A PHENOMENOLOGICAL STUDY OF THE LIVED EXPERIENCES AND MEANING OF BEING A STUDENT WITH A PHYSICAL IMPAIRMENT AT AN OPEN DISTANCE LEARNING UNIVERSITY

BY

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DECLARATION

I, Tonny Nelson Matjila, student number: 4223-809-9, hereby declare that the study *a phenomenological study of the lived experiences and meaning of being a student with a physical impairment at an Open Distance Learning University* is my own original work, and that all the sources that I have cited have been indicated and acknowledged in the text as well as in the list of references.

I further declare that I have not previously submitted this work or part of it for examination at Unisa or for another qualification at any other institution of higher learning.

(Signature) **(Date)** **27 February 2018**

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ABBREVIATIONS

ARCSWID	Advocacy and Resource Centre for Students with Disabilities
CHE	Council for Higher Education
DoE	Department of Education
DoBE	Department of Basic Education
DHET	Department of Higher Education and Training
DHH	Deaf and Hard of Hearing
EWP3	Education White Paper 3 on The Transformation of the Higher Education System
EWP6	Education White Paper 6
FOTIM	Foundation of Tertiary Institutions of the Northern Metropolis
HI	Hearing impairments
IPA	Interpretive Phenomenological Analysis
MI	Mobility Impairment
ODL	Open Distance Learning
POPI Act	Protection of Personal Information Act
SASL	South African Sign Language
UK	United Kingdom
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
USA	United States of America
VI	Visual Impairment
WHO	World Health Organisation

ABSTRACT

The main aim of this study was to explore the lived experiences of students with physical impairments, as well as the meaning they attach to being a student with a physical impairment in an Open Distance Learning (ODL) university, and to give a voice to these students. The objectives of the study were to (1) explore the experiences of students with physical impairments in an ODL university, (2) explore learning experiences of students with physical impairments, and (3) explore the feelings and thoughts regarding an ODL environment. The study sought to answer three questions: (1) What does studying in an ODL university mean for students with physical impairments? (2) What are the experiences of studying in an ODL university while having a physical impairment? (3) How does it feel to study at an ODL university?

The conceptual framework of the study consisted of concepts of the person-centred theory and the biopsychosocial model of disability. The person-centred theory provided a basis for the study, since it is in line with the constructivism paradigm, as well as the phenomenological research design. The biopsychosocial model of disability provided a coherent theoretical explanation of disability and impairment by taking into account the person's biological, psychological aspects as well as social influences. The literature reviewed provided a theoretical background in similar studies, as well as fundamental principles of ODL through the transactional distance theory and the fifth generation model of ODL.

The population of the study consisted of students with physical impairments and purposive sampling was employed to collect data from students with visual, mobility and hearing impairments studying at an ODL university. Qualitative data were collected through semi structured in-depth interviews. The data were recorded, transcribed, and analysed following the Interpretative Phenomenological Analysis principles that employs the the Atlas t.i qualitative data analysis computer program.

The themes emerged from the codes, applying the Moussakas and Collazzis method of analysis. The themes in question were expereinces, accesibility, provision of student support services, feelings, transactional distance, as well as having physical impairment.

The results firstly confirmed the challenges faced by students with physical impairments in an ODL institution – these were challenges related to accessing the curriculum and student support services, infrastructure as well as online platforms. The challenges and experiences evoked mixed feelings in participants. The findings showed that access to infrastructure is not only a

challenge for students with mobility impairments, but is also a challenge for students with visual impairments. Furthermore, the bursaries and funding for students with physical impairments lack inclusivity, and do not fully take into account the psychological, physical and biological needs with regards to assistive devices that students require to excel academically. Lastly, the findings showed that the university ICT systems are not in sync – hence the delays encoutered by students in receiving efficient student support services.

Keywords: biopsychosocial model of disability, lived experiences, ODL, person-centred theory, phenomenology, physical impairments

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CHAPTER 1: INTRODUCTION

1.1 Theoretical background to the study

According to the World Health Organisation [WHO] (2011), there are more than one billion people in the world living with some type of disability. Due to the aging population and the resultant increase in chronic health conditions, the prevalence of disability is on the rise.

Disability is a global phenomenon, as evidenced in the study conducted by Healey (2014), which shows the growth of this interdisciplinary field that emerged in the 1970s in the United States of America (USA) and the United Kingdom (UK). The study of disability is an emerging field of research; hence scholars are beginning to question the notion of disability as a sickness that requires a remedy, as conceived by the medical model of disability.

There is a thin line between disability and impairment. Impairment may be physical, cognitive, mental, sensory, emotional or developmental. Impairment refers to the loss or abnormality of psychological or anatomical structure or function (WHO, 2011). Disability on the other hand, is an umbrella term encompassing impairments, activity limitations and participation restriction (WHO, 1980).

It seems like studies have not been able to define disability, due to its multidimensional nature. Where disability as a construct is perceived from the medical point of view, it becomes fixated on the individual's body or mind (Lourens, 2015); whereas it is perceived and interpreted differently from a social model, where the description moves from a person to the socioeconomic, cultural and political discourses that disadvantage the individual (Greyling, 2008). The next chapter provides the definitions of disability and impairment, with reference to the biopsychosocial model of disability.

The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2016) views disability as a dynamic and evolving phenomenon. According to the United Nations disability results from an interaction between persons with impairments and barriers that limit their participation in society, thus rendering them unequal to others.

The constructs "disability" and "impairment" have been used interchangeably in the literature reviewed – however, for the purposes of this study, the researcher has adopted the construct impairment, where impairment refers to the physical or medical basis of a disability that

encapsulates the limitations of physical, sensory or psychological functions (Barnes & Mercer, 2005).

Matshedisho (2010) indicated how research on disability issues responds to the provision of student support, legal protection, discrimination and self-determination. The provision of student support affects the successful access and performance of student with disabilities (Matshedisho, 2010). These four aspects resonate with the problem statement and research questions of this study.

Leyser's (2008) study also showed how the four aspects of disability that were highlighted by Matshedisho (2010) contributed to the success of most students with physical impairments in institutions of higher learning. The success of most students with physical impairments seems to depend not only on their own efforts, the physical accessibility or the availability of services. However, it also depends on the universities' knowledge, attitudes and willingness to provide reasonable accommodation to them. Reasonable accommodation in this context refers to modifications of the physical environment (including buildings) and academic programmes. This affords fair and equal opportunity for them, to participate in the learning activities.

Williams (2016) reiterates this notion by asserting that the lack of student support impacts negatively on the perseverance of female students with physical impairments. Her findings showed that some participants were sensitive and fragile psychologically, and have had more traumatic experiences than others, while some were stronger physically, even though they were all contending with disabling impairments and pain.

Saunders, Nolan and Provost (2009) observed some important considerations from an academic management perspective. Their observation was in relation to the nature of individual differences, which was found to play a part in protecting students from the impact of negative experiences during their orientation. This observation was not only made in relation to the existence of barriers to teaching and learning, but also that these barriers have implications for rethinking student support for students with physical impairments at ODL institutions.

Jacklin (2007) also examined the experiences of students with physical impairments and recommended processes such as awareness and communication, accessibility, flexibility of the curriculum, as well as monitoring the profile of students with disabilities. This recommendation seems to resonate with the idea of supporting students with physical impairments because it responds to the widening of access into institutions of higher learning.

In the same breath, Gumbi, Cekiso, Makiwane, Bojanyana, Dlava and Wakaba (2015) highlight the benefits of widening access for students with physical impairments in institutions of higher learning. Their research suggested a positive correlation between widening access to accommodate students with physical impairments and the chances of obtaining and maintaining employment, earning higher salaries and attaining lifelong independence, coupled with an enhanced quality of life.

Therefore, it is important for students with physical impairments to have access to education as education is a predictor of gainful employment in meaningful occupations, and opens doors for career development (Department of Education, 2001) – hence the need for a better quality of life.

Gumbi et al. (2015) further explored the challenges faced by students with disabilities in face-to-face institutions of higher learning, with a focus on accommodation; mainly physical access. These researchers highlighted the barriers to learning that include time management. The study responded to aspects such as requiring more time to read a section of a book, extra time during examinations and improved visibility, and further suggested that projectors be used in lecture rooms.

There seems to be a lack of coordination on the student support services in institutions of higher learning. Examples of these student support services include counselling, library, examinations, student funding and registration. These currently function independently from the academic support provided by lecturers and tutors. The lack of adequate student support services often creates challenges; hence there is a need to form independent student support structures for students with physical impairments in institutions of higher learning.

