

**CHALLENGES FACED BY STAFF MEMBERS IN INFORMATION  
AND COMMUNICATION TECHNOLOGY TRAINING AT A PUBLIC  
UNIVERSITY IN THE EASTERN CAPE**

by

**NOMNQOPHISO PRUDENCIA CEZA**

Student number: 619-974-7

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SUPERVISOR: DR G VAN DEN BERG

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Student number: 619-974-7

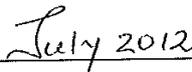
**DECLARATION**

I declare that the **CHALLENGES FACED BY STAFF MEMBERS IN INFORMATION AND COMMUNICATION TECHNOLOGY TRAINING AT A PUBLIC UNIVERSITY IN THE EASTERN CAPE** is my own work and that the sources that I have used for referencing have been acknowledged and indicated by means of references.



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Signature



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Date

DEDICATION

*This dissertation is dedicated to*

*MY MOTHER -*

*Mrs LYDIA (Dala) MTSHIZA*

*And*

*MY FORMER SUPERVISOR -*

*THE LATE*

*DR CHRIS LE ROUX*

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## **CHALLENGES FACED BY STAFF MEMBERS IN INFORMATION AND COMMUNICATION TECHNOLOGY TRAINING IN A PUBLIC UNIVERSITY IN THE EASTERN CAPE.**

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DEGREE : MASTERS OF EDUCATION – WITH SPECIALIZATION IN ADULT EDUCATION

SUPERVISOR : Dr Van den Berg

### **ABSTRACT**

The introduction of e-learning in teaching and learning has necessitated the training of staff members in Information and Communication Technology (ICT). This study focuses on the challenges that staff members, who are the facilitators of learning, experience when undergoing training in ICT. The research design employed a qualitative methodology which involved focus groups from a public university. Data was collected from the participants through semi-structured interviews. The findings indicate that the challenges that staff members experienced during ICT training are related to a lack of computer competence, lack of time, an information overload, the non-involvement of staff in the planning of their training, facilitation limitations, lack of technical support and institutional challenges that involve infrastructure. The study further revealed that the principles of adult learning play a reciprocal role in the staff's professional developmental challenges. In view of these findings, this study offers recommendations for improving the ICT training of staff members.

### **Key terms:**

Information and Communication Technology (ICT); e-learning; adult learners; facilitators of learning; staff members; self-directed learning; technophobia; constructivism; e-learning specialists and professional development.

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# CHAPTER 1

## INTRODUCTION AND OVERVIEW

### 1.1 INTRODUCTION

The twenty-first century is characterized by the rapid development of technology and technological advances which impact every area of life. These technocratic changes are affecting every sector of life. They necessitate the training and re-training of the workforce and this is seen, by Elman and O'Rand (1998: 128), as an attempt to maintain an occupational advantage. Bassi, Cheney and Lewis (1998: 51) state that workplace learning is significantly more strategic to enhancing the competitive advantage of both the employer and the employee.

The rapid development of technology has resulted in its introduction to teaching and learning as well. This introduction of ICT in education is in line with UNESCO's policy paper for change and development in Higher Education which encourages Higher Education Institutions to take advantage of technology so as to improve the provision and quality of education (Chitanana, Makaza & Madzima 2008: 1). Selwyn (2003: 4) states that Information and Communication Technology (ICT) has been viewed as having profound and far reaching implications in which to achieve the aims of the learning societies. Selwyn (2007: 83) thus writes about the potential of computer technologies, which are revolutionizing university teaching, as being celebrated by education technologists. Higher Education Institutions around the world are turning to the use of ICT in learning which is referred to as electronic learning and commonly known as e-learning.

Electronic learning, through computers and especially through the World Wide Web, has "opened up a world of learning at a relatively inexpensive delivery cost" (Ascough 2002: 18). Delamonica, Mehrotra and Vandemoortele (in Gunga & Ricketts 2007: 901) refer to governments and educational institutions as looking at "e-learning as an option that can be exploited to achieve the important millennium goal, which is 'education for all'". E-learning could be considered as having extended the learning parameters in education. It extends teaching and learning beyond the traditional classroom and, consequently, beyond being teacher-centred. The traditional classroom is replaced by the virtual classroom which is not limited by time and space.

Through the use of ICT in teaching and learning, facilitators of learning are expected to transmit their teaching through the use of the internet. They are also expected to interact with students through the use of questions and answers, submission and marking of assignments via the same medium. Facilitators can require that individual students create their profiles which would include their pictures, on their course web page; this encourages an improved student-teacher relationship, as the facilitator gets to know the different individuals better and vice versa. This form of interaction encourages social interaction amongst students and between educators and students, whilst learning is also taking place. This is often rare in a conventional classroom situation as some students are too shy to talk in front of others. Novak (in Lofstrom & Nevgi 2007:315) refers to this constructive integration of thinking, emotions and action as leading to empowerment, commitment and responsibility which constitute the core of meaningful learning. In e-learning no student can be a passive learner, as social constructivism is encouraged through discussion forums and other communities of collaborative learning as directed by the trained e-learning facilitator.

The introduction of ICT in teaching and learning, incidentally, also means that lecturers and other learning facilitators have to be trained in it either as first time users or to be updated so as to keep up with technological prescriptions of learning and teaching. The training of staff members as first time users of ICT is also meant to empower them in technology use before they can use it for imparting knowledge to the students who tend to be more technologically inclined.

The type of students who attend university currently are students who, in some cases, grew up in the era of remote controlled televisions and have mobile phones. They can download music into their phones, are able to chat with many friends at once through the phone message social network like M-xit, are internet users and can share ideas through global social networks like Twitter, Facebook et cetera. They are the typical 'digital natives'. Most of the operations that are mentioned above are a marvel and unknown to many adults who, as the facilitators of learning, have to teach students by using e-learning as a medium of instruction.

The staff members are expected to implement e-learning and to guide and assist those students who might find themselves challenged in following instructions. Within this context of teaching, it implies that all facilitators of teaching and learning are expected to navigate through such mediums by uploading tasks, assignments and tests, as well as marking them through the

same medium and supplying feedback. In addition, all this has to be done in such a manner that each student's shortcomings are addressed without the others knowing about it, unless what is addressed is common to all. This, therefore, justifies the necessity of intensive training for all facilitators of learning before e-learning can be introduced.

When referring to the training of staff members in the workplace, what is actually meant is that they become adult learners. Adults as learners have their own characteristics which are different from those of the young learners because, unlike the young ones, they come to class being more goal-oriented together with a lot of experience of life in general and knowledge of specific learning topics in particular. There are many assumptions that are often attached to adult learning and more especially to their learning of technology. Czaja and Lee (2003: 422) refer to this cohort as being generally able to use computers for routine tasks and to learn a variety of computer applications, but point out that they are typically slower to acquire computer skills than younger adults and generally require more help and "hands on" practice. Enuke and Ojogwu (2006: 193), however, state that although some lifelong learners might be interested in ICT, others tend to fear the change of routine, they also fear being left behind or being replaced by the more competent ones. Selwyn (2003: 8), in writing about the "emerging limitations of ICT in adult education", states that "...there is a host of caveats, drawbacks and unresolved problems which tend to be ignored or summarily dismissed by proponents of e-learning".

The staff members seem to be under pressure to make use of technology to execute effective teaching and learning. Whilst few of them use the basic ICT systems like PowerPoint and Microsoft Word in their teaching, the demand for and fast pace of technology now requires everyone to use internet technology in teaching. The advent of e-learning is not supposed to pose a threat to the staff member's competency, if efficient teaching has to take place. Whilst the advent of e-learning might appear to threaten to displace the older educators as compared to their younger counterparts, such fears of redundancy and not being able to learn new things should be allayed during training for many reasons. In my opinion, e-learning can never replace face-to-face teaching, so blended learning should ideally be the order of the day. The years of experience of adult educators, as having been trained in pedagogy, can never be discarded because of or replaced by the advent of technology, but the two can be used to enhance each other.

Keogh (2001: 4) argues that the successful adoption of ICTs in education requires a receptive environment and that such an environment is not limited to the finances and infrastructure of the place, but the attitudes, perceptions as well as personal profiles of the end-users. The literature on ICT and adult learners continually refers to what is termed the “digital divide” which is explained as not growing up with technology; this is often cited as a challenge in adult ICT education (Taylor & Rose 2005: 4). Otani (2003: 1) refers to a digital divide as the unequal access to digital and network resources which can be attributed to economic, social and cultural issues. Otani (2003:1) further refers to such issues as relating to age, income, education, gender, ethnic group as well as physical handicap.

Bullen (2008: 130) refers to data from one study which suggests that many adults are simply not interested in ICT-based activities and therefore choose not to engage in it, even though they have the capacity to do so. This could be aligned to what Selwyn (2003: 10) termed “digital choice” as he referred to a significant proportion of adults who choose not to engage with ICT or ICT-based education, not because of barriers in access or cost, but due to their lack of interest. The research mentioned above seems to point to the attitudes of adult learners as the determinants of their interest or non-interest in ICT.

In a survey conducted by Taylor and Rose (2005: 4) the potential barriers of adult learners to ICT were identified as:

- Age related barriers, like print size, changing focus from screen to keyboard and pace
- Computer terminology
- Cohort being self-directed and independent and not comfortable with teacher-structured training programme
- Digital divide – not growing up with technology, and
- Lack of recognition of prior experience (which is usually minimal) – affecting their self esteem.

Rogers (2003: 243) writes that sometimes there is no great range of existing knowledge to hamper new learning in adult education. He, however, argues that there are factors that influence this, such as negative self-concept, personality traits and emotional variables. He concludes that the most important and most common of these, and especially for adults, is

anxiety. Rogers (2007: 11) states that anxiety is brought by the need to learn a new skill as the person starts to think: 'Can I cope?' According to Cerny (in Van Ryneveld 1998: 54), mature learners will not participate in learning if they are afraid and if their fears and uncertainties are not addressed. Van Ryneveld (1998: 54) further writes that adult learners have a deep seated fear of technologically advanced learning applications. Taylor and Rose (2005: 7) also add the fear of technology to the barriers encountered by adults of ICT learning, according to the findings of their research.

Rogers (2003: 244) states that the change from a task-focused learning situation to a learning-focused situation is enough to create anxiety in adult learners as they tend to worry about whether they can cope or not. Rogers (2003: 245) further argues that such anxiety may be expressed in a number of ways which tend to include 'fight' or 'flight' attempts to avoid the testing situation by either absenting themselves emotionally or physically. It is situations that involve criticism, poor evaluations as well as signs of disapproval which Rogers (2003: 245) refers to as the 'chain-anxiety-producing sequence' that tend to increase anxiety in adult learning. This anxiety can be a sign of feeling incompetent. Fimian and Santoro (in Adams 1999: 10) state that the rapid changes in the world as well as in technologies are responsible for causing stress among teachers as they feel incompetent due to their inability to always remain current and up-to-date in their areas of expertise.

The literature on the subject reveals that staff members, as adult learners,

- experience a 'digital divide' when exposed to computer learning;
- do, however, have a 'digital choice' which is not determined by exposure to technology;
- are self-directed and would like expression in their training programme;
- have a deep seated fear of technology;
- are a group whose learning is characterized by anxiety, as they fear failure and ridicule;
- experience anxiety and stress associated with learning to use new technologies and keeping up with their rapid-changing pace;
- will not participate in learning if their fears and anxieties are not adequately dealt with.

This study intends to investigate the challenges that adults encounter in their ICT training in the workplace. The focus will be on a group of staff members at Walter Sisulu University (WSU), which is situated in the rural Eastern Cape.

### **1.1.1 Background and context of the research problem**

Walter Sisulu University (WSU), where this study has been conducted, is situated in the Eastern Cape Province of South Africa. The institution is a comprehensive university which was established in 2005. It came from the merger of two technikons (former Border Technikon and former Eastern Cape Technikon) and one university (former University of Transkei). The university has four campuses and nine delivery of learning sites which are spread over a large part of the Eastern Cape.

WSU hosts the Centre for Learning and Teaching Development (CLTD), which has formed links with the Netherlands Programme for the Institutional Strengthening of Post-secondary Education and Training Capacity (NPT). The collaboration area between the CLTD and the NPT is the introduction of e-learning to Walter Sisulu University's teaching and learning. This project is called the Nuffic Project. According to the NPT Project Document, the goal of the project is to strengthen the capacity of staff and management of CLTD and Science, Engineering and Technology (SET) to develop and offer responsive academic programmes (NPT-ZAF-237 2007:3). The document further states as one of the project's specific objectives that the managerial and academic staff of the Faculty of Science and Engineering Technology (FSET), through the assistance of CLTD, will be able to strengthen the programmes by applying the use of updated content together with innovative approaches and applications (e.g. ICT based) in teaching and learning (NPT – ZAF-237 2007: 8).

According to the project's needs analysis document it is stated that there is still a substantial group of WSU staff members who do not have regular access to computers, have low computer literacy, do not use e-mail and when provided with an ICT training course, do not finish it (Deinum 2008: 8).

The researcher seeks to identify the challenges which the staff members experience in their learning of ICT. The researcher is also keen to see if there is interplay between the

assumptions of adult learning during training and how these affect the staff members' training in ICT. Knowing their challenges and addressing them will help the university in terms of the money invested in it, as well as the funders of the project. It will serve as a return on investment.

### **1.1.2 Relevance and importance of the research**

This research is relevant because its findings will help to improve the facilitation of ICT training for the rest of the untrained staff members within the university as well as other sectors that intend to engage in ICT professional development. The South African Department of Basic Education is also engaged in a laptop initiative for high school educators as part of improving delivery and this research could shed light on the challenges that educators, as adult learners, could face in ICT training.

The subject of interest in this topic is that of an adult learner who operates as a professional in an adult learning context. The research findings will assist in introducing the e-learning specialists, who are responsible for training university staff members in ICT, to the assumptions of adult learning for the purpose of future training. The research could also help e-learning specialists to contribute towards the literature on ICT and adult learning.

The importance of this study is that it will add to the research on adult learning and ICT. The knowledge of the challenges of WSU staff members during training will inform the planning and execution of the programme for further ICT training. The staff members' responses to the interviews could assist anyone who might want to conduct action research based on the findings.

## **1.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS**

The classroom experience is moving away from being a traditional chalk and board experience. The introduction of technology to teaching and learning is opening other avenues in teaching methodology; this requires that both the facilitator of learning and the student learn to use, and become competent in, ICT.

It is envisaged that when new methodologies in the facilitation of learning are presented there would be a significant amount of enthusiasm to explore these methods, for the purpose of enhancing the learning experience. The researcher is concerned about the Nuffic project's needs analysis survey which states that some staff members at WSU do not use email; this is especially worrisome if one considers the fact that e-learning would not materialize without the use of such a medium. The second concern is that when staff members are provided with training on ICT, they do not finish the course. The third concern is that staff members who have finished their training do not start to implement e-learning in class and, in casual conversations, they often refer to the challenges they had experienced during training. Those who did not start implementing reckoned that if they could be exposed to training again they might be able to employ the methodology. This research was designed to investigate the challenges that the educators experienced during ICT training for the introduction of e-learning.

The focus of this investigation will be on the following main research question:

- What challenges do staff members at WSU face during ICT training?

These sub-questions follow:

- Is there interplay between the assumptions of adult learning and the training of staff members in ICT?
- Does learning new technologies cause anxiety amongst adult learners?
- How can trainers be assisted in order to train adult learners more effectively in ICT?

This research will focus on the challenges that staff members experience during ICT training. The focus of this investigation is on staff members of a public university, but it may be applicable to other adult learners in any other sector.

### **1.3 AIM OF THE RESEARCH**

The following are the aims of this investigation:

- To investigate the challenges that the educators, as adult learners, face when they are trained in ICT.

- To determine whether the assumptions of adult learning have an influence on staff members during ICT training.
- To determine reasons why adult learners become anxious when using new technologies.
- To provide guidelines on effective ICT training.

The findings of this research will assist whoever will be training adult learners to know the challenges that adult learners are likely to encounter during ICT training and thus design the training schedule to accommodate these challenges.

The next section will focus on the definition of terms that will be used throughout this research. Their definitions are based on the context of this study

## **1.4 DEFINITION OF TERMS IN THE CONTEXT OF THIS STUDY**

### **Adult learners**

Adult learners can be described as adults who find themselves in a complex world and multiplicity of situations which involve one being a family person, a career person, a social person, a person who is part of the economy and happens to be studying as well (Crous, Roets, Dicker & Sonnekus 2000: 4). The learning of adult learners is often determined by their life context which includes time, place, occupational, social and family factors (Zmeyov 1998: 106). In the context of the current study adult learners are the staff members who had to learn to use ICT in order to gain an occupational advantage.

### **Information Communication Technology (ICT)**

ICT in learning is described by Grace and Kenny (in Unwin 2002: 14) as not just the use of computers and the internet, but the use of technologies to deliver a diversity of learning solutions. Demirbilek (2009: 4) defines ICT as the "...forms of technology that are used to process, store, transmit, communicate, create, share or exchange information..." In this study ICT training has been used interchangeably with e-learning training.

## **E-Learning**

Keogh (2001: 2) defines e-learning as a learning experience that is delivered by electronic technology. In this research, e-learning also refers to a method of instruction where students interact with the facilitators of learning through electronic media.

## **e-Learning specialists**

In this research, the facilitators who have been appointed by the university (WSU) to train other staff members on ICT and e-learning are referred to as e-learning specialists.

## **Facilitators of learning**

The term “facilitators of learning” has been used in this research interchangeably with the term educators. These are the staff members who are responsible for various types of teaching of students, ranging from classroom to laboratory and library teaching. They range from faculty lecturers to staff members from all disciplines like the library staff, the writing and reading centre, as well as the peer assisted learning coordinators. The writing and reading centres at WSU assist students with academic writing skills and the peer assisted learning section engages senior students in assisting the first- year students when they experience difficulties in their courses, during teaching and learning.

## **Digital divide**

Otani (2003: 1) defines the digital divide as referring to generally unequal access to digital and network resources. Otani relates this gap to age, income, education, gender and physical handicap. In this research, the term will be used to refer to an age gap, that is, to those born before the digital technology era.

## **Technophobia**

Enuku and Ojogwu (2006: 193) refer to the fear of ICT by using terms such as “technophobia”, “cyberphobia”, “computer anxiety” and “technostress”.

## **Constructivism**

Constructivism is a theory which maintains that knowledge is obtained through the active involvement of an individual by structuring and restructuring the learning experience (Spigner-Littles & Anderson 1999: 203). Vygotsky proposed that learners can “learn actively and

construct new knowledge based on their prior knowledge”; his emphasis was on the social context of learning (Huang: 2002:28-29).

### **Self-directed learners**

Adult learners are referred to as learners who resume learning for a special purpose and who, as a result, do not like to be reduced to the role of children (Lee 1998; 50). As purposeful learners, when experiencing disequilibrium in learning, they take it upon themselves to reinstate it at a higher level so as to conquer their ignorance (Sutherland 1999: 287). The self-directedness of adult learners involves the self-motivated search for knowledge that is aimed at their betterment.

## **1.5. RESEARCH DESIGN AND METHODS**

### **1.5.1 Research design**

This study, as an investigation into the challenges faced by facilitators of learning in their ICT training, has followed the qualitative and interpretive research approach. The qualitative research method was used in this study because it focuses on the “...shared social experience that is interpreted by individuals” (McMillan & Schumacher 2006: 315). The approach was chosen because the researcher aimed to get the information from the individuals that had participated in the ICT training. As an interpretive approach, it involved taking the people’s subjective experience and making sense of it by interacting and listening carefully to their responses (Terre Blanche, Durrheim & Painter 2006: 273-274).

The design consisted of planning a method of sampling, the data collection which was done on an interactive level, as well as data analysis.

### **1.5.2 Sampling procedure**

The researcher made use of what Vos, Strydom, Fouche and Delport (2006: 419) refer to as community forums. The community forums were planned for staff members who would be representative of trained members in ICT across WSU. The aim was to get at least eight members, from each of the three delivery (of learning) sites, of the community of staff members

trained in e-learning. Convenience sampling was used in that while the study aimed solely to investigate the challenges of the lecturing staff, it turned out that there were also supporting staff members, like library staff and peer assisted learning coordinators, who had also been trained and were willing to participate in the research. The total envisaged number of participants was twenty four, but only twenty two attended the group interviews.

### **1.5.3 Data collection**

Data was collected through focus group interviews which involved the trained staff members. Focus group interviews are discussion based interviews “in which multiple research participants simultaneously produce data on a specified issue” (Chilisa & Preece 2005; 151). According to McMillan and Schumacher (2006: 360), focus group interviews create “...a social environment in which group members are stimulated by one another’s perceptions and ideas...” Semi-structured interviews, which comprised of a set of predetermined questions, were used.

The data gathering technique used was the audio recording of the interview sessions. The advantage of using a recording and that of using the focus group is that the accuracy of the information can be verified (Chilisa & Preece 2005:151).

### **1.5.4 Data analysis**

The proceedings of the group interviews, which had been recorded, were transcribed during the data analysis. The data was processed and categorized according to specific themes which were relevant to the research questions.

### **1.5.5 Ethical considerations**

All participants had to be ensured of their anonymity. A consent form was also sent by e-mail to all participants prior to the interview. The same consent form was made available at the interview venue, for the sake of those who might not have had an opportunity to access their e-mails. Consent was obtained for utilizing the audio tape as a data gathering device.

### **1.5.6 Limitations of the study**

The limitation of the study is that the investigation is a limited case study that is relevant to one public university. However, it is believed that the findings of this study can be applicable to other institutions and sectors.

## **1.6 DEMARCATION OF THE STUDY INTO CHAPTERS**

### **Chapter 1: Introduction and background**

This chapter outlines the background of the need for the research. The main aim of the chapter is to identify the challenges that adult learners encounter in ICT training.

The chapter also highlights the course of the research and the justification for choosing qualitative research. The sampling used was purposive sample with the aim of collecting rich data from the participants, who can be seen as representative of the trained groups. The form of data collection was semi-structured interviews conducted on focus groups. The chapter serves as an overview of the path that the investigation followed.

