interpretation of knowledge – people in such a community have a shared understanding of what is relevant and useful and a COP

that spreads through an organisation is ideal for "moving information" e.g. best practices, tips and feedback across organisational boundaries (Wenger, 1998:6).

2. They can retain knowledge in "living" ways in the sense that they "preserve the tacit aspects of knowledge that formal systems cannot capture" (Wenger 1998: 6).
3. They provide homes for identities – Wenger (1998:6) writes that communities of practice are not as temporary as teams and are organised around what matters to their members and believes that "having a sense of identity is a crucial aspect of learning in organisations".

Wenger and Snyder (2000: 140) argue that communities of practice have been improving company performance since 1995 and argue that communities of practice improve performance, drive strategy, solve problems and promote best practices. I found the recommendations of Wenger and Snyder (2000) relevant to this current study because their work speaks to communities of practice in business environments. I argue that UCT is not a business in the sense of a corporate or profit organisation, but it is in the business of providing a service to students.

University of Cape Town

5.3 Why are communities of practice not more prevalent?

Wenger and Snyder (2000:140) pose the question about why communities of practice are not more prevalent, given their effectiveness. They offer three reasons as to why communities of practice may not be prevalent:

1. Although communities of practice have existed for centuries, they have only in recent years entered the business vernacular
2. Only several dozen "forward thinking" companies have "installed and nurtured" communities of practice in their business environments
3. It is not easy to build and sustain communities of practice or integrate them with the rest of the organization (2000: 140).

The observations of Wenger and Snyder (2000:140) have been that many companies have been able to successfully nurture communities of practice and successful managers have

brought the right people together and provided the infrastructure in which such communities could thrive.

Gray (2004: 25) looked at online communities of practice and she paid specific attention to why people chose to get involved in communities of practice, chose to abstain from any involvement with communities or practice or chose to remain on the periphery. Her findings were that people usually participated in a COP in order to avoid isolation and to find a way of reaching out and connecting with others whilst others had a lack of understanding or interest in how such communities of practice could assist them, a lack of access to such communities and the inability to identify with other members in the community itself (2004: 26).

University of Cape Town

5.4 How can communities of practice be cultivated?

Wenger and Snyder (2000: 143) describe the COP as a garden that requires cultivation. They recommend that managers do the following to get communities of practice going and to sustain them over time:

1. Identify potential communities of practice that will enhance capabilities
2. Provide the infrastructure that will support such communities and enable them to apply their expertise effectively
3. Use non-traditional methods to assess the value of the communities of practice (Wenger and Snyder 2000: 143).

Wenger and Snyder (2000: 144) advise that potential communities of practice should not be identified in a vacuum and the task is to identify small groups of people who generally already have informal networks and to help them come together as communities of practice.

Wenger and Snyder (2000:144) argue that communities of practice are vulnerable because they lack legitimacy and budgets to reach the full potential that they need to. In companies, Wenger and Snyder (2000:144) argue that management must be willing and prepared to invest time and money to help such communities reach their full potential.

Wenger and Snyder (2000:145) believe that leaders recognise the benefit of developing people's capabilities but most have difficulty understanding the value of communities. They argue that this is possibly because the effects of communities are often delayed and results generally appear in the work of teams and business units and not in the communities themselves (2000: 145). The best way, according to Wenger and Snyder (2000: 145), to assess the value of a community of a COP is to "listen to members' stories which can clarify the complex relationships among activities, knowledge and performance". They argue that one cannot collect just specific stories or the most compelling ones because isolated events can be unrepresentative - the solution to valuing communities of practice is to gather information systematically. Wenger and Snyder (2000:145) argue that a systematic effort captures the diversity and range of activities that communities are involved in.

Although, according to Wenger (1998:7), communities of practice arise naturally, organisations can still influence their development and recognized experts can be involved in some way to legitimize the community. This legitimization can happen by organisations supporting the communities of practice by recognizing the work of sustaining them by giving members the time to participate in activities and by creating an environment which acknowledges the value such communities bring (Wenger 1998:7). My study sought to firstly understand if such communities of practice exist at UCT and if so, whether these communities were/are being recognized and acknowledged.

Wenger (2011: 10) has done work in terms of technological advancements and how such advances enable communities of practice further. He uses the example of the use of emailing lists that allows for informal conversations and learning in such a community

University of Cape Town

(2011: 10). Whilst Wenger (2011:11) acknowledges fears that the advancement of technology may not support an "experience of togetherness" and reduce a sense of isolation, he advocates that "technology extends and reframes how communities organize and express boundaries and participation". It is the argument of Wenger (2011: 12) that this allows very large groups to share information and helps smaller groups with narrower, more specialized/differentiated domains to form and function collectively. Whilst my study acknowledges that the technological advances have lead to different ways of working in a community of practice, I have, for the purposes of this study, concentrated on how communities of practice operated at UCT within social contexts.

Lave and Wenger (1991: 20) acknowledge that learning is about increased access to performance. However, they question ideas about whether verbal explanations are an effective mode of instruction and argue that "if learning is indeed about increased access to performance, then the way to maximise learning is to perform – not just talk about it" (Lave and Wenger 1991: 22). Lave and Wenger (1991: 150) discuss the advantages of apprenticeships and claim that "when people engage for substantial periods of time in doing things in which their ongoing activities are interdependent, the learning is increased". Lave (1996: 153) criticises the belief that masters/managers are the holders of the knowledge and teachers of the apprentice. This leads one to acknowledge that the apprentice/worker is not without knowledge and may also have information to share.

University of Cape Town

The research for this study concurred with the views of Lave and Wenger (1991) that the worker/apprentice was not without knowledge and that people learnt from their everyday lives and brought this knowledge to the classroom. My study sought to understand what knowledge a new user to technology was able to share with peers. I also concentrated on the principles of a COP with a view of understanding whether communities of practice were employed at UCT when users learnt a new technology and whether users of the system created their own such communities and looked to each other for support.

6. Comparison and contrast of both theoretical perspectives

Both theoretical perspectives of the COP and NLS theories are self-organised systems of informal learning and examine how people learn through everyday social practices rather than from environments that are intentionally designed to support learning (Gray 2004: 23). Both perspectives work from the thought that people work in a group or community to help each other, understand the intricacies of a job and assist the person to learn to do a job or perform a task better.

Whilst COP focuses on bringing a group with a shared interest together, it is understood in NLS that people do not have to form a group in order to help each other and help or assistance can be offered once off. The COP seeks to focus on a "domain of shared interest and membership implies a level of competence or knowledge of that domain that distinguishes members from other people" (Gray 2004: 23). Such shared interest or levels of competence or knowledge are not requirements for one to provide assistance to another in socially situated practice.

University of Cape Town

7. Literacy as technology

Lankshear (1993: 153) argues that a new form of literacy, "literacy as technology", has emerged and according to this form of literacy, a lack of/inadequate literacy means one is dispossessed/locked out of possession of knowledge/information which is perceived as essential for living healthy and independent lives.

According to Lankshear (1998: 2), literacy must be seen as having interlocking dimensions – the operational and the cultural – which bring together language, meaning and context. The operational dimension refers to the "means" of literacy in the sense that it is in and through the medium of language that the literacy event happens whilst the cultural dimension recognizes that literacy is not simply about being literate, but about being literate with

regard to some aspect of knowledge or experience (Lankshear 1998: 2). Lankshear (1998: 2) argues that "any concern with reading and writing literacy ends up at social practices which integrate talk, action, interaction and ways of behaving" and technologies of literacy, from print to computers. These are situated and employed within contexts of practice that permit certain productions of meaning and constrain others. For this reason I have acknowledged that technology is a form of literacy but I have concentrated on the literacy as technology as a socially situated practice.

8. Discourse at UCT

Gee (1991, 1993) writes that Discourses are ways of acting, think, behaving, reading, writing, speaking and so on. Gee argues that being in a Discourse means that others who are also familiar with the Discourse can recognize a person as being a "this" or a "that" e.g. teacher, lawyer or a particular version of this or that e.g. a courtroom lawyer or beginner teacher (Lankshear 1998: 3). Language is a dimension of Discourse, but only one dimension and Gee (1993: 74) uses discourse (with a small "d") to mark this relationship. In my study it is acknowledged that UCT has its own Discourse in terms of the ways or writing, speaking valuing, thinking and the terms used and for the purposes of this study the UCT language was considered a dimension of Discourse. This is discussed in detail in Chapter 4.

University of Cape Town

Chapter 3: Research methodology

1. Introduction

In this chapter, the research methods used to investigate how adults reflect on their learning of a new technology at UCT are discussed.

2. Research design

According to Kumar (1996: 74), "a research design is a blue-print or detailed plan of how a research study should be completed, utilising variables that can be measured, selecting a sample of interest to study, collecting data to be used as a basis for testing hypotheses and analysing the results". Henn et al (2009: 49) concurs with the view of Kumar (1996) and adds that "the research design is the plan or strategy that shapes the research". Henn et al (2009: 49) provides a description of the research design process and argues that whilst all elements of the research design are important, the research design is a "cyclical, ongoing and iterative process". This study was intended to understand how administrative staff learnt to navigate and negotiate the demands of a workplace utilising the PeopleSoft system at UCT. In order to gain this understanding, data was collected in two ways viz. the literature review for this study and interviews that were conducted. Although there were a vast number of people who used the PeopleSoft system for a variety of function, this study concentrated only on the learning process of administrative users of the system employed in various departments at the university.