The problem that has been identified by Howell (2005); Matshedisho (2007) and (Saunders et al., 2009) is that disability support services has been excluded in the conceptualisation and practices by academic and support staff, specifically in the fields of pedagogy. This leads to the failure to archieve the goal of promoting and coordinating inclusivity of disability in academic support structures.

The tendency of separating disability support from other support services confounds the possibility and the need for teaching and learning methods, as well as student support

environments to be interrogated and ultimately re-shaped in terms of the requirements of the inclusion of students with diverse needs (Howell, 2005).

1.2 The background of disability in the South African context

The General Household Survey in South Africa (Statistics South Africa, 2014) indicated that 5.1% of South Africans aged 5 years and older were classified as disabled in 2014. A larger percentage of women (5.5%) than men (4.7%) were classified as disabled. North West, Northern Cape, and Eastern Cape (7. 4%, 7.1% and 6.8%) respectively presented the highest prevalence of disability in the country. Since older populations are more likely to have a higher prevalence of disability, the lower prevalence in Gauteng and Limpopo was ascribed to the relatively youthful population often migrating to these provinces.

The South African educational landscape prior to 1994 shows that the disabled population was systematically excluded from educational and employment opportunities (The Presidency, 1997).

The lived experiences of black and white people with disabilities under apartheid were very different and reflected the general inequalities in the South African population. The daily lives of the majority of South African people with disabilities were characterised by different types of struggles that included contending with poverty, deprivation and the violence perpetuated against them – struggles, which were further compounded by their disability (Howell, Chalklen & Alberts, 2006).

These malpractices were also common in the educational context. The assessments by professionals indicated that when a learner had a disability or impairment, the next logical step was to confine that learner to a "special school." These schools applied the medical model, where it was perceived that the problem was with the learner; and the message sent out was clear – that learners with disabilities or impairments were tragic occurrences, and were dependent and different (Priestley, 1999).

This means that the education system at the time accommodated learners with impairments from early childhood through to the foundation phase and high school – but excluded them from participating fully in tertiary education. This has led to a situation where learners with

impairments were unable to obtain university and college degrees, thus reducing their prospects of finding decent jobs (Gumbi et al., 2015).

Post-1994 the South African government promoted and widened access to institutions of higher learning for learners with disabilities. The White Paper 3 on the Transformation of the Higher Education System (Department of Higher Education, 1997) highlights the need for an equitable system of higher learning that is devoid of all forms of discrimination that includes people with disabilities. This requires that learners with impairments be given fair and equal opportunities to access programmes offered in institutions of higher learning in order for them to have successful careers.

The Education White Paper 6 on Special Needs Education (Department of Education, 2001) sought to convert special schools into resource centres with the additional establishment of full-service schools.

The researcher's opinion is that despite a progressive legislative and policy framework that seeks to address the exclusion of disability in institutions of higher learning, access and support for students with physical impairments remains limited. However, the White paper for post-school education and training (Department of Education, 2013), which is informed by the National Development Plan - Vision 2030 (The Presidency, 2011), addresses the implementation plan on the new strategic framework that is expected to address and open wider access and participation for people with disabilities in all sectors.

One of the enabling milestones outlined in The National Development Plan - Vision 2030 (The Presidency, 2011) is to ensure that skilled, technical, professional and managerial posts reflect the country's racial, gender and disability makeup. The National Development Plan - Vision 2030 provides a framework that integrates disability into all facets of planning. However, this is no-one-size-fits all approach – a challenge highlighted in The Integrated National Disability strategy (The Presidency, 1997).

Mogane (2010) showed how inclusive education has spread to tertiary educational institutions in South Africa. The majority of students who register to study at institutions of higher learning in South Africa are beset with various types of disabilities and impairments. Intensive and extensive support programmes and interventions are solely required to help these students cope with problems associated with normal growth and development faced by the youth all over the world, as well as the arduous demands of post-matric studies.

Access to institutions of higher learning is gradually becoming more inclusive for students with impairments. Thus, there seems to be a steady shift towards supporting students with impairments in institutions of higher learning in South Africa. However, not all institutions of higher learning have responded to the diversity rights framework (Matshedisho, 2007).

It is therefore, expected of institutions of higher learning to implement policies that support students with impairments. While this strategy (framework of human rights) recognises the need for institutions to provide support to students with impairments, it relegates the task to the Department of Higher Education (DHET) and not universities (Howell, 2005).

In this regard, DHET, through the Council on Higher Education (CHE), funded a national survey on the status of disability support programmes in institutions of higher learning.

1.3 The background to disability in the South African Open Distance Learning (ODL) context

Despite the challenges associated with lack of student support, as well as student retention faced by most ODL institutions, The Ministry of Education identified ODL institutions that should help in widening participation in institutions of higher learning (Makina, 2008).

Although ODL has been acclaimed for providing students access to institutions of higher learning, especially students who were previously denied this right, this formal admission has not been matched with adequate learner support strategies to ensure its success (Makina, 2008).

According to Tladi (2010), the proportion of students with disabilities in one ODL university was found to be below the national employment equity target of 2%, with less than 1% of students with disabilities (physical and visual disabilities at 15.9% and 20.6% respectively). The South African Department of Education has since revised this target to 7%.

Most ODL institutions have dedicated units for students with disabilities. These units usually operate within the framework highlighted by Matshedisho (2007) and Howell (2005). The units are usually located within the portfolio of student affairs and provide the following services:

- production of study material in alternative formats; including braille, large print, electronic and audiotape;

- facilitation of needs-based support in terms of assignments, examinations and the curriculum;
- provision of sign language interpretation services for students with hearing impairments;
- provision of training to staff on accommodating the needs of students with disabilities;
- development and implementation of advocacy and awareness-raising programmes, and
- the undertaking of the recruitment drives to encourage students with disabilities to study through ODL institutions.

1.4 The background on financial assistance for students with physical impairments in ODL institutions

Currently there are three different types of funding opportunities in South Africa that cater for students with physical impairments; namely scholarships, bursaries and study loans. The Department of Labour (2018) elaborates on the funding framework for students with disabilities and describe different types of funding as follows:

1.4.1 Scholarships

A scholarship is an academic financial sponsorship awarded to an academically deserving student, with conditions attached to it and criteria that the candidate must meet. The sponsorship awarded may cover at the least, a portion of the student's tuition – and if the payment does not cover the fees in full, the student or their parents have to make up for the shortfall. The good thing about a scholarship is that the student does not have to pay any of the monies back. In most cases, the beneficiary of the scholarship has to maintain a certain average in terms of their marks, and stick to the terms and conditions set by the sponsor. For example, an athletic scholarship may require that a student maintain a 60% average pass and excel in athletics. This type of funding is not common in ODL institutions, because students do not necessarily participate in sporting activities on campus, due to the nature of ODL (students are not on site to attend classes). For applicants with disabilities, an assistive device should be used to ensure, as far as possible, that their experiences are not unpleasant, as opposed to that of applicants with no disabilities.

1.4.2 Study loans

A study loan refers to money borrowed to pay for tuition (in some instances accommodation too) that has to be paid back with interest. Different loan products incur different interest rates. It is therefore, important for students to understand the terms and conditions of the loan agreement – that is, how interest accrues. Only a registered financial institution should grant study loans. One that stands out the most is the product offered by the National Student Financial Aid Scheme (NSFAS), which also adds sponsorship for special tools that assist students with physical impairment throughout their academic career. The maximum and minimum amounts applicable to all NSFAS loan awards applies, but excludes any value in addition for the cost of an assistive device, up to a maximum of R27 951.00 in any given year.

1.4.3 Bursaries

A bursary is an academic sponsorship that covers the full cost of the candidate's study, including study material, tuition, accommodation, and sometimes living expenses. It is granted, based on the student's financial need and/or good academic results. A bursary is paid back in service to the company or entity that sponsored the candidate, for an equivalent number of years the company has sponsored the candidate. Although a bursary covers the student's fees, should the student fail a module or modules, they will have to pay for themselves in order for them to repeat the module. The Department of Labour is the main sponsor for student bursaries.

Therefore, the assistive device does not only serve to improve the quality of life of the applicant with a disability and reduce the cost of dependency and care, but also serves to enhance the prospect of employment and participation in the economy that is facilitated by a higher education qualification.