### **Chapter 2: Literature review**

In order to establish a theoretical background, the literature on theoretical underpinnings to adult learning and ICT integration to teaching and learning was researched. The review of literature is focused on the importance of ICT in learning. This is then followed by an investigation into the need for professionals to be trained in ICT, for the purpose of executing effective teaching and learning through the e-learning media. The themes on challenges which other professionals experienced in Africa and elsewhere have been highlighted. The assumptions of adult learning are discussed at length and how they impact on the ICT training of adults is explored. The challenges, as reported by the participants in related studies, as well as the recommendations of participants are discussed at length.

### **Chapter 3: Research design and methodology**

This chapter describes the method of research used by the researcher. The reasons for the choice of study are discussed in detail. The research design selected is the qualitative design that utilizes semi-structured interviews, which are conducted in small focus groups.

In seeking to investigate the challenges of staff members in ICT training, the researcher has utilized the case study design of a public university. Data gathering techniques and the rationale for their use are elaborated upon in this chapter. The ethical issues that had to be observed are adequately explained in this chapter. The procedures of sampling and data collection, as well as the data analysis, are discussed in this chapter.

### **Chapter 4: Data presentation, analysis and discussion of results**

The empirical data is presented according to the responses of the participants in this chapter. The presentation of data is coupled with analysis as well as the discussion of results based on the following themes:

- Lack of computer competence
- Self-directedness of adults
- Lack of time
- Information overload
- Lack of planning
- Facilitation limitations
- Lack of technical support
- Institutional challenges

This chapter is a verbal account of the participants as they express the challenges they encountered during ICT training.

### **Chapter 5: Summary, conclusions, and recommendations**

The summary consists of the discussion of the findings of the literature reviewed and the empirical study based on the research questions. The similarities and differences between the

literature and the participants' responses are highlighted. The similarities confirm the assumptions evident in the literature reviewed. The differences are highlighted as contrary to what was evidenced in the empirical study.

Following the summary, conclusions are drawn with the aim of addressing the research questions. The purpose of drawing conclusions is to create coherence in research and to design a theory based on the findings.

The research is meant to investigate the challenges that are experienced during ICT training. The findings and recommendations will therefore be brought to the attention of trainers of staff members and offered as suggestions for further research.

## **1.7 CONCLUSION**

This chapter dealt with the rapidity of the technological era that we find ourselves in and how such an era has cascaded the ICT use to teaching and learning. The background to the study was discussed as based on the introduction of e-learning to a university which is situated in the Eastern Cape in South Africa. The researcher's area of interest concerns the challenges that staff members, as adult learners, find themselves in when they are being trained in ICT use for teaching purposes.

The following chapter will thus investigate the importance of ICT in learning and teaching and the challenges that e-learning faces with regard to the training of its implementers.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The aim of this investigation is to explore the challenges of educators as adult learners in their training in the use of Information Communication and Technology (ICT), which they have to undergo for lecturing purposes since the advent of e-learning at Walter Sisulu University (WSU). This chapter offers an overview of literature that outlines the importance of the integration of ICT in education, the need for the training of educators in ICT and the challenges they encounter during training. The theories that underpin the integration of ICT in teaching and learning and those regarding adult development and adult learning will also be reviewed.

The introduction of e-learning has necessitated the training of staff members in ICT. Literature on professional development and the challenges that were encountered in other studies, as well as their recommendations, will be discussed. The professional's changed role to be a learner will be explored based on the assumptions of adult learning and the challenges that adults experience as ICT learners, as portrayed in other studies prior to this one. The literature on the disparities of adult learners will assist in unearthing the characteristics that the professionals, that are due for professional development, display as adult learners. The focus will then be on the challenges that staff members, as adult learners, experience in ICT training.

#### **2.2 THEORETICAL FRAMEWORK**

This section explores the theories which inform this investigation. The theoretical framework serves as a basis upon which the research can be developed. According to Bless and Higgins-Smith (in Terre Blanche et al. 2006: 20), the theory serves "...as an orientation for gathering facts since it specifies the types of facts to be systematically observed". The theories that underpin this research are the theories on ICT integration to teaching and learning, adult development and adult learning theories.

### 2.2.1 Online technologies

Bruner (in Huang 2005: 30) states that the principal emphasis in education should be placed upon skills that are based on handling, imagining, seeing as well as symbolic operations, and that these are related to the technologies. Technology, in this sense, is seen as a cognitive tool in instruction that assists learners to elaborate on what they are thinking as well as in engaging in meaningful learning (Jonassen in Huang 2002: 30). Whipp and Chiarelli (in Lofstrom & Nevgi 2007: 314) refer to students who are likely "...to benefit from cognitive processes in goal attainment..." as having a tendency to find meaning in online courses.

Writing about the perspectives of quality in teaching with ICT, Lofstrom and Nevgi (2007; 314) refer to Bates (2000) who states that online education affects the methods and activities of teaching. They also add by stating that although the teacher's role in implementation is crucial, "...institutional support and leadership are also necessary if strategic plans are to be resourced sufficiently".

Evoh (2009: 2) advocates for the Technological, Pedagogical and Content Knowledge (TPACK) model which highlights the need for the productive integration of ICTs in teaching and learning. According to the Department of Basic Education (DBE), in Evoh (2009: 4), the application of technology, pedagogy and content can help facilitators of learning to "...structure, organize or enhance the activities that facilitate outcomes based education (OBE) in South Africa".

The TPACK model would mean that the facilitators of learning would have to consider incorporating the distinctive features of online delivery in their teaching. According to Ascough (2002: 18-19), these include uploading the instructor's course on the web, communicating through the web either through synchronous (where all participants are online simultaneously) or asynchronous communication (where time and place of logging in differs per participant), and assuming the role of a facilitator of learning rather than that of a source of knowledge.

It is in defining what pedagogical and technological knowledge is needed for efficient online teaching that the training of staff plays an important role (Lofstrom & Nevgi 2007: 314). In the training of staff members, one has to be mindful of the theories that inform adult learning.

### **2.2.2 Adult development theories**

These are learning theories which are based on the fact that as a person grows there are situational demands that require upskilling, so as to maintain relevance and to prevent one from being obsolete. These demands are sometimes so crucial in work or social life, like the introduction of ICT at the workplace and engaging in community work, that one has to enroll for learning in order to cope. The adult development theories are thus divided into change theories during adult life whilst some focus on developmental theories (Knowles, Holton & Swanson 1998: 171).

#### **a) Change Theories**

Change theories have got no developmental order implied in them, they simply address many changes which are typical of many adults, like resuming schooling, setting up a home, getting married and so on (Knowles et al. 1998: 171). The changes implemented in the workplace, which require professional development, would be part of the change theories. Knowles et al. (1998: 171) refer to these theories as merely seeking to describe typical and expected changes and not based on the development of adults.

#### **b) The developmental theories**

The developmental theories seek to clarify the contribution that human development makes on adult learning. For example, Erikson's theory refers to the stages of development as a series which requires developing certain skills in order to overcome situational challenges. Based on Erikson's theory, Gerdes (in Crous, Roets, Dicker & Sonnekus 2000: 76) refers to human development as a product of the interaction between a person's character and the cultural demands around him. These demands are often brought into play by many life changes which include workplace demands. Gerdes (1988) thus interprets human development and growth as a quest for compliance to social patterns and demands. This quest for compliance with social and sometimes workplace demands, necessitates the increase of skills for the adult. The following section contains a discussion of the theory that underpins adult learning.

### **2.2.3 Adult learning theory**

Adult learning can be described as a process of adults gaining knowledge as well as expertise (Knowles et al. 1998: 124). Adult learning, which was termed andragogy by Knowles, has got

six core principles or assumptions. These principles are based on the characteristics of adult learners (Knowles et al. 1998: 3). The first principle is that the adult learner needs to know why they are learning, how learning will be conducted, as well as what learning will be taking place (Knowles et al. 1998:133). The second principle is self-directed learning, which Knowles et al. (1998: 135) refer to as being conceived of as personal autonomy, which implies taking control of goals and purposes of learning as well as assuming ownership of learning. The third is prior experience of the learner. The prior experience impacts learning by creating a diverse range of individual differences, providing rich learning resources, and providing biases which can sometimes hinder or enhance new learning (Knowles et al. 1998:139). Knowles further adds that this prior experience provides the ground for the adult's self identity. The fourth principle is readiness to learn. It is life situations that tend to create the readiness to learn among adult learners (Huang 2005: 29). The fifth principle, which is orientation to learning, states that adult learners prefer problem solving learning, where learning is presented in a real life context (Huang 2005: 29). The sixth principle is motivation to learn. This principle states that adult learners are motivated to learn if the new knowledge will assist them in solving important problems in their lives (Huang 2005: 29).

Knowles et al. (1998: 143) state that there are parallel views between andragogy and constructivism as they both stress the ownership of the learning process by learners.

#### **2.2.4 Constructivism**

Vygotsky's theory of constructivism suggests that social interaction plays an important role in learning as learners are "enculturated into their learning community... through their interaction with their immediate learning environment" (Liu & Matthews 2005: 388). Vygotsky viewed learning as a social process that is carried on with the assistance of mediated tools (Anderson, Annand & Wark 2005: 224). Hansman (in Gravett 2005: 21) refers to constructivism as not occurring in a vacuum but as involving and shaped by context, culture and tools – and that these tools include computers. Learning, according to the constructivist, approach is therefore not passive but active.

Gravett (2005: 22) states the broad implications of constructivism in adult learning; the first being teaching as the "negotiation of meaning", which requires that adult facilitators design the learning experience so as to enable the learners to intentionally reconstruct their experience

(Gravett 2005: 24). The second implication is “teaching as mediation” which implies that the adult learning facilitator becomes the mediator between new learning content and the adult learner’s current ways of thinking (Gravett 2005: 23). The third implication is termed “teaching as a dialogue” which implies exposing adult learners to actively exploring the learning content and teaching to be characterized by mutual respect between the trainer and the adult learners (Gravett 2005: 25). According to the constructivism approach, learners should be acknowledged as active information constructors rather than passive information receivers (Jonassen in Wang 2008:413).

Since this research is about the challenges that staff members encounter in their training in ICT, the adult development theories, adult learning theory and the views of the constructivism approach will assist in understanding the paradigm in the which the adult learner approaches learning. The following section will discuss the basis for the training of professionals in ICT by exposing the importance of integrating ICT in teaching and learning.

### **2.3 THE NECESSITY OF INTEGRATING ICT IN TEACHING AND LEARNING**

Education is among the many sectors that are exposed to rapid changes due to globalization. Among the changes that education has undergone, is the shift in the way in which teaching and learning are perceived. For example, teaching has moved from traditional teacher centredness to student-centredness. It has moved from the teacher being the centre of all knowledge to a process of facilitation so as to allow students to utilize the knowledge that they bring to the classroom. The introduction of technology has also played its role in effecting these changes and enhancing this mode of teaching.

The use of ICT in the modern world has assisted the human race in improving many things and it has claimed to improve thinking, communication and problem solving skills (Thomas & Stratton 2006:617). Boakye and Banini (2008: 2) state that according to a research in West and Central Africa there is evidence that integration of ICT in teaching and learning can contribute to developing a more child-centred approach to pedagogy. They go further to mention that ICT, if used appropriately, can stimulate the development of higher cognitive skills, deepen learning and help in the acquisition of skills which are necessary for lifelong learning as well as the job market. Evoh (2009:1), in investigating the Teacher Laptop Initiative (TLI) in South Africa, refers to ICT as tools which can help to accomplish “the complex task of educational

improvement". The above literature thus highlights the importance of integrating ICT into education.

From the exploration of various studies, it is evident that the introduction of ICT in teaching and learning can benefit the learners, the facilitators of learning as well as the education system in several ways (Huang 2002: 32-34; Lofstrom & Nevgi 2007: 313-316). The benefits of ICT in teaching and learning include collaborative learning, interactivity, active learning, motivating low achievers, increasing teacher productivity and the quality of education.

### **2.3.1 Collaborative learning**

According to Huang (2002: 33), "learning should involve interaction with other people or environments". Collaborative learning subscribes to Vygotsky's social constructivist theory of learning which views learning as being a social activity between individuals and emphasizing the interaction between cognitive and social activity (Billett 1998: 31). The benefit of ICT integration in education is that web-based programs enable interpersonal interaction and collaborative learning among learners and between learners and their lecturers (Sergeant 2005: 303). With regard to collaborative learning, Wang (2008: 412) emphasizes the opportunity for learners in problem-solving as well as the positive effects it has on student performance. Wang (2008: 412) even suggests that the design of the ICT learning environment should be such that it provides a safe and comfortable space where the learners can share information and where they can communicate with each other easily. Gunga and Ricketts (2007: 897) thus refer to e-learning as providing a team-learning pedagogy whose focus is to foster an environment that is conducive to group interaction through collaboration and self-learning.

### **2.3.2 Interactivity**

Chou and Moore (in Wang 2008: 414) write about a technology-based interactive learning environment which involves four types of interaction which they refer to as: "learner-content, learner-instructor, learner-learner and learner-interface" varieties of interaction. Through this interactivity the learner is encouraged to do his/her own research on the content, whilst also being encouraged to be involved in group work with other students as well as interacting with the learning interface.

Petraglia (in Huang 2002: 32) states that, according to the constructivists such as Vygotsky and Dewey, learners do not learn in isolation from others. For them to learn there must be an active interaction between them and the educator as well as between themselves. Huang (2002: 33) refers to interactivity as a way of motivating and stimulating learners and that through activities and online discussions for instructors it assists in causing learners to reflect on content as well as the process of learning. It also enhances the completion of a task as well as the building of social relationships (Gilbert & Moore in Wang 2008: 414).

### **2.3.3 Active learning**

The integration of ICT in teaching and learning encourages active learning for students. According to Gunga and Ricketts (2007: 898), “students construct their knowledge and solve problems as they view topics from multiple perspectives...” They further refer to learners as becoming autonomous managers of their own learning who even devise questions for which they will seek answers from the internet. The students thus become actively involved in their own learning.

In a study conducted by Sime and Priestely (2005: 135) students were required to comment on the use of ICT in teaching. The students made comparisons between the situations where the teachers used traditional teacher-centred methods of teaching and where they had adopted ICT in teaching. The conclusion was that the classes in which ICT was integrated effectively in teaching had a huge impact in reshaping the classroom dynamics and that they were perceived as being more enjoyable for learners and had a greater potential to provide them with memorable experience (Sime & Priestely 2005: 135). They also added that the level of student engagement in searching for information on the internet and bringing new ideas to the classroom made the students think that ICT use was an important and successful method of teaching.

### **2.3.4 Low achievers**

According to the Organization for Economic Co-operation and Development (OECD) (2003:1), evidence derived from case studies shows that ICT has the potential to motivate low achievers as well as learners with limited literacy skills. This argument is based on the fact that ICT tends to give learners access to a wide range of learning resources which allow greater

individualization of learning, flexibility of learning as well as individual control over the learning process.

The above benefits of integrating ICT, through internet use in teaching and learning show how the traditional classroom which has been confined between four walls can be enlarged to include learning globally through the use of search engines; this proves to be beneficial for the students' interaction with their learning content. The use of technology in teaching and learning appears to be increasing the self-directed learning in students whilst also encouraging a lot of active learning amongst them. The classes are being moved from only chalk-and-board venues to also include being digital classrooms where students can access limitless information.

As the students improve ownership and become active in their own learning, this is likely to impact on the teacher's output in teaching as well.

### **2.3.5 Teacher productivity**

Evoh (2009: 4) refers to computers and ICT as having the potential to improve teacher productivity. The use of ICT enables the teachers to facilitate learning even when they are away from the classroom, through utilizing innovations in ICT like e-learning. The educators provide the initial structure to students' work and then encourage self-direction. In this way the students are provided with facilities that encourage them to carry out research with the purpose of discovering new knowledge on their own (Gunga & Ricketts 2007: 898).

### **2.3.6 The quality of education**

Chitanana, Makaza and Madzima (2008: 1) refer to UNESCO's Policy paper for change and Development in Higher Education which urges higher education institutions to use the advantages offered by ICT in order to improve the provision of quality in education. They further refer to Hazemi and Hailes (2002) who state that most universities worldwide are turning to the use of ICT which is now generally referred to as e-learning for the purpose of complementing teacher led tuition. Goktas, Yildirim and Yildirim (2009: 193) also state that the quality of education that is enhanced by the integration of ICT has the benefit of helping teachers do their job as well as assisting learners to learn more effectively.

With all the benefits that ICT has in teaching, effective and efficient teaching in ICT can never be realized if the integration is done with the exclusion of teacher training. Gulbahar (in LeBaron & McDonough 2009: 4) views the lack of professional development as a major barrier to ICT integration.

The introduction of technology in teaching and learning can never replace the role of the educator. What is happening in this era is that the educators are finding themselves in the middle of what one would refer to as an educational revolution. It is therefore imperative that any ICT integration initiative must be accompanied by a quality professional development program that has been structured according to the needs and competencies of the intended recipients. The following section will thus investigate the issue of technology and professional development.

## **2.4 TECHNOLOGY AND PROFESSIONAL DEVELOPMENT**

This section deals with the justification for teachers, as drivers of learning, to find themselves in a reversed role as learners, sitting behind the desk and being trained in ICT. The literature that portrays the characteristics of an adult learner during training, especially ICT training, will be reviewed.

The global community in which we live is characterized by rapid changes which also affect the landscape of learning. Eisen (2005:16) states that in this fast paced information age, learning is no longer restricted and relegated to childhood but that it is acknowledged as a lifelong necessity. OECD (2003:14), in stressing the need to train teachers in ICT, refers to "...using them as agents of change".

Charalambous and Karagiorgi (2002:197) state that teachers are a central factor in the success and failure of new ICT in education. Lofstrom and Nevgi (2008:102) emphasize the importance of not only learning how to use ICT in teaching but also knowing how to use ICT "...in pedagogically meaningful ways...". Unwin (2005:115) thus opines that for the integration of ICT in education to reap its full benefits in learning, it is essential that there be pre-service and in-service learning for teachers in basic ICT skills and competencies.

Kirchner and Davis (in Markauskaite 2007:548) refer to the teachers' ICT training program as having good rewards in that it helps the teachers to:

- Become competent personal users of ICT
- Use ICT as a mind tool
- Master a range of paradigms which make use of ICT
- Use ICT as a tool for teaching
- Understand social aspects of ICT use in education
- Master a range of assessment paradigms that make use of ICT
- Understand the policy dimensions of ICT in teaching and learning.

The training of staff in any new methodology also requires a buy-in from the staff concerned. Someck (in Hanson 2003: 140) emphasizes having in place a supportive professional development processes. Someck further states that the successful and widespread implementation of online learning depends on motivating staff members.

The motivation of staff is necessary because, as adults, they often find themselves with many roles which they have to fulfill and, more often than not, these roles tend to clash.

Spigner-Littles and Anderson (1999: 207) suggest teaching strategies which are likely to be useful and effective when dealing with an adult learner. Such strategies include utilizing effective questioning styles (like probing and open-ended questions), encouraging cooperative learning among learners, utilizing discussion groups as well as encouraging adult learners to be actively involved in learning.

Spigner-Littles and Anderson (1999: 207) further opine that cooperative learning should come as an instructional method which encourages students to be members of small teams so as to actively assist one another in learning. They argue that this has been a highly effective instructional technique when used among adult learners. About the group discussions, they state that they help in allowing adult learners to utilize their high motivation for learning to relate their diverse life experiences and mature interpersonal skills whilst also stimulating creative thinking (Spigner-Littles & Anderson 1999: 208).

The design of any training programme for adult learners requires a thorough investigation and careful planning so as to be effective and beneficial. In the United Kingdom (UK) failures in several initiatives toward sufficient use of ICT in schools have been blamed on training problems (Charalambous & Karagiorgi 2002: 199). It is therefore of prime importance to investigate and adhere to features which enhance any programme of professional development.

In a study conducted in order to develop an effective and beneficial ICT strategy for an implementation plan for teacher education, Lavonen, Lattu, Kutti and Meisalo (2006:261-263) administered questionnaires and made some notes on the responses and reactions of the teachers. The conclusion to the study was an outline of the interventions which included cooperative aspects, constructive communication, contextuality and infrastructure development.

#### **2.4.1 Cooperative aspects**

- a) Co-planning shared purpose and internalization strategy: This involves identifying and discussing the current practices and problems that the institution is experiencing, regarding the use of ICT. Lavonen et al. (2006: 262) advise that an ICT strategy should be developed by all for the benefit of empowering the end user. Referring to Someck (1998), they write about this approach in organization management as typical to collegial institution and not “centralist” or “bureaucratic”. Charalambous and Karagiorgi (2002: 199) take this one step further by recommending that even at the end of the training, teachers are expected to develop an action plan for the future professional development in the use of ICT.
- b) Shared expertise and dissemination: “Staff should plan together the implementation of the strategy” (Lavonen et al. 2006: 262). They refer to the practical expertise of staff members as being most valuable. In a preliminary study conducted by Neville (2004: 155) one of the barriers to the use of ICT was that the employees’ requirements were ignored as off-the-shelf packages were utilized without ascertaining the level of computer proficiency within the organization.

- c) Continuous feedback: According to Lavonen et al. (2006: 262), the evaluation of data that is continually collected in many forms which include discussions, questionnaires, interviews and observations is advised. They refer to this continuous feedback as assisting in following how staff members have adopted ICT, how they use it and its competence, as well as the kind of problems they have encountered in its use. Kelly (2006: 45) adds that adult learners also expect their feedback on the programme's progress to be acted upon.

#### **2.4.2 Constructive communication**

- a) Versatile communication: Thompson (in Lavonen et al. 2006: 262) advocates for the use of face-to-face communication in plenary discussions as well as in formal and informal small group activities.
- b) Transfer responsibility: Referring to Woods and Woods, Lavonen et al. (2006: 262) encourage the "...construction of a bridge between the staff members' existing knowledge and the skills and the demand of the new task..."
- c) Reflection in small group: Staff members can learn from each other and should be facilitated in small group discussions for the use of ICT (Lavonen et al. 2006: 262). Lavonen et al. (2006: 262) further mention Calderhead's (1996) suggestion that small group discussions facilitate staff members' formal, practical and meta-cognitive components of professional knowledge.
- d) Uncertainty as a resource for creativity: room for free ideas: The notion of free ideation and positive feedback to all ideas as well as an understanding of the nature of a creative problem-solving process is an important component of communication (Lavonen et al. 2006: 262). It allows the learners to voice their uncertainties during training without feeling threatened. Gravett (2005: 49) describes such an atmosphere of respect as leading to the feeling of safety, being capable and being accepted.