The design used for this study was a case study research design. A case study design is characterised as having a "more qualitative orientation" (Henn et al 2009: 65). The reason I consider this research design to be a case study is because it matches the criteria set out by Henn et al (2009) for a case study design. My research involved "intensive, detailed and in-depth research among a small sample of carefully selected cases or just one case". My

University of Cape Town

study looked at a particular group or community i.e. departmental administrators at UCT, using the PeopleSoft student system.

3. Method

A qualitative approach was employed for this study and only the interview method was used to gain information from participants. Henn et al (2009: 175) argues that a qualitative approach enables one to "develop an appreciation of the underlying motivations that people have for what they do". Qualitative methods, according to Strauss and Corbin (1990: 19), are used to uncover and understand what lies behind any phenomenon about which little is yet known. My employment at UCT and my experience on working with the PeopleSoft student system has provided me with an in-depth engagement with the research focus and has helped me identify possible gaps or weaknesses in the system – due to system misuse. Going into this study, it was my understanding that scheduling of classes had been problematic at the institution and many of the problems that had arisen in the past had been due to errors or inaccuracy of data input into the system. Specific reasons or problems in the learning process had been generally identified but had never been delved into and understood. The purpose of this study was to understand how administrative staff learnt to navigate and negotiate the demands of a workplace utilising the PeopleSoft system.

University of Cape Town

It is argued that survey research is a way of "collecting facts" and the researcher can sometimes employ techniques which reflect and reproduce assumptions he/she has about the social world or the phenomenon under investigation (Henn et al 2009: 167). Due to my employment at the institution and understanding of the subject matter, I wanted to ensure that any bias or subjectivity was removed. I therefore would not have wanted to reflect or reproduce questions in a survey to get the kind of answers I may have wanted to hear, albeit subconsciously. For these reasons, I opted not to do survey research but collected my data by means of qualitative research where interviews were set up with the respondents.

4. Population

Much consideration had to be given to the type of sample chosen and in this instance, a purposive sample seemed best suited to this research. Babbie (2004: 183) describes a purposive sample as "a type of non-probability sampling in which you select the units to be observed on the basis of your own judgement about which ones would be most useful or representative". At the time of conducting the interviews, there were a total of one thousand three hundred and sixteen PeopleSoft users at the institution. This number included academic staff members who also had access to the system. I understood that it would have been impossible to interview all staff members and had to therefore find a sample that would allow me access to "a variety of respondents". I had chosen to exclude academic staff from the population to be interviewed because of my insider knowledge that academic staff used the system mainly to view student information and not for the manipulation of any student data. It was also my understanding that view-only access to the system was much simpler than using PeopleSoft system functionality to manipulate student data. Therefore I chose to focus on and interview only administrative staff that had access to update and maintain student data on PeopleSoft. Babbie (2004: 183) argues that it is sometimes appropriate to select a sample based on one's knowledge of a population, its elements and the purpose of the study.

University of Cape Town

Administrative staff members are based in Admissions, Student Records, six faculties, sixty nine departments, the Undergraduate Funding Office, the Postgraduate Funding Office, the Fees department and the International office. These people use different functionality and perform different duties in their offices e.g. admissions office staff deal with applicant data and look at the download of online applications or the capture of information from hard copy application forms, whilst the faculties process data of registered students and the student records office deals with data of graduating students. Departmental staff input marks into the system and prepare class schedules for the next year so that students can be registered by faculties. These functions are interdependent, different and each has its own complexities and similarities.

A purposive sample was used in choosing the interviewees. Because UCT is a large institution and I wanted to ensure representivity across faculties, I chose to concentrate on how PeopleSoft functionality is used in departments. Departmental staff are responsible for the scheduling of the classes students would enrol into during the registration cycle, as well as the marks upload process at the end of an examination cycle. There are six faculties at the institution and departments are linked to each of these faculties. I opted to look at the two largest departments in each faculty and to interview one departmental staff member from each. With the exception of the Law faculty, where classes were scheduled by the faculty, two people from departments linked to each of the other five faculties were interviewed. In the law faculty, just one person, a faculty staff member responsible for the scheduling of classes, was interviewed. This meant that a total of eleven people were interviewed.

In each department, I chose to interview one scheduler who had scheduled classes for more than three cycles and one novice who has been through at least one cycle of scheduling. The largest departments were identified by the largest number of courses offered or the largest number of students enrolled onto classes run by that department. Robson (1993: 142) argues that a sample can be built up to suit the needs of the study and in this study it was important to represent all faculties at the university.

The reason I had chosen a sample in this manner is because a department with more classes and more student enrolments automatically dealt with more student data input into PeopleSoft. The sample chosen was a mixture of a representative sample and a purposive sample. Although two departmental users were chosen for my interviews, I acknowledged that most departments had more than one scheduler each. Out of a group of over one thousand users, interviewing only eleven people may seem like a cause for concern. However, I believe that my sample was representative based on the fact that schedulers in large departments not only dealt with large quantities of data, but were also involved in

University of Cape Town

cross-faculty scheduling. This representation is therefore based on inter-disciplinary, cross-faculty information access.

According to Robson (1993: 142), the purposive sampling approach is commonly used in case studies. In instances where the department I focused on had more than one scheduler, I decided to look at a helpdesk call log to see which of the schedulers in the department had called the institution's PeopleSoft helpdesk more frequently with PeopleSoft problems.

The number of active PeopleSoft users as of June 2011 was 1316[1]. An active user was defined as one who had access to the PeopleSoft system, was able to look up and/or amend data and most importantly, one who had logged onto the system in the previous six months. The number of departmental administrators responsible for the scheduling of classes and marks processing in PeopleSoft was 192 and of the 192 administrators, 8 were men and the rest were women. All eleven interviewees were women. Two men formed part of the sample. One refused to be interviewed on the basis that he was very busy, worked in a public space and could not spare thirty minutes for an interview. The other prospective male interviewee felt that he would not be a "right fit" for the sample and felt that he would not be able to contribute to the research. Although it was explained that he was indeed a good candidate for the interview, he declined the invitation and could not be forced. The fact that eleven women were interviewed is understandable given the fact that women make up 95.8 percent of the population of departmental administrators at UCT. The fact that no men were interviewed for this study is not a problem because, given the sample, only one or two men would have been interviewed. One would not be able to deduce if the learning process of only one or two men could speak for the learning process of all men, at the institution or men in general. Furthermore, this study is one that looked generally at the learning process of people – it is not a gender study that differentiates between the learning of men and women.

University of Cape Town

[1] Figure taken from PeopleSoft active permission list of PeopleSoft users on 12 June 2011.

Faculty managers have a "dotted line management" of departmental staff but are not responsible for them. This simply means that faculty managers are responsible for the line management of staff that work within their faculty. Academic heads of departments take responsibility for the departmental staff who work within their departments. Whilst the departmental staff have some duties that affect the faculty and the manner in which the faculty operates, the faculty managers do not have direct line management of departmental staff. They can highlight to departmental staff the tasks that need to be completed – and this is sometimes done directly with the departmental administrators or through the heads of departments, depending on the relationship that the faculty manager has with the departments. However, faculty managers do not dictate the responsibilities of departmental staff, neither are they responsible for the job performance reviews of departmental staff, although they may have input into the performance reviews of these individuals. The table below indicates the different faculties to which departments have dotted line responsibility. It is important to note that I have not mentioned the department by name in this study because this would have made it very easy to identify the departmental administrator who was interviewed. It was imperative to protect the anonymity of the staff members.

University of Cape Town

COMMERCE FACULTY	2 departmental staff members interviewed
ENGINEERING AND THE BUILT ENVIRONMENT FACULTY	2 departmental staff members interviewed
HEALTH SCIENCES FACULTY	2 departmental staff members interviewed
HUMANITIES FACULTY	2 departmental staff members interviewed
LAW FACULTY	1 faculty staff member interviewed
SCIENCE FACULTY	2 departmental staff members interviewed

5. Choice of methodology

I used a qualitative approach for this study and only interviews were conducted. Methods employed in quantitative social research are mainly sample surveys and experiments (Henn et al 2009: 134). Strauss and Corbin (1990: 19) argue that qualitative methods can give intricate details of phenomena that are difficult to convey with quantitative methods. I did not believe I would get all the answers to the above-mentioned questions by using a quantitative study and thus chose a qualitative study. One of the criticisms levelled against quantitative research is that simply posing a series of structured questions will not allow the researcher to gain access to the process through which people adopt certain views (Henn et al 2009: 166) I concur with Henn et al (2009: 134) that qualitative research is exploratory and allows one to open up a research question, unlike quantitative research. For the purposes of this study I wanted to talk to people and delve into their learning process and thought process about their own learning. I did not believe that this could have been achieved effectively by using a survey.

In order to address my research question and sub-questions, the interviews involved questions around prior knowledge and experience people brought into their jobs, the extent to which the prior knowledge and experience (if any) were useful, whether the training programmes for PeopleSoft built on prior knowledge, areas of the system people found difficulty with and possible reasons why they thought they had experienced these difficulties, the learning process as experienced by users when using functionality, whether tacit knowledge was used in the learning process and if users learnt by critical reflection.