1.5 Traditional university context: University of the Witwatersrand as an example

The University of Witwatersrand Policy on Students with Disabilities (Wits, 2013) follows the framework of human rights as highlighted by Howell (2005) and Matshedisho (2007). The

university also follows the inclusivity approach that obliges all the faculties and the broader Wits community to abide by the policy of supporting students with disabilities.

The said policy outlines a clear distinction between disability and impairment, and seems to follow the medical model of disability, where students with impairments are required to produce medical certificates on registration in order for them to access bursaries dedicated for students with disabilities, as well as the specialised student support services dedicated to students with disabilities.

1.6 Gaps in the literature

Despite a growing body of literature on the day-to-day lives of students with impairments, the literature on the voices of students with physical impairments in South Africa is limited. The Foundation of Tertiary Institutions (2011) conducted the largest study involving the experiences of students with impairments in South Africa. The sample of that study constituted student with impairments registered at face-to-face institutions of higher learning in South Africa.

Although studies conducted before focused on aspects of impairments in institutions of higher learning in South Africa, the voices of students with impairments are absent (Howell, 2005; Matshedisho, 2007). Such studies are limited – those that were conducted gave voices to students at tertiary institutions around KwaZulu-Natal in face-to-face universities. Prominent voices are mostly those of the student advisors and senior managers, and not the voices of the students themselves (Howell, 2005). This silent voice of a student with physical impairments has led to the lack of proper student support for students with physical impairments.

This study therefore, sought to provide a synthesis of data from participants and similar studies conducted before. The study would also contribute to the understanding of the lived experiences and meanings that students attach to their environments during their time at an ODL institution, in the context of Africa and South Africa.

1.7 Statement of the problem

This researcher identified a gap in literature on the experiences of students with physical impairments, especially students studying at Open Distance Learning institutions.

A study by Jacklin (2007) indicated that most of the studies that focused on the experiences of students with physical impairments were conducted in developed countries such as the USA, and have mostly focussed on awareness, accessibility and curriculum flexibility.

Similar studies conducted in South Africa were done in the context of non-ODL institutions and furthermore, do not project the voice of students with impairments (Gumbi et al. 2015). Most of the studies that were conducted in South Africa focused on the experiences of visually impaired students at face-to-face universities (Kasiram & Subrayen, 2013; Lourens, 2015). Mokiwa and Phasha (2012) conducted a similar study, which focused on the experiences of visually- impaired students at an ODL institution. However, their focus was mainly on the learning experiences of visually impaired students concerning the use of Information and Communications Technology (ICT) in the course of their studies.

Although most ODL institutions in Africa have the statistical data of students with physical impairments, there seems to be a scarcity or absence of literature on the lived experiences of students with physical impairments.

This lack of voices has resulted in poor or inefficient provision of student support services in ODL institutions that often leads to the inadequate accommodation of students with physical impairments.

1.8 Research aim and objectives

The current study aimed at giving a voice to students with physical impairments studying in an ODL university. In order to achieve this the researcher set the study objectives, which were to:

- explore the experiences of students with physical impairments in an ODL university
- explore the meaning attributed to the experiences of students with physical impairments in an ODL University, and

- explore the feelings and thoughts of students with physical impairments regarding an ODL environment.

1.9 Research questions

The study sought to answer the following questions:

I. What does it mean for students with physical impairments to study at an ODL university?
II. What are students' experiences of studying at an ODL university while having physical impairments?
III. How does it feel to study at an ODL university?

1.10 Rationale for the study

The researcher has completed his Bachelor of Arts and Honours Bachelors of Arts degrees, with Psychological counselling as a speciality at an ODL university. The researcher is currently employed as an Administrative Officer in the Student-Counselling Unit at an ODL university. Most students with impairments are referred to the counselling unit for therapy or career counselling.

The apparent lack of voice for students with impairments and the fact that decisions are taken on their behalf without involving them motivated the researcher to embark on this study. The voices of these students, if given prominence, will contribute to the development or amendments of policies relating to impairments and disability at institutions of higher learning.

1.11 Literature review

The literature review identified the experiences and meaning of being a student in institutions of higher learning. This also encapsulates a background on the ODL theory: The transactional distance theory as well as the 5^{th} generation model of ODL.

1.12 Conceptual framework

The current study is situated within the conceptual framework. Conceptual frameworks are indeterminist in nature and therefore, do not enable researchers to predict an outcome. Rather than providing a theoretical explanation, as in the case of quantitative models, conceptual frameworks seek to enhance understanding (Miles & Huberman, 1994).

The theory and the disability model is significant in that it facilitates an understanding of the lived experiences and meanings of being a student with a physical impairment, and is espoused by the person-centred theory and the biopsychosocial model of disability.

Omirin and Falola (2011) assert that a theoretical framework guides a research project by drawing on an existing formal theory. This implies that a framework can raise different values and beliefs, shared in a common paradigm with other scholars.

It is against this backdrop that this study followed a conceptual framework with concepts from the theory grounded in the discipline of psychology as a field of study, as well as concepts from the disability model, which are inclusive of definitions from three modes of disability.

1.13 Résumé

The first chapter gave an overview of the theoretical background, as well as the prevalence of disability in the world and in South Africa. The chapter discussed the South African government polices pre- and post-1994, in relation to advancing the educational rights of people with impairments.

The problem statement, research questions, aims and objectives, as well as the rationale for conducting the study were stated.

Chapter Two outlines the literature reviewed and provides a conceptual framework, a theoretical background in similar studies, as well as the fundamental principles of ODL through the transactional distance theory and the fifth generation model of ODL.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

The experiences of students with physical impairments were explored through the review of literature. This chapter situates physical impairment within the conceptual framework, and also provides the background to the development of Open Distance Learning. The integrative review is made on similar studies.

2.2 Situating the physical impairments within a conceptual framework

Research that is not grounded in a framework cannot achieve is objectives. Therefore, every researcher should acknowledge that a theoretical and conceptual framework is important in research (Moore, 1993). Research frameworks are important in the sense that they provide a basis for the knowledge that we possess and guide us throughout the process.

Furthermore, the research frameworks inform future studies and can further advance discipline, professional practice and public policy. In responding to the problem statement and research questions, it is anticipated that the research frameworks will further advance the discipline of psychology by contributing more scientific knowledge on the experiences, meanings and feelings of students with physical impairments studying at ODL institutions.

The scope of this study was limited to the specific research problem – that is the experiences of students with physical impairments studying at an ODL institution, as well as their lack of voice.

There seems to be no specific theory in the discipline of psychology that relates to this phenomenon. It is against this backdrop that this study employed a conceptual framework, which includes concepts from the theory that is grounded in the discipline of psychology as a field of study, as well as concepts from the disability model, adopted from the disciple of Sociology. This conceptual framework also provides the basis for understanding the discourse of impairment versus disability.

According to Miles and Huberman (1994), a conceptual framework identifies the variables or constructs and presumes a relationship among them. Maxwell et al. (2013) also concur and assert that the conceptual framework aims to synthesise relevant concepts and establish the relationships among them.

These definitions show that the conceptual framework should not be a mere collection of concepts, but should rather establish a relationship among the concepts.

As recommended by Miles and Huberman (1994) and Maxwell et al.(2013) this researcher applied the conceptual framework to:

- Guide the main study by integrating the literature review and the field data (see section 5.3).
- Guide this researcher in the collection, analysis, and interpretation of the data, where no dominant or appropriate data exist, as indicated by the problem statement, as well as gaps identified in the literature (See sections 1.6 and 1.7)
- Provide this researcher with the approach that responds to the research design sampling, data collection and analysis – in this case the Phenomenological Interpretive Analysis (IPA) and lastly, to
- Help this researcher identify the main ideas and themes emerging from this emprirical study.

2.3 Person-centred theory

2.3.1 Key concepts of the person-centred theory

The person-centred theory articulates the values of the Rogerian approach. Holosko, Skinner & Robinson (2008) support the notion of an individual that was formerly referred to as the patient, who is in essence, a person with hopes, fears, dreams, aspirations, triumphs, losses, unrealised potential, who also has his/her struggles.

This theory was deemed important for this study because firstly, it situated the study in the discipline of psychology. Secondly, it is in line with the phenomenological research design – and lastly, it is person-centred and regards experiences as subjective, because everyone creates their own realities of life.

By adopting this theory the researcher was able to establish trust and respect among participants, and this ensured the validity of the data collected, as well as the reliability of the results. The theory also emphasises that each participant has their own story to tell, and the researcher need not generalise or compare themes emerging from participants' stories.