### 2.4.3 Contextuality

- a) Cumulative development of staff ICT competencies: Lavonen et al. (2006: 263) opine that the existing staff competence in ICT should be taken into account when planning for ICT professional development. Evaluating staff competence allows planners to plan and structure the course according to staff needs. Diversifying training to meet different needs helps to minimize personal anxieties, and strengthens faith in the educational value of the innovation (Charalambous & Karagiorgi 2002: 211). Sergeant (2005: 305) thus states that ICT educational outcomes are strengthened by instructor and learner preparation for ICT teaching environments, the consideration of the learner's prior experience and knowledge base so as to match the learning goals with specific technology.
  
- b) The importance of context: Stensaker, Maassen, Borgan, Oftebro and Karseth (2007: 426) state that after the completion of the ICT course many seem to have difficulties applying the knowledge in the context of their own work. Charalambous and Karagiorgi (2002: 199) attribute this to the tendency of fragmented ICT staff development which appears to be piecemeal and not linked to long-term professional growth and not related to classroom practice. Lavonen et al. (2006: 263) are therefore of the opinion that it is important that ICT integration be relevant to the appropriate teaching methods, contents and context. This means that in ICT integration one should consider design the training to be content related rather than being too generic.
  
- c) On-line manuals and web pages: Lavonen et al. (2006: 263) also state that well structured online manuals with illustrative indexes should be integrated into the new ICT tools that staff members have been trained to use. The placing of manuals and guidelines enable staff to consult the manuals whenever the need for guidance arises. This is in line with the ongoing support that Charalambous and Karagiorgi (2002: 212) suggest for even the ICT competent staff so as to keep up to date with the changing technology as well as "new and re-versioned software and curriculum innovations".

#### 2.4.4 Infrastructure development

Lavonen et al. (2006: 263) advocate for the development of ICT infrastructure which will be readily accessible to staff members immediately after training. Passey and Ridgeway (in Charalambous & Karagiorgi 2002: 210) found that if thought is not given to issues such as classroom management as well as the whole package of support which includes time, finances, resources and access, the result will be teachers who even though convinced of the value of ICT integration in teaching, would still be unable to use it in their pedagogy. OECD (2003: 13) refer to a study conducted in Australia, Canada, Finland, the Netherlands, Sweden and the United States which found that the key issues for effective use of ICT in adult training include the infrastructure, access and skills as well as the content. They state that extensive infrastructure is a necessary condition because it can provide cheaper and increased access.

Childs et al. (2007: 94), in the concluding remarks of their 12 in-depth case studies of trainee teachers' use of the internet in their teaching from the teaching programme in the 4 UK universities, state that where the mentors do not have the expertise to support teacher trainees there are barriers to learning in this area. The optimal features of ICT training for professionals, as discussed by Lavonen et al. (2006), link the principles of adult learning as suggested by Malcolm Knowles (1998: 124 in Chapter 2 section 2.2.3) to the practical requirements of learning for adults in an ICT environment.

The adult learners' experiences and their life roles have a propensity to influence their learning from its planning and to its facilitation. Kelly (2006: 46) states that it is generally agreed that people often commit to activities in which they have been involved in planning. The question that comes to mind is whether adult learners are often consulted in planning the learning of new technologies (including e-learning) which is, to many, a novel idea.

Enuku and Ojogwu (2006: 193) conclude by stating that the degree of preparation for technology can be essential for its failure and success. They thus suggest that the earlier the staff members are made familiar with the technology, prior to its introduction, the more positive their acceptance of it might be.

## 2.5 THE DISPARATE NATURE OF ADULT LEARNING

The training of teachers in ICT brings with it the dynamics of adult learning. The adult learner is what Malcolm Knowles referred to as the “Neglected Species” (Lee 1998: 50). The adult learner is characterized by social roles such as being an employee, spouse, parent and responsible citizen (Kelly 2006: 44). In addition to these social roles is a sense of responsibility for his/her own life. OECD (2003: 1) thus refers to adult learning as including general education, vocational education, formal, non-formal and informal learning and that the reasons for learning could be the recognition of the value of human capital for economic growth as well as social development.

In linking the advancement of technology and the need for adult learning, Eisen (2005: 17) states how the rapidity of the technological era has led to the “birth of a disposable society” which is characterized by product, knowledge and people becoming “obsolete in an eye blink”. She then adds that this situation has resulted in a growing need for adults at work and in their personal lives to keep learning to use new products and equipment and continue honing their learning skills. Hills (2008: 83) therefore states that the vital role that adult learning plays is that of enabling women and men of all ages to face the moment’s urgent challenges.

From the above literature one can easily note that adult learning is not always for luxury or pastime but a lifelong necessity which is generated by, amongst other things, the ICT era and its continued advancement. Training adult learners thus tends to be pursued for career or job related reasons, like professional or career upgrading (OECD 2003:3). The relevance of adult training in this research is for professionals to keep abreast with innovations in teaching and learning.

Having seen the need for workers to keep pace with the need for advancement of knowledge through learning, one needs to take cognizance of Malcolm Knowles’ argument that adult learning (andragogy) should not be paralleled with the pedagogical model of childhood learning (Lee 1998: 50). Knowles et al. (1998:133) write about the core principles of adult learning, which are as follows:

- **Need to know:** This principle makes it a generally accepted premise that when planning adult learning one should involve adult learners in a collaborative planning

process for their learning (Knowles et al. 1998: 133). Gravett (2005: 70) states that adult learners need to know why they need to learn before the actual learning can take place.

- **Self-directed:** Adults learners have a deep need to be self-directing in learning and they “resent and resist” the kind of learning where the trainer shoves trainees into the dependent role of children (Lee 1998:50). Self-directedness in learning involves having a locus of control over one’s learning. Knowles et al. (1998: 136), however, write that learners differ and that a learner who is inexperienced in the subject and has poorly developed self-directed learning skills is likely to be intimidated, at least initially. They further add that choosing not to be self-directed does not invalidate the adults’ core principle of independency. Gravett (2005: 70) thus refers to self-directedness as part of maturity where one moves from dependency to self-directedness.

Self-directed learning is a positive aspect of adult learning and can be better utilized by the facilitators of adult learning because it allows adult learners to take the responsibility of the learning process upon themselves. Self-directedness, however, has the potential of posing a big problem in training when adult learners want to exercise more independence in their learning, but are denied the opportunity (Knowles et al. 1998: 139).

- **Experience:** Maturity in adult learners enables them to bring accumulated experience to the training endeavour, which makes them reservoirs of experience (Gravett 2005; 70). This experience serves as a base to which they can relate new learning. The facilitators of learning can utilize this feature as a resource. Hill (2008: 89) refers to learning for adults as a process of making sense of experience.
- **Readiness to learn:** Adult learners display a readiness to learn whatever will make them fulfill their role in society either as a worker, a spouse, a parent and so on. Knowles (in Gravett 2005: 70) states that as one matures the readiness to learn is orientated towards personal development tasks as well as social roles.

- **Orientation to learning:** Adult learners, unlike children who have a subject-centred orientation to learning, have a problem-centred orientation (Lee 1998:50). Their time perspective in learning shifts from future application to the immediacy of application (Knowles in Gravett 2005:70). They learn best when the skill that they need is presented in a real-life context (Huang 2002:29). This implies that the more that educators of adult learners can anticipate, as well as understand, of the adult learners' life roles and readiness to learn, the more effective they can be (Knowles et al. 1998:144).
- **Motivation to learn:** Knowles et al. (1998: 149) write that the first principle of adult learning, which is the 'need to know', is enough to give adult learners a sense of volition about their learning. If learning will improve their life roles, that becomes a great motivator for adult learners.

Demirbilek (2009: 3) refers to the above principles as a set of hypotheses about how adults learn.

Kelly (2006: 45) writes about the expectation of adults to have a high degree of influence over educational topics and how they are to be educated, as well as the fact that they often require active participation in designing and implementing their educational programs. She opines that it is important to know all these factors that are brought to the educational setting by the adult learner and to know that they have the potential to "help" or "hinder" the training process.

Having covered the background of how adult learners approach their learning, the following section will focus on discussing the challenges that adult learners are reported to have experienced during their ICT training, according to the literature reviewed.

## **2.6 CHALLENGES OF ADULT LEARNERS IN ICT TRAINING**

The challenges faced by adult learners in ICT training will be discussed due to their relevance to this study. These challenges are technophobia, lack of time, lack of confidence, lack of computer competence, limited access to ICT, lack of motivation and resistance to new technology.

### 2.6.1 Technophobia

Otani (2003:1) refers to a study conducted by Chua, Chen and Wong (1990) in Japan in which the relationship between computer anxiety, gender and age was investigated. The results of the study show the instability in the relationship between anxiety and gender, but age and computer inexperience were shown to influence computer anxiety. The anxiety and fears associated with new technology are likely to arise when lecturers are to introduce ICT in teaching and learning as its introduction might appear to threaten the status quo (Eneku & Ojogwu 2006:193). They add that this fear of change might be associated with the fear of being left behind. The fear of ICT and its advancement has been coined “technophobia”, “cyberphobia”, “computer anxiety” or “technostress”. Spacey (in Eneku & Ojogwu 2006: 193) refers to kind of anxiety to technology that is displayed by the staff as being “...generally referred to as ‘resistance’”. Eneku and Ojogwu (2006: 193) state that it “... may lead to an unwillingness or inability to be trained and to learn the new technology”. Gunga and Ricketts (2007: 899) refer to this fear as having the potential to slow down innovations if it causes the workforce to resist new responsibilities. They refer to technophobes as likely to be those who did not grow up using computers. Citing Soong (2002), they further attribute the educators’ anxiety to many factors which might include the embarrassment of being surpassed by younger staff members, as well as being afraid of “...breaking a complicated and expensive piece of equipment...”. Citing Bradley and Russell, the British Educational Communications and Technology Agency (BECTA) (2004: 8) refers to computer anxiety as being caused by fear of “...getting stuck and not knowing what to do next...” as well as “...not understanding the computer jargon and the messages it gives...”.

In a study of the emotions of adult learners in the context of an online distance learning programme at the Open University of Cyprus, Zembylas, Theodorou and Pavlakis (2008: 111) recorded the positive and the negative emotions and the negative ones included anxiety regarding the unknown methodology. Childs et al. (2007: 79), in writing about the ICT integration into education, refer to Norum et al. (1999) who state that this is challenging for everybody as teachers have got to “face their own fears and struggles with technology and change” whilst they work with trainees in their role as subject mentors.

Gunga and Ricketts (2007: 899), however, suggest three steps that can be used to solve the problem of technophobia during training: sharing information through workshops, providing support to individuals and creating a friendly environment for learning.

Fear has a tendency of crippling the mind, hence Gunga and Ricketts (2007: 900) opine that a mindset that is guided by fear cannot participate meaningfully in making innovations. To prepare the mindset in professional development might include many aspects as they have other challenges which include lack of time for training.

### **2.6.2 Lack of time**

In a study of strategic planning for a web based teaching and learning at the University of Helsinki, a questionnaire was administered to deans and institutional leaders, ICT support staff, teachers and the students (Lofstrom & Nevgi 2007: 317). Approximately 89% of the respondents from the support staff stated that the training was satisfactory and met the actual training needs of the teachers, but they did express that the main obstacle to participating in ICT training was the teachers' lack of time. The sentiments were also shared by the participants in Turkey, in a study conducted in seven European countries, on the "reflections, insights and challenges" of ICT in adult education (Demirbilek 2009: 11). In this study, time limitations, as there is pressure to cover the curriculum, was revealed as one of the barriers.

In writing about barriers to ICT integration, Evoh (2009: 5) refers to what he calls the first order and second order barriers to technology integration; and the insufficient time to plan lessons for ICTs, insufficient technical and administrative support for technology implementation are referred to as first order barriers which are intrinsic to teachers.

In a study conducted at Maine schools by Silvernail and Lane (in Khambari, Moses & Luan 2009: 52) it was reported that although teachers felt that the introduction of laptops for teaching was great, they did not have the time to explore the laptop possibilities to the fullest. Khambari et al. (2009: 52) refer to many programmes of technology, which were aimed at professional development, as having been unsuccessful because teachers in general lack sufficient time to become more skilled.

In a study of the role of emotions in the experience of on-line learning, Zembylas et al. (2008: 115) reported that learners recorded, in their diary entries, feelings of being overwhelmed with enormous stress and panic as they found themselves unable to combine their study life with their professional, family and social lives. Their multiple roles of adult life were affecting their on-line learning negatively, as they would not have time for all their roles. Zembylas et al. (2008: 115) also mention that these learners were adult learners who also happened to be novices in on-line learning.

### **2.6.3 Lack of confidence**

The literature on adult learners portrays these individuals as being autonomous and self-directed. Brookfield (1986: 56) describes autonomy that is centering on adult learners as being particularly "...skilled at setting objectives, locating resources, and designing learning strategies". When adults decide to resume learning, they often know what they want to learn and reasons for doing so (Kelly 2006: 45). Kelly, however, goes further to state that many adult learners feel at risk in an educational setting that is not perceived as safe and supportive, and thus their self esteem and ego can be threatened.

Orazem, Vodopivec and Wu (in Gunga & Ricketts 2007: 900) write about how workers become skeptical about the introduction of computers as they often feel that these tend to expose them to possible redundancy. The perceived job insecurity leads to emotional and psychosocial problems and these tend to have an impact on one's confidence. Schrum (in Khambari et al. 2009: 25) points out that many adults feel uncomfortable with technology and are fearful of looking foolish. Gunga and Ricketts (2007: 900) thus suggest putting in place methods which are meant to help sustain the workers' self esteem and offer assurance.

Another reason that is stated as having been less effective in raising the teachers' confidence in the use of ICT is the training programmes that lack the intended subject-specific focus (Charalambous & Karagiorgi 2010: 199). Staff members, as adult learners, are goal-directed (Kelly 2006: 45). They have to equate their training with their subject-specific material which is for use in class. When this does not happen, they experience problems and that influences their self-efficacy.

#### **2.6.4 Lack of competence**

Lack of competence seems to be a factor which is directly linked to the teachers' lack of confidence (BECTA 2004: 8). As noted in Zembylas et al. (2008: 115), adult learners who were novices in on-line learning displayed a tendency of bringing negative emotions to the training exercise, as compared to learners who enjoy tapping on their reservoir of experience when learning. BECTA (2004: 8) advocates for adequate and appropriate training for such teachers if one has to have sufficiently prepared and confident teachers to make full use of technology in and out of class.

The fear of computers, which inadvertently results in teachers' lack of confidence and is directly linked to a lack of competence, are not isolated factors. They too can be linked to a lack of access to computers.

#### **2.6.5 Limited access to ICT**

Selwyn (2003:10) writes about the so called "digital divide" as the term which is used to refer to the marked inequalities in people's access to and use of ICT in society. He goes further by referring to factors that are crucial to the people's access of ICT, such as the unavailability of time, inflated costs, quality of technology, and the infrastructure or environment. Otani (2003: 1) refers to the digital divide as applying to general unequal access to digital and network resources. Otani, however, refers to this gap as being attributed to many factors which can be related to age, income, gender and ethnic background. Van Dijk and Hacker (in Fuchs and Horak 2006: 2) refer to four types of digital barriers, namely:

- Lack of "mental access" when referring to a lack of elementary digital experience.
- Lack of "material access" when referring to a lack of computer possession and network connection.
- Lack of "skill access" when referring to a lack of digital skills.
- Lack of "usage access" when referring to a lack of meaningful usage of opportunities.

Most professionals who find themselves having to be trained in ICT could be identifying with more than one of the digital barriers mentioned above.

Writing about challenges to e-learning provisions in Africa, Gunga and Ricketts (2007: 898) refer to most countries in Africa as having inefficient ICT related infrastructure such as electricity, telecommunications, computers and trained personnel. They go on to state that the three pillars of ICT revolution, which are: connectivity, capacity and content, are still to be realized in Africa. In a survey conducted in seven European countries, two countries reported the lack of access to ICT equipment and devices in classrooms as having proven to be one of the challenges that worked against ICT professional development (Demirbilek 2009: 11).

### **2.6.6 Lack of motivation**

Selwyn (2003: 10) argues that there is a danger of overemphasizing the ability of ICT to overcome all barriers to education. He is of the opinion that such assumptions tend to ignore the fact that the chief obstacles reported by adult learners are not only time constraints and infrastructure but also a lack of interest and motivation. The mere fact that the learners are adults is often a recipe for mental baggage, which often creates barriers to motivation, as these learners tend to have a family to support, or might be lacking money or time to further their studies (Kelly 2006: 47). Lofstrom and Nevgi (2007: 317), however, write that while teachers rated lack of time as being the main obstacle to participating in ICT training, lack of motivation was mentioned “only rarely” as the reason for not participating in training. Lack of motivation does not seem to be a militating factor against their training in ICT. It appears as if there are other factors that can result in adult learners resisting the introduction of technology.

### **2.6.7 Resistance to new technology**

The resistance to learning technology, by adult learners, can be attributed to a resistance against learning something new. It can be explained as the disturbance of equilibrium where a person is exposed to information which is abstract and falls outside the scope of what he/she is an expert on. Ganzel (1998: 44), in writing about the resistance of adult learners, refers to learning anything new as being inherently scary to some people as they feel that they are being taken away from competency to incompetency. A majority of staff members have also had a greater part of their learning and teaching being teacher-centred rather than student-centred, as ICT integrated education prescribes, and this could contribute to their resistance. Gilroy and Mc Coombs (in Radloff 2001: 11) thus highlight the negative view of ICT from teachers as that

it may undermine the values that underpin higher education, especially the role of the teacher as knowledge expert.

Eneku and Ojogwu (2006: 193) state that although there are people who are genuinely interested in new technology and enjoy using it, there are those who are resistant to it. They refer to this negative attitude as likely to lead to unwillingness or the inability to be trained in ICT. They add that this resistance to technology might be manifest in absenteeism in training for adult learners.

Eneku and Ojogwu (2006: 193) further argue that resistance to ICT training might stem from lack of consultation with staff members during preparation for the introduction of ICT. Lavonen et al. (2006: 243) warn that in planning the implementation of ICT integration in education, one should look at the possibilities of ICT being too complicated for some beginners. To this they further add the tendency of staff not easily cooperating with each other or with ICT experts as likely to bring resistance to the innovation. They thus write about a lack of support for staff and natural human resistance to new ideas as factors that might militate against ICT training.

The above sections on adult learning and professional development strategies highlight some important points to consider when training adult learners in general, and in ICT in particular. The discussion, thus far, points out how adult learners need to be involved in the planning, execution and evaluation of their own learning. The question remains: "Could the same be said about ICT training at all levels?" If not, how does that affect the adult learner, given Malcolm Knowles's assumptions about the characteristics of adult learners?

## **2.7 CONCLUSION**

According to the theoretical framework discussed in this chapter, technology is a cognitive tool that assists learners in elaborating upon what they are thinking during learning. In introducing technology in teaching and learning, it is advised that the facilitator considers infusing technology, pedagogy and content knowledge so as to enhance activities that support content-based learning.

Adult learning, according to Knowles' assumptions (1998: 133), is based on an adult learning theory that can assist anyone that is involved in adult training. In this chapter the adult learning

theory explains the reason for learning amongst adults as well as characteristics that an adult learner brings to class. Adult learning has been discussed together with constructivism because they both emphasize active learning as well as the ownership of learning by the learners.

In the literature review it became clear that ICT integration into education is very important in that technology helps to enhance the productivity of teachers. It also encourages learners to engage in active learning rather than passively waiting for their teachers to lead the way. This engagement of both teachers and learners improves the quality of education.

The introduction of ICT in education, however, necessitates that staff members as facilitators of learning should undergo training and even retraining in the area of ICT and other advanced forms of technology, which are meant to augment the teaching and learning process. Staff members are then referred to as change agents as ICT changes in the classroom and their good benefits cannot be realized without starting with professional development. This, therefore, requires that the facilitators of learning assume the role of students of technology.

The investigation points out that staff members, as adults, cannot be taught as one would teach young people because adults have their own way of approaching education which the adult educator should take cognizance of. The literature then suggests the best ways of teaching adult learners in general, and those in ICT in particular. These approaches help to eliminate the possible threats in adult learning.

The last section of the literature review addresses the general challenges that have been reported by teachers, as adult learners, in their ICT training in previous studies. This literature has laid the foundation on which the investigation of the training challenges of lecturers will be based. It is against the background of the theoretical framework and the literature review discussed in this chapter that the outcomes of the next chapter on research design and methodology can be assessed.

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 INTRODUCTION**

The literature study in the previous chapter responded to the research questions which were raised in Chapter One. A significant amount of research conducted in various countries points out that there are a number of challenges which adult learners experience in their ICT training. In this chapter the researcher seeks to elaborate on the research design used as a means of gathering information from learning facilitators who were selected from various departments within the university, and who had undergone ICT training in preparation for e-learning.

#### **3.2 RATIONALE FOR THE EMPIRICAL RESEARCH**

After the training of staff members in ICT there has always been a concern that few actually implement e-learning in their teaching and learning practices. The staff members appeared uneasy with the new methodology. Some would want to repeat the training and they kept mentioning refresher courses as they would mention having experienced challenges during the previous training.

The literature from studies of different countries had reported challenges in the training of professionals as adult learners in ICT (Chua, Chen & Wong in Otani 2003: 1; Enuke & Ojogwu 2006: 193; Lofstrom & Nevgi 2007: 317; Zembylas, Theodorou & Pavlakis 2008: 111; Khambari, Moses & Luan 2009: 52 & Charalambous & Karagiorgi 2010: 199). The literature search did not show a similar study in South Africa. The aim of the study was to investigate the challenges of staff members as adult learners during their ICT/e-learning training in South Africa, with particular reference to a public university in the Eastern Cape. The purpose of the investigation is also to assist trainers in planning their training so that it enhances the adult learners' learning or professional development experience. The challenges identified by staff

members and the solutions, as suggested by them, will assist in the planning of subsequent ICT training sessions.

### **3.3 RESEARCH DESIGN**

In order to investigate the experiences and perceptions of staff members during their ICT training, a qualitative research approach was followed. Qualitative research is concerned with understanding a phenomenon from the participants' perspectives (McMillan & Schumacher 2006: 315). In grasping the participants' motivation, you get to know their feelings, beliefs, ideas, thoughts and actions (McMillan & Schumacher 2006: 316).