The interviews were semi-structured and conducted in person. Henn et al (2009: 186) describes in-depth interviews, whether one-on-one or in focus groups, as highly beneficial as the interviewer is allowed to provide qualitative depth by allowing interviewees to talk about the subject in terms of their own frames of reference. I believe that if I had chosen to explain adult learning theory to participants at the start of the interview, this may have

University of Cape Town

shaped the manner in which they responded as they may have chosen to give me answers they thought I wanted to hear. I did not try to explain adult learning theory or the NLS theory to the interviewees because I did not believe they would understand nor have an interest in the theory. I tried as far as possible not to skew the study or answers received, by not explaining theories about how adults learn. According to Kvale (1996:11), "the sensitivity of the interview and its closeness to the subjects' lived world can lead to knowledge that can be used to enhance the human condition". I concur with Kvale's view that the interviewer should be sensitive to the interviewee. I believed that this sensitivity to the interviewee would allow them a free space to speak without reservation, so that I could gauge as much information as possible from them. In my experience of dealing with these departmental administrators, I found that they were very "hands-on", practical people who dealt with the job at hand and I doubt they would have been interested in theories about how they had been using the PeopleSoft system or learning their work. I believe that asking open-ended questions helped me understand how the interviewees perceived the learning and training process for PeopleSoft at their institution, as they related their experiences directly to the jobs they did. These interviews were recorded, with the permission of the interviewees and later transcribed and analysed for evidence of how learning took place and what the learning barriers and issues were for users. The data that has been collected for this research is available for scrutiny. I have not been able to include all data that was collected for this study in this write-up for reasons of brevity and focus. However, in areas where I have chosen to focus my data, I am happy that these focuses are justified and substantiated in terms of the theory.

University of Cape Town

6. Interview schedule design

Questions were semi-structured beginning with a few introductory questions asking the interviewer to tell me about herself and a bit about her career before she became a departmental administrator at the institution. These questions were not meant for the purposes of analysis but mainly as an ice-breaker. The interviewer was then asked about the kind/s of jobs/positions held before becoming a departmental administrator and how

these positions helped prepare her for the current job she found herself in, if at all. This question aimed to understand prior knowledge of the interviewee before becoming a departmental administrator and looked at how the previous work experience or knowledge gained had assisted the person in their current job, if at all.

The questions were aimed at encouraging reflection on learning. Brookfield (1995) uses the idea of critical reflection and argues that critical reflection focuses on three interrelated processes:

a. the process by which adults question and then replace or reframe an assumption that up to that point has been uncritically accepted as representing common-sense wisdom
b. the process through which adults take alternative perspective on previously taken for granted ideas, actions, forms of reasoning and ideologies
c. the process by which adults come to recognise the hegemonic aspects of dominant cultural values and to understand how self-evident renderings of the 'natural' state of the world actually bolster the power and self-interest of unrepresentative minorities (Brookfield, 1995:15).

University of Cape Town

Questions were asked about how long the interviewees had been employed as a departmental administrator scheduling classes and what percentage of their job was dedicated to the scheduling of classes. These questions were meant to give me a background understanding of how long the person was doing their current job. The rationale for this was that a person who was fairly new to a position may not have been as familiar with the system as an older user and thus the manner in which a newer PeopleSoft system user resolved problems or errors may have been different to that of an older user. It was also my understanding, going into the interview, that different departments worked very differently and whilst some departmental administrators were required to perform all administrative tasks, including secretarial duties, others were different. In order to gain some background information about how scheduling took place in these departments, I was

interested in the level of importance given to class scheduling, when weighed up against other duties. I believe that different levels of pressure or stress, depending on the personality of the person, the nature of the work and the ways in which the person reacted to stressful conditions, may have affected the manner in which people learnt how to use technological systems like PeopleSoft.

Interviewees were asked to describe the process they followed when scheduling a class in PeopleSoft. By describing the process they followed when scheduling a class, the users were able to take me through their thought process and help me understand how they worked and understood the system. Interviewees were asked to describe the kinds of errors they experienced when scheduling classes in PeopleSoft. This helped me understand the kinds of barriers/problems users experienced when scheduling classes. When asking this question, the aim was to look at the reflective process of the interviewee on their learning process.

I also asked users to describe how they resolved these problems or errors. This question helped me understand how the departmental administrators resolved the errors they experienced. The kinds of support structures available to users were super users (experts, colleagues, managers and/or people who had more experience/knowledge of the system), the Student System Support helpdesk, manuals, reference guides and troubleshooting notes. This question delved into whether users made use of the resources available to them when they experienced system errors and whether they were aware of the support structures available to them.

I initially showed the interviewees examples of incorrectly scheduled classes and asked that they identify errors if they could. However, these were eliminated after the pre-test interviews were done. Reasons for excluding these are explained in the section that covers the pre-test below.

University of Cape Town

I asked interviewees what support structures they were aware of at the institution and in what ways they had made use of these support structures. This gave me insight into how the interviewee learnt and who they looked to for help when experiencing difficulties during the learning process. I asked interviewees how they went about the process of seeking help. This helped me understand which structures they looked to for assistance or guidance when they encountered problems or errors.

7. Problems and errors in interviewing

Sarantakos (2005: 286) writes about the importance of providing an accurate analysis of data and alleviating prejudice and avoiding leniency in cases where the researcher tried to avoid negative information. Naidoo (2010: 47) was in a similar situation as a researcher, that I found myself in, because her interview subjects were people that worked in the same environment that she did. I followed the same principles used by Naidoo (2010: 48) in that I also exercised caution to "overcome the contact effect which results in loss of objectivity caused by knowing the respondent thus leading to mild evaluation of responses". I also followed the example of Naidoo (2010: 48) who ensured that "information that had been collected was not withheld and one did not fall into the trap of replacing non-responses with another person's responses or forgery of parts of the data".

University of Cape Town

8. Pre-test

Baker (1994) stresses the importance of the pre-test during a research process and advocates that every researcher should conduct pre-testing irrespective of the skill of the researcher. The pre-test was conducted once the interview schedule was completed. Hunt (1982: 269) writes that pre-testing is normally done in a hurried, non-systematic fashion, yet the interviewer/pre-tester should observe reactions to questions and probe the interviewee

after each question. Van Teijlingen and Hundley (2001: 2) argue that pilot studies are important and should be conducted thoroughly because they allow the researcher to identify possible problems with the study and challenges that may affect the research process. Woken (no date available) describes pilot studies as highly beneficial as they permit preliminary testing of a hypothesis which can lead to changing, dropping or adding a new hypothesis or testing more precise hypotheses in the main study. Woken (no date) further argues that pilot studies can provide the researcher with clues or new ideas he has not thought of or realised before and can reduce a number of unanticipated problems because you have the opportunity to identify such challenges in the pilot study and correct them. Van Teijlingen and Hundley (2001: 2) do, however, acknowledge that concerns can arise when the researcher wants to include people from the pilot study in the main study because "these people would have already had the experience of the research".

In my study, I chose to conduct three pilot studies and after each interview, I transcribed and analysed data and looked for ways in which to improve the study. The pilot interviews helped me realise that more emphasis had to be placed on the questions about how learning took place and what helped adults learn rather than placing emphasis on "process driven" questions. When I talk about "process driven" questions, I refer to the functional processes in PeopleSoft. The pilot interviews concentrated a lot on the processes in PeopleSoft functionality or steps used to take one through a process. I found that users were uneasy about such questions because they perceived it as a test and the research was not focused on testing memory – the focus was on how adults learnt and my questions were restructured to concentrate on this aspect in the interviews that followed. This helped me adapt the interview schedule so that process driven questions were minimised.

I had also decided that part of the interview schedule would include showing the interviewee three examples of classes that were incorrectly scheduled. I asked them to look at the screenshot and they had to decide if they believed the screenshot was accurate or not. All three screenshots contained inaccuracies related to incorrect naming conventions,

University of Cape Town

error messages and missing components. In the last screenshot I told them that there was an error and asked them how they would resolve the error. The main purpose of this exercise was to understand if these users were able to identify basic errors and to understand their thought process in resolving such errors. These questions relating to the errors were quite important and the aim of asking them was to understand how the user learnt and whether they were able to identify error messages and resolve them.

I acknowledged at the outset of preparing the interview schedule that users may have experienced difficulty, felt intimidated and felt like they were being tested and under pressure to give the correct answers. My plan was to place them at ease and eradicate any fears they may have had by assuring them of confidentiality and that this was not meant as a test. Therefore, it was assumed during the pilot interview that even if people gave incorrect answers, they would understand that the focus was not on them but on possibly improving the support on offer to them.

However, I found during the pilot interviews that although the interviewees were assured of confidentiality and that the process was not a test, many still perceived this as a test. They felt uncomfortable and under pressure and felt the need to remember navigational paths and give correct answers. They also felt uncertain about whether they were giving me correct answers. I therefore took a decision to remove the three scenarios from the interview schedule for the rest of the interviews that were conducted as these scenarios were also not the core of my study.

9. Analysis

I chose to use a grounded theory method to analyse my data. Grounded theory methods have emerged since the 1960's and are used to gather, synthesise, analyse and conceptualise data to construct theory (Smith, 2008: 83). Grounded theory involves first

University of Cape Town

exploring general questions and then collecting data about what relevant people (in this case the interviewees) say about it (Smith, 2008: 85). Strauss and Corbin (1990: 23) describe grounded theory as that which is "discovered, developed and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon". They argue that when using the grounded theory, one does not start with a theory, but "begins with an area of study and what is relevant to that area is allowed to emerge" (Corbin and Strauss, 1990: 23). I found this theory quite useful and appropriate to my study. Due to my employment at the institution I did not want to skew the study by constructing a theory and then doing research around it. I wanted to explore questions and look at information that emerged from respondents.