According to Rogers (1979) the person-centred theory draws from humanistic psychology. The humanistic approach views people as capable and autonomous, with the ability to resolve their difficulties, realise their potential and change their lives in positive ways.

From the Rogerian approach, the person-centred theory certainly resonates well with core ethics, particularly the principles of the person-in-environment, the biopsychosocial approach to assessment and intervention, the self-determination of the client, the recognition of the spirituality of the client, as well as the intrinsic dignity and worth of all human beings (Holosko et al., 2008)

2.3.2 Theoretical background

Carl Rogers and Abraham Maslow have been hailed by many as the most influential humanistic psychologists in America and throughout the world. Holosko et al. (2008) posited in the days of Rogers that the discipline of psychology focus on humanistic psychology, behaviourism, and psychoanalysis. Below is a short description of these approaches as articulated by Snyder (2002):

2.3.2.1 Psychoanalysis

The psychoanalitic theory seeks to offer an answer by imbuing the therapist with the ability to interpret insights, teach, and lead the client through personal discovery of the neurosis. In this approach the psychoanalyst is the expert teacher, and the client is the recipient of the therapist expertise.

2.3.2.2 The behaviourist

The behaviourist approach to therapy seeks to modify the client's behaviour by controlling the consequences that follow behaviour. The theory and approach focuses not only on the development of personal insights by the client, but on the understanding of the presenting problems through the analysis of environmental factors as well.

2.3.2.3 Humanistic Psychology

Humanistic psychology emphasises the inherent worth and dignity of the individual and their quest and drive towards personal growth. Rogers (1979) constructed a model of practice that was a reaction to the other prevailing therapeutic forces and a celebration of human potential.

2.3.3 Justification for using the person-centred theory

Guided by the conceptual framework by Maxwell et al. (2013), this researcher found the person-centred theory to be in line with the constructivism paradigm and the phenomenological research design employed in this study. This theory accommodates aspects of the system theory, where the eco-systemic of understanding students and the relationship they have with their environments; in this case, the ODL university is taken into account. The person-centred theory encapsulates the eco systemic perspective, and was furthermore, considered into the conceptual framework, since it addresses aspects of inclusive education; specifically accessibility to the curriculum.

Therefore, the person-centred theory seemed relevant for the purposes of this study, as it would guide the research to respond to the research questions, as well as elaborate on the aim and objectives of this study.

Person-centred theorists believe that participants are trustworthy and have the ability to bring about changes in themselves that would benefit them. Corey (2009) emphasises the attitudes and personal characteristics of the person-centred researcher, as well as the quality of the client-researcher relationship and argues that they are the determinants of a successful process by highlighting the following key characteristcs of the person-centred theory:

2.3.3.1 Phenomenological perspective

The phenomenological approach refers to the unique perception of each individual of their own world. The individual experiences and perceives the world and also react to it in his or her own way.

There are several perceptions about personality development in relation to the person-centred theory. Basically, the person-centred theory postulates that personality can be fully established when the individual is exposed to unconditional positive regard.

Consequently, an individual who allows others to define him/her is likely to develop low self-esteem and experience feelings of worthlessness. An individual who is self-actualised is more open to experiences and less defensive, has learnt to live in the moment, trust own decision-making skills, and have more choices in life, and has the highest level of creativity.

2.3.3.2 The fully functioning

The fully-functioning person is open to experience, lives with a sense of meaning and purpose, and have confidence in him/herself, as well as others. One of the main goals of the person-centred theory is to work towards becoming "fully functioning."'

2.3.3.3 Conditions of worth

Conditions of worth refer to judgmental and critical messages from significant people that influence the way the individual acts and reacts to certain situations. Conditions of worth influence the manner in which a person's self-concept is shaped by the views that others have of him/her – these are in most cases prominent people. When an individual has conditions of worth imposed on him or her, the resultant self-image is often low. Also, if the individual is exposed to overprotective or domineering environments, this can also have a negative impact on his/her self-image.

2.3.3.4 Actualisation

People have a tendency to work towards self-actualisation. Self-actualisation refers to developing fully as a person. It occurs throughout the lifespan of the individual as the latter works towards "intrinsic goals, self-realisation and fulfilment, involving autonomy and self-regulation."

2.4 Biopsychosocial model of disability

2.4.1 Origins and definitions

The biopsychosocial model was first introduced by Engel in the 1970s. The defining characteristic of this model is that it recognises biological, psychological and social factors, as well as the interaction between them. These interactions influence the course and outcome of any impairment, illness or disability. The model combines and balances the aspects of the medical and social models of disability, and introduces the personal and psychological dimensions, as well as the eco-systemic perspective.

The biopsychosocial model offers a coherent explanation of disability. The model is interactive and individual-centred, and therefore, brings out the framework that takes into account the individual, biological problems, as well as the social contextual influences (Shakespeare, Watson & Alghaib, 2017).

Thus, from a biopsychosocial perspective impairment originates from a health problem, but is influenced by psychological and social factors. The model provided the underlying theoretical foundation on which the study was conducted.

The World Health Organisation (WHO) affirms this viewpoint and suggests that disability should be viewed neither as purely medical nor purely social; and thus, as a compromise, the biopsychosocial model was adopted (WHO, 2011). It is apparent that the biopsychosocial model perceives disability as a dynamic interaction between health conditions and contextual factors, both personal and environmental (WHO , 2011).

The disability model form part of the conceptual framework for understanding the construct disability versus impairment, and provides some insight with regards to the prevalence of certain attitudes, and how these are reinforced in society (Sullivan, 2011).

In her study Healey (2014) showed how the biopsychosocial model has become a framework that is expected to raise different values and beliefs that are shared in a common paradigm with other scholars.

The biopsychosocial model of disability is inclusive of the definitions of disability provided by the medical and social models of disability:

2.4.2 Medical model

The medical model of disability has dominated perceptions of disability for generations, and still provides the standard framework for most professionals, especially in the health sector and those in policy making.

Despite its contribution, the medical model is seen to have a mechanistic view on the body, where an impairment, illness or a disability requires fixing (Waddell & Aylward, 2010). Therefore, the focus of this model is on the diagnosis and treatment of biological pathological conditions.

Sullivan (2011) maintains that the medical model regards impairment as a medical problem, a defect within the individual. Sullivan (2011) goes further to show that this model cultivated the most negative attitudes towards people with impairments, as they are seen as defective, dependent and in need of a cure or rehabilitation.

The weakness of this model is that it overlooks the individual or their unique human attributes, as well as their subjective experiences (Waddell & Aylward, 2010). Brisenden (1986) also denounced the medical model for failing to take into account the experiences of people with impairments (that is, people with impairments don't have a voice) and integrate them into the consciousness of mainstream society. This goes against the accumulated sediment of a social world that is steeped in the medical model of disability.

Furthermore, the medical model has been criticised for focusing on the peoples' limitations to adapt to society (Shakespeare & Watson, 2002).

2.4.3 Social model

The social model on the other hand, seems to focus on addressing the barriers faced by people with impairments, and stives to change how societies perceive people with impairments.

From the perspective of the social model impairments can only be understood by examining the relationship between persons with impairments and the social context in which impairments occur.

However, the social model is not without shortcomings. For instance, it pays less attention to the personal experience of the person with impairments and the limitations imposed by the impairment. It should be noted that even if all the barriers that a person with an impairment faces were to be removed,the impairment would still remain (Howell 2005). This means that the biological challanges addressed by the medical model will still exisits even if the social barriers are removed.

2.4.4 Other models of disability

Although these models seem to contribute to the interrelation of impairments, they failed to disassociate themselves from both the medical and social models by grounding themselves as frameworks.

2.4.4.1 Affirmative model

The affirmative model draws from the framework by Hughes & Paterson (1997) in defining impairment, based on the two theoretical perspectives of post structuralism and phenomenology, which contributed to the sociology of impairments.

Hughes & Paterson's (1997) model has not contributed to the supersession of impairment over disability, but the expansion of the social model by proposing the embodiment rather than a disembodied notion of disability.

2.4.4.2 Interactional model

Riddle (2013) discusses the ontology of impairment by employing the interactive model as a theoretical background. He argues that impairments can have devastating effects on an individual, more so if there are no social arrangements that may lessen the ill effect of impairment by accomodating people with impairments.

The interactional model of disability does not entirely disassociate itself from the social model, but attempts to explain that the disabling factors in society are not the only sources of oppression for people with impairments.