The qualitative research approach was utilized from an interpretive perspective where the researcher was operating from the position of being a primary instrument. Terre Blanche, Durrheim and Painter (2006: 274) refer to two key principles of interpretive research which are "understanding in context" and the researcher being the "primary instrument" for collecting and analyzing data. The interpretive nature of this investigation is also evident in its concern with the first-hand accounts of participants; the researcher has also been part of the investigation as a primary instrument (Terre Blanche et al. 2006: 274).

The data gathering technique used was semi-structured interviews conducted in focus groups. Creswell (in Chilisa & Preece 2005:142) mentions five qualitative research designs, which are phenomenology, ethnography, grounded theory, biography and case study. The researcher opted for the case study design which involved the staff members of a public university in the Eastern Cape, for the reasons which are covered in greater detail in the next paragraph.

#### **3.3.1 Case study**

A case study design was used to investigate the phenomenon of challenges of staff members during their training on ICT. Case studies are descriptive in nature and provide rich information about a particular situation (Terre Blanche et al. 2006: 461). McMillan and Schumacher (2006: 317) describe case studies as single-site studies which tend to have a socio-cultural boundary and focus on a group of individuals who have had similar experiences.

In this research, focus groups from the same university were interviewed to determine the challenges that staff members experienced during their ICT training. Based on the responses of the interviewed participants, the researcher was able to offer the recommendations based on the results of the research. As a measure of checking the original data for further research or verification, an audio tape was used to "...provide data that can be re-analyzed by other researchers" (Terre Blanche et al. 2006: 461).

### **3.4. ETHICAL ISSUES**

Since qualitative research has is of a personally intrusive nature, there had to be ethical considerations prior to conducting this study. Research ethics in fieldwork, which are: informed consent, confidentiality and anonymity, privacy and empowerment, as well as caring and fairness, as outlined by McMillan and Schumacher (2006:334), were given significant consideration in this research. Informed consent is described as giving information about the research which assists the subject's decision regarding whether or not to participate (Silverman 2006: 324).

The participants were sent a consent form (refer to Appendix A) stipulating the reason for the research, the intended use of the data and the assurance of confidentiality as well as anonymity. As part of the ethical measures, the participants were informed in the consent form that their contributions, in stating the challenges they experienced during ICT training, would play a prominent role in problem solving. By so doing the participants were thus made to understand the power they have in the research process (McMillan & Schumacher 2006: 335).

#### **3.4.1 Measures to ensure trustworthiness**

The participants were assured, in the consent form which was sent via email to them, that their names were not going to be mentioned during the interview which was to be taped, so as to retain their anonymity. On their arrival at the venue for interviews, the participants found that chairs had been arranged around the table and in front of each was a letter on the table by which a participant would be identified during the interview process (refer to Appendix C). This was done so as to further ensure the participants of their anonymity.

The data were mechanically recorded by using a tape recorder, after the researcher had asked for consent from the participants. All the interviews were transcribed verbatim with the purpose of using the exact language and direct quotes during the discussion stage of the research findings.

### **3.5. SAMPLING**

The sampling for this research was purposive as the researcher had to look for a targeted type of participant (Terre Blanche et al. 2006: 304). Chilisa and Preese (2005: 170) describe purposive sample as being selected from a group of participants "...because of their knowledge in the researcher's area of interest". To get the sample the researcher asked the e-learning specialists who are conducting the ICT/Blackboard training in all the university sites to provide her with a list containing the names of all the staff members that underwent the training they offer. The lists provided by the e-learning specialists were comprised of staff members who had been trained in the period between November 2009 and July 2010. The lists were categorized according to departments, for instance, under engineering there would be Electrical, Civil, Construction Management and Quantity Surveying, and Mechanical. The sampling in all the sites was non-probability or convenient sampling as the researcher had to interview the participants who were available. In non-probability sampling, however, the researcher had to be mindful of the purposiveness of the samples. For instance, there had to be representativity of the faculties as far as possible, in the choice of university sites for interviewing. As an example, where engineering is offered on two sites, only one site with engineering participants would be approached for participating in group interviews and the same applied for the Business studies, Education and Law. In the faculty of Engineering, for instance, the researcher aimed to get willing staff members who would form representativity of the different departments within the section, like the Mechanical, Electrical, Construction Management and Quantity Surveying (CM & QS), and Civil.

An attempt was also made to mix the two genders as far as possible in the focus groups. In Engineering, for instance, it was mostly males who had been trained so females who were offering academic support courses, like Life Skills and Academic Literacy, to the engineering students had to be approached to form part of the focus groups as well.

The researcher aimed to get three focus groups of eight people per site. This sampling would allow the researcher to interview twenty four of the one hundred and twenty trained staff members. Telephone calls were made to the selected trainees requesting that they participate in the focus group interviews. On acceptance, they were sent a consent form via e-mail so that they could familiarize themselves with the research questions. The three focus groups were as follows:

**FOCUS GROUP 1: BUTTERWORTH CAMPUS**

- Participant A: Mechanical Engineering Lecturer
- B: Electrical Engineering Lecturer
- C: Mechanical Engineering Lecturer
- D: Life Skills Lecturer
- E: Academic Literacy Lecturer
- F: Peer Assisted Learning Coordinator
- G: Civil Engineering Lecturer
- H: Writing Centre Coordinator

**FOCUS GROUP 2: NELSON MANDELA DRIVE CAMPUS**

- Participant A: Humanities Lecturer
- B: Computer Science Lecturer
- C: Education Lecturer
- D: Science Lecturer
- E: (Did not attend interview)
- F: (Did not attend interview)
- G: Writing Centre Coordinator
- H: Librarian

**FOCUS GROUP 3; ZAMUKULUNGISA SITE**

- Participant A: Academic Literacy Lecturer and a Reading and Writing Centre Coordinator
- B: Management Lecturer
- C: Peer Assisted Learning Coordinator
- D: Accounting Lecturer
- E: (Did not attend interview)
- F: Public Management Lecturer

- G: Accounting Lecturer  
H: Office Management and Technology Lecturer

The consent forms which had been sent via e-mail were also made available in the interview venue, in case one of the participants failed to download it. Each group interview was scheduled to last for 30 minutes. The interviews were conducted in September and October 2010. The interviews could have been conducted earlier but could not be due to student strike action which resulted in some sites being closed during these periods.

### **3.6 DATA COLLECTION**

As a means of collecting data from the groups, the researcher decided to use interviews. In planning for the interview, the researcher first contacted the people whose names were in the list of the ICT/e-learning trained staff members. In those lists there were a few names of the researcher's acquaintances who she planned to involve in the pilot group – as a trial run – before interviewing the focus groups. Four of the acquaintances turned up for the pilot group interview, even though eight had been invited.

A pilot sample contained participants which characterized those that would participate in the study (academic and academic support staff) (McMillan & Schumacher 2006: 202). The aim of using the pilot group was to test whether:

- a) The topic was researchable.
- b) The questions were phrased appropriately and in a way that would allow them to be easily understood,
- c) The time for the interview, which was aimed at 30 minutes, was enough.
- d) The researcher would be able to use the recorder appropriately during the focus group interviews of the main study.

The use of the pilot study helped the researcher to establish whether the participants understand the rationale of the study. The participation of the pilot participants also brought hope to the researcher, about the staff members' willingness to talk about their ICT training challenges.

Data collection through focus group interviews was chosen because interviews are more natural forms of interacting with people, as they are much like a conversation (Durrheim et al. 2006: 297). The use of focus group interviews as a data collection technique also allows the researcher "...to understand and have more insight into how the people perceive a situation" (Chilisa & Preece 2005: 151). In fact, Chilisa and Preece (2005: 154) compare focus group interviews to group discussions that many African communities employ when there are issues to be attended to. The researcher chose a focus group interview above individual interviews for the reason, as stated by Terre Blanche et al. (2006: 304), that: "...in interviewing an individual, we develop an understanding of subjective experience, when we work with groups we can gain access to intersubjective experience". In a group interview you get to know the feeling of the community. The researcher tried to make the group interviews as relaxing, and more of a conversation, as possible.

The researcher followed the steps in conducting focus group interviews, as recommended by Chilisa and Preece (2005: 151). These are:

- **Deciding on the purpose of the focus group**

Chilisa and Preece (2005:152) refer to the purpose of the focus group interview as being to identify the "...content and thinking patterns of the researched so that the questionnaire is made relevant to the needs of the researched, is sensitive to their culture and suits the purpose of the study." The researcher's investigation had to concentrate solely on those who had been trained in ICT as they are the ones with the rich source of information on the challenges that staff members experience during ICT training.

- **Preparing the interview questions**

The researcher formulated questions that relate to the challenges that staff members experience during ICT training. The researcher tried to formulate questions that would address the research questions as best as possible.

- **The composition of the group**

According to Chilisa and Preece (2005: 154), a focus group should consist of six to twelve people. A researcher looks for "...particular types of participants..." by going about "...asking targeted individuals to participate, if necessary providing some kind of incentive" (Terre Blanche et al. 2006: 304). In complying with the cited authors' prescriptions, the researcher

invited eight staff members who had been trained in e-learning in each of the three identified sites.

- **The place for the interviews**

The venues differed from site to site. On one site a huge office was chosen for the purpose. On another site a computer laboratory was used for the interviews whilst in the third site a seminar room was used. The researcher had no choice in which venue to use, and was dependent on the availability of the venue.

- **Procedure of the focus group**

This step which is taken from Terre Blanche et al. (2006: 305) is about including the ground rules which lend structure and set procedure limits to the group. The ground rules are given so as to ensure "...that everyone gets involved in discussion" (Chilisa & Preece 2006: 154). In this study, on arrival at the interview venue, participants were given consent forms again. The researcher read the consent form out loud, verbatim, so as to give those participants who might have not had a chance to read it and hear what it entails an opportunity to do so. Another purpose was to give the participants an opportunity to participate with the full knowledge that they are not obliged to participate and were thus free to leave the interview venue if they wanted to. The researcher, however, did not tell the participants of the pilot group as well as the first two focus groups about the ground rules for the purpose of giving each other a chance when responding to the questions. It was only after starting to transcribe and thus experiencing the difficulty in listening to many people talking at once, that she decided to introduce the rules of participation. In the final interview, the researcher introduced a ground rule which stipulated that participants should give each other a chance to talk without interference and interjections from others.

- **The time of the interview**

People were invited telephonically. Many of them had problems turning up for an interview as they claimed to be busy with the "catch-up" programme as they were rushing the syllabus in preparation for the examinations. The researcher had to be strategic about the interviewing times. The following times: 10h00, 12h00 and 13h00 were chosen as they coincide with tea breaks and lunch time; and a finger lunch was supplied after each interview.

- **The duration of the interview**

According to Terre Blanche et al. (2006: 300) “interviews typically last from 20 minutes to half an hour – people find it difficult to concentrate much beyond that!” With this in mind, the researcher decided to schedule a thirty minute interview with each focus group.

The data gathering technique was in the form of semi-structured interviews. The semi-structured interviews follow a predetermined interview guide (Mc Millan & Schumacher 2006: 351; Chilisa & Preece 2005: 147). In this research, four questions were prepared for the group interview. The first question related to challenges, the second related to the emotions experienced during the first session of training, the third related to the educators’ preferences regarding seating arrangements during training and the last question was about the changes that staff members would suggest to the trainers so as to make ICT training less challenging for them. The questions had thus been structured to address the research question as well as the aim of the research.

The first two interview questions (refer to Appendix B) focused on the challenges that the participants experienced during their training, and the last two focused on the suggestions that participants could offer for future training so that the challenges in ICT training could be limited and/or eradicated. Participants in all three sites were subjected to the same questions and all the collected data was recorded through the use of an audio-tape and field notes. The use of field notes would clearly set out themes for data analysis.

### **3.7 DATA ANALYSIS**

According to Chilisa and Preece (2005: 172), data analysis is done “...to make decisions concerning the purpose of the research...” They further state that data analysis is meant “...to inform the researcher about emerging themes, patterns and issues that need probing.”

Data analysis, in qualitative research, is done by integrating “...the operations of organizing, analyzing and interpreting data” (McMillan & Schumacher 2006; 367). Chilisa and Preece (2005: 172) argue that there is no one way of organizing data as this step differs from researcher to researcher. In this study, the researcher started by transcribing everything that

transpired in the focus groups, from the audio-tapes. This was followed by memoing and coding.

### **3.7.1 Memoing**

Memoing is a step in data analysis which involves reading through the transcribed data (Gay, Mills & Airsian 2006; 469). In this step the researcher familiarizes him/herself with the data and identifying potential themes. Gay et al. (2005: 469) add that as the researcher reads through the data, he/she is expected to write notes in the margins, whilst underlining and highlighting important sections that are consistent with the literature review and seem to address the research question.

As the researcher read through the text, it became easier to see the recurrence of themes and this led to the next step which was coding.

### **3.7.2 Coding**

Coding refers to the process of breaking into small parts so as to create a meaningful story from volumes of data (Chilisa & Preece 2005: 172; Gay et al. 2006: 470). This allows the data to be contained in a manageable form. The data was reduced to words, sentences and quotations, and recurrent themes are extracted via coding (Suter 2006; 328).

In this study, the researcher marked some units of text with codes so as identify and indicate patterns and meaning in the data (Gay et al. 2006: 481). Through coding and categorizing data, the researcher was able to group these pieces of data into themes which will be discussed in detail in the next chapter.

## **3.8 CONCLUSION**

This chapter has presented and discussed the research design and methodology used in the study. The selection of a qualitative design and the use of group interviews as an information seeking methodology was deemed the best method of seeking firsthand information from the participants.

The research design and methodology chosen for this study was seen to be the best attempt in extracting information from the participants in a manner which would encourage their volunteering of relevant information. Memoing and coding have been chosen as methods of data analysis. These were sufficiently explained and discussed. The ethical issues that pertain to seeking permission to carry out the research, the use of a consent form to ensure voluntary participation and informed consent, confidentiality and anonymity were also discussed in this section. The requisite ethics, as embraced in anonymity, were exercised during the collection of data as presented in the next chapter. The data collected through the empirical study will be presented, analyzed and discussed in the ensuing chapter.

## **CHAPTER 4**

### **DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS**

#### **4.1 INTRODUCTION**

This chapter presents the analysis of the interviews that were conducted on three sites of Walter Sisulu University. The interviews were conducted amongst staff members who had received training in ICT, from the e-learning specialists. The training of staff members in ICT at WSU had been conducted for two days on each site and the duration of the training was from 8h30 until 15h30 each day. The focus groups for this study were comprised of trained staff members from three sites of WSU. The first focus group was in the Ibika site, the second was from the Nelson Mandela (NMD) site and the third was from the Zamukulungisa site. In this data presentation, the participants of each site will bear the number of the site according to their order of interviewing, for example Participant H of Ibika site will be H1 and participant H of the NMD site will be H2 and the corresponding interviewee from Zamukulungisa site will be referred to as H3.

This section outlines the challenges that the lecturers experienced during their ICT training as reported by the respondents across the three sites. The challenges appeared to be closely related and have been grouped into themes. Eight themes emerged during the interviews across these sites and the challenges were grouped as being attributed to:

- Lack of computer competence
- Self-directedness of adults
- Lack of time
- Information overload
- Lack of planning
- Facilitation limitations
- Lack of support
- Institutionally related challenges

The themes of challenges of staff members, as experienced during ICT training, will now be discussed based on the verbal response of the participants in the empirical study.

## **4.2 LACK OF COMPUTER COMPETENCE**

This theme deals with the challenges related to the fact that the majority of the participants were not too familiar with computer usage. Participants' responses to the questions that were asked would display the fact that their lack of competence in computer skills was an impediment to their training. During the interviews of the first focus group, participant D1 referred to his challenges as being the fact that his fear was the inability to implement e-learning after the training. Throughout the interviews the respondents reported experiencing the feeling of unease during training. Participant H1 commented that the training programme was run too fast, especially considering the fact that some of the trainees were not familiar with the computer jargon used. Participant C1 also added to the disadvantage experienced due to the fast pace of the training programme by stating that "It was a little bit too fast for adult learners".

Participant E1 alluded to the need for manuals to be provided during training, and commented that manuals would help the group for recapping after training, especially for those "who belong to the traditional method". On responding to the question of whether they preferred working in pairs, as a group or as individuals on the computer during training, H1 commented that he preferred to sit next to a person who is "...knowledgeable on the computer...". The issue of not being competent in computer use seemed to have brought timidity to most lecturers during training. Participant A1 expressed the need for trainers to pair people who are computer competent with those who are not.

The lack of competence in the first focus group seemed to be accompanied by feelings of fear of venturing into the unknown. Attached to this fear was the knowledge that the lecturers are dealing with students who, in contrast, are more technologically inclined than they are. This technophobia was expressed by Participant H1 in response to the question of emotions that accompanied the first session of training. He expressed the sense of "...uneasiness, and general fear..." and later added that "...our concerns and fears about .... computer programmes should be allayed". His concern was that as staff members they are dealing with students who are fairly computer literate as he added, "...and who will be knowing more than I do..."

Participant A1 responded to the question of emotions by stating that he had mixed emotions of excitement and fear as he did not know whether he would be able to upload everything during his own implementation of e-learning.

In the second focus group, most participants were vocally competent in their computer knowledge. Participant G2, however, expressed that in their group during training they were mixed in terms of their levels of computer competence such that there were people who were "...advanced and some who were tagging behind". She went on to say: "...that created a problem". Participant B2, who was not too computer competent, added to this view by saying that the mixture of computer competent and non-computer competent trainees resulted in "slow learners" being shy to ask questions "...in case it appears as if there is something wrong with you and you end up being quiet and not getting what you really need to know". The problem of the integration of different levels of competence, as presented by Participant B2, seemed to be in contrast to the view of Participant H1 of the first focus group.

In the third focus group, Participant D3 who is computer competent, referred to the training of those colleagues who do not have a "background" in computer skills as having been "...quite a problem". On the question of emotions experienced during training, Participant B3 stated that she was nervous to the extent that if she found out that one of her colleagues was progressing well she would solicit help from them. She added by saying that "It created tension, really, in me". Participant F3 also stated, "I am also of the opinion that probably, planning was not properly done because... they should have broken the programme into two sections whereby people like me, who are almost illiterate in computer should have been given a chance to familiarize themselves with computer skills". From these statements one can read that this tension during training was brought about by a lack of competence on the part of the participant. Participant H3, who mentioned that he experienced no challenge during the training, stated that he had mixed emotions of happiness and worry in that "...it would take time to understand this programme."

On the question of being grouped, working as pairs or as an individual, Participant B3 differed from the other participants, who would not mind working as a group or in pairs. She preferred to work alone and added, "...I don't want to be known that I'm a little bit slower to understand".

Incompetence in computer use posed itself as a challenge for some staff members. The participants used words and expressions such as; “fear”, “being nervous”, “having tension”, “worried”, “shy”, “uneasiness”, and “computer jargon” to express their feelings towards the challenges that they faced during their ICT training.

### **4.3 SELF-DIRECTEDNESS**

Self-directedness is when adult learners have a locus of control over their own learning. It involves adult learners resenting the kind of learning where they are given the dependent role, as if they are children, during training (Lee 1998: 50). In all the interview groups, the responses of the participants depicted them as learners that go to class with a purpose to learn and who wanted to be in control of their learning. In this theme the following three aspects stood out as part of their self-directedness:

- Need for manuals;
- Need for involvement in their training; and
- Orientation to learning.

The absence of manuals, their involvement in their training as well their orientation to learning seemed to have frustrated the staff members. They were made to rely on the trainers from the planning of their training, their participation in training as well as follow-up activities to training. These matters are discussed in greater detail below.

#### **4.3.1 Need for manuals**

All the focus groups interviewed on the 3 different sites expressed frustration in having to depend and be limited to exposure to the e-learning practice only when the trainers were around. All the groups showed concern about the non-availability of manuals which they felt should have been supplied for their own practice prior to, during and immediately after the training sessions. Manuals appeared to be a necessity for the staff members. That was reflected in Participant E1’s statement that “I felt that they should have had a manual for the programme so that we could refer to the manual...” She concluded by adding that, the people

who belong to the “traditional method” still need manuals for their individual practice. By “traditional method” she was referring to the people who are not used to ICT.

The staff members on all of the sites appeared to be eager to take responsibility for their learning and not depend solely on the tutelage of the e-learning specialist. There was deep concern for the non-availability of manuals, as their absence was interpreted as a possible hindrance to the participants’ self study initiatives. Participant C1 saw the benefit of a manual for recapping purposes whilst Participant D1 further added that its availability assists in self training during one’s own time.

Participant A2, who had expressed that she had no problems during the e-learning training since she is competent in computer use, referred to her challenge as being the inability to take notes during training. She felt that the ability to take notes during e-learning training would have helped her after training. The availability of manuals would thus solve what she thought was her handicap.

Participant F3 reiterated this reason for the need for manuals as he stated that manuals were needed as a follow-up mechanism so that the trainees can perfect their newly acquired skills. Participant A3 supported the need for manuals during training by saying, “the minute you get out of that training, intense training, you have forgotten some of the things. At least we must have a manual.”

#### **4.3.2 Need for involvement in training**

Most participants felt the need to be involved in the planning and execution of their own training. The staff members felt that some things which would have been beneficial for proper training, like formal assessment, had not been worked in as part of assessing the success of the programme.

Participant C1 commented as follows, “I feel there was a need for some formal assessment...” He went on to state that the assessment assists one to judge whether one has acquired all the tools that are needed in training.

This was another sign of the self-directedness of the staff members as adult learners during their ICT training, which the trainers seemed to be unaware of.

### **4.3.3 Taking control of their own learning**

Participants wanted to exercise their independence in their own learning through active participation. In expressing the need for self-study, Participant C1 complained about the fact that they did not have time to go through what they had learnt as part of revision. He felt that was necessary and referred to it as "...an opportunity to do something different on one's own".

Participant C2, in responding to the question of being paired or working individually on a computer, had this to say, "... sometimes you find out for your own even if you haven't been told what the next step is, you just explore and then you discover it yourself...". She went on to state that something that you discover on your own during learning tends to remain longer.