Questions that revolved around the percentage of time spent scheduling classes and the number of years the user had been involved in scheduling were analysed by looking at the importance given to scheduling in the department. The number of years the users has spent scheduling classes was also important because someone very new to the system may have experienced different problems to a more familiar user. This question was therefore analysed, taking into account the number of years the person had been doing the job. Questions about the kind of problems experienced whilst learning how to use the PeopleSoft system, as well as the process the interviewee used to resolve errors were analysed looking at the thought-process involved in resolving errors.

University of Cape Town

Using the grounded theory for analysis of the data for this research meant that I began analysing data gathered early in the process and not only at the end of the data collection. This following up on participant's comments or ideas that emerged from the data meant that further questions were built into subsequent interviews with other or the same participants (Smith, 2008: 86). All interviews were transcribed and I used a line by line coding method to identify problems/barriers to learning the technology or any other learning practices that interviewees identified. Using line by line coding, I then looked for common themes that emerged and noted these themes.

Due to my employment at the institution and the role I play in the PeopleSoft Student Systems support team, I had an understanding of how the training system operated and about some of the kinds of problems departmental administrators experienced when using PeopleSoft. I began the analysis working from the theoretical assumption that the prior knowledge of administrators was not always given due recognition and that the training may have been too theoretical so users could not apply what they had learnt in a training room back at their offices. In the presentation of results I will explain my findings and show whether information shared through the interviews supported my assumptions. It must, however, be noted that the focus of this study was not on the training, but the learning process of the interviewees.

Qualitative research meant that I had to deal with many pages of transcribed data after the interviews. The line by line coding ensured that I did not miss any vital information. Although Strauss and Corbin (1990: 30) argue that it is not always necessary to transcribe all interviews or field notes word for word, I believed that for the purposes of this research and due to my aim not to miss any important information, it was important that I transcribed all interviews verbatim. I used different categories for different questions and each would have sub-categories. For example, one of my questions revolved around how the administrators dealt with errors the experience on the PeopleSoft system. Sub categories were:

1. By attending PeopleSoft training
2. By calling the helpdesk
3. By asking a friend for assistance
4. By reading through manuals
5. By trying to figure out how to resolve the problem

These are the categories I had chosen. After the first few interviews, I realised that people gave different answers and these were added to the categories. I also realised that sometimes people did not wait for me to share possible options with them as they already

University of Cape Town

knew which options they used. It is important to note that this is one example in which I made use of categorisation in my transcripts. There were other examples where categorisations were used as well.

Strauss and Corbin (1990: 58) argue that there are three types of coding viz:

a. Open coding – naming and categorising of phenomena through close examination of data (Strauss and Corbin 1990: 61)
b. Axial coding – a set of procedures where data are put back together in new ways after open coding, by making connections between categories (Strauss and Corbin 1990: 97)
c. Selective coding – a process of selecting the core category systematically relating to other categories, validating those relationships and filling in categories that need to further refinement and development (Strauss and Corbin 1990: 116).

University of Cape Town

I coded data into these sub-categories (each question had its own sub-categories). This categorisation helped me see which questions had very similar answers and which did not. Kvale (1996:199) writes that categorising in this manner serves several purposes in that it gives a good overview, makes it possible to test your hypothesis and makes it possible to investigate differences in answers and behaviour. I believe this was a useful tool for analysis especially since I collected a lot of data.

They also emphasise that the lines between each type of coding are artificial and in a single coding session one could move between one type of coding and another without even realising this (Strauss and Corbin, 1990: 58).

Strauss and Corbin (1990: 26) argue that the grounded theory can be used by many disciplines including looking at people's learning patterns and behaviours. The systematic

techniques and procedures used in the grounded theory enable the researcher to "develop a substantive theory that meets the criteria for doing 'good' science (Strauss and Corbin, 1990: 31). This theory enables the researcher to ask pertinent questions of the data and to make the kind of comparisons that elicit from the data new insights into the phenomenon (Strauss and Corbin, 1990: 31).

10. Ethical considerations

According to the Authorship Practices Policy at UCT (2010), "the governing ethical values underpinning research in human subjects are justice, made manifest by processes that foster the principles of fairness, transparency and reasonableness; and beneficence, to be understood as the obligation not to harm anyone and to help others further their important and legitimate interests". (UCT Authorship Policy, 2010: 2). This research dealt with human subjects at the institution and I ensured that the ethical principles outlined above were adhered to. I undertook to be transparent about this research and helped interviewees understand that whilst they were under no obligation to participate, their participation would have great benefits to many people in understanding how adults learn to use technology. In order to ensure that all ethical considerations were made, permission was obtained from departmental administrators.

University of Cape Town

I acknowledged at the outset that my employment at the institution and my role as a researcher could be seen as a source of some conflict and I sought to alleviate any concerns that may have arisen. It was reiterated that the purpose of this research was not to evaluate training or support offered but only to understand the learning processes of adults. Interviewees were assured of confidentiality and encouraged to speak freely. As a further measure, I undertook to create a post-interview feedback questionnaire. This evaluation allowed interviewees a further opportunity to express any concerns they may have had about the study, my role as a training manager of PeopleSoft and their involvement in the research process. Interviewees were given a date by which they had the option of withdrawing from the study, if they wished to do so.

The informed consent of all interviewees was collected, in writing and the users were informed that their identity would be protected. In the study the departments they came from and their names were not identified, but they were allocated random initials to protect their identities.

University of Cape Town

Chapter 4: Presentation of results

This chapter presents and analyses data from semi-structured interviews. In order to substantiate the findings, the analyses will draw frequently on theoretical formulations discussed in chapter 2. Discussion is structured under different headings that reflect links between theory and themes drawn from across the interviews. The themes are 'literacy as socially situated cultural practice' and 'learning in a COP'. This chapter is structured in this way because the literature review revolved around these themes and during the interviews, the answers that interviewees gave were consciously reflected on in relation to these two themes.

1. Literacy as socially situated cultural practice

In chapter 2, Breier and Sait (1996) are cited in relation to the dynamics of worker-management communication at a Cape factory and they emphasise the need for a discourse or language that is understood by all. Their focus was on the "language" used and on who dominated the kind of language used i.e. management or the employees. My study asked questions about the kind of language used in the PeopleSoft system and sought to understand how comfortable employees at UCT were with the PeopleSoft language. It was evident that when employees spoke about the "language" of UCT they referred to the acronyms used and the PeopleSoft terminology. One had to understand whether they were talking about Discourse. According to Gee (1993:11), Discourses are ways of acting, think, behaving, reading, writing, and speaking. Of the eleven people interviewed in this study, nine interviewees spoke about the difficulty that a person can experience learning "the language of UCT" in terms of the acronyms frequently used and of the difficulty experienced when learning and adapting to American terminology in the PeopleSoft student system. I probed to understand what these interviewees meant when they spoke of "the UCT language". Although the users were adamant that when they spoke of the UCT language, they were not talking about language as Discourse, or English or Afrikaans, but they were talking about the

University of Cape Town

acronyms used by UCT staff, or certain terms that only an "insider" would understand, Gee's definition of Discourse (1991, 1993) classifies what they had described as Discourse.

As one illustrative example, user SV spoke about the UCT context where "the language does not adapt to the user, but the user must adapt to the UCT language". She shared her experience of previously working in the banking industry and having to come to UCT and her experience of learning new ways of working and doing things. The greatest difficulty she experienced in her learning process was because of this "new language that had to be learnt". The language included new acronyms, terminology and what she referred to as "UCT speak" that she felt she was expected to know. My analysis reflects on the difficulty one experiences when having to learn new terminology or a new language. I argue that unfamiliar terminology, as with PeopleSoft, hinders the learning process. The information gauged from the interviewees was that people at UCT have the assumption that other people know UCT acronyms or should know UCT acronyms. These assumptions about what should be known affects people in the sense that they feel that they should know the UCT acronyms or are too embarrassed to ask a question if they do not know something. They then pretend to understand concepts or acronyms in order to fit in. My analysis is based on this indication by most participants. My insider knowledge as an employee at UCT helps me understand the difficulty one can encounter coming into a new environment where the acronyms used are unfamiliar and there is a need to understand such acronyms in order to do one's work. User BK spoke of the expectation from colleagues and superiors that she should just know certain acronyms and the manner in which she pretended to understand just to fit in. This relates to the concept of Lave and Wenger (1991:14) of legitimate peripheral participation where "there is a particular mode of engagement of the learner who participates in the actual practice of the expert, but only to a limited degree and with limited responsibility for the ultimate product as a whole".

Wenger (2000: 227) shares the example of how we are sometimes faced with the challenge of being on the periphery in the sense that we are the newcomer who joins a new community and wants to be a part of that community or when we are the older experienced

University of Cape Town

member of the group who meets with a new person or someone with new ideas that are very different to ours. Wenger (2000: 228) argues that whether we are new to an environment and wanting to learn, or whether we are experts in an environment exposed to new ideas, learning does take place either with the knowledge that our communities have been established over time, or our ongoing experience of the world as a member. I argue that users like BK try to learn the UCT language to fit in and although this is not always easy, some learning does take place over time.