2.5 Position of the researcher

The provision of services to students with physical impairments may not be generic. The personal, psychological, medical and social context should be taken into consideration in order to achieve attrition, specifically for students with physical impairments. By developing policies as well as procedures in line with this model, ODL universities could achieve their goal of providing meaningful and effective services to students with physical impairments.

Following the analysis of the literature on the biopsychosocial model of disability, this researcher opines that the model combines the elements of both the medical and social models by introducing a personal dimension.

This is an important consideration for the study as it aims to give a voice to the voiceless. From the biopsychosocial perspective, impairments might originate from a medical context, but are exacerbated by both the psychological and social factors. This notion will thus, provide the underlying theoretical foundation for this study.

Although the medical model may be relevant for students with physical impairments in the sense that it manages chronic pains and other ailments, the model alienates the population with physical impairments by regarding them as helpless and needing care.

Greyling (2008) asserts that the definition of disability is problematic, since disability is multi-dimensional – hence there is a need to look at the phenomenon objectively and subjectively.

Oliver (1996) draws a distinction between physical impairment and disability by defining physical impairment as lacking all or part of a limb, or having a defective limb, organism or mechanism of the body, and disability as the inability to do certain activities or restriction of activity caused by a contemporary social organisation, which takes little or no account of people with physical impairments; thus excluding them from participation in the mainstream of social activities.

As part of bracketing, this researcher adopted the construct impairment, since it has been argued that disability is socially-constructed. According to the social model, the construct disability may mean different things for different people. The meanings will therefore, derive from the data, and will not be pre-empted. The biopsychosocial model incorporates the holistic approach which informs how participants perceived themselves, and this enabled this researcher to establish rapport and win the trust of participants within a short period of time during the course of this research.

The study was situated within the biopsychosocial model, and the construct impairment adopted over disability. This was in line with the phenomenological research design as one of the two theoretical designs as articulated by Hughes & Paterson (1997). It is against this backdrop that the study adopted the construct impairment over disability.

2.6 Theoretical background on ODL

Distance education focuses on the pedagogy, andragogy, heutagogy, technology and instructional systems designs that aim to deliver education to students who are not physically "on site." With distance education students are separated from the instructional base or teacher, either by space or time, for a significant portion of their learning (Owusu-Boampong & Carl Holmberg, 2015)

Consequently, problems arise when students try to interact at a distance. Sometimes problems relating to study techniques and learning difficulties may increase proportionately with the complexity when the media is used in teaching and learning (Kangai, Rupande & Rugonye, 2011).

Findings from a study conducted by Kangai et al., (2011) provided evidence that the distance between the institutions and students poses challenges for students in ODL institutions. Kangai et al. (2011) investigated the needs of students in the Zimbabwe Open university, and their findings showed that students in ODL institutions experience more personal and learning problems, which affect their studies than students who attend face-to-face universities.

The findings also corroborated the findings of a previous study by Lewis (1980), in spite of the fact that both studies were conducted in different continents (that is Africa and Europe), three decades apart.

Tait (2000) describes the primary functions of student support in ODL, which are regarded as threefold; namely cognitive, affective and systemic. Such an understanding of the role of student support emanates from the social constructivist notion that knowledge is in a real sense, made and remade by participating in learning activities.

Dzakiria (2005) maintains that in order to support students in an ODL environment, distance teachers must have the skills and experience to facilitate the learning processes through designing and building support that will facilitate learning. The academic staff also needs to have the skills to develop curriculum in a way that will facilitate learning for all students, including those with physical impairments.

Scholars such as Baloyi (2012) consider resources and interactivity as critical components in learner support for students in ODL institutions, while others put more emphasis on the individualisation or customisation of services – which may be translated to ODL student support practitioners, including student counsellors, student advisors and librarians. These student support practitioners must have the necessary skills to provide services at a distance in a manner that the student support provision would inform academic support.

Failure to render curriculum accessible may negatively affect the morale of students in ODL institutions, or even affect attrition and throughput rates. It is important to always motivate students in ODL institutions as research has shown that learners who are motivated overcome situation and time barriers. As such, Simpson (2008) recommended further research on these barriers, and the findings from this study has addressed such barriers and what they meant for the participants.

Rumble (2000) and Tait (2000) share similar views concerning student support models and suggested how institutions of higher learning could clarify the types of services offered, including the delivery method of the particular service.

Tait (2000) highlights 11 factors that ODL universities should consider when developing student support structures. These are factors such as gender, age, domestic situation, employment, unemployment, disposable income, educational background, geographical location, language, ethnicity and cultural characteristics. These 11 factors are in line with what Matshedisho (2007) and Howell (2005) advocate regarding widening access and support for students with impairments in institutions of higher learning.

Makoe (2010) also shares the same views as Tait (2000) and highlights the four most important factors for ODL university to consider when conceptualising a student support framework in the South African context. The factors relate to age, gender, geographical location, and cultural characteristics. According to the Directorate: Information and Analysis (2013), in terms of age, ODL universities are seeing an increase in the enrolment of students who come straight from high school. This cohort accounts for a higher percentage and is made up of students in the age groups 18-25, as opposed to in previous years, when new enrolments comprised of students in the age group 25-40, who were already working and upgrading themselves academically.

The second factor is gender. Unlike young students who are able to leave their their homes, mature students; especially women, do not have the luxury of relocating. Mature women's chief responsibility is to look after the well-being of the family and engage with their immediate communities, especially in rural areas (Makoe, 2010).

The third factor relates to geographical location. ODL students feel that they are not only physically cut off from the university, but are also being socially-excluded from actively participating in the learning environments, by virtue of the fact that those that are in remote rural areas, where internet connectivity is a challenge, cannot even access myUnisa. It is therefore, important for students to understand the nature and challenges of studying in an ODL university (Makoe, 2010).

The fourth factor refers to cultural characteristics. Most students indicated the need to belong therefore, introducing technology for interaction purposes may close this gap. This aspect relates to the argument by Moore (1993), that where there is a rigid structure and less dialogue, the responsibility of learning is on the student.

Issues related to impairment have not been addressed by the model proposed by Tait (2000). It is vital to incorporate issues of impairments in the development of student suport structures in ODL, as this will be instrumental in providing effective and efficient student services in ODL universities.

Previous studies have not provided clarity on whether technology has impacted on the learning experiences of students with physical impairments in ODL universities, with the recent wave of distance education migrating from traditional to online and digital platforms.

2.6.1 The transactional distance theory

Colorado and Eberle (2012) explain that the term "transactional" is rooted in the explanation given by John Dewey (1938), that an experience is always what it is because of a transaction taking place between an individual and his or her environment. It also denotes the special nature of the relationship between the learner and the instructor during the learning process (Stirling, Hellewell & Hewitt, 1979).

Moore was the first researcher to argue the idea of transactional distance (Aluko, Hendrikz & Fraser, 2011). Moore (1993), through the transactional distance theory, showed the association or interaction between the practitioner and distance learners – in the sense that both the ODL practitioner and the distance learner are engaged in distance learning practices, activities and interventions in an ODL institution.

Although perceptions regarding ODL have changed significantly, there still remains a perceived lack of quality in the development, management and delivery of ODL programmes. Unfortunately, distance learning offered in developing countries depends largely on first and second-generation delivery modes, and relies heavily on print technology as a form of information dissemination (Aluko et al., 2011). This also applies to South Africa as a developing country, which is moving from a print to a blended approach, which is inclusive of print and online delivery modes of teaching and learning, as well as student support provision.

The transactional distance theory focuses on teaching and learning, with emphasis on dialogue, structure and learner autonomy. In response to dialogue as a concept, communication

between educators and students with physical impairments should be key. Failure to provide reasonable accommodation for students with physical impairments creates barriers to dialogue.

The lack of effective structures that promote dialogue, sign language services and alternative ways to accommodate the students with hearing impairments renders these students disabled. This in turn, affects the learner's autonomy, which Riahi et al. (1998) define as a state of affairs in which the student is no longer the object of the educational guidance, influences, effects and obligations, but the subject of their own education.

The social model of disability argues that removing such barriers will lessen the impact that physical impairments have on students. The structure of academic support, which is mostly in the form of study guides and tutorial letters should include summaries in sign language, since some students with hearing impairments use sign language as their first language, whose structure and grammar differ significantly from English. On the other hand, the hard-of-hearing uses hearing aids, while others can lip read. The format of study guides should also include alternatives formats such as audio to cater for students who are visually impaired.