On the question of emotions, the eagerness to learn amidst the digital uncertainties amongst the participants was evident. Participant F3 responded to the questions of emotions by referring to his excitement as being based on the fact that he was acquiring a lifelong skill which was going to assist him in further learning in his career. In expressing his excitement, he went further and said, "I think I was excited because most of the things you do them even if you have no experience electronically". Responding to the question of being paired or working as individuals, Participant B3 said, "...my ability to understand...to learn, is different from others....so I need my own time." In this response, Participant B3 appeared to have discovered her own style of learning and thus wanted to be in control of her own learning.

## **4.4 LACK OF TIME**

Staff members in two focus groups seemed to have experienced a common challenge with regard to the lack of time for attending training. All of them kept on coming back to the inappropriate timing or scheduling of the training as it coincided with their lecturing schedules. The time of training during the course of the academic year was reported to have been problematic because it coincided with lectures. In their discussion about the lack of time, the

participants tended to attribute their lack of time for the training to the scheduling dates and the time of the training.

Participant G1 expressed concern that the training sessions are conducted during the academic term, whilst lectures are still being conducted, and when staff members are busy with their teaching schedules. He further expressed concern that having to implement what one had recently been trained on would take time as that would involve redesigning one's course outline. He added by saying, "...maybe at the beginning of the year it's easier to introduce to learners than to train people midyear." Participant G1 ended up by suggesting that the timing of the training should be during registration when there are no classes yet, "...but lecturers are free and available." In a discussion based on Participant G1's suggestion, Participant E1 was of the opinion that the most opportune time would be the end of the year so that the staff members can include the new teaching method in their planning of the course outlines for the following year.

Participant H3 who had regarded himself as having had no challenges with the ICT training and even referred to the system as being "...very user friendly", however referred to his problem by saying, "...one does not have time...". He even seemed to make a pledge to himself that when it is in December at the end of the year, "...when I've less work... I'll be able to practise it". He (H3) also alluded to the time of training which should be done in January during registration as suggested by Participant G1. Participant H3 explained the inconvenience of a lack of time as he added that "...you find that people would jump and do other things in their offices or attend to lectures..."

It is this juggling between classes and ICT training that seems to have posed itself as a challenge to staff members. Another challenge was the issue of having to introduce e-learning midyear to the students as that would require a lot of time in perfecting their own skills before seeking to transfer them to their students.

This theme appeared to affect all participants regardless of their background in ICT and ICT skills, or lack thereof, and they seemed to be ready to suggest the appropriate times for training to be either the beginning or the end of the academic year. The timing of the training seemed to have led to a compromise in the duration of the training as evident in the complaints about information overload, which will be discussed in the following section.

## **4.5 INFORMATION OVERLOAD**

The participants in all interviewed sites reported having had a problem with the trainers' fast pace in their training session. The participants expressed that the information they received within two training days was too much for them, more so considering that some were not highly competent in computer use.

Participant D1 referred to the facilitator as having been too fast. Participant H1 added that there were a number of programmes that were introduced and he referred to that as being, "...quite a lot at once..." He also complained about the pace which he also referred to as having been fast. Participant C1 also summarily stated: "...there was a lot that was learnt in a short space of time..." and then expressed that the availability of the manual would suffice for recapping purposes. Later on in the interview, Participant C1 suggested that the trainers should add more time for each activity and added; "...make sure we are familiar before... moving on to new areas". Reacting about the compact training which was done in two days, whilst involving many steps in the training of uploading the documents, Participant F1 expressed his concern as he said, "I didn't do Information Technology, how am I going to be in a position to know how to do all the steps?" Participant D1 suggested that the time of the training should be increased as the danger of information overload tends to result in one losing more information.

Participant D2 also alluded to the sentiments of the first focus group whose challenge was information overload. He referred to the challenge as "...the fact that we were given a lot of information that we were supposed to know in a limited time..." Participant G2 reiterated the same sentiments as Participant H1 and said "...two days for training both for the theory and the practical, ended up with little time for hand practice"

Participant G3 emphatically stated, "My main problem was the time factor". She added by saying: "We had to learn a lot of things within a short time". Participants on all sites felt that the duration for training had to be revisited so as to accommodate slow learners as well as those who were not highly competent in ICT use. Participant F3, when referring to himself as being computer illiterate, said, "they should have divided the programme into two sections, whereby people like me, who are illiterate in computer [skills] have been given a chance to familiarize themselves with computer skills". Participant H3 regarded the training period as having been

too short and ended by suggesting that it should have been conducted over a period of a week, two weeks or even a month.

The participants seemed to view the lot of information that the trainers had to impart during training as having resulted in the fast training pace, lack of individual attention for slow learners and less time given for separate activities. Most staff members in all sites, especially those who had less computer competence, regarded the information overload as having been detrimental to their e-learning training. They had the following suggestions:

- to extend the training period to be more than two days
- to divide the training sections according to programmes, and
- to afford those people with less computer competence enough time for each programme.

#### **4.6 LACK OF PLANNING**

Staff members appeared to have picked up some anomalies which pertained to a lack of proper planning or some oversights in planning. As a self-directed cohort, which is oriented to learning, interviewees expressed frustration about finding themselves having to engage in a programme which showed some planning oversights.

In the interviews, the participants seemed to think that the trainers did not do a lot of planning prior to the training sessions. The complaints about lack of time, the timing of training, the non-availability of manuals during training, the mixing of trainees with different levels of computer competence, non-working computers in the training venue and being ignorant as to what is expected of you to bring to the training venue could summarily be attributed to a lack of planning by the trainers. The following aspects will be discussed under this topic, as based on the participants' responses:

- Timing
- Non-availability of manuals
- Lack of a skills audit
- Lack of stocktaking of working computers
- Checklist of what to bring to the training venue.

#### **4.6.1 Timing**

The timing of training, which seemed to compete with lecturing times, was regarded by many as a lack of proper planning on the part of those organizing the training. Participant G1 and H3 saw no point in trainers starting to train lecturers in the middle of the academic cycle, as that would result in introducing something new to the students during the midyear period. This is what Participant G1 had to say on the matter: "if you were to introduce something at the beginning of the year, then it's easier to introduce it to the learners than to train people midyear."

#### **4.6.2 Non-availability of manuals**

The non-availability of manuals which complement the verbal and practical training was viewed with disappointment by the participants. Participant E1's comments about the non-availability of manuals for training seemed to suggest that the training should not have been conducted without them. Expressing disappointment, she stated that they had been promised manuals for recapping purposes, but that the trainers never kept their word. Participant F3 felt that manuals needed to have been provided prior to training so that trainees could familiarize themselves with the material. Participant A3 also added that the necessity of manuals was to assist the learner in recapping some portions which could be forgotten due to intense training.

#### **4.6.3 Lack of a skills audit**

The need for a skills audit as part of the preparation for the training of educators was mentioned, primarily by participants who had a fair knowledge of ICT before being trained for e-learning. They viewed the lack of a skills audit as having been disadvantageous for participants who were not competent in ICT skills. They also viewed the combined training session of participants with such disparities as not being conducive to proper learning.

Participant E1 stated that computer competent participants were bored and grumbling as some of their colleagues would still be lagging behind. Alluding to the sentiments of participants of the

first focus group, Participant G2 stated: “I think we were mixed in terms of levels for computer literacy. We had people who are advanced and some who were ‘tagging’ behind. So I think that created a problem”. Participant B2 added that it would have been better if people were grouped according to their level of computer competence. He further explained: “...so that slow learners would have been given time to learn new concepts...” He concluded by mentioning that the slow learners ended up being shy to ask questions and this resulted in them not knowing what they were supposed to know. Participant D3 reiterated this notion on the topic of pairing computer competent with non-computer competent staff members, in the same training programme, as having been “quite a problem”. Participant F3 alluded to what Participant B2 had said as she mentioned: “I’m also of the opinion that, probably, planning was not properly done, because ... they should have broken the programme into two sections whereby people like me, who are almost illiterate in computer should have been given a chance to familiarize themselves with computer skills”.

There was a contradiction of opinions regarding the issue of integrating competent and the non-competent staff members in training. Participant H1 who regarded himself as not being competent in computer skills saw it as advantageous to have somebody you could ask for help from when the trainer moved too fast.

From the sentiments of many participants, it appeared that the trainers had to do a skills audit so that the grouping could be fair. Participant D2 also opined that people should be grouped “...according to the level of literacy”.

#### **4.6.4 Lack of stocktaking of working computers**

The staff members pointed out that the trainers should have foreseen internet problems and computer shortage challenges, and planned accordingly.

Participant B1 commented that “they should have their own dedicated server even if it is for that period of training.” The participants also felt that the trainers also had to take stock of the working computers so as to avoid situations where two people had to work on one computer. There seemed to be a prevalence of the same problem on all sites. Participant C2 even referred to a situation where trainees would have to walk from one computer to another due to

the fact that one computer would not be working properly. In the third focus group, participants reported a situation where they had to be paired on one computer due to the limited number of computers and Participant G3 referred to this as having "...created some confusion". Participant F3 in her comments appeared to summon the trainers as she added, "...then get the computers in that particular lab, to see to it that they were all working, because some were not working perfectly..."

Participant G1's opinion was that with the advent of e-learning at the university, it would be better to have more computer laboratories than classrooms. The university would have to increase the number of laboratories and offer continuous maintenance of computers used for training and teaching purposes.

#### **4.6.5 A checklist of what to bring to the training venue**

The participants in the second focus group felt that they should have been told what materials to bring to the training venue. They realized this during training as the trainers required material from them to be uploaded. These materials would serve as examples of the material to be downloaded by students during e-learning. The participants then realized that they should have been informed about this in their call for training. Participant D2 referred to his challenge as being uninformed on what to bring to the training venue. This highlights the difference between training children and training adults. Here we see adults resisting the push into the dependent role of children where they must rely on what the teacher has to say without being able to take the initiative. They felt that they could have brought their own notes, power point slides, tests, assignments, modules and other soft copy materials to use for uploading practice during training.

One participant, Participant D2 remarked, "we were not prepared, we didn't bring any material". It did however surface during discussion that some groups had been told what to bring whereas some had not been told. The issue of uniformity of instructions across groups and across sites seemed to be a key necessity in planning.

The lack of planning, as evidenced in the above topics, was reported alongside facilitation limitations and these presented challenges for the participants.

## **4.7 FACILITATION LIMITATIONS**

Trainee staff members experienced a further challenge which the researcher preferred to as “facilitation limitations”. The participants felt that the facilitators could have done better to lessen their challenges if the trainers had good teaching skills. The participants of the first focus group reported discomfort during training in their interview session. This group had a general feeling that the trainers lacked the basic principles of teaching. Participant E1 said: “The facilitator was moving too fast for some of us as beginners to the Blackboard programme”. Participant F1 reported the lack of individual attention (or one-on-one) and impatience with slow learners as he stated, “...some of the facilitators are impatient if you are begging time and again for help”.

Participant H1 emphatically stated that when designing the training programmes the staff trainers should take into account that “...they are designing the programme for specialists...” The participant went further to explain that the trainees might not be IT specialists, but they still remain specialists in their own fields.

The trainer-trainee ratio was reported on all sites as having been a concern as well. According to the attendance registers, the attendance varied from fifteen to twenty trainees per group. The concern of the participants was that more trainers were needed to assist in the facilitation of ICT/ e-learning training. The staff members seemed to have identified gaps where the availability of other facilitators would fit in. Participant E1 stated “...I felt that there should have been more facilitators going around to show us exactly what is happening and guide us through...”. Participant G1 even suggested that trainers could split the sessions so as to have smaller groups that would be easy to deal with in the absence of a co-facilitator.

Participant C2 also alluded to the fact that the availability of more IT specialists would assist “...to see to it that the system (internet) is working”. Participant C3 commented that more trainers were needed to assist those who could not keep up with the pace of the chief trainer/facilitator. The participant was of the opinion that those with questions of clarity could enlist the help of the co-facilitators rather than directing them to the facilitator and consequently delay the whole group. Participant B3 suggested that one-on-one training was of utmost

importance, especially for adult learners. She concluded by saying that "...the matured need the one-on-one as their problem is being easy to forget..." and "...easy to fall asleep".

The facilitation limitations, as mentioned above, do arise as having compromised the ICT training and its intended results. According to the participants, the trainers should have catered for slow learners in their training programme by providing more trainers.

#### **4.8 LACK OF TECHNICAL SUPPORT**

The need for support during training as mentioned in the previous section about one-on-one sessions, appeared to be desired among the cohorts that were interviewed. Participants from two of the sites felt that the after-training support was also very important as a means of ensuring that the implementation of e-learning started without any glitches. Staff members felt that ICT training should have been followed by some support from the trainers to find out whether the participants could implement what they had been taught. Participant A2 stated that "...there was no follow-up to check how we were doing...". Participant C2 lightly said, "when you get stuck, who do you call?" The reason stated for the need for a follow-up mechanism was that the trainees tended to forget.

Participant G3 stated that adding to the information overload, which was characterized by having to deal with a lot of things within a short space of time, there was also no proper follow-up mechanism. She went on to show that she was self-directed as an adult by stating that she had to phone the trainer as a means of trying to catch up on what they had done in class. Even the non-availability of manuals during and after training was viewed by the participants as a lack of follow-up support.

#### **4.9 INSTITUTIONAL CHALLENGES**

Some of the challenges that staff members experienced had nothing to do with them or the trainers, but are directly related to the institution in which they are employed, yet they were stated by the participants as having presented some challenges for them. The institutionally related challenges that the participants mentioned were the slow internet system and shortage of computer laboratories. The slowness of the internet system reportedly affected the training of staff members. The scarcity of computer laboratories reported by the participants did not

directly present itself as affecting their ICT training. For the purpose of this study only the slow speed of the internet connection will be discussed, based on the responses of the participants.

#### **4.9.1 Slow internet system**

Interviewees at all the sites raised the issue of a slow internet system. Participant D1 said, "I think one problem or challenge was internet, the internet was very slow...". This challenge apparently caused great discomfort to the participant as he later stated that it affected his emotions and threw him in a state of panic. Participant B1, who appeared conversant with the electronic environment, added that "They should have their own dedicated server even if it's even for that period, training period". He further suggested that the consideration of adding a dedicated server would help to eliminate the problems of facilities which could result in many people not knowing what they were trained on due to constant internet interruptions.

In the second focus group, Participant B2, who is a computer lecturer, said, "I only saw one challenge which was; the Blackboard system was very slow". Participant A2 (who arrived late during the interview), also emphatically stated, "One thing that I remember now is that during training the computer got stuck a lot, so sometimes you get left behind".

Participant D3 alluded to what the other participants had said in other focus groups about the internet problems as he referred to the internet by stating that "...in fact it was extremely slow". In addition to the slow internet system, the participants felt that the institution was not ready for the introduction of e-learning as there is still a shortage of laboratories and properly working computers for training.

During the data collection of this research there were challenges which the researcher encountered which are worth mentioning even though they did not negatively affect the result of the study. The knowledge of them would assist other researchers for further study. They will be briefly outlined in the ensuing section.

### **4.10 CHALLENGES**

The challenges that were evident frequently during the data collection in all sites were the following:

- The unavailability of participants for an interview
- The late arrival of participants at the interview venue
- The noisy background during the interview session, resulting in poor sound quality of the recorded interviews
- The intimidating confidence of the computer competent participants who would hastily respond to the interview questions by stating that they experienced no challenges during training
- The timing of data collection, which coincided with the examination preparation period of the lecturers.

These challenges partly affected the duration of the study because the unavailability of some staff members would result in an extended search for available staff members and this lengthened the time of the study. The late arrival of some members resulted in a delay in the scheduled time of departure, which reduced the time for probing questions in relation to the final few set questions. The noisy background compromised the quality of the sound of the audio recordings. The confidence of computer competent staff members resulted in staff members who were not competent remaining silent at first about the challenges they experienced during training, until they were further probed. The timing of the interviews, which was during the preparation for examinations, resulted in compromised cooperation before and during the interview session. Some staff members would arrive at the interview venue late and some would start to panic when the interview time seemed to go beyond the scheduled time. The researcher is of the opinion that if these challenges did not exist, more information would have been volunteered by the participants.

#### **4.11 CONCLUSION**

The focus of this study has been to investigate and identify the challenges experienced by staff members during ICT training. The study was conducted in a public university in the Eastern Cape. It emerged, in the literature, that professionals do experience challenges when being trained in ICT. In this empirical study eight themes which indicated that the participants experienced challenges were identified. Throughout the responses of the staff members there has been an underlying indication that the challenges they experienced were closely linked to their characteristics as adult learners – as discussed in Chapter Two. According to the

characteristics of adult learners, the staff members are learners who display qualities of self-directedness and a motivation to learn. In this chapter, this became evident through their willingness to be in control of their learning as well as finishing the training despite the challenges they reportedly experienced during training.

The conclusions that can be drawn from this empirical study are that staff members, as adult learners, do experience challenges during ICT training. Some of the challenges are related to trainee staff members' incompetence in computer skills whilst others are related to the trainers' lack of knowledge about the attributes of the adult learners as professionals.

Chapter Five will summarize the findings of the literature review and the empirical study in order to draw conclusions about this study; it will further make recommendations and offer suggestions for further research.

## **CHAPTER 5**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

In summarizing the research, this chapter presents the conclusions that emerged from the literature chapters, and from the empirical investigation. This will be done in view of addressing the research questions mapped out in Chapter One.

The research investigation took place at a university which is in the process of introducing e-learning in order to blend it with traditional chalk and board classroom practices. Several lecturers, library, laboratory personnel and other facilitators of learning, as staff members, have received ICT training in Blackboard software in preparation for the implementation of e-learning. The study which aimed to gain greater knowledge regarding the challenges of the lecturers (academic staff) involved six non academic (supporting) staff members, one being a library staff member, three Writing Centre coordinators and two Peer Assisted Learning Coordinators who also had been trained because of their availability for the group interviews. These non academic staff members have a lot of teaching interaction with students, which is enhanced by e-learning. The latter information was not known by the researcher at the beginning of the study.

In this chapter the literature reviewed as well as the empirical study, as portrayed in the responses of the participants, will be summarized. The synthesis between the two will be done and it will be followed by a discussion of the limitations and recommendations of the study.

#### **5.2 SUMMARY OF LITERATURE REVIEW**

This section offers a summary of the literature review with relevance to the research questions of the study. As human beings grow there are situational demands which require them to adopt skills in order to overcome life challenges. The introduction of e-learning in teaching and learning has necessitated that facilitators of learning be trained in ICT, so as to be compliant with their workplace demands (cf. Chapter 2 section 2.2.2 b).

The theories of adult learning mention some principles which have to be considered when training adults (cf. Chapter 2 section 2.2.3). According to adult learning theories, when adult learners have got to be exposed to learning, they need to know why they are learning as well as how the learning will be conducted (cf. Chapter 2 section 2.2.3 & section 2.5). Adult learners have been portrayed as a self-directed cohort which likes to utilize their experiences in learning (cf. Chapter 2 section 2.2.3 & section 2.5). This is a feature which adult trainers could take advantage of. The adult learners who often engage in learning as part of their professional development are described as being motivated to learn more especially if the learning will solve their day-to-day challenges (cf. Chapter 2 section 2.2.3 & section 2.5). The adult learning theory is in agreement with the constructivist approach which states that learners are supposed to be active information constructors rather than passive receivers of information (cf. Chapter 2 section 2.2.4). Vygotsky viewed the learning process as being a social activity (Blake & Pope 2008: 62).

Regarding the integration of ICT in teaching and learning, which consequently requires that professionals be trained in ICT, the literature review encourages their exposure to pre-service and in-service learning in basic ICT skills and competencies (cf. Chapter 2 section 2.4). The literature review shows that the design of any training programme for adult learners requires thorough planning for it to be effective (cf. Chapter 2 section 2.4). The designers of online learning for adults need to create a supportive environment for the trainees and they need to motivate them to participate (cf. Chapter 2 section 2.4 & section 2.5).

The adult learners who have been part of the studies in the literature review have shown the need to share their expertise during the planning of their programme (cf. Chapter 2 section 2.4.1b). The trainers of adult learners also need to take into account the existing level of competence of their trainees so as to design their training programme according to the needs of these trainees. This would assist the trainers in diversifying their training programmes to suit the needs of different trainees (cf. Chapter 2 section 2.4.3a). Failure to diversify the training according to the different levels of competence and needs of trainees is linked to personal anxieties and a loss of faith in the educational value of the innovation (Charalambous & Karagiorgi 2002: 211).

Anxiety and general technophobia associated with computer use was revealed to exist among adult learners during ICT training in the literature review. The computer anxiety was linked to people who did not grow up using computers and thus feared the embarrassment of being surpassed by younger staff members (cf. Chapter 2 section 2.6.1). Those trainees who are often respected professionals in their workplaces find themselves threatened with new technology as it appears to threaten their status quo (cf. Chapter 2 section 2.6.1). The introduction of technologies affected the confidence of staff members as they were fearful of looking foolish amongst their colleagues (cf. Chapter 2 section 2.6.3). The literature reviewed expressed the intimidation that staff members felt during the ICT professional development, which was due to the use of computer jargon which was unfamiliar to them. The challenges in professional development also appeared to be linked to limited access to ICT by staff members.

For the trainers, the literature reviewed highlighted areas with aspects in adult training which must be taken into account. Signer-Littles and Anderson (1999: 207) (cf. Chapter 2 section 2.4) appeared to advise the trainers to use strategies that are meant to encourage adult learners to be actively involved in their learning for training to be effective. Neville (2004: 155) (cf. Chapter 2 section 2.4.1) refers to the barriers to ICT use as having resulted from how trainers ignored the level of computer proficiency within the organization. Lavonen (2006: 202) (cf. Chapter 2 section 2.4.2b) therefore suggested building bridges between staff members' existing knowledge and the new task.

The literature encourages an atmosphere of respect among the trainers for adult learners so as to encourage the feeling of safety and being accepted (cf. Chapter 2 section 2.4.2d). Childs et al. (2007: 94) state that where the mentors do not have the expertise to support the staff trainees, a barrier to their learning in that area is created.

The above summary of the literature review points to issues to be taken into account by the trainers when designing the training programme for professional development.

### **5.3 SUMMARY OF THE EMPIRICAL STUDY**

The summary of the empirical study will be based on the research questions and on the nine themes that emerged from the interviews. Emphasis will be placed on the commonality of responses by the participants on all sites.