1. Building on existing knowledge

Chapter 2 reflects on the work of Prinsloo and Kell (1999) who write about weaknesses in literacy programmes. Some of the reasons attributed to such weaknesses in literacy programmes are that they fail to acknowledge and recognise existing knowledge that a user may have, fail to build on this existing knowledge and rather put in place new learning methods, rather than build on existing user strengths. Breier and Sait (1996), speak about the importance of building on existing knowledge of users instead of using an approach of just teaching people what others (managements, teachers or facilitators) think these people need to know. An example of the importance of building on existing user knowledge is illustrated in the Breier and Sait (1996) study of the Cape factory where user knowledge was not taken into account – the literacy programme failed dismally. In my study, the users were asked about prior experience and knowledge and how, if at all, this existing or prior knowledge had assisted with their current work. Whilst some users were able to explain how their prior knowledge helped them in their current jobs, two users felt that they held much experience and brought much knowledge to the job that was not acknowledged and recognised. The kinds of prior knowledge identified by the users as useful in directing their work and learning process at UCT were primarily computer skills and customer relations skills in terms of dealing with difficult people and difficult situations. They felt demotivated as a result of these actions by their managers and felt that the experience they brought was "cast aside". Examples cited of prior knowledge were those of people who had worked in banks and had learnt to use technological systems and computer programmes and those that had worked in administrative positions and had learnt to deal with a variety of issues,

University of Cape Town

including how to deal with difficult people and situations and challenges with learning new processes in a working environment. Such users firmly believed that they should have been asked about what knowledge they brought into the job during their induction. Rather, they found that they were not even asked about the experience they brought but rather just taught what they "needed to know". Three users believed that the computer skills that they had gained in previous employment and the troubleshooting they had learnt when using technology could have assisted them in their work at UCT, but they were not asked about what skills, experience and knowledge they brought to the job. At the analytical level one needs to acknowledge the challenge that such behaviour from management or an institution can have on an employee. In the study at a Cape factory, Breier and Sait (1996) share the similar example of workers who felt that their previous experience/knowledge was cast aside and the authors showed the negative effect this had on staff morale and the learning process of the staff.

Although these staff members interviewed at UCT did not speak about whether they felt demotivated, it was evident from their mannerism that they did not appreciate that their prior knowledge was not acknowledged by their managers. Reflecting on the body language of the users, three shrugged when we discussed this area in the interview, one waved her hand aside and another said, "it was like fighting a losing battle". I argue that not acknowledging the existing knowledge of users and building on this knowledge demotivates staff and makes them feel that what they know or bring to the job is unimportant. It is clearly evident from this study that the knowledge people brought to the job helped them to do their work more effectively. I argue that the prior knowledge could have been even more effective if it was given adequate recognition and built on. I argue that managers at UCT fell into the same trap as the managers in the Breier and Sait (1996) study, in that they did not realise the importance and effectiveness of prior knowledge and therefore did not pay adequate, if any, attention to this prior knowledge.

Whilst the majority of the staff spoke about their discomfort at not being asked what they knew or what previous experience they brought into the workplace, BF, on the other hand

University of Cape Town

shared another perspective. BF shared her discomfort with people who assumed that she knew certain things, rather than those who ignored what she did not know. She then found it difficult when people made such assumptions about her knowledge and was also sometimes very embarrassed to explain to such people that she did not know certain things.

Almost every interviewee acknowledged that the prior knowledge that they brought to the workplace was invaluable in shaping their skills and ability to cope with the current positions they found themselves in. SW believed that her previous positions prepared her for the position she found herself in at UCT and she was grateful for the skills and knowledge she had gained in previous jobs. She mentioned her time working in a bank and learning how to use computers and mentioned how this helped her cope with learning the PeopleSoft technology that was new to her. At the analysis level, I had to resolve this apparent contradiction where participants felt that their knowledge was valuable, yet the institution chose to 'reject' the prior knowledge of these employees. I questioned whether the institution considered itself superior or unique, or if the institution was simply prescriptive about the way things should be done and was unwilling to compromise. My insider knowledge of the ways of working with the PeopleSoft system helped me put this matter into context and understand the perceived rigidity of the institution in relation to PeopleSoft. The PeopleSoft system is an American system that is not easily customised and although a person may have experience of another system, there are specific methods of working in PeopleSoft and any deviation from the prescribed methods could cause problems with the system data.

University of Cape Town

2. Literacy mediators in society

Every interviewee admitted that they experienced some kind of problem or challenge in their learning process and every interviewee looked to sources for help. Whilst various sources, which are cited later in this chapter, were used, the most common source of help was other people or colleagues. Such people are referred to in various pieces of literature

as literacy mediators. In Chapter 2, Breier and Sait (1996) are cited in relation to literacy mediators who assist in the transfer of knowledge and in assisting people to do their work.

It is evident that literacy mediators are used extensively at this institution in order to facilitate learning. The most widely used literacy mediators come in the form of "super users", or experts who other people feel comfortable asking for help. These are usually people who have extensive knowledge of the system, display above-average administrative skills and generally hold senior administrative positions.

Other literacy mediators utilised by interviewees included other colleagues who did the same work as them, calling the PeopleSoft helpdesk for assistance and user manuals and reference guides provided by the Student Systems Support team. The most preferred literacy mediator was the super user. There appeared to be a contradiction in this answer that users gave where they referred to super users as the preferred form of mediation when faced with difficulties. The reason I argue that this is a contradiction is because the evidence offered by interviewees was that super users were at best uneven and at worst patronising and impatient. I argue that users may have told me what they believed I wanted to hear, or that they were wary of using formal systems of support, so they chose the informal system (super user), when most needed.

University of Cape Town

The term "super user" is frequently used at UCT. Super users are not chosen by a certain criterion e.g. a certain number of years in a department and at the time of conducting this research there were no formalised training programmes for super users at this institution. These are generally people who, because of the above-average competence they show, gain special recognition and become a first line of support to other members of staff in the department, faculty or area who may need assistance. It was also evident from the different interviewees that the kind of assistance they received from super users varied, based on the knowledge and personalities of the super users. Whilst two interviewees spoke about wonderful super users who were approachable, friendly and open to sharing

their knowledge, three interviewees shared a different view of super users who were always too busy to help and made them feel like a hindrance and a bother – they felt that this affected their thought and learning process negatively and they were unable to learn properly under such conditions. My insider knowledge helped me realise that no formal super user training had ever been offered to super users and this could possibly be the reason for the inconsistency in support offered by super users. I advocate that formal training for super users is important in order for them to provide more effective support than that which is currently being offered. However, I must note the contradiction regarding how super users were chosen at the institution. By choosing people with above average technical competence and grasp of PeopleSoft concepts, the implication is that the institution appears to value and recognise 'technocratic' competence above all other forms of competence, such as the ability to communicate and interpersonal skills. It was evident from the study that communication and interpersonal skills, as well as technological skills were key for effective super users

3. Putting learning into context

Interviewees were asked to reflect on why they thought they had difficulty learning certain functionality. Five interviewees struggled with this question as they felt that it was something they had never thought about or reflected on before. This told me that people often do not reflect on their learning and it is only when faced with questions about their learning behaviour or patterns that they think about them. Schön (1987) and Brookfield (1995) write about the importance of reflection on learning and the benefits of such reflection on the learning process of the user.

After reflection on their learning process, three users related problems they experienced in the PeopleSoft learning process to the system process training not being in context with the work done in the office. One user, PP, explained that whilst her difficulties did not relate directly to the training, it was not specific to her area and she went back to her office and was "left floundering" trying to understand how the information she gained could be put

University of Cape Town

into context with the work she was doing. She found the training received on the system "too general". RH found that her learning was aided by having background information and an understanding of why she was doing certain things or learning how to run reports or processes on the system, helped her work better. She relayed her frustration as this "contextual" information was not always shared even amongst colleagues and from managers and this made her learning difficult. This kind of environment did not make her feel like she was "a part of the environment" and felt forced to learn systems "just to get her work done". In Chapter 2, Breier and Sait (1996) are cited in relation to assisting the learning process of users by making them understand of the context, reasons for the learning and how doing things a certain way impacts on an organisation. The Breier and Sait (1996) study of workers in a Cape factory clearly shows that learners who did not understand why there were learning something, did not see how that learning was applicable to them and this affected their learning process.

When analysing these pieces of information, I could understand the feelings of the users who did not understand why they were learning certain things or how these pieces of functionality they were learning related to their work or their lives. My insider knowledge also helped me understand that the Student Systems Support team only trained users in functionality, with the understanding that users should go back to their offices with the generic information and relate this to their work. The theory of socially situated literacy practice teaches us that NLS is not simply an anti-school campaign and should not be seen this way (Street 2003: 83). Street cites the example of Hull and Schultz (2002: 3) who researched in schools in order to understand children's emerging experiences with literacy with their own culture to address broader educational questions about the learning of literacy and of switching between literacy practices between different contexts. Their study found that building a divide between in-school and out of school experiences created a great divide and dismissed the engagement of children with non-school learning as merely frivolous or incidental (Street 2003: 83). From the standpoint of the child, Street (2003: 83) quotes Dewey 1998: 76) who argues that "the great waste in the school comes from the child's inability to utilize the experiences he gets from outside school in any complete and free way within the school itself". He is therefore unable to apply in life what he is learning

University of Cape Town

in school (Street 2003: 83). An example of this in the UCT context was that of BF who said she learnt new concepts in the classroom but had no idea how to apply these to her work when she got back to the office. I argue and the data confirms, that if users are not immersed in their learning process, in the sense of understanding why they are using technology in a certain way, if they feel like the learning process is being dictated to them, or if they feel that their knowledge that they bring with them into the classroom is being dismissed as frivolous or irrelevant, effective learning will not take place.