Aluko et al. (2011) argue that every teaching programme in ODL needs to be structured. The transactional distance theory gives guidelines on how these strutures should be determined by the proposed interventions between learning material and the learner, based on the envisaged learning outcomes.

This aspect is applicable where structure refers to ways in which the teaching programmes are designed, and usually reflects on the rigidity or flexibility of the programme's educational objectives, teaching strategies and evaluation methods.

2.6.2 The five generation model of ODL

As universities move towards offering more courses online, and sometimes without a corresponding face-to-face version, the needs of students with physical impairments may be compromised or ignored when ODL institutions migrate to digital platforms. This move can pose challenges for students with different types of impairments if accessibility is not addressed and ensured (Catalano, 2014).

Heydenrych and Prinsloo (2010) provide an overview on how technology has changed the ODL landscape. The study by Taylor (2001) shows the five generation model as follows:

Table 2.1: 5th Generation model of ODL

Generation	
1st	Correspondence - Single medium (print) - Mass production
2nd	Teleconference -Audio - Communications network - Synchronous
3rd	Multimedia and computer-assisted learning - interaction with content
4th	Flexible learning via online delivery - communication enhanced learning
5th	Intelligent, flexible learning - automated content and responses and campus portals

(Source: Taylor, 2001)

Technology in this context has influenced pedagogy in institutions of higher learning. With the shift from each generation, there are technological and pedagogical implications for students with physical impairments. Moving from the first to the fifth generation means that ODL practitioners should make provision for audiovisual material, which will benefit students with physical impairments by giving them an option to choose between audio or a version with subtitles.

Moore and Kearsly (2005) conceptualised a model similar to that of Taylor (2001).

Table 2.2: 5th Generation model of ODL

Generation	
1st	Correspondence - Single medium (print) - Mass production of technology correspondence
2nd	Radio and television broadcasting
3rd	Combined approach - correspondence assisted broadcasting (open university)
4th	Tele-learning-interactive audio/video conferencing

5th	Online delivery-multimedia interactive content with online communication and support

(Source: Moore and Kearsly (2005)

Heydenrych and Prinsloo (2010) concur with the provisions of both models in that they both focus on the manner in which technology have impacted on the possibilities of teaching, learning and student support. These developments have an impact on the 11 factors highlighted by Tait (2000a), that ODL institutions should consider when developing student support structures.

2.7 Integrative review: Experiences of students with physical impairments in institutions of higher learning

The statement of the problem in chapter one, identified the gap in literature on the dearth of South African literature on the experiences of students with physical impairments, specifically those studying at ODL institution.

Studies conducted on students with impairments have focused on issues of student support, legal protection, discrimination and self-determination. The voices of students with physical impairments are hardly heard throughout the literature.

Matshedisho (2010) confirms and supports the recommendations by Simpson (2008), who suggested further research in the area of learner support and motivation for students with physical impairments in institutions of higher learning. Matshedisho (2010) goes further and alludes to the fact that there is a dearth of knowledge in literature, as well as lack of student support that impede the successful access and performance of student with physical impairments.

Williams (2016) also asserts that the lack of adequate support from post-secondary institutions can precipitate anxiety and negatively impact on the perseverance of students with physical impairments. ODL institutions that have student support structures in place present opportunities to support students with physical impairments.

The findings of a study conducted by Gumbi et.al (2015) indicated that accessibility in ODL institutions is imperative for students with physical impairments as it has proved to be a

predictor of gaining employment in meaningful occupations, and that it opens opportunities for career development – fostering an improved quality of life. The success of most students with physical impairments in institutions of higher learning depends not only on their own efforts, physical accessibility or the availability of services, but on the faculty's knowledge, their attitudes towards students with physical impairments, as well as the willingness of universities to provide reasonable accommodations (Leyser, 2008).

2.7.1 Hearing impairment

Richardson, Markschark, Sarchet and Sapere (2010) highlight that there is an increasing number of students with hearing impairments, who are deaf and hard-of-hearing (DHH) in the United States of America (USA). These students attended mainstream post-secondary institutions – because these post-secondary institutions in the USA offer support services for deaf students, which enable them to participate in classroom discussion and activities of varying degrees.

Table 2.3: Decibel levels

Sound sources (noise) **Examples with distance**	**Sound pressure** **Level L_p dB SPL**
Jet aircraft, 50m away	**140**
Threshold of pain	**130**
Threshold of discomfort	**120**
Chainsaw, 1m distance	**110**
Disco, 1 m from speaker	**100**
Diesel truck, 10m away	**90**
Kerbside of busy road, 5m	**80**
Vacuum cleaner, distance 1m	**70**
Conversational speech, 1m	**60**
Average home	**50**
Quiet library	**40**

Quiet bedroom at night	**30**
Background in TV studio	**20**
Rustling leaves in the distance	**10**
Hearing threshold	**0**

(**Source:** http://www.sengpielaudio.com)

Similarly Powel (2013) noted the realities of the tertiary experience of students with hearing impairments in New Zealand who are Deaf, and hard-of-hearing. The researcher conducted interviews with 28 Deaf university students and 15 coordinators of support services for Deaf students in universities and polytechnics.

Although the study was a replicate of previous studies undertaken at an international level, the lack of awareness by universities of the challenges faced by Deaf students, such as challenges that have to do structure and dialogue as discussed by Moore (1993), were found to be still prevalent in South African universities, in both face-to-face and ODL universities. These studies proved that the combination of real-time text, sign language, as well as spoken language contributed to the retention of students with hearing impairments in institutions of higher learning.

The findings of a study conducted by Liversidge (2003) showed that that there was a correlation between factors that contribute to the retention and attrition of students with hearing impairments in non-ODL institutions and previous mainstream experience, self-advocacy, level of commitment to completing a course, as well as the availability of sign language interpreters and note-takers.

A survey conducted by the Deaf Federation of South Africa (DeafSA) (2006) indicated that only 14% of teachers of Deaf learners could use sign language efficiently. Within many professional fields, for example social work and psychological services, Deaf people are expected to use spoken and written language, without the option of communicating in their own natural language, which is sign language. Within the area of public information – that is in meetings, conferences, debates and political gatherings, provision is rarely made for the use of South African Sign Language (SALS) through professional interpreter services.

From the medical model of disability, people with hearing impairments are regarded as objects that require treatment and in need of help. Thomson (2004) elaborated on this paradigm and

showed that labels such as “deaf-mute” and “deaf-dumb” are used discriminatory and derogatory terms.

Deaf people identify themselves as members of a cultural and linguistic group who communicate through native sign language and share certain values and beliefs, regardless of ethnic background (Thomson, 2004).

Magongwa (2008) reiterates that Deaf people identify themselves in different terms. There are those for whom an uppercase “D’’ (Deaf) is used, who see themselves as members of the Deaf community. They have a degree of audio logical deafness and exhibit attitudinal cohesion linguistically, politically and socially with other Deaf people (Baker & Cokely, 1980). The other group is the oral deaf who use speech and hearing aids, often referred to as hard-of-hearing people.

The study by Magongwa (2008) further highlighted the challenges faced by students with hearing impairments at the University of Witwatersrand, which is a face-to-face university. Prospective students who intend enrolling for degrees in the field of humanities are required to have passed two of the 11 official languages used in South Africa (Department of Education, 2005) – one must be their home or first language, and the other their first additional language.

Magongwa (2008) highlights this problem and labels it a barrier for students with hearing impairments in the sense that if Deaf students are being forced to speak and lip-read a spoken language in order to access information, then they are being excluded from the learning activities, on the basis of the language they speak.

These social difficulties influences how Deaf and hard-of-hearing students perceive themselves in relation to others, and how they think hearing people perceive them, and have an impact on their experiences of the higher learning environment (Crotty, 1998).

Thus, the mainstream education system excludes Deaf and hard-of-hearing students. In cases where they manage to enrol at institutions of higher learning, they experience academic and social exclusions.

DeafSA (2006) indicates that the South African Sign Language (SASL) does not enjoy equal standing with all other languages. This is in spite of the unanimous support that SASL enjoys from protective legislation, namely the South African Constitution of 1996, the South African Schools Act of 1997and policies such as the Integrated National Disability Strategy, the

Education White Paper 6, as well as the Revised National Curriculum Statement. Thus, the Deaf and hard-of-hearing students are deprived of equal educational opportunities by their lack of access to SASL.

The Constitution of the Republic of South Africa (1996) states that "everyone is equal before the law and has the right to equal protection and benefit of the law," The Constitution thus guarantees the rights of persons with impairments to equality, non-discrimination and human dignity; and provides for the recognition of SASL as the first language of Deaf South Africans.