#### **5.3.1 Lack of computer competence**

The limitations in computer competence were expressed as having imposed a great challenge during the e-learning training. Even those staff members who had a high level of competence seemed to have identified the lack of competence amongst their colleagues as being a hindrance during training. In the literature, the computer incompetence was interpreted as a lack of knowledge which was greatly attributed to limited access to computers (cf. Chapter 2 section 2.6.5). Participants in the empirical study appeared to align the lack of computer competence to their age, that is, not having grown up in the age of computers (cf. Chapter 4 section 4.2).

The lack of computer competence inadvertently resulted in participants being uneasy, to the extent of being filled with fear during the ICT training. One participant was intimidated by the computer jargon and others were intimidated by the pace at which the instructions were delivered. Whilst some participants expressed excitement about the integration of ICT in teaching, negative emotions were also reported by the participants. Such negative emotions were reported as being “nervous”, “shy to ask questions” and “general fear” during the training (cf. Chapter 4 to section 4.2).

The lack of computer competence resulted in the following:

- Not being able to comprehend with the computer jargon (refer to Participant H1).
- Venturing to the unknown and not being confident of whether one would ever be able to use the methodology on one’s own (refer to Participant A1).
- Fear of being left behind (refer to Participant B3).

The disparity in the computer competence during training had the potential to cause the not-so-competent to feel shy to ask questions and expose their ignorance amongst their colleagues during training (refer to Chapter 4 section 4.2).

### **5.3.2 Self-directedness**

If the ICT training was conducted to young people, some of the expressed challenges would probably not have been serious problems. Staff members who, according to the adult learning principles, have a deep need to be self-directed in their learning (Lee 1998; 50) did not like the idea of the non-availability of manuals (cf. Chapter 4 section 4.3.1). They expressed that they needed these manuals for their own practices. This can be attributed to the adult learners' goal-oriented attitude to learning.

Some participants did not like the fact that there was no cooperative aspect in the planning of their training, as reflected in Chapter 4 section 4.3.2. This need for involvement is expressed in the following challenges:

#### **Need for manuals**

Participants felt that the non-availability of manuals was a hindrance as it reduced them to dependency on their trainers. For the trainees, the absence of manuals hindered their self-study initiative. They also viewed it as offering less assistance to those with a deteriorating memory (cf. Chapter 4 section 4.3.1).

#### **Need for involvement in planning**

The participants' quest for involvement in the training schedule arose from their suggestions for formal assessment of their training (cf. Chapter 4 section 4.3.2). The suggestion that trainees be informed, in advance, on what to bring to the classroom was another indication that the training could have been more efficient had the staff members been invited to the planning of their training. This is another feature of self-directed learning, in which learners believe in taking control of the techniques of learning. The planning would not have been bureaucratic but the trainers could have engaged in a collegial manner (cf. Chapter 2 section 2.4.1).

#### **Taking responsibility for their own learning**

Participants of all the focus groups expressed some zeal in taking responsibility for their own learning, as adult learners. They participated in ICT training by their own initiative and for their own development. They wanted manuals for self-study and revision. One participant stated that

he was keen on e-learning as it would assist him in life-long learning. A participant of the third focus group (Participant G3) stated that she even phoned the facilitator for support and guidance during her own practice (cf. Chapter 4 section 4.8).

### **5.3.3 Lack of time**

What emerged as a key concern, from the participants of the first and the third focus groups, was the lack of time for training. All of them expressed the same sentiments regarding the issue of having no time for attending training (cf. Chapter 4 section 4.4). They reported that they had to juggle between the ICT training and attending to their classes.

The participants suggested times which should be considered by the trainers for future ICT training. Separate groups, independent of each other's influence, suggested times for training which were either at the beginning of the year (before the start of lectures) or at the end of the year when lectures have ceased.

### **5.3.4 Information overload**

The duration of the ICT training for staff members was two days. The participants reported that they were exposed to a lot of information during those two days (cf. Chapter 4 section 4.5). The training had many steps which involved activities like uploading documents which would be downloaded by students as part of e-learning. The participants expressed that the trainers could have allocated more time to each step and ascertained how well each step or activity was grasped by the trainees, before moving to the next one. The trainers were, however, reported to have been rushing their training presentations as they navigated through the many steps of e-learning.

The information overload reverted to the issue of a lack of time, as mentioned significant amount of new material was covered in a few days, for training a fully loaded programme. The participants suggested an increase in the duration of the training so as to afford more time for slow learners, as well as those who are not competent in computer use.

The participants objected to the two days of training, considering the fact that there was a lot of information that had to be processed within those days. This seemed to point to Charalambous and Karagiorgi's (2002: 199) finding that several ICT initiatives' failures have been blamed on training problems (cf. Chapter 2 section 2.4).

### **5.3.5 Lack of planning**

The trainers of e-learning were viewed by participants as having had many oversights in their planning (cf. Chapter 4 section 4.6). This lack of adequate planning was picked up in aspects which one could have regarded as minor, but were viewed by the adult learners as having posed challenges to their training. These aspects are the timing of training, the non-availability of manuals, the lack of a computer skills audit, the lack of stocktaking of working computers prior to training, and the omission of a checklist of what to bring to the training venue. These are outlined, in brief, below:

#### **Timing**

Participants felt that the time of training was competing with the teaching time. Participants complained about the scheduling of their training, as it clashed with their teaching time. This was interpreted as a result of a lack of planning. The participants were concerned about wasting contact time with their own students.

#### **Non-availability of manuals**

The participants of two focus groups expressed their disappointment in the non-availability of manuals. They reckoned that the manuals which they had been promised were never supplied during or after the training. In their view, manuals were valuable for the purposes of self study and recapping (cf. Chapter 4 section 4.3.1).

#### **Lack of a skills audit**

The participants' responses pointed to the fact that there were no skills audit that conducted by the trainers to determine the level of computer competence prior to training in ICT/e-learning (cf. Chapter 4 section 4.6.3). Many participants who appeared to have experienced challenges as a result of this omission were the computer competent staff members. In their view, being grouped with computer incompetent colleagues was quite an inconvenience. They regarded the exercise as having resulted in their time being wasted as they had to wait for others to catch up during the training. The evidence of this was a report from a participant in the first focus group who referred to the computer competent colleagues as having been bored and grumbling during the training sessions, while their colleagues were lagging behind.

### **Lack of stocktaking of working computers**

The general feeling of the participants was that the computers' state of readiness was inadequate for the training needs (cf. Chapter 4 section 4.6.4). The participants expressed that it appeared as if little was done to see to it that computers were working properly in preparation for the training. There was a feeling that computer faults, which resulted in participants moving from computer to the next during training, could have been foreseen and attended to as part of an e-learning readiness check prior to training.

### **A checklist of what to bring to the training venue**

During training there was a section where the participants had to upload learning material which would serve as soft copies for their students to access or download. For most participants it was during the training session that they realized that they were supposed to have brought some electronic material to the training, for this purpose. The participants opined that they should have been informed about which materials to bring to the training venue prior to the training sessions (cf. Chapter 4 section 4.6.5).

### **5.3.6 Facilitation limitations**

To accommodate the participatory mode in the research as well as its ability to influence and change an existing phenomenon in the workplace, the participants were asked to make suggestions on how training can be improved. The suggestions would be useful for further research in addressing the training challenges. In the absence of further research, the e-learning specialists/trainers would still be furnished with the research findings so as to improve on the areas mentioned here.

The participants of the first focus group expressed concerns with the manner in which the e-learning trainers facilitated the training sessions (cf. Chapter 4 section 4.7). They claimed that the facilitator went through the work too fast and was insensitive to the fact that they were not computer competent. This attitude was problematic and the impatience directed at slow learners was regarded as inappropriate by the participants, considering that they, too, are experts in their own fields. The facilitators' attitude problem had a propensity of increasing resistance to further training in ICT (cf. Chapter 2 section 2.6.7).

Another concern which the participants viewed as part of the facilitation limitations was the trainer-trainee ratio. The ratio varied from training between 1:15 to 1: 20. The main concern was that the limited number of facilitators made it impossible for the facilitator to identify and

attend to individuals who experienced problems during training without delaying the rest of the group. They opined that with practical training, as is the case in computer training, there needed to be co-facilitators to assist slow and computer incompetent trainees.

The participants thought that assessment was necessary to determine their level of understanding (cf. Chapter 4 section 4.3.2). In any educational exercise, assessment is done to establish the alignment between the programme offered and its intended outcomes. It helps to establish the quality of the programme as well as its fitness for purpose. The assessment would also help to provide feedback for the facilitators, as part of the outcomes for their training. This feedback would assist them by outlining areas which require greater emphasis and improvement.

### **5.3.7 Lack of technical support**

It is evident from the responses of the participants that there was not much support, during and after the training, to ensure progress with the newly found electronic methodology (cf. Chapter 4 section 4.8). Participants also linked the unavailability of manuals during and after training as one sign of the lack of support for the implementation of the methodology. It remained responsibility of the individual staff members, the adult learners, to show their characteristics of orientation to learning and self-directedness; this is evident in the third focus group where a staff member had to phone the trainer to verify if she was still on track with what she had been trained on.

### **5.3.8 Institutional challenges**

The participants in all sites also seemed to have been grappling with challenges that were beyond their trainers' power to control during ICT/e-learning training. The problems were related to the infrastructural challenges which were reported as a slow internet connection and a shortage of computer laboratories (cf. Chapter 4 section 4.8).

#### **Slow internet**

The internet which is often required for e-learning training was reportedly very slow during the staff members' training. It would appear that little had been done to upgrade the system for the purpose of introducing e-learning. This infrastructural challenge was a matter of concern even for those participants who had reported no personal challenges in ICT training. The participants felt that the institution's infrastructure was not ready for the advent of e-learning.

## 5.4 SYNTHESIS OF RESEARCH FINDINGS

This section provides a balancing act between the empirical findings and the literature reviewed. The similarities and contradictions will be highlighted before a conclusion is reached.

The synthesis of research findings will be based on the main research question:

- What challenges do staff members face during ICT training?

This will be followed by sub-questions:

- Is there interplay between the assumptions of adult learning and the training of staff members in ICT?
- Does learning new technologies cause anxiety among adult learners?
- How can trainers be assisted in order to train staff members more effectively?

The first research question is what this entire study is based on, as these challenges were identified during the informal reports and talks of the staff members who had participated in the ICT training.

### **What challenges do staff members face during ICT training?**

There are more similarities than differences between the literature reviewed and the empirical study, regarding the challenges that staff members as adult learners experience during ICT professional development.

In both the literature reviewed and the empirical study, the lack of computer competence seemed to be reported often amongst the staff members (cf. Chapter 2 section 2.6.4; Chapter 4 section 4.2). In both accounts this lack of competence tends to contribute to the staff members' lack of confidence and their fear of new technology during training.

The staff members, as adult learners, prefer to be involved in the execution of their own learning. In the literature review it was revealed that the ICT strategy should be developed by all and that staff members are expected to be involved in the development of an action plan for future ICT professional development (cf. Chapter 2 section 2.4.1). The planning of ICT training, which according to the empirical study did not involve the adult learners, was reported by the

participants as having overlooked the importance of the availability of manuals during training, the skills audit and consultation with staff members in determining suitable training times and the duration of training.

There seemed to be consensus, in both the literature reviewed and the empirical study, that staff members struggle to attend the training that is scheduled to coincide with their working hours (cf. Chapter 2 section 2.6.2; Chapter 4 section 4.4). The time for professional development always competes with the time for completing the curriculum and this poses a threat to their upskilling.

The aspect of infrastructure was referred to in the literature as being of utmost importance for the effective introduction of technological methodology. The degree of preparedness in infrastructure was reported as a determinant for the success or failure of ICT training (cf. Chapter 2 section 2.4.4). In the empirical study, the participants reported the challenges that they experienced with regard to the infrastructure; they mentioned a slow internet connection, a shortage of computer laboratories and a shortage of properly working computers during training (cf. Chapter 4 section 4.9).

The participants did not display a lack of motivation toward ICT training and this was in agreement with the literature reviewed. It referred to a lack of motivation as being rarely mentioned as a challenge for adult learners in ICT (cf. Chapter 2 section 2.6.6). The participants of the empirical study were keen on learning the new methodology regardless of the challenges they faced.

### **Is there interplay between the assumptions of adult learning and the training of staff members in ICT?**

The questions asked during the empirical study focused on the challenges staff members experienced in their ICT training. In their responses staff members appeared as though they had been schooled on the assumptions of adult learning from the literature. The participants of the first focus group did not like the fact that the trainers seemed to reduce them to a state of general illiteracy. They felt that their expertise in their fields should be recognized even during the ICT training (cf. Chapter 4 section 4.7). The staff members might not have any experience

in ICT, but they felt that their experience as educators should have been utilized in the preparation of their training.

There is general consensus between the literature and the empirical study that adult learners resume learning with a need to know, self-directedness and orientation to learning. In this study this was evidenced in the participants' concerns with the non-availability of manuals as self study materials. Their self-directedness as well as their orientation to learning was also noticed in their request for extra trainers in the training venue. Their aim was to leave the training venue being certain of having learnt something which they can implement without difficulty when the need arises.

Unlike young people whose learning is for future application, the adult learners' learning is for solving the problems that they encounter in their daily lives. For adults, learning is a process of making sense of the experience (Hill 2008: 89). This is evident in the participants' request for assessment at each step of their training so that they are certain of what they have learnt for the purpose of immediate application in their classes.

### **Does learning new technologies cause anxiety amongst adult learners?**

Many of the challenges of adult learners, as mentioned in both the literature and the empirical study, had to do with a lack of computer competency which resulted in fear during ICT training. This fear in the literature (cf. Chapter 2 section 2.6.1) and in the empirical study (cf. Chapter 4 section 4.2) is attributed to not having grown up using computers. The intimidation that is brought about by the use of computer jargon appears in both the literature reviewed and the empirical study (Becta 2004:8; cf. Chapter 4 section 4.2). Both in the literature and the empirical study this fear can easily be dealt with if the adult learners have the necessary support and are able to learn in a non-threatening environment. The fear reported in the literature and the empirical study also affected the confidence of adult learners as they found their expert knowledge and dignity being compromised. The literature refers to this fear as incapacitating and militating against training (cf. Chapter 2 section 2.6.1).

### **How can trainers be assisted in order to train staff members more effectively?**

As mentioned earlier in the study, the participants in the empirical study would have appreciated active involvement with the trainers in the planning of their professional development. The theory of adult learning portrays adult learners as self-directed and that this feature can pose a problem if the trainees are denied the opportunity of independence in their learning (cf. Chapter 2 section 2.2.3; section 2.5). This view also relates to the constructivist theory of learning which views learning as active rather than passive (cf. Chapter 2 section 2.2.4). In the empirical study, the participants expressed the need for self study for which they required manuals which would enable them to navigate through their lessons on their own. The non-availability of manuals was seen by the participants as hindering this proactiveness (cf. Chapter 4 section 4.3.3).

There was also a diversity of experience in ICT among the staff members which the participants felt could have been audited prior to their training. This resulted in frustration being felt by the computer competent staff members as they ended up having to wait for their colleagues to catch up with them during the training (cf. Chapter 4 section 4.6.3). The literature reviewed advocates for cumulative development in staff competences so as to plan the structure of the course in order to suit staff members' needs (cf. Chapter 2 section 2.4.3). The diversification, according to different competencies, in training is recommended in literature as it is said to assist in minimizing the personal anxieties of trainees (cf. Chapter 2 section 2.4.3).

The small discussion groups which are meant to facilitate staff members' formal, practical and meta-cognitive components of professional knowledge, as suggested in the literature (cf. Chapter 2 section 2.4.2c), could serve the same purpose as that suggested by participants when they opined that the trainers could have divided the sessions into small groups (cf. Chapter 4 section 4.7).

## **5.5 CONCLUSIONS**

This study was based on the main research question which was: What challenges do staff members face during ICT training?

The literature and the empirical study revealed that staff members do experience very specific challenges during ICT training for professional development. According to the literature reviewed and the empirical study, the challenges are linked to the characteristics of the trainees, the trainers as well as institutional issues. The study was conducted in such a manner that its outcomes would assist in addressing the following research sub-questions:

- Is there interplay between the assumptions of adult learning and the training of staff members in ICT?
- Does learning new technologies cause anxiety amongst adult learners?
- How can trainers be assisted in order to train staff members more effectively?

What follows are the responses to these sub-questions.

#### **5.5.1 Is there interplay between the assumptions of adult learning and the training of staff members in ICT?**

The literature revealed that adult learning has six core principles which are: adult learners need to know why they are learning as well as how their learning will take place, they like to take control of their learning, to utilize their prior experience, have a readiness to learn, orientation to learning as well as the motivation to learn. Based on this empirical study, it is clear that the staff members, as adult learners, are experts in their own fields and they are rich reservoirs of experience which the trainers could utilize in the planning of their ICT training programmes. The participants displayed a high level of motivation to learn as proven by successfully completing their training amidst the challenges that they faced.

The participants also showed signs of self-directedness because they wanted to be involved, to direct and to own their learning experience rather than depend on the trainers in order for them to learn. They even had suggestions regarding the manner in which the classes had to be conducted, that is, separating the competent trainees from those who were not competent, availing the manuals for self-study, finishing the training with an assessment and then following-up by providing technical support.

The staff members were enthusiastic to tap into their experience in order to assist the trainers in addressing the challenges which they faced during training. Their readiness is also evident in

their willingness to continue with their lessons even after the completion of their training sessions.

### **5.5.2 Does learning new technologies cause anxiety amongst adult learners?**

Adult learners have been reported to experience anxiety and general fear when exposed to ICT training. Literature attributes this anxiety to a lack of competence in ICT as well as the lack of exposure to computers. This lack of exposure is attributed to people who have not grown up during the digital era. The participants also reported anxiety and general fear regarding their ability to implement what they were being taught during ICT training in their courses.

The participants, as adults, are already seasoned specialists and experts in their own fields, as the participants in the empirical study reported; thus, finding themselves in a new learning environment appeared to cause anxiety amongst them. Their confidence and self-efficacy was threatened by new technologies.

### **5.5.3 How can the trainers be assisted in order to train the staff members more effectively?**

Based on the literature reviewed, and the empirical study, it became clear that those responsible for professional development need to know the assumptions of adult learning. By virtue of being involved in the education system, they possess experience which is vital to learning and teaching. Trainers have to involve themselves in the planning of their own professional development. The staff members, as adult learners, have many responsibilities which demand their attention and the trainers therefore need to consult with them so as to negotiate issues like the scheduled time and duration of the training.

Adult learners, as experts in their own fields, as portrayed in the empirical study, do not want to be thrown into a situation that might be inconvenient for them. Professionals as self-directed learners believe in being in control of their studies. Brookfield (in Huang 2002: 29) refers to the self-directedness of adult learners as encompassing setting up their own learning goals, looking for appropriate resources, deciding on their own learning styles and evaluating their progress. The signs of self-directedness, as evidenced in the empirical study, were observed

when the trainees suggested that the trainers should have conducted a skills audit so as to customize their training according to the trainees' levels of computer competency. Their interest on assessment after the training was also indicative of their self-directedness.

## **5.6 LIMITATIONS**

The limitations of the study were identified as follows:

- The research was conducted amongst 21 participants from an Eastern Cape university in South Africa and cannot be generalized to all staff members both in this and other universities.
- The participants interviewed in this study managed to finish their training amidst numerous challenges and those who dropped out and who could further enrich the study with their experiences and challenges, were not part of this study.

## **5.7 RECOMMENDATIONS**

The introduction of ICT in learning and teaching is necessary for the improvement of the quality of education. The empirical study revealed that staff members experience challenges during their ICT training, which was in preparation for the introduction of e-learning. It is imperative that these challenges be addressed so as to create a training environment that is conducive for professionals to advance their skills.

The trainers need to recognize that the training of adult learners should be different from that of younger people because the theories of adult learning portray them as possessing special characteristics by virtue of their age and experience. Adult learners also need to be respected by the trainers. It is therefore necessary that the ICT trainers familiarize themselves with the assumptions of adult learning.

Through the challenges that were identified in the literature and the empirical study, it would be prudent for the trainers to gain consensus from the staff members on the planning and design of the training programme. Some of the staff members are senior lecturers and Heads of Departments and involving them in the planning would assist in the support that they would

offer their junior staff members in subsequent training. Involving the staff members in planning might also help in avoiding a clash between the training which the staff members are to receive and the lectures which they need to present.

During the ICT training the challenges of the lack of computer competence, amongst some staff members, inadvertently resulted in anxiety and general fear. The trainers need to be aware and show sensitivity towards the feelings of both the competent staff members and those who lack competence during training. The training staff members are therefore advised to conduct a skills audit so as to customize the training they offer for different levels of competency. In dealing with the group that is not computer competent, it is suggested that the trainers make a glossary of technological terms and provide their explanations to trainees so that they are not intimidated by their use.

In addressing the information overload, it is recommended that the training modules be divided into small segments that are followed by an assessment so as to ensure the cohort's grasp of the new information prior to moving to the next module. Whilst the availability of many facilitators is necessary, as suggested by the participants of the empirical study, it is further suggested that the non-competent group be afforded one-on-one sessions for further consultation. This would also assist the trainees who reported themselves as having been too timid to ask questions during the training sessions. These one-on-one sessions would also be beneficial to the trainers in evaluating the effectiveness of their training, as they would be in a position to assess the level of understanding of each trainee.

The researcher is of the opinion that if the trainers pay attention to the challenges that affect the non-competent group by creating a supportive environment, the confidence of the trainees would be boosted and this would impact positively on their learning. The supportive environment should be extended to include technical support during and after training. Each trained staff member could be given an incentive, such as a laptop, so as to increase the feasibility of extra practice and of preparing their ICT compliant lessons.

It would be prudent for trainers to take stock of working computers prior to training so that they are able to determine the number of trainees for the session as informed by the number of computers available for individual usage. The management of the institution is urged to work together with the trainers by providing the necessary resources prior to the ICT training.

ICT training would be a return on investment if management could look into:

- exposing the trainers to facilitation skills,
- encouraging the trainers to attend a course on adult learning or infuse that requirement when recruiting e-learning specialists/trainers,
- assisting the trainers by seeing to it that they approve of a server that will be dedicated solely to training purposes so as to avoid internet interruptions, as suggested by a participant during the empirical study, and
- approving out-of-campus training in order to decrease the movement between the training venue and the offices as well as classes.