4. Strategies used by interviewees in the learning process

In Chapter 2 the learning mechanisms adult learners used to learn new things and cope with everyday life were highlighted. The example used is one where Breier and Sait (1996) write about a study in the Cape factory where workers who were unable to read or write used coping mechanisms like friends to help them read letters from home and colleagues to help them in their savings club. The people who were unable to read and write reciprocated the favour by buying sweets and cool drinks for their friends. Breier, Sait and Tsaetsane (1996) write about the coping mechanisms of taxi drivers who were unable to read or write but could still decipher road signs, learn for their oral driver license tests and prepare for court appearances because of fines. Although the employees at UCT were all able to read and write, the principles of coping mechanisms still apply. Although these people were able to read and write, computer literacy levels varied, with some people claiming to be expert users, whilst others admitted that they just managed to "get by". This was especially relevant for the older users who felt that the use of computers was "forced on them" and they had no choice but to learn to use systems. Similarly, to the workers in the Cape factory and the taxi drivers, the interviewees explained the coping mechanisms they used to deal with technology and the errors they sometimes experienced. Some of these coping mechanisms included getting assistance from friends and colleagues and trying to click on various buttons until a problem was resolved. Based on the very different experiences of the Cape factory workers, taxi drivers and UCT employees, yet very similar ways of dealing with the unknown, I deduced that the coping mechanisms in these very different situations were very similar. All these people had situations that they were unfamiliar with and were

University of Cape Town

faced with literacies that were new to them, but they found ways of coping with these literacies – and the greatest form of support that they used were the informal support systems in the form of friends and colleagues. Although there was evidence that espoused systems of support existed at UCT in order to support people through their work and problems, the information gained from the interviews showed that informal support systems were preferred. One had to question why the espoused systems of support were not preferred and the information gained showed that people were more comfortable accessing the informal support structures. At the analytical level I had to look at why people would not access formal support systems as much as they accessed informal systems. My insider knowledge helped me understand that the UCT environment ensured that formal support structures were available to users, but the people in the environment sometimes pretended to be experts in order to fit in or be accepted. People felt safer accessing information from informal networks as these were the networks they trusted. In order to understand why people were unwilling to access some support available to them, I found the study of Gray (2004:26) relevant. In her study on the lack of participation in certain communities Gray (2004:26) found that people usually participated in a COP in order to avoid isolation and to find a way of reaching out and connecting with others whilst others had a lack of understanding or interest in how such communities of practice could assist them, a lack of access to such communities and the inability to identify with other members in the community itself (2004: 26). In my study I found that some people had a lack of understanding of how the support, resources and COP that existed could help them and for this reason, they did not access such resources. I argue that with many, it was not just a lack of understanding, but a disempowerment that related to perceptions that they lacked credibility if they sought help. Lave and Wenger (1991: 121) support this argument when they speak of the need for a person to be accepted in a community.

2. Learning in a community of practice

Chapter 2 reflected on the theory of learning in a COP and reflected on the advantages and some disadvantages of learning in a COP. Information extracted from the interviews related

University of Cape Town

to the theory of learning in a COP. Whilst most interviewees found that their learning took place by talking to colleagues and sharing in a COP, one user, BF, found that it was not always as easy to pick up the phone and speak to a colleague because people were sometimes too busy to help or just did not understand what the issues at hand were. I had to reflect on why most people found the COP effective whilst this one user did not. I am of the view that communities of practice worked differently across different faculties, or even different departments and the data bears out this claim.

BF also shared an experience which highlighted what can sometimes be seen as a disadvantage of a COP. She illustrated an example of a time when she had a technological PeopleSoft problem and called a super user for help. She explained how the super user just "fixed" the problem but never explained to her what the problem actually was. In this instance, BF found herself more stifled or helpless because, although the problem "went away", she did not really understand what had been done or how it had been done. She feared that she would experience this problem again and would be none the wiser about how to fix the error. AP shared a similar experience in another area of work where she called on people for help and they chose to just "fix the problem". AP on the other hand did not mind this and was just happy that the problem was fixed. In her view she was just glad that the issue "went away". She justified her behaviour by explaining that she was too busy to get into the technicalities of what had actually gone wrong. She explained that if she found that she was faced with such a problem or error again, she would perhaps find ways of getting to the root of the problem, if she found the time to do so. At the analysis level, this highlighted the possible disadvantage of a COP where people help each other, but do not explain how they have solved an issue. I do not believe this is effective and argue that this possibly hinders the learning process more. Lave and Wenger (1991) would not refer to this example as a genuine COP. A COP, in the view of Lave and Wenger (1991), is one in which the learner may be the apprentice or not understand all aspects of the learning, yet still takes part in the learning process. I argue that "helping" someone by just doing the work for them without helping them understand is not really helpful and does not contribute to an effective COP. The data indicates that not all interviewees wanted to be participants in the community. I looked at the tacit forces that might have militated against

University of Cape Town

some wanting to be seen as participants and others being happy to have the problem "go away". COP theory helps us understand this theory in terms of participation and the fact that some people are happy just being on the periphery and never fully being part of the community (Lave and Wenger: 1991).

1. Legitimate peripheral participation

The words of SV were that she felt "like an outsider when she first came to UCT and heard all acronyms that she did not understand being used". This led me to reflect on the concept of legitimate peripheral participation. Lave and Wenger (1991: 14) describe the principle of legitimate peripheral participation as one where "the person participates in the actual practice of the expert but only to a limited degree and with limited responsibility for the product as a whole". Although SV did not understand the concept of legitimate peripheral participation (she did not know the theory but her description fitted the theory), the examples she related and her feelings were related to the concept.

I have chosen to use illustrative examples by looking at statements that interviewees made that I found interesting and relevant in relation to the theories of learning in a COP and NLS. Ten of the eleven respondents believed that the more one used or worked with the PeopleSoft terminology or functionality, the easier/more familiar it became. Interviewee BK spoke about high levels of customisation of the system and questioned why the institution did not customise terminology to make it more relevant to the South African context. She spoke about the immense amount of time "wasted" on trying to learn a new language and by language she meant the American terminology on the current system and she spoke about how this hindered her learning process. User BF experienced greatest difficulty because she felt that people at the institution "expected her to know the language" and spoke to her using acronyms that she was not familiar with. The implication was that insiders did not give BF the opportunity for legitimate peripheral participation, as peripheral participation seemed to be proscribed. When faced with instances like this she was

University of Cape Town

embarrassed to ask for clarification or an explanation of the terminology or language being used.

I found the issue of fear or embarrassment during learning a prevalent theme throughout the interview process. This fear and embarrassment of the users hindered their learning process, prevented them from asking clarity-seeking questions and prevented them from asking questions about things they did not understand. I deduced from these reactions that users needed to be able to feel free to ask questions without fear or ridicule or fear of being judged or called "stupid". I linked the feelings and behaviour of these interviewees to legitimate peripheral participation. When one speaks about legitimate peripheral participation, it denotes a "particular engagement of a learner who participates in the actual practice of an expert but only to a certain degree and with limited responsibility for the product as a whole" (Lave and Wenger, 1991: 14).

Similarly, user BK felt that her position as a senior member of staff made it difficult for her to ask for help, especially from junior members of staff, because users saw her as the super user or expert in the area and looked to her for help. In instances where BK experienced problems with her learning, she preferred to seek help from a colleague on the same pay class level as herself. This study focused on the learning of Professional Administrative Support Staff, better known as PASS staff. These staff were paid on different pay levels or fell into different pay classes, based on the level of the jobs they found themselves in. Users doing the similar jobs with the same/similar requirements generally found themselves on the same pay class. User BK felt uncomfortable asking a junior member of staff, or someone on a lower pay class for help. She attributed this embarrassment to the fact that people saw her as the senior staff member or super user in the department and this title came with the expectation from junior members of staff that due to her position and number of years at the institution she *had* to know certain things. Schön (1987: 23) argues that "problems are not always presented in a way where rational-technical approaches always fit". He further explains that "real world problems do not come well-formed but sometimes present themselves as messy and indeterminate and, knowing, in such situations is tacit and implicit

University of Cape Town

in the practitioners' patterns of actions and feel for what they are dealing with" (Schön, 1987: 24). It is evident from the interview with BK that she was uncomfortable with discussing problems and finding solutions with younger members of staff. According to Schön (1987: 27), it is through dialogue with people that a practitioner can understand the uniqueness and uncertainty of a situation and derive "reflection in action". It is acknowledged that the dialogue in question is not any kind of dialogue, but the dialogue has to be with someone who can provide expert or skilled opportunities for reflection or learning.

On the other hand, user MH found herself in the same managerial position as BK, where both ladies did similar work as a similar level although they worked in different departments. In the case of MH, she had no trouble asking junior members of staff for help – she actually found it easier to ask junior members of staff for help, if needed, as other super users were sometimes too busy or unavailable. Although both these staff members were at the same job level, I noted that the elder of the two found it harder asking junior members of staff for help whilst the younger staff member found no problem asking for help and was more open to asking for help from junior colleagues or subordinates. At the analytical level, it had to be ascertained whether the levels of seniority played a role in the ability for users to ask for help i.e. was it harder to ask for help if a person was older to the institution and thereby "expected to know" certain things or was it easier for a person new to the environment or institution to ask for help. SW mentioned that she had no problem asking for help because she was new and she found that people were more willing to help her due to her being new to the system.