The White Paper on the Rights of Persons with Disabilities (2016) acknowledges that Deaf persons use SASL as their first language and therefore, requires that they have access to SASL training, in particular children and students with hearing impairments, as well as their parents. The said population requires access to SASL interpreters, as well as note-takers, captioning and sub-texting to facilitate access to information and communication. Following the guidelines of this White Paper ODL universities are required by law to provide the services mentioned to students with hearing impairments.

Article 30 of the United Nations Convention on the Rights of Persons with Disabilities (2016) places specific obligations on the state to put in place, measures that promote, protect and uphold the cultural rights of persons with impairments. These include the right of Deaf persons to Deaf culture, as well as their right to enjoy access to participation in cultural life in accessible formats.

Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (2016) focuses on education. The article states that institutions and governments should ensure that the study materials of persons with physical impairments; and in particular blind, deaf or deaf blind children are delivered in the most appropriate languages, modes and means of communication for the individual, and in environments, which maximise academic and social development.

The Department of Education identified the following as barriers to learning:

- negative attitudes to, and stereotyping of differences, inflexible curriculum
- inappropriate languages or language of learning and teaching
- inappropriate communication
- inaccessible and unsafely built environments
- inappropriate and inadequate support services

- inadequate policies and legislation
- non-recognition and non-involvement of parents, and
- inadequately and inappropriately trained education managers and educators (Department of Education, 2001)

The Department of Education reached a historic milestone in July 2014 when it introduced the National Curriculum Statement for South African Sign Language. The said statement makes provisions for learners with hearing impairments to access the full services that they require to participate in learning activities. The department further indicates that the first sign language examination at public schools will be conducted in 2018. This was emphasised by the new president of South Africa, Mr Cyril Ramaphosa during the 2018 State of the Nation Address (SONA) on 17 February 2018 (The presidency, 2017).

2.7.2 Visual impairment

Seale (2006) states that in the United Kingdom legislation on discrimination does not compel students with impairments to declare their status. However, institutions of higher learning have to anticipate the needs of such students. On the other hand, the United States legislation requires that such students inform prospective institutions of learning of their impairment so that the necessary modifications can be made to accommodate them (Ngubane-Mokiwa, 2013).

The South African legislation is not clear on this matter – however, most universities such as the University of Witwatersrand (see section 1.5), applies the USA legislation, where students with physical impairments are required to inform the university about their impairments and their needs thereof. However, Seale (2006) argues that there is evidence-based information that students are reluctant and feel uncomfortable declaring their disability status for fear of discrimination. The stereotypical overtures about students with blindness also lead to some blind students not declaring their blindness (Moodley, 2002).

In his writings about blindness in Uganda, Whyte (1995) indicated that people in Uganda perceive blindness as the worst disability that one can have. This assertion is supported by Hollier (2007), who postulates that blindness is one of the most-dreaded conditions; and that most people tend to be sympathetic and pitiful to blind. Maguvhe (2008) points to the

prejudices associated with teaching blind students, which they surmise, leads to the further isolation of this student population.

The perceptions of blindness from the students' perspective illustrate that the academic community doesn't clearly understand the conditon, and how students with visual impairments in particular, cope with being at ODL institution (Ngubane-Mokiwa, 2013).

Assistive technology is an umbrella term that includes assistive, adaptive, and rehabilitative devices for people with impairments. This term also includes the process used in selecting, locating, and using these devices (Assitive Technology Industry Association (ATIA), 2017). Assistive technologies in the context of this study relate to any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of students with impairments. Assistive technology has made it easier for students with impairments, especially those who are visually impaired, to access the text.

Lourens (2015) conceives assistive technology as a term used to refer to products that can help students with impairments to undertake aspects of their academic work. She however, cautions that the technological advances have made it more difficult for visually-impaired students to read electronic texts. Lee (2014) points out that some Google applications and kindle E-readers are inaccessible to visually-impaired students, and that the trends towards e-learning also brought some setbacks to the accessibility of the written word. Lourens asserts that the assistive technology did not solve the problem of inaccessible materials completely, citing that some websites and text formats such as PowerPoint might be difficult, if not impossible to read with the aid of a screen-readers (Lourens, 2015).

Job Access With Speech (JAWS) and NonVisual Desktop Access (NVDA) are computer screen reader programs for Microsoft Windows that enable visually-impaired students to read from the screen, either with a text-to-speech output, or by a refreshable Braille display. These softwares are incompatible with the electronic format of the text; for example they cannot read mathematical and scientific signs or graphic material (Mokiwa & Phasha, 2012; Ngubane-Mokiwa, 2013).

A study conducted by Mokiwa and Phasha (2012), a participant described the problem as follows: "The words were seen as individual letters and not as any conceivable word within the English language. The other document was seen as a picture by my screen reader, and as such I had no choice but to have the invigilator read the paper to me".

In this last quote, the loss of independence when technology became ineffective, is evident. However, this sometimes goes further than one merely lossing independence. Some students in ODL were not able to finish writing their examination papers because their screen-readers could not read certain text styles (Mokiwa & Phasha, 2012).

2.7.3 Mobility impairment

Sedibe and Buthelezi (2014) explored the challenges faced by mobility-impaired students at one of the tertiary institutions in KwaZulu-Natal. Some of the factors that affected the academic development of these students related to the lack of support from the student support services department, which included the lack of resources, inaccessibility of buildings and the inadequate support from parents of mobility-impaired students.

Sedibe and Buthelezi (2014) further elaborated on the South African higher education policy framework that has a strong equity agenda that included physically-impaired students. This policy framework warns against institutions that recruit students who do not have the potential to suceed in tertiary studies (Department of Education, 2001)

Although the policy may serve to protect the reputation of institutions of higher learning with this inclusion criteria, this goes against the argument by Howell (2005), who is of the opinion that before institutions recruit students with physical impairments they should ensure that they have effective models of support. Naidoo (2010) also concurs with Howell (2005) that adequate systems need to be put in place to ensure that institutional infrastructure and appropriate curriculum transformation occur, in order to render adequate support for students with physical impairments.

Universal Design is a framework that gives guidelines on the design of places, information, communication and policy to be usable by the widest range of people operating in the widest range of situations without special or separate design (Foundation of Tertiary Institutions of the Northern Metropolis (FOTIM, 2011).

This framework is in line with the person-centred theory, sicne it takes into account the needs of all people when designing the framework (National Disability Authority, 2017). The said framework emphasises the need for every building to be physically accessible, while the activities taking place, as well as the attitudes of those employed/studying remain grossly

exclusionary. This frameowrk is considered person-centred as it addresses the attitudinal and environmental barriers.

2.8 Résumé

This chapter presented the conceptual framework, borrowing concepts from the person-centred theory, as well as the biopsychosocial model of disability. The origins and key concepts of the person-centred theory were discussed, as well as how the theory relates to the phenomenological research designs employed by the study. The constructs disability and impairments were defined, using the biopsychosocial model of disability, which incorporates the definitions from the medical and social models of disability.

An integrative review was conducted on the lived experiences of students with physical impairments. This included the challenges and barriers to their learning experiences. Chapter Three discusses the research design and methodology.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The previous chapter discussed the conceptual framework and the literature review. This chapter describes the research methodology and the rationale for choosing the qualitative approach. A detailed description of the methodology used in this study, that is the research design, research paradigm, procedures that include the sampling, data collection, data analysis and ethical considerations are explained.

3.2 Research design: Phenomenology

As per the recommendations by Mouton (2001) and Babbie (2001), this researcher adopted a qualitative approach in order to answer the research questions as well as achieve the aim and objectives of the study. These recommendations are in line with the description of qualitative research by Mokotedi (2017), who defines qualitative research as a method of inquiry that describes and analyses people's individual and collective social actions, beliefs, thoughts, and perceptions.

The researcher's choice of approach was influenced by the following characteristics, identified by (Creswell (2014): (1) natural settings, (2) researcher as a key instrument, (3) multiple sources of data, (4) inductive data analysis, (5) reflexivity, (6) holistic account, (7) emergent design and (8) participants' meanings. Furthermore, the said charectaristics are in line with the recommendations made by Maxwell et al. (2013) regarding the application of the conceptual framework,which enables the researcher to choose an approach that responds to the resarch design (see section 2.2).