The aim of the study was to investigate the challenges that staff members experience during ICT training. In this section the need has been identified for various stakeholders to play their part in supporting the professional development in the introduction of e-learning methodology. The creation of an environment that is conducive to effective ICT training has also been highlighted as a means of reducing the challenges that professionals face during training. The recognition of staff members' qualities as adult learners was also of importance in this study.

## **5.8 SUGGESTIONS FOR FURTHER RESEARCH**

This study has revealed many topics which need to be researched in the area of integration of ICT into teaching and learning. The researcher therefore proposes that further research be carried out in the following areas:

- The research was not conducted amongst the trainers. Research on the experiences of trainers in the training of their colleagues needs to be conducted so as to hear the side of the trainers about their challenges and their perceptions of the attitudes of adult ICT learners.
- Since the challenges identified here are also infrastructural, which is beyond the trainers' control, and is likely to be frustrating to all concerned, the trainers, as staff members, could research their successes beyond adversity by performing a quantitative study of the adoption of ICT in teaching and learning.

- The staff members who dropped out are also encompassed in the notion of adult learners referred to in the literature as having a motivation to learn. Research on drop-outs would assist in bringing out aspects in adult learning which both the adult trainers and adult learning scholars might need to consider in adult learning.
- The staff members, some of whom experienced challenges related to a lack of computer competence are expected to implement what they learnt in their teaching and learning. Further research might have to investigate the challenges in the introduction of e-learning in teaching and learning by these staff members.
- Finally, I propose that a study of the same nature be conducted where the recommendations would have been considered prior to and during the training.

## **5.9 CONCLUSION**

The rapid development of technology has given rise to its introduction to teaching and learning. Technology is a global trend and it is therefore imperative that for any education system to be globally competent, e-learning has to be part of teaching and learning.

ICT in education has many benefits which are aimed at making education student-centred. It encourages students to be responsible for their own learning and this, by implication, causes educators to be the facilitators of learning rather than being the sources of knowledge. Its introduction to education therefore necessitates the training of staff members in ICT. According to this study, many staff members who are supposed to lead the students in ICT blended learning were born before the technology era and this presents some problems when they have to be trained in ICT.

Throughout the literature reviewed and the empirical study the training of staff members in ICT has been characterized by challenges. These challenges were revealed in the eight themes that emerged during the data analysis of the empirical study, and have been discussed in depth.

This study has accentuated the characteristics that staff members as adult learners have, which trainers must take into account during their training. The study has further revealed that the challenges staff members experience during the training in ICT can be aligned to these characteristics as reported in the literature and by the participants in the empirical study.

The study ended with recommendations, some of which were deduced from the responses of the participants. These recommendations are meant to improve the training of staff members in ICT so as to avert the challenges which might be detrimental to the efficient introduction of e-learning in teaching and learning.

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## **APPENDIX A**

### **CONSENT FORM**

Dear colleague

I am conducting research regarding **the challenges that lecturers as adult learners experience in their Information and Communication Technology (ICT)/Blackboard (Bb) Training.**

I am interested in finding out more about **the problems that you encountered during your ICT training** which is in preparation for e-learning at Walter Sisulu University (WSU).

I am carrying out this research to help:

- Discover individual challenges
- Identify gaps in training
- Effect a change in training that will be more suitable for mature learners

The purpose of this research is to:

- Get to know the challenges/experiences you had in the training of ICT/Bb.
- Effect a change in training to suit the individual challenges of lectures in ICT/Bb as much as possible.

I have chosen you because you were amongst the groups that underwent training in ICT/Bb at WSU in preparation for e-learning. The research will be conducted with other groups (at other campuses) as well, because we hope to learn more about lecturers' challenges as learners in ICT and this will help us to adapt training to your needs.

Your participation is voluntary.

You will be assigned Letters e.g. ABC to be addressed with, and your names will not be used during the interview.

It will be a group interview which will be recorded and will last for 30 mins.

I will ask you a few questions on the challenges you experienced in ICT training and the challenges you have in general ICT use.

Prepared by: NP Ceza (Ms)

Consent:

Adapted from: TerreBlanche, Durrheim & Painter (2006).

## **APPENDIX B**

### **FOCUS GROUP QUESTIONNAIRE**

- a) What would you say were your challenges during the ICT/e-learning training sessions?
- b) Which emotions dominated during the first session of the training? Could you kindly describe them?
- c) Would it have helped to work as a group/in pairs/as individuals? If Yes, why?
- d) What is it that the trainers could have done to assist you in coping with the challenges you faced during training?

## APPENDIX C



Interview seating arrangement with letters by which participants were addressed.

## **APPENDIX D**

Appendices D, E and F comprise of the transcripts of interviews that were conducted with the focus groups on different sites. The interviewer will be represented by the letter I, and the interviewee will be represented by the letters with which they were identified during the interview sessions and their site number e.g. A1, A2 and so on.

### **FOCUS GROUP A**

I: Good afternoon colleagues. Thank you for responding to my request to have you participating in this research on ICT or e-learning training as lecturers. I am going to ask you few questions which I would like you to respond (to) freely. The first question is: What would you say were your challenges during ICT / e-learning training sessions?

*(No response)*

I: Any person? Common guys! (giggles)

A1: I think one problem or challenge, was internet.....ehm...

I: Yes....

A1: The internet was very slow. I remember one time when we had ...eh...when we had a session. So that was the major problem with it.

I: OK..

F1: Another challenge for me I'd say....it was about fear whether I'd be in a position to know how to do it in future.

I: Mhm...

F1: So I was not sure really and because of time, the people who were there as facilitators were running fast.

I: Ok..

H1: For me I'd say it was... eh... There were... a number of programmes - when computer programmes were introduced. For some reason I felt that that was quite a lot at once. Eh...m..and also the concern that.. about the fact that one is by himself or herself will be able to put to use all the.....that I learnt over the..., and also the question of the pace. You find that the people.... It was quite fast and eh...probably, there is nothing wrong with it, but the fact that some of us come from.....were not familiar with the jargon that we were using and all of that...so that was kind of ..challenge and also the

fact that you had to work all by yourself in your own laptop...probably if we were working in pairs it probably could have been much easier..

I: Oh.....ok.. Any other person?....personal challenge...

G1: Yes, to add to what the colleagues have just said, I think also the timing when we are running these training sessions .....you find that you are introducing something either midterm or mid session...so to implement that, that is going to take time, but if you were to introduce something, maybe at the beginning of the year, then, its easier to introduce it to the learners....than to train people mid year. Then you know that you have to prepare..

I: Mhm...

G1: ...before you introduce it to the learners.

I: Ok

G1: That timing also was a factor, also contributing...

*(Noise.....noise from outside)*

I: Any other person?

E1: Well I personally felt ..eh.. that the facilitator was moving too fast for some of us, .. as beginners to the ... to the Blackboard programme and .... I felt that there should have been more facilitators going around to show us exactly what is happening and guide us through.

I: Ok ....Fine.

C1: I also feel there was need for some formal assessment. It helps. You really work on the stuff if you know that there is something that is, if you.... but some kind of...so that you can judge yourself whether you have acquired all the tools you need....

I: So ... you mean assessment during training?

C1: During training.

I: Oh fine. Ok....thanks for that....Any other person?

F1: I would also say that...I don't know whether it would be possible that when they do this training they...as many have been saying that there be more facilitators, so that during the training they have certain individual attention whereby they go one-to-one person instead of standing in front of the class or the group, and presenting this using the slide. Instead there should be a person who goes to each and every one who is a learner.

I: Do you feel that you need that during training?

- F1: Ja ....that....that attention or individual attention. Ja, because I find that if I am doing it as a person was talking to me and I want to ask ma'am next to me, ma'am won't listen to me because she is also busy doing her part.
- I: Ok.....ok. Oh I get you. Any other input on that question.
- E1: I felt that they should have had a manual for the programme so that as they were going along, we could refer to the manual and of course, they promised that they would send us a manual even for recap afterwards, but up to now they have not sent us that manual, because....We who belong to the traditional method (giggles) so we still need that manual to compare...
- I: So you would read your manual during your spare time...that's what you mean?
- E1: Mhm...
- I: ...and when you go back to class at least you know,,,,,
- E1: Yes.
- I: Ok.
- C1: And also as someone was saying that there was a lot that was learnt in a short space of time. So having a manual eh... your own manual helps you in the sense that you can go home and try and recap and follow the manual on your own after having done the lectures or so...(inaudible)
- I: Mhm..... Fine.
- D1: And also you find that the manual will help you to .....to practise. For example, you want to implement what you have been trained (on), if you are stuck now without manuals, you take your laptop to the instructor to assist you and you find out that you had a manual you would just do it in your office as well.
- I: Ok, with that old traditional school.
- G1: I'm sure, about that manual, I think they must also put it on the net (network)
- I: Mhm..it be posted on the net... Any other thing.....on these challenges.....personal challenges that you experienced....but feel free to talk about them even when we are in other questions. Now my second question will be: Which emotions dominated during the first session of the training? ....Emotions, ja that dominated during the first session of the training. How did you feel?
- (Silence)
- A1: Eh.. like eh.. you feel like; here comes a solution, for instance, it takes a lot of things that you should do in class, for instance, preparing for assignments and blah..blah...blah.. and tests with Blackboard,..everything is there. The problem is: that it

takes time for you to set it up, but once you set it up, like...everything is (*gestures a thumbs up sign*) so that emotion of ex...(*hand gestures...*)

- I: Expectation?....at the very first session before you even heard about the...the..
- A1: Ja, if it has been introduced properly then, like it (*inaudible*) emotions.
- I: Ok..ok..mhm...Thanks for that.
- H1: Well also for me it was uneasiness about the fact that: will I be able to comprehend with all this and ehm.. and generally the fear of eh..eh... Self doubt with the general introduction of the various programmes and the jargon...around them and you know? So ja, those were the kind of emotions that I went through.
- I: That went through your mind?
- H1: Ja, that was before the programme and all that. Although some of them get allayed as we proceeded with the programme.
- I: Ok..
- E1: One other thing I felt ..that,... I was thinking about the type of student we are dealing with. So as I was sitting there, I felt my students who are still struggling with English proficiency, will they be able to grasp this? Because I was thinking this within myself. They are still struggling with English proficiency, now will they manage with this? Or is it too early for the Extended Programme? Will I have to implement this when they are doing their first year? Those were some thoughts that came to my mind.
- I: Mhm... Fine. Thanks for that.
- F1: Another..... I think for me it was a challenge in my emotions, now that I'm starting doing this thing as time goes on, as I look at the person who was doing the facilitation, I found that there are lots of steps that you've to follow even when you upload the document. Now that my background ... I didn't do IT, how I'm gonna be in a position to know how to do all these steps? And also my students now that we have lack of laboratories or computer labs, How these students are going to access this?
- I: Ok..
- F1: Those were the questions with me as much as we are doing this....because on the other hand, it is good and is going to save time.
- I: Thanks .....ok.....Any other emotion?
- G1: Like there was that excitement when this was being introduced,..like.. When we were told that there's this new version that we were going to use to help our students, but now there are lots of questions behind that. How are they going to? ....because that's

good but it requires more resources. Like we need,.... even if we have only computer rooms or computer labs, not lecture rooms. So that in every lecture room there is a computer. I think that can be ....right... for it to work perfectly. I think we can have such a situation here you just see that this is not possible for our institution. But now as time goes on you think..like...maybe we'll start somewhere anyway....in whatever we are doing.

I: Ok even if we could be having more eh...eh...computer labs than just normal classrooms. So that was what was happening in your mind?

G1: Ja .... so that can work very well if we can only have those labs. We can run our lectures in computer labs.

I: Ok. Thanks for that. Any other emotion...on the first session,....how you felt?

A1: Eh..its just eh..mixed emotion and the excitement, say...wow..what a programme where I can load everything, y'know, and eh.. I do it once and for all. But also the feeling... I know the internet: 1) it's slow and 2), to upload a stuff on Blackboard...it's quite a long time. So there was that.. I don't know whether to say eh..eh.. fear, to say: Will I be able to really upload everything?

I: Mhm...?

A1: Ja at the same time you felt that if I'm able to upload everything, then I'll be (*inaudible*) running once and for all.

I: Ok...Good!...I think everybody was, I mean, oh,.. were sharing the same sentiment.... I could see people nodding when others were talking. Now the third question will be "Would it have helped to work as a group I heard people talking of , y'know, being all by yourself in a computer. Now the question is: Would it have helped to work as a group or in pairs? And if Yes, why? Why would it help?

H1: Eh..m.. I think eh..m not necessarily as a group but in pairs. It would have helped, for example, the lady I was sitting behind, I could tell that she had a quick grasp of what was being taught as compared to myself, of course, and then I would keep on..... (*inaudible*) asking her how do you do this and all that. So I felt that if we had one computer/ laptop in front of us and both of us were working on that, it would have helped me in a way ...eh.., although time and again I'd have interrupted her, in listening and all that but to be paired with someone who is a bit uhm .... you know, knowledgeable towards,... I mean, on the computer and all that at least. I think it would have helped rather than being an individual, you know, and being all by yourself.

- I: So you say if you were to be paired with somebody even in pairing not just pairing anyhow but being paired with somebody who knows.
- H1: Well probably we would not have been in a position of detecting who is more knowledgeable before we got into the programme but probably just sitting in pairs would have at least helped in a way.
- I: Ok, ok. Or perhaps the facilitators could have found out as to who is more computer literate than the others, then perhaps that would help as far as the jargon you are talking about.
- F1: It also helps for listening skills because as much as the facilitator is talking then u find out that if you work as pairs or you work as a group, the for you if you are left behind, then another person next to you could hear what said.
- I: Ok
- E1: Well, I'll agree with (mentioning a name) because there were some IT lecturers there who were grumbling and were actually bored because like any student, if a student already knows what you (are) teaching about the student is bored. I felt that next time the people who are literate with the computer skills should be sitting next to one of us who are not more literate as Mrs Ceza is saying. That's how it should be grouped next time so that instead of being bored they could coach us.
- A1: On the other hand (inaudible) eh..eh..This is more like the hands on. You have to learn how to do it, you know, being in a group is probably fine. If and only if eh...m..each person is going to be able to work maybe on his or her own computer individually. Maybe you can discuss given that time to discuss or to consult, but each person must do it himself or herself on own..
- I: Own computer.
- A1: Own computer, otherwise if you look at someone doing it there may be a difference than when you are doing yourself so I think...balance. May be working as an individual with more facilitators moving around or probably having some sessions where we are just practicing what we have learnt probably a session of fifteen minutes to eh.. with someone not in front, but maybe moving around while we are given a task or something to practise.
- I: Ok.. ok. Fine.
- C1: I also think it is also relevant to the issue of the pace at which the courses have been conducted. It was a little bit too fast for adult learners. Eh ..eh.. so we didn't have time, like he is saying, to sit down and look at what we've learnt, revise and have an

opportunity to do something different on one's own, just to emphasize the areas that we have captured from the training programme.

I: Ok....Fine. Thanks for that. Any other person? Still the..e..working in pairs or single, or group. I think we've exhausted that one.

G1: What I was just going to say was that: It....that depends upon the people that you are going to train at that particular moment..

I: Mh...m

G1: ....because if you have a large group, then you can work in pairs, depending even on a size of the room that you are using but according to what I just heard now there are just advantages and disadvantages to both sides. Its either you group or you pair people or you go individually. Each has got its own advantages and disadvantages, but now at least if you have a reasonable number whereby you think, because now you can have one facilitator, if you are going to train five people, if with that one facilitator they'll go individually, but if you have something like twenty its not easy to go one-on-one, but if you have a small number of people that you are training, then I think that'll also work.

I: Then what would happen to what H said about him not grasping what was instructed to do and seeing that somebody had grasped that and then he had to keep on nudging. So if you were in his situation or if you were to solve his problem what would you say could be done, given this working in pairs, or as an individual or as a group?

G1: What I can say is that if we , let's say we have one facilitator, as we are just training our five people, then if one does not understand then he raise the hand for that particular minute. He can just attend you, let's say if we are twenty, then in that particular session it will not be easy for one facilitator if you only have one facilitator, but if you are a small group, then she can just go.... I mean...

I: Then let's say it's a big group, then what would you suggest?

G1: Big group, more facilitators, and you can also pair people if you don't have more facilitators. On facilitator presents and others are just amongst you as trainees, then they can attend to trainees as individuals.

I: So big group, many facilitators. Ok and if there's only one facilitator?

G1: Then you must split your sessions, you must train a small group then, whereby one facilitator can be able to attend (one-on-one).

I: Ok....ok, fine now I get you ok. Good. Now let's go to the last question. What is it that the trainers could have done...., I think it came up already as we were discussing.

People talked of the challenges and .... y'know, and bringing up some solutions at the same time. What is it that the trainers could have done to assist you cope with the challenges during training? If you were to assist them, what would you say they should do?

C1: I think one which is a constraint, is time. If they could not, they could not. Maybe I'm assuming they could add more time to their activities. But on some items we really needed more time to could have given us more time to exhaust those areas, make sure we are familiar before we are moving on to new areas.

I: Time.....ok.

F1: Also to make sure that they go to one-to-one, in fact not just standing in front of a group and presenting but, they should go around the group, individually or the groups (*on individuals or groups*).

I: Ok.

B1: I think, also they should make sure that the internet is working properly..... like ..eh... They have their own dedicated server even if it's even.....it's for that period.... training period.... But they should have their dedicated server so that they don't have problems of facilities....that....otherwise many people will be lost.

I: A dedicated server.... for the purpose of training. Thanks.

D1: The extension of time really, because two days is not enough for training. It ends up losing more information.

I: Two days not enough.

H1: I suggest that probably even before they design their programmes, there should be an acknowledgement from their side that; first of all they are designing this programme for specialists in their own fields. They might not be IT specialists.....especially if they are designing for lecturers, for an example. We are specialists in our own fields. I think even before embarking on a programme, our concerns and fears about, y'know the computer programme should be allayed, and actually.....y'know, make sure that the programmes that are designed for lecturers to be able to freely share whatever they learn with their students, for example, we have students which are fairly computer literate. So I should be concerned that that will I be knowing some of the things that I will be learning/ My students will be knowing more than I do. Those actually even when you are designing a programme there are those concerns and I mean those fears should be allayed.

I: Thank you for that. Any other person?

- E1: And ...the...during..... What I noticed was that there was only one facilitator who was qualified to teach, the rest were students from Groningen (Holland). There is a feeling that even if a person is a computer specialist, they should have some basic training in teaching because what happens is that they just talk, talk, talk,..... (inaudible). They don't really use teaching methods. That's why what we are talking about is not part of what doing. They don't know how they should facilitate because they have a diploma. Before you have to teach, even in a university or high school, you need to qualify. I feel that they should have some sort of workshops for teaching methods. That's what beats them.
- I: Workshops for teaching methods..for facilitators
- E1: Facilitators..
- I: I got that one. Ok. Thanks for that. Any other person?
- F1: Another thing that I think is more important about the facilitator is the character. I don't know whether (inaudible)...because you find that some of the facilitators are impatient if you are begging for extra time and again to say "please come and help", so they think that you don't know.
- I: So you are saying the character also counts? Mh..m.
- G1: Ok I don't know whether this ..(inaudible).. be like the timing whereby when we run these trainings we do not consider the time. I believe we have enough time during registration whereby there are no classes yet and lecturers then, they are free. They are available. Then they can be trained, but now if you just offer something midterm whereby one is preparing, maybe for test or setting papers for a ..... you find that now you are told this and you are busy with something and you don't quite focus very well on that or you get that training and now can't even introduce that mid... after you'd been trained. After you have been trained you have to introduce that immediately because it's a process, but if let's say,...maybe,..you are trained at a relevant time, whereby you have to prepare it so that when the classes start, then you will be able to introduce it even to the learners.
- I: So you say the timing is also important...
- G1: Ja
- I: .And you said something....so that the lecturers could be available to attend; and there's nothing else that you've got to go to, like going to class.
- G1: Ja...ja...like during registration, not every lecturer is involved, but they can avail themselves during that time and there are no classes that are currently running.

- I: Ok.
- E1: Oh yes, I agree with the last speaker, that they could perhaps arrange the workshops towards the end of the year, so that during the following year when the lecturers are busy with the outline, the programme is in the outline....course outline – and then during the year they can sort of, do some revision and recapping because by the time they want us to do this, as the speaker is saying, we have already had our programme and now our programme is delayed because we have to introduce something new during the middle of the year. (*Outside noise*)
- I: Thanks for that. Any other input? I think we have exhausted everything. Thank you very much ladies and gentlemen for assisting me in this. I'm hoping that we will be doing our best to attend to it because it is an action research, so your inputs are very important and we will be feeding that to the trainers for them to be aware that there needs to be some changes in the training. Thank you very much.
- Group: You are welcome.

## **APPENDIX E**

### **FOCUS GROUP B**

- I: Good..... thank you for responding to my request for having you participating in this research of ICT / BB as lecturers. I will be asking you few questions and I just want you to respond freely. First question is what would you say were your challenges during the ICT/ E learning training session are the challenges individual experience as a person?
- B2: I think I only saw one challenge which we had when we in the ...which was ..... the Blackboard system was very slow, so when it came to making clicks or links you had to wait for a while for a page to open. That was one challenge which I actually saw during the training.
- I: Thank you
- D2: In addition to that the other challenge was the fact that we were given a lot of information that we were suppose to know in a limited time
- I: Mhm...lot of information... Limited time.
- G2: Because of a limitation of time, there was not enough time for people to .....to practice. I think it was two days for training both for the theory and the practical and it ended up with little time for on hand .....
- I: Ok .....thank you
- H2: Yes it is the same problem of time that I also encountered myself as a result I could not finish from the PC that I was using I had to look and use other PC which was next door to me because I just could not finish all that was ... that we were train on because I was late. I came late, that the first thing I came late so I was trying to catch up with all that was done so as a result that because time was limited I could not even finish what was supposed to be done.
- I: Ok
- D2: The other point that I also want to ..... was the fact that we were not informed about what to bring for instance if we were to bring material to load so we did not have any material. ....to load in other words to make sure that this is practical.
- I: Practical.....mhm..