From the interview data I also gathered that the younger people found it easier to learn new things, understand concepts, remember what they had learnt and ask for help when required. One had to also look at whether this was just a case of different personality types in that one person may have just found it easier to ask for help than the other. It appeared though that older users felt more comfortable asking people who were the same age as themselves or in a similar job for help. One user, PP, mentioned that she did this especially

University of Cape Town

because she was known as the super user and therefore felt that she could not ask subordinates for help. It appeared that this may have been a factor in how people sought help in their learning process. At the analysis level I argue that users like BK did not ask for help, not because they were managers, but because they felt a sense of responsibility and a sense that they should know everything and should not ask for help. A user like PP experienced difficulty asking for help as she was seen as a senior staff member and expert and if one is seen as the expert, this can make it difficult for them to ask for help when such is required. COP theory tells us that legitimate peripheral participation requires certain systemic/cultural affordances to be in place – people must feel that peripheral participation is legitimised. If not, they will seek to present themselves as experts or avoid situations where they might be seen as inexpert. The above theory helped me understand that these were the reasons users like BK and PP had difficulty asking for help.

The age groups of the users varied from twenty-three to sixty-four. I reflected on whether the ages of the users played a factor in the learning process, the kind of problems users experienced in learning and their ability to seek help from other colleagues. It appeared that age played a factor in the learning processes of users. BF explained how learning something new took her a great deal more time than it used to when she was younger. She gave further examples of work she did on PeopleSoft only once or twice a year and explained how she often forgot everything she had learnt in a previous cycle by the time she got to the new cycle and then had to go to training or read manuals to relearn these processes. However, seven of the eleven respondents, young and old, admitted that they had to work on a function very often in order to master a process and they all "forgot" about functionality or how to use certain processes if they did not use them all the time. The COP theory teaches us that age can be perceived as a negative or positive trait in the sense that the elder person can be seen as a novice or an expert. A user like BK for instance felt that her age and number of years in the job meant that she should be an expert and she felt that people perceived her as an expert and this affected her learning process. The contextual demands of this workplace suggest that people can be "novice" sometimes and "expert" other times. Some appear to feel that age is not necessarily synonymous with expertise. I argue that the COP theory tells us that perceiving peripheral participation as

University of Cape Town

'legitimate' is a combination of individual's perception and the contextual 'signals' that legitimise or de-legitimise peripheral participation.

2. Tacit knowledge

In the interviews, users were asked to reflect on their learning and explain how they had learnt to use certain functionality in PeopleSoft or how they learnt something new. One user was unable to answer this question at all as she felt that she never thought about it. SW explained that "sometimes she did something and did not even realise she was doing it, or could not explain how she had learnt it". When asked the same question, RH explained that she had picked up things along the way without even realising it. She found it hard to explain how she learnt things that became a part of her daily work. Schön (1996: 19) calls this "knowing" tacit knowledge and explains that people learn new things every day, sometimes without even realising that they have learnt. It was evident that these learners were able to perform their duties and knew what they were doing in most instances, yet they were unable to explain how they did something or how they had learnt it. This conclusion that I drew has implications for COP, in the sense that tacit knowledge at UCT is used as a 'lever' to maintain 'in-groups' and 'out-groups' and the data clearly reveals this dynamic.

University of Cape Town

3. Learning from the younger generation

Whilst the manner in which people learnt as well as the kinds of people and tools they used in their learning differed, three interviewees shared a common trend in that they learnt new things and new ways of using technology from their own children or from the university students they came into contact with. AP shared her experience of coming into a job having very little experience working with Microsoft Excel, but she found the students most helpful as they shared Microsoft Excel tips and tricks with her and assisted her with the computer programmes. She found this kind of interaction invaluable and used all the tools she learnt from the students in order to do her work better. AP found that students were "very quick

and sharp" and that they understood technology so much better and preferred to use them as a source of assistance.

SV shared her experience of learning from her teenage children. She described her experience of having started work at a time when computers did not exist. Having taken a long absence from work after the birth of her children, she found re-entry into the workforce difficult due to the rapid advancement of technology. She managed to learn to work with computers, but only because she felt forced to and had no other choice. She believed that her approach to learning technology i.e. learning something only because she had to, affected her and hindered her learning process. She felt that she could have learnt more had she not displayed such a negative attitude towards technology. SV also described the positive aspects of her learning process where her teenage children taught her about technology. She described how learning new things took her a longer amount of time and compared herself to her teenage children to whom she felt "working with such technology came naturally". Although SV sometimes felt "almost silly" that her children knew so much more than she did when it came to technology, she emphasised that there was a spirit of sharing in her home and her children were non-judgemental when she took longer to learn something or found something more complex or difficult than they did. This spirit of sharing in her home helped her do her PeopleSoft work better. The evidence from this interview emphasises that SV preferred to seek help in an environment where she was comfortable.

University of Cape Town

Perry (2010) describes the concept of "brokering" and explains how a Sudanese refugee family used their children to help them develop literary practices. In my study, it was clearly evident that users like AP and SV used children (either their own or students) as literacy brokers. This proved very effective in their learning process and they were comfortable learning from the children and could then apply what they had learnt to their work on PeopleSoft. I found the information about how people learnt within families or from their children very relevant in this study because it answered questions I raised about why people did not want to access formal sources of assistance more often than they did, although such

were available to them. I deduced from the interviewees that they were afraid of how people perceived them when they asked questions i.e. that people would think they were stupid or incompetent. Therefore they preferred to learn in spaces that were comfortable for them and some felt most comfortable learning from their families.

4. The learning environment

Seven users spoke about the importance of the learning environment. In many cases I had to clarify if they were talking about the environment in which they were trained on how to use new functionality or the environment in which they worked and where learning continued. In most instances interviewees were referring to the offices in which they worked when they spoke of the learning environment. Two users BK and RH spoke about the most conducive training environment for themselves – both preferred one-on-one training, as opposed to learning in a group. Their reasons for such preferences were that they felt they received the attention they needed and did not feel intimidated by other people. Interviewee PP found it very difficult to learn in an environment where some people dominated the trainer's time by dominating the questions and training time. At the analysis level it was clear to me that "a one size fits all" training model would not work due to different personalities and different training needs. The different learning needs of the interviewees meant that they required different kinds of training in order for effective learning to take place. I argue that as with socially situated learning, the environment should adapt to the needs of the user.

Interviewee PP was the only interviewee who mentioned that her learning was affected by the person who taught her. She looked at the skills and knowledge of the person and found that if the person teaching her the concept or functionality was less-skilled, or not knowledgeable on the subject, she "automatically switched off" and this hindered her learning process. Considering the fact that PP was the only user who mentioned this factor, the fact that she was a senior member of staff who had been around for a number of years and the fact that she mentioned that she was an independent learner who did not like

University of Cape Town

asking for help, I had to deduce that these may have been her feelings due to her personality. The view of PP was ironic in the sense that she viewed the teacher as inexpert. NLS theory highlights the importance of the teacher being viewed as credible in the learning process and Breier and Sait (1996) showed how the teacher's expertise impacted on the learning process.

University of Cape Town

Chapter 5: Recommendations and conclusions

1. Introduction

This chapter provides the conclusions of the study and various recommendations made in response to the analysis of the data and interpretation of the results presented in the previous chapters.

2. Re-visiting the study

The purpose of the study was to understand the literacy practices of administrative staff at UCT that used the PeopleSoft system, in order to understand more about their acquisition of learning and literacy. The study sought to achieve the following objectives:

- How people went about learning something new – it sought to understand whether people learnt new functionality by drawing on prior or existing knowledge and how they drew on such knowledge if and when necessary
- The challenges faced by users during their learning process and sources they looked to in order to deal with these challenges
- The role that literacy mediators played at the institution and the levels to which they assisted users in the learning process.

University of Cape Town

3. Summary of the findings

Based on the theoretical and empirical research done for this study, the following information can be summarised:

- The UCT "language" was very difficult for a new staff member to engage with. Interviewees were clear that they were not talking about language as Discourse but the UCT acronyms and abbreviations that could be very difficult for an outsider or person on the periphery to understand or engage with.

- Prior knowledge, examples of which were cited in Chapter 4, that interviewees brought to the UCT workplace, was invaluable in shaping their skills and job functions they found themselves in and it was important to these employees that such prior knowledge be acknowledged and used as a foundation for future learning.
- At least every staff member had experienced some problem or challenge e.g. understanding the PeopleSoft language, why they did certain things on the system or how to deal with error messages during their learning process that they had to overcome and the use of literacy mediators was integral in helping them during the learning process.
- Interviewees sometimes found concepts and functionality simple but at other times they struggled with language and functionality and had to "manage" or find coping strategies.
- The COP for PeopleSoft users was evident at UCT and whilst such a community could be highly advantageous in terms of the purpose it served, there were also disadvantages in terms of colleagues who "helped" interviewees, but did not explain how they were helping or what the solution/resolution was. There seemed to be a putative or espoused COP – with its systems, help mechanisms and support structures – and a 'real' COP – with its 'hidden' understandings about how the systems worked and what behaviour or help-seeking was legitimised or valorised.
- Interviewees sometimes felt like they were on the periphery in terms of whether they belonged to the COP or not. It appeared that they felt marginalised when they assumed their credibility was at risk – or when they believed they were assumed to know something, on the basis of age or apparent experience, or when they felt others believed them to know something or ought to know something.
- The tacit knowledge of interviewees was evident in that they had been using functions and completing tasks without even realising it and they only reflected on these tasks when asked to think about the learning that had been taking place. Tacit knowledge of some users (super users) sometimes appeared to be deliberately withheld and some forms of tacit knowledge e.g. who interviewees interacted with and times when it was legitimate to ask questions or seek help, were never made explicit.

University of Cape Town

- Children, the youth and the younger generation played a vital role in this COP in the sense that interviewees learnt through their own children, through university students that they interacted with and other young people they came into contact with in their lives and they believed that this helped them do their work on PeopleSoft better.

4. Conclusions

The study accomplished its intention of understanding the literacy practices – within two broad theoretical frameworks – of administrative staff at the institution by understanding the learning process of these individuals when using or learning functionality on the PeopleSoft system. Based on the information gathered by interviews and the analysis of this data, the conclusions that I made were based on the principles of what makes an effective and sustainable COP and how to encourage continued learning and participation in communities of practice. The following could be concluded about the learning that takes place at the institution:

University of Cape Town

1. The value of prior knowledge

The findings in Prinsloo and Kell (1999) and Breier and Sait (1996) conclude that the prior knowledge that a user brings to the workplace is invaluable, cannot be ignored and must be used as a foundation for further learning, rather than be cast aside. The Breier and Sait (1996) study, for example defined prior knowledge of employees at a Cape factory as that knowledge that they had picked up in previous jobs e.g. learning how to work on the textile machines and applying that knowledge of how to get the machines working if they jammed, their jobs that they occupied at the factory during the study. The findings in this study were no different from that of Prinsloo and Kell (1999) and Breier and Sait (1996) in that the interviewees considered the prior knowledge that they brought to the workplace as invaluable. The information gathered from my research was also clear in that users found that the prior knowledge that they brought to the UCT context, even if they came from different business environments, directed their learning positively and served as a basis or

foundation for their learning. The kinds of prior knowledge identified by the users as useful in directing their work and learning process at UCT were primarily computer skills and customer-relations skills in terms of dealing with difficult people and difficult situations. The majority of interviewees felt a sense of demotivation when they were not asked about prior knowledge or skills that they brought to the workplace, as they felt that such prior knowledge was not valued. From the information gained in the interviews, I conclude that participants believed that prior knowledge was important to them but they never experienced an environment in which prior knowledge was either eschewed or directly or indirectly 'censured'. I further conclude that prior knowledge appeared to sometimes be devalued or assumed to work against legitimating their experience and practice at this institution.

University of Cape Town

2. The value of literacy mediators in the learning process

Research within the NLS paradigm has shown that literacy mediators can play an invaluable role in communities and in assisting individuals during the learning process. The role that the literacy mediators, known as super users, play at UCT in terms of supporting colleagues suggests that they might be espoused as literacy mediators, but they sometimes operate as high-handed. These people act as the literacy mediators at the institution in the sense that they hold knowledge and share this knowledge with other users. Almost every administrator interviewed indicated that they obtained assistance from super users, in some way or the other, when faced with challenges in using technology, or simply doing their work. The kinds of knowledge and experience of super users varied and the kind of support they offered also varied as a result. There was also some resistance from certain administrators who were not willing to utilise the advice and knowledge of super users due to various reasons as discussed in Chapter 4. The resistance was mainly related to a perception of super users who were seen as unapproachable or "closed personalities". Whilst this study helped me understand the value of literacy mediators in a community, it also made me realise that whilst literacy mediators may be available to assist within a community, they may not be approached by people who may need their assistance, due to the way they are perceived by the people seeking help during their learning process. I also

conclude that the systemic valuing of some users as super users was contradicted by the perception that they were unapproachable. This helped me offer a more nuanced interpretation of the role of super users as literacy mediators.

3. Attributes that make an effective community of practice

It was evident that the PeopleSoft users at UCT, together with their super users, formed a COP. Whilst this COP was quite successful in many instances and served to assist users in their learning process, there was evidence that the kind of assistance sometimes offered was inappropriate. There were instances where super users, or members within the COP, assisted fellow colleagues with the challenges they faced in the learning process, but the kind of assistance that was offered was not sustainable e.g. if a user experienced a problem or error when using the PeopleSoft system, a colleague would help to "get rid" of the problem but would not explain what they had done to resolve the error. This then meant that the next time the interviewee experienced the same problem they had to ask for help again as they had not been taught how to resolve the problems themselves. This kind of assistance, in my opinion, is negative and not conducive to effective learning. I argue that people learn best in a COP if they are assisted in a positive manner within their community i.e. taught the principles of self-help so that work is not just done for them, but so that they are assisted through the learning process. I argue that the issue of critical reflection becomes key in situations like the ones cited by interviewees above. For Brookfield, "hegemonic assumptions" are assumptions that relate to how power is either explicitly or implicitly distributed in a community and how this power serves the dominant player, which in this case I argue is the institution. Therefore, the community may afford super users visible or hidden power that either enables them to be helpful or obstructive/destructive. In my data, some interviewees appear to afford power to super users which 'disables' these users from seeking help. The users are arguably more comfortable with seeking help from their peers as power is perceived to be more equally distributed there.

University of Cape Town

4. Legitimate peripheral participation – but still an "outsider"

The concept of legitimate peripheral participation was discussed in Chapter 4 and defined by Lave and Wenger (1991: 14) as "the person who participates in the actual practice of the expert but only to a limited degree and with limited responsibility for the product as a whole". It was also evident that whilst interviewees, during their learning process did participate to an extent in the actual practice, many struggled with the UCT "language", acronyms, structure and ways of doing things. The fact that this "language" was new to them and that they did not always understand it meant that they sometimes felt like outsiders, although they were a part of the UCT learning community and were participating in this COP. According to Snyder and Wenger (2010: 7), there is a need "to develop the capacity and retain knowledge and organisations must understand the processes by which these learning communities evolve and interact". Snyder and Wenger (2010: 7) emphasise the need to build technological and organizational infrastructures and to recognize, support and leverage processes, rather that dismiss or impede them. Snyder and Wenger (2010: 7) write that it is important that knowledge is developed at the 'core' and interaction happens at the 'boundaries' and this is how communities are built. In my study people at the core did not always feels like they belonged to the community or were a part of the learning process and according to Snyder and Wenger (2010: 7), whilst the core may be the centre of the of the expertise, radically new insights often arise at the boundary between communities and the people on the boundary or periphery should therefore have a sense that they 'belong' to the community in order for the community to be successful. I took the perception of the interviewees at UCT into account as well as the emphasis that Snyder and Wenger (2010: 7) place on the importance of all members of the COP having a sense of belonging. In my view, legitimate peripheral participation in PeopleSoft is tacitly disdained. This helps us understand why users seek to appear credible, knowledgeable and expert rather than ignorant and helpless.

University of Cape Town

5. Who should 'maintain' the community of practice?

From the information extracted from the interviews, it is clearly evident that literacy mediators play a vital role at the institution. It is also evident that whilst the current COP does have benefits and has been of value to the employees during their learning process, there is still work needed in terms of preserving, nurturing and improving the COP that currently exists. This raises the question about who should maintain and nurture the COP. From the interview data gathered from interviewees during their reflection on their own learning process, it was evident that the community that exists for PeopleSoft users at UCT is indeed a COP. There was also evidence that this COP could be improved on in terms of making all members or participants feel included but it was not clear who should be responsible for the maintenance of this community. I had to wonder whether it was in the interest of the institution to keep people as outsiders. Breier and Sait (1996) argue that the manager in the organisation should play a role in maintaining the community or practice. According to Snyder and Wenger (2010: 8), organisations can legitimize such communities by giving them recognition, allowing members to engage with the communities and acknowledging the value that such communities bring.

University of Cape Town

5. Limitations of the study

Whilst the above findings have been made during this research study, one has to acknowledge that there have been limitations in this study that could have affected the responses of interviewees as they reflected on their learning process. The main limitation, in my view, was that this study concentrated only on the learning process of users of the PeopleSoft system and the focus of the learning was only on how interviewees learnt the PeopleSoft system. The study did not focus on the learning process of the interviewees who also used other systems besides PeopleSoft. Although there were limitations in the study, these limitations are balanced against the value of understanding the UCT community of practice, what makes for effective learning at this institution and ways in which to enhance the community and these were very important contributions to the study

6. Recommendations for further research

There were limitations in this study and only a sample of the PeopleSoft users was interviewed. Whilst this study looked at the learning process of users at UCT during their use of the PeopleSoft system, the issue of gender in the learning process, how gender can serve as a limitation or advantage during the learning process and the differences in learning between males and females was not explored. I recommend that a further research study taking the latter factors into account, be considered.

Another limitation of this study was that it concentrated solely on the theoretical frameworks of NLS and learning in a COP. I recommend that further research on the learning process of adults be conducted using different theoretical frameworks.

The focus of this research was on the learning process of adults when learning a new technology. There was no reference or comparison to the learning of students or children. A possible area for further research would be that of how children learn a new technology. I believe this would be interesting as it would provide a comparison to this study that looks at the learning process of adults.

University of Cape Town

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University of Cape Town