- D2: Like for instance notes we could have brought pdf files, power point slides to really see how that ...exactly, even to put them in categories, because there were categories assignment, test, notes, power point and so if we were told in advance that we should bring this things that would be much better
- G2: I think we were mixed in terms of levels for computer literacy we had people who are advanced and some who were tagging behind so I thing that created a problem. You know the assumption was that everybody was at the same level of computer literacy so that I think was a problem.
- B2: It would have been nice if people in their group so that slow learners would have been given .....time to learn concept new if .....fast learner and you are a slow learner then you are shy to.....because you see the people are moving fast maybe there is something wrong of you just keep quiet and you do not get what you really need to get so its problematic... the levels of computer literacy were different .
- H2: When we were asked to load information because of the problem of not being prepared our information or files .....sort of haphazard there was no logic. You realize later that I would have put this one in another file then later on you have to.....then there was no logic in terms of sequence.....and .....of information
- I: Mhm .....No sequence or logic. Ok. Thank you. Any other person with the challenge or other, that people can think of ? Can we then say that in future it would be advisable that people be grouped ..... are we just saying that..
- I& D: According to level of computer literacy
- H2: Of course I think another ..... Of suggestion would be to increase the number of people assisting in the session. I thing we had eh-eh was it one or two but we know that it took time for that person to really make sure that we are doing the right thing because there were not as many people to assist people individual.
- D2: On a one to one
- H2: Ja on a one to one basis you know teacher student ratio needs to be improved so that....
- I: OK .....we are talking of challenges. Any challenges experienced during training?
- A2: I did not experience much challenges because I am kind of computer literate who is following everything.
- I: So even in the training, there was nothing?
- A2: In the training there was nothing much that I was..... (inaudible)

- I: Thank you ..... Fine. Now coming to our second question: Which emotion dominated the first session of the training?
- B2: By emotions what do you want .....?
- I: I want to know when you were introduced to this new form of lecturing, I will say were you just comfortable that.... I mean were you not... I do not want to sort of lead people.
- B2: Ok I see ja I think I was not .....the environment itself was itself not new to me. We previously had an open source system where we did the same thing that Blackboard does so it was just like a different learning environment ..... I have been using before so it was not a new thing. It was just like let me see this one does it so for me it was just like that.
- I: Ok
- D2: To me it was new but then inspiring. It was really inspiring seeing that ...if I use this... this is good and you want to apply it. So it was really inspiring.
- I: Ok
- A2: It was new but I was excited that I could use computers to teach the students.....to teach .....(inaudible) .
- I: Ok exciting
- G2: I was eager to learn because I was briefly introduced to Moody at Rhodes university so how it was for me I was eager to find out how Blackboard works so that I could..., I had seen just briefly, you know, how lecturers at Rhodes university use computers in a similar way.
- I: Ok
- H2: I was also eager to learn because it was for the first time that I was introduced to this software. I was also interested to know what kind of this system is ....called Blackboard because I was having the picture of Blackboard in the true sense of Blackboard .....so I wanted to see how it looks like in the form of a... when you apply it in learning.
- I: Ok well we are talking of emotions the kind of emotions that a person felt when you were introduced ...I mean when you were to be trained for the first time on Blackboard what questions?  
(C2 being filled in as she has just arrived)
- C2: Eh eh eh the first time I was invited to or trained
- I: The first time in training ja .....emotions. We have passed challenges already
- C2: Oh I felt .....eh..

- I: I think we should just leave that for now and go to the next questions.
- C2: Oh you caught me off guard.
- I: Ok. The third question now, would be "Would it have helped to work as a group or pairs? And if, yes, why? Or were people comfortable working all by themselves in a computer?"
- A2: I think for me working ...ehm I was comfortable working by myself in the computer because when you work in pairs you tend to leave everything to someone who is .....one person does everything and then maybe the second person want to be able to do everything.
- I: Ok
- D2: I also think that it is advantageous to work as an individuals rather than to working in pairs because we are teaching different modules we are doing different things so its much better. You will understand it much better if you are doing it as an individual
- I: Ok
- G2: Well I was working with my colleagues in the Writing Centre we were ....three of us were setting together. Not working on the same computer....
- I: Ok
- G2: ....but we were working together so I think it did not make things for me a little easier especially when it come to the uploading of materials for instance we did not have materials we actually ....had some brief discussion where we help each other to come up with materials. So when it comes to the uploading of materials it did help us but I think it works better if like for the .....practical..... you are doing it on your own.....
- I: Ok
- G2: Because you can test yourself to see whether you are following.
- I: Ok
- H2: Yes I also want to say working as an individual helps a lot but in my case during ....it was two of us, myself and my colleague fortunately we know the module that we were working on so it became easy for us especial that I indicated earlier on that I came late so in order for me to catch up I had to be close to her, fortunately I set close to her so the two of us, and we had common understanding of the information that we had to upload in the computers. Otherwise to work on individual is fine because you gain experience.
- I: Good---
- H2: because the person won't be there all the time to help.

- I: Mh-m
- C2: Ok, with me working individually on the computer works, but then I sometimes enlist the help of the people who are close to me like if I miss a step I know I'll be left behind so I just talk to the person next to me and then also it help. Because sometimes you find out for your own even if you haven't been told what the next step is, you just explore and then you discover it yourself who even being told and that's the one that you get to--- like it stays with you rather than the one not to say that ok the other one doesn't----- but then the one now that you've discovered for yourself is the one that sticks.
- A2: One thing that I remember now is that during training the Computer got stuck a lot so sometimes you get ----eh—I mean you are left behind. So working alone in one computer but its better because eh--- you had neighbors to refer to but a computer did give eh-- problems.
- C2: Ja ---- they were so much problematic sometimes you'd have to walk you know you have to hope from one computer to another in order to you this one is not working and you jump to that other one.
- I: Ok----- Good
- A2: Then we survived. (*D leaving to pick up children from school*)
- I: Thanks the last question "what is it that trainers could have done to assist you cope with your challenges during training?"
- C2: I think we have already mentioned one mainly to have a lot of trainers instead of having one or to people to assist us because we are a lot and also to see to it that the system is working.
- I: Lot of trainers system working properly.
- C2: The computers must not always be stalling, always, always. We were on eight in my group so I think they managed well. There were 3 trainers.
- I: Ok
- D2: The other thing is to load our modules because we had to wait. I remember one time I had to wait they were saying they are still going to load (up load) my module where I was going to put some information in other word let me put it clearly really we were not prepared, we didn't bring any material so – eh—to improve this image at least material must be prepared.
- A2: Ja if we are told in advance what to bring which I mean... we heard here that we had to have these USB's to load.

- C2: Ja, you know
- A2: your material and yet ---- (inaudible)
- C2: So, ja, I think being told in advance works and also that our modules are loaded---- I remember the lady who was training us she was leading them whilst we were working ... we had to wait ... then come and ask "have you leaded yet?" "no I'm still waiting for someone in East London, what?"
- A2: (interjects ----- in-audible)
- C: but then you know if that all could be done in advance so that when we come here we just get.....Ja.
- A2: On the other hand we were told in advance to register our modules so that they load them in advance, so most of the participants who came ---- who submitted their modules and all that, they were teaching, they had their modules uploaded in advance.
- I: So meaning that then there had been a call for people to load their modules?
- A2: Ja during registration we had to give them the modules that we were training.... I mean you are lecturing so that they can load them in advance and they did that.
- C2: Oh?
- D2: Maybe because we were trained in different places and sites
- I: Mh-m.
- H2: In my group there was a call in advance and they did.. eh...ja...except that they did not tell us in advance what to bring.
- I: So now there needs to be uniformity in whatever the trainers are saying to each group...what is supposed to be done.
- H2: Because its time consuming when they have to upload our module whilst others are working and you are working to in somebody else's module and whereas you were supposed upload your own...
- C2: And then yours come and you are supposed to start afresh..
- H2: You start afresh.
- I: Ok.....Any other thing you want to....now that I've finished my questions with regard to the challenges....?
- A2: I don't know how relevant this one is. Are we talking about the training only?...because I was going to talk about ....students.
- I: Just the training.
- A2: The students.... because the thing is, I was so eager to use it and then only to find out that I can't because the students don't know anything about it.

- I: That will be a follow up research, but now its just about the training.
- A2: Otherwise I don't have anything about the training.
- I: Good.
- A2: Although there was no follow up to check hour we were doing eh—whether eh—Blackboard was treating us well and all that. So I think the follow up is needed as well because when you learn as a group, you ask from your neighbour! And you get everything, but when you are alone in the office you forget some of the things because you don't have the chance to write down whatever notes were ..... because we were doing it practically.
- I: So are you saying after training then there are needs to be follow up to check....before the actual implementation.
- A2: To check how we are doing .....how the participants are doing.
- C2: Or....we have access to....I don't know whether Mrs Mayisela is the person to contact but working on your Blackboard, when you get stuck.....who do you call? Is it her? because I saw a notice.
- I: At NMD, yes, it's her.
- H2: There is an email address that we were given but I think that's not enough.... just to check.
- C2: Well I don't know because I'm not on campus .....so I miss other things.
- H2: But I think there was an email to that effect from Mrs Mayisela asking us.....
- C2: Mhm (agreeing with H)
- H2: .. but I don't know the duration between you know, in terms of after training whether there was a gap or so but there was an email coming from Mrs Mayisela asking as to how are we are coping with Blackboard.
- A2: Maybe because we were trained in different groups
- D2&G2: Mhm (agreeing)
- H2: I think so ...
- A2: May be it was sent to one group and not..
- I: Yes that is another thing. I think that refers to uniformity of instructions.
- G2: Mh..m
- I: Ladies and gentlemen thank you very much for your time and for your response ehm I will keep you informed, hopefully. Thank you very much.
- D2: Thank you.

## **APPENDIX F**

### **FOCUS GROUP C**

I: Good afternoon colleagues. Thank you for responding to my request for the interview, so that we find out as to what the challenges were that you experienced during your ICT/e-learning training. I will be asking you questions and just feel free to respond as long as you respond individually. Thank you.

(Background noise)

Now the first question is: What would you say were your challenges during the ICT or e-learning training session as an individual?

B3: Mine was the introduction of the new version of the computer. I was used to using version 2003 and in the training, they introduced 2007. So I was so confused. I couldn't even know where are those elements if they are saying that those are the elements. I was looking for homepage, I didn't know what is it in the homepage - when you are looking for insert, you don't know what to insert up until after I'd used it in my office. I understood because of practice.

I: Oh... Mh..m...

B3: Point no. 2. I had the problem of the time. There were so many concepts that were introduced within a short period of time. So it was not easy for me to grasp everything that was introduced at that time up until now I understand because I am practising. I am familiar now with the concepts.

I: Ok.....Thank you. Any other person?

D3: I think on my side obviously as Mrs....

I: No names.

D3: It was about the background of computer literacy for other colleagues, not me, but I can say; for other people you find that it's quite a problem. No background on computer literacy and no skills that have been acquired and also the time which was allocated to the training. You find that if you are given a manual, you should also have a disc, where you could be able to give yourself time at home in your laptop. So the shortage of laptops that was very...

I: For practice?

D3: For practice.

- I: Ok, thanks you. Any other person?
- F3: I do concur with the 2 above presenters. I owned similar problems, but the major problem was the manuals. We were promised to get manuals. Up to date I've never got the manual, myself, and therefore I cannot practice and since computer is hands on,... a hands on training..., you can't bring it and just perfect it. We need those manuals as a follow up so that we can perfect the skills that we are taught.
- I: Mh..m.....Any other person?
- G3: My main problem was the time factor. We had to learn a lot of things within a short time and then there was no proper follow up on us, until..(*background noise of a late arriving participant*)... a longer period of time. I had to phone the presenter, then she sent me the manual electronically, but I can't,.....I needed her by my side to help me again so as to catch up on what we were doing in class.
- I: Ok..... No follow up?
- G3: No follow up.
- I: Ok. Any other person?
- D3: Mine was the question of network. It was a bit slow. In fact it was extremely slow. So what you would find is that the concept is being introduced and you are given time to practise it in the computer but then the network doesn't allow you...(background noise)..
- I: Mh...mm So there were network challenges?
- D3: Yes.
- I: Ok. No other challenges that people can think of? We've heard about the new version, the slowness of the network. No background with some colleagues in computer literacy, no manuals, the time factor and no supervision, no follow up....proper follow ups. Any other thing that you can think of? Ok that says we must go to the 2<sup>nd</sup> question, but if a person thinks of any challenges, you are free to come back to them. Now, What emotions dominated..... a person or an individual during the first session of the training? How would you describe the emotions that dominated you during the first session?
- B3: I was so nervous, to the extent that if I found that one of my colleagues are progressing with their task, I would want them to come and assist me because I'm left behind. It created a tension really in me.
- I: Ja,.....ok. Nervous. Mhm..
- F3: I for one, I think I was excited.
- I: Aha..

- F3: ....because in my opinion the skill that I was acquiring is a life long skill that was going to assist me in the process for further learning in my career. So I was extremely excited.
- I: Ok.... Extremely excited (writing down) for teaching and learning. Ok.
- F3: Ja.... I think I was also excited because most of the things you just do them even if you have no experience electronically (*noisy opening of the door.....sound inaudible*)
- I: Ok... Any other thing.....on emotions?
- G3: I was.... the whole concept was good, but with the limitation of the computer and we had to work at times 2 of us in one computer. When you fail to perform on the task, then here you've got your friend,...that created some confusion.
- I: Mh..m
- G3: I wish in future there could be more assistance, that we had one or two and we are too many for those two assistants.
- I: Beautiful. I will be coming to that. Thank you.....thanks for that. Now are we all through about the emotions? Any emotions you felt during that time? Ok. Now let's move to the 3<sup>rd</sup> question: Would it have helped to work as a group or in pairs or did the people prefer working as an individual in your PC?
- D3: It would have been good for us to work as a group of lecturers teaching that particular subject. For example, if you say: I'm teaching the Cost Accounting in Zamukulungisa we need all the sites to combine the information together because what is the point there whilst this thing of uploading the information on the memory stick whereas you find that some will have a hard copy for the learner guide, some others will have a soft copy. So all these kind of things create a lot of confusion so it would have ...like.... uploading information .....having the information which would be the same altogether. I think that would be fine.
- I: Ok.
- F3: Can you please pose the question again?
- I: The question is about ja....is about working in the computer. Would you have preferred to work all by yourself, or you work with another person as a pair either for the same course or for different courses, just to be taught Blackboard in the computer? Would you have preferred that you be all by yourself or you be in pairs?
- F3: I think in my opinion, if we had trainers, I would have preferred to work as an individual because here he skill that I have mastered and probably at a later stage to work in

groups. But in the initial stage I believe it would have been more beneficial to work alone with more guidance. I mean, good computers and more guidance.

I: More guidance.

G3: I think if we had worked in pairs we would share ideas where you are stuck, the other person would help you even if you are developing different, different subject matters. But if you are in pairs, it's better. You learn more that on your own.

I: Ok, So you feel that it would have helped you to be with another person...to share

G3: Actually that's what we were doing. I'd get stuck, I'd turn to her...

I: Ok

G3: but if we are together, we would share...y'know. Here we should do this.

I: Mh..m

G3: Mh..m

B3: Mine is different. I want to be alone. Why? My ability to understand...to learn, is different from others'. So I need my own time.

I: Mh..m

B3: ...If I'm grouped with other people, maybe they'll even be easy to grasp the concept and I'm left behind and maybe I won't be now eh...eh.. I don't want to be known that I'm a little bit slower to (laughter) to understand. So I'd prefer an individual practice other than the group.

(Background noise as another participant arrives late)

I: Ok.

B3: Oh what will happen is that if now we are meeting for the groups that we are teaching, then we can meet now as the group, if we are going to have a task that'll be relevant to our subject that we are teaching, but if they want to train me in terms of computer literacy, I want to be alone so that I can understand each concept that they are training...

I: So as to understand each concept always, that is, you know for sure (that) you know what you know.

B3: Yes

I: Ok...eh...m.. Welcome H. We don't refer to people by names, we refer to them by the letters (pointing at the letter in front of the gentleman).

H3: Oh, alright.

I: Ja eh, I'll just go back a little for you because I want to know the challenges that you experienced during the training.

H3: Alright.

- I: Other people have talked about theirs, now I want to hear from you.
- H3: Alright...eh..Thank you. Thank you Ms.....Eh..let me start by saying...let me..apologize for being a bit late, just one of those things that crop up sometimes because eh, I had a colleague from Butterworth...
- I: (motions that he is being taped)
- H3: Ok...I had a colleague from Butterworth who wanted me to assist her with something, therefore I had to prioritize.
- I: Ok...No... fine. It's ok.
- H3: Ja, with regard to the challenges or problems, as you indicated....eh.... I hope we are of the same wavelength. We are talking about Blackboard or e- learning. Alright?
- I: The training.
- H3: The training? Well I....., frankly speaking, I didn't have problems as such with Blackboard. It is very user friendly. The programme is very user friendly but such that one does not have time, but my plan is that at the end of the year, come December, when I've got less work that I'll be able to practise it. So for me it's just practise, basically. I didn't have problems as such.
- I: During training? My question, my concern is just about the day of the training. Whatever happened thereafter is not much concern, but the problems you experienced during training.....
- H3: Ok... the training?
- I: But you did mention time factor which most people mentioned and then the second question was about emotions. What emotions do you feel you had during the time of training? Any particular, you felt?
- H3: Well...eh, I'd say positive and negative, y'know? In the sense that I was excited about the programme and then as time goes by, then I realised that this programme is really intense. One has to....in order for one to be able to use it at least, one should have had an experience or exposure before...right...but then, I was given the training so my ... I had mixed so to say in the sense that I was happy but at the same time a little bit worried that I wont...it would take time to understand this programme. You understand what I'm saying?
- I: Mh..m... Oh fine.
- H3: Ja. So those are the mixed emotions that I once had....
- I: That you experienced?
- H3: Ja, during training.

- I: Fine. When you joined us we were talking about the.... whether people preferred to work in pairs, or as an individual during training. Did you... would you have preferred that you be having your own PC or be paired in a PC during training?
- H3: It's normally good for one to have his/her own PC in front of him, so that while presentation is taking place, you be able to make those moves in your own computer. So when it comes to that, because there was a presenter there, but the problem which was just... I would say it was just a question of shortage of resources when we had the first training because there was no overhead projector, of which it was a bit difficult now for us to be able to see what they wanted to project and be able to relate to it. So that was the only problem.
- I: Ok.
- H3: Of which it was a question of shortage of resources or poor planning, because they could have organized overhead projectors on time, so that when they are making the presentations, then people are able to see what they are teaching.
- I: Ok...thanks then. Now coming to the last question: What is it that trainers could have done to assist people to cope with the challenges during training? You've just mentioned one of planning ahead. So as to help you with the challenge of not being able to see what they wanted to project. Otherwise, other than that, what are the things people feel the trainers could have thought of...or what they should do?
- H3: Ja, oh, thank you about that. Eh, I think eh, I have mentioned the question of time. I've mentioned planning, If they can improve on that, and again eh., resources..is also a problem because as I've indicated that there was no projector, of which it was going to be nice. And obviously I've talked about poor planning. So if they can iron up on those too,, though I know when it comes to resources, it will probably take time to have adequate resources, y'know.
- I: B, your hand was up..
- B3: Mine is the concern of splitting the training into months, not in a week. At least they should come up with an introduction of one or two concepts – not to give us full information within one period.
- I: Ok. Fine.
- H3: Ja, can I also add on that one.
- H3: oh I wanted to add something but seeing that it's her chance, she must continue that...
- B3: No I'm through. I'm trying to say: for flowing of responses, we were given each one a chance. If you have something to add on wait, up until.....they

- H3: Oh.... thank you.
- I: F, your hand was up.
- F3: Ja, I'm also of the opinion that probably planning was not properly done, because in the past instance, they should have broken the programme into two sections, whereby people like me, who are almost illiterate in computer should have been given a chance at first to familiarize themselves with computer skills. Then get the computers in that particular lab to see to it that they were all working, because some were not working perfectly, like was previously mentioned that some of the computers were too slow for computer training...
- I: Mh..m
- F3: ...And manuals need to be prepared beforehand so that they come with them, because we can,....or given to the prospective learner beforehand so that they can familiarize themselves with what they are going to learn.
- I: Manuals.
- F3: Yes.
- I: Ok. Thank you. Any other person? On what the trainers should have done to make the people cope?
- H3: Thank you. Just to add to what one of my colleagues have just said about the volume of work that we were..... I think the period was a bit short because, really for a training of that nature which encompasses a lot of things, at least, maybe eh..eh..a week, weeks or even a month. And I would suggest that if that could be done during January, when we are not that busy with our work. I think it would work for us because y'know, eh... if it's done during the course of the year, you find that people would jump and do other things in their offices or attend to lectures; and then the training is not that intense in that way then, because poor people will miss up on certain issues and on certain things.
- I: Thank you. C your hand was up.
- C3: Well I'm not sure whether I'm getting what Ma'am has just said. What I wanted to say was that I think if we had perhaps enough trainers/coordinators for the workshop, it would have suited us because what you would find was that you would be left behind and you want to ask more but there are not enough coordinators.
- I: Ok...., A.
- A3: Another thing I want to add on training, the training should not only...(inaudible) for staff members. As a Writing Centre Coordinator, when it comes to...when I have to take my students for Blackboard, the Student Assistants in the Writing Centre, they know nothing

about Blackboard which they should have been trained prior or immediately after the staff have been trained. So it doesn't work well now. It doesn't gel well.

I: Ok. Ok, alright. Good. Any other thing we feel the trainers should include for people to be able to cope with challenges?

A3: Also they should have booklets, because the minute you get out of that training, intense training, you have forgotten some of the things. At least we must have a manual.

I: Manuals. Ok. Yes G.

G3: They need to monitor how their candidates are performing for follow ups, so that they help them to understand Blackboard better than before.

I: Ok. Yes B.

B3: I don't know whether it has already been highlighted but I remember that at least we should have man-to-man training, not workshop per se, for us to understand what is to be done in the computer, especially for those who are already matured. They need somebody next to them to teach them.

I: Man-to-man training especially for those who are matured.

B3: They are easy... They are easy to forget, that's the problem.

I: Easy to forget.

B3: Easy to fall asleep.

I: Easy to fall asleep.

B3: If you are far away from them....you better stay closer to them.

I: Ok.... Any other input? Well colleagues, I think that brings us to the end of the session of this interview and thank you very much for responding. I will keep you posted and I hope all the challenges that we were talking about will be looked into. Thank you.