The lived experiences of participants were interpreted by the researcher in terms of the meanings people attach to them (McMillian & Schumacher, 2010). Based on the philosophy of qualitative research as constructivist meaning, the philosophy assumes that reality is a multi-layered, interactive, and a shared social experience interpreted by the participants. As a result, the researcher deemed it fit to employ a qualitative research for this study (McMillan & Schumacher, 2010).

A phenomenological research design was adopted by the study in order to examine participants' lived experiences, which include their beliefs, feelings and thoughts. Phenomenology may refer to either a research method or a philosophy (Crewell, 2003). As a research method, phenomenology is an approach that was applied in this study to facilitate the researcher's understanding of the hidden meanings and the essence of experiences, as well as how participants made sense of their experiences.

There are several schools of of thoughts in relation to phenomenology: Heindel (2014) highlights three schools of thought: (1) eidetic or descriptive, guided by the works of Husserl (1970) (2) hermeneutics, also referred to as interpretive or existential phenomenology, guided by the works of Heidegger, and (3) the Dutch (Utrecht) school of phenomenology, which combines descriptive and interpretive phenomenology and draws from the work of van Manen and others (Dowling and Cooney, 2012).

Phenomenological research is descriptive and interpretive in nature and focuses on the nature of experiences and the organising principles that give form and meaning to the lived world. It elucidates the essences of these structures as engrained in the consciousness of the participants, who make the invisible visible (Laverty, 2003).

Therefore, phenomenology is essentially the study of the lived experiences or the life world (van Manen, 1997) of the people. Its emphasis is on the world as lived by a person, not the world or reality as something separated from the person (Laverty, 2003). This inquiry asked the question, "What is this experience like?" as it attempted to unfold meanings as they are lived in everyday existence.

The "lived world'' is understood as what we experience pre-reflectively, without resorting to categorisation or conceptualisation; and quite often includes what has been taken for granted or those things that are common sense (Husserl, 1970).

The study of these phenomena, intended to return and re-examine experiences taken for granted in order to uncover new and forgotten meanings (Husserl, 1970). Just like the participants, the researcher also sees the world through his own eyes. He therefore, looked at the experiences of participants through the "lens" of his own interpretations (Lourens, 2015) .

This interpretation often entails drawing on the context of the participants and trying to understand their lifeworlds by conceptualising them within a theoretical framework (Larkin, Watts & Clifton, 2006; Smith, 2004; Smith & Osborn, 2003). It is therefore, commonly a

speculative process, whereby the current researcher thought and conceptualised what the experiences of participants meant and how they were experienced by them (Larkin et al., 2006).

This research design is in line with the conceptual framework on the person- centred theory and the biopsychosocial model of disability. The phenomenological research design embeds well with the conceptual framework employed by this study, and leans on the constructivism research paradigm, which postualtes that the natural and the social realities are different; and therefore, calls for different kinds of methods of inquiry (Gray, 2014).

3.3 Research paradigm: Constructivism

The previous section discussed the phenomenological research design. The next section dicusses the research paradigm employed – which is constructivism, in order to search for meanings and the participants' world views.

The term paradigm originates from the Greek word *paradeiknunai*, which means pattern, and was first used by Thomas Kuhn (1962) to denote a conceptual framework shared by a community of scientists, which provided them with a convenient model for examining problems and finding solutions. Kuhn defines a paradigm as "an integrated cluster of substantive concepts, variables and problems attached with corresponding methodological approaches and tools". According to him, the term refers to a research culture with a set of beliefs, values, and assumptions that a community of researchers has in common regarding the nature and conduct of research. A paradigm therefore, implies a pattern, structure and framework or system of scientific and academic ideas, values and assumptions (Olsen, Lodwick & Dunlop, 1992).

The researcher took into consideration what TerreBlanche and Durrheim (1999) reiterated about the research process. The process for this study had three major dimensions: ontology, epistemology and methodology. Thus, the process encompassed a system of interrelated practices and thought processes that defined the nature of enquiry along the said three dimensions.

Ontological and epistemological aspects concern themselves with what is commonly referred to as a person's worldview, which has a significant influence on their perceived relative

importance of aspects of their reality. These two possible worldviews are objectivisim and constructivism. These different ways of seeing the world had, and continue to have repercussions for most academic areas – yet none of these views has been considered superior to the other. Both may be appropriate for some purposes and insufficient or overly complex for other purposes (Thomas, 2010).

The reseacrher applied the research paradigm to guide him in finding answers to the research question (Cresswell, 1998). This application guided the researcher through the truths and meanings that do not exist in some external worlds, but were created by the subject's interactions with the world. Therefore, meaning was constructed and not discovered, and the phenomenon seen through the eyes of the participants. The participants constructed their own meanings in different ways, even in relation to the same phenomenon, through the constructivism paradigm (Gray, 2014).

3.3.1 Interpretivism

Interpretivism as an application of contructivism was recommendation by Gephart (1999), who classified research paradigms into three philosophically-distinct categories, namely positivism, interpretivism and critical postmodernism. The researcher considered the interpretivist research method as ideal for this study, because the method holds that the natural reality and the social reality are two different concepts and therefore, calls for different methods of inquiry.

This interpretive approach enabled the researcher to explain the subjective reasons and meanings underlying social actions. The interpretive paradigm is concerned mainly with understanding the world as it is from subjective experiences of individuals.

The approach applied required the resesarcher to use meaning (versus measurement), oriented methodologies such as interviewing or participant observation, that rely on the subjective relationship between the researcher and participants. This approach does not predefine dependent and independent variables, but focuses on the full complexity of human sense making as the situation emerges (Kaplan & Maxwell, 1994).

3.4 Procedures

The researcher followed the following procedures in both the pilot and the main study:

3.4.1 Sampling

Purposive sampling, for the purposes of this inquiry, refers to a sample that is composed of elements that contain similar characteristics, representative or typical of the population (De Vos et al., 2002). Thus, purposive sampling involved the intentional selection of research participants who were in a position to yield information and rich data on the research topic.

In order to understand the lived experiences of students with physical impairments who were studying through an ODL university, purposive sampling was used as a data collection methodology for this study, and the sample was drawn from registered students, who indicated that they had physical impairments. The list of students with physical impairments was requested by email from the ODL university's Registrar.

The recruitment of participants was done in line with the ODL institution's ethical considerations. The process took into cognisance the Protection of Personal Information (POPI) Act (Department of Justice, 2013), which requires that the researcher protects the personal information of participants, especially their impairment status, as this is classified as special information, as indicated in the POPI Act of 2013.

The researcher followed the ODL universitiy's institutional regulations before the study commenced – the proposal underwent a process of ethics review through three structures of the ODL institution in order to obtain ethical approval. The ODL university's ethical structures were represented on different levels – the first level being and the academic department of psychology ethics review committee; the second level the representative of the then College of Human Sciences ethical review committee, and lastly, the university' Research Permission Sub-Committee (RPSC) of the Senate Research, Innovation, Postgraduate degrees and Commercialisation Committee (SRIPCC). The researcher obtained a database of e-mail addresses from the relevant authority and sent out emails, inviting students to participate in the study.

3.4.1.1 Inclusion criteria

The study employed the following inclusion criteria, which is in line with Von Eckartsberg's (1986) sampling criteria in a phenomenological study:

- Participants were registered students in an ODL university.
- Participants indicated their physical impairment on the registration form and lastly,
- They indicated their willingness to be interviewed by signing the consent form.

3.4.2 Data collection

The interviews were considered the most suitable form of data collection method for this study. Semi-structured, in-depth interviews were conducted on students with physical impairments studying in an ODL university. The researcher allocated adequate time to each participant in order to establish rapport and a relationship of trust. The interviews were recorded verbatim and respondents were allowed to use the language they were comfortable with. All the participants were confortable with using English. In some instances, participants used vernecular to exrpess their feelings.

In line with Groenewald's (2004) and Markson's (1971) guidelines on phenomenological interviews, the researcher asked the following questions in order to obtain data that would be reflective of the participants experiences, feelings, beliefs and convictions about the themes in question:

- What does studying in an ODL university mean to you as a student with a physical impairment?
- What are your experiences of learning in an ODL university while having impairment?
- How does it feel to study at an ODL university?

Sub-questions and follow-up questions were asked to seek clarity or more information from the participants. The responses constituted the participants' ontology, which constituted their beliefs and perceptions about the nature of reality (see Annexture C).

The interviews were conducted in natural settings, which were mostly ODL university campuses. Some participants preferred to be interviewed at their chosen location, where they felt comfortable, and such requests were accomodated by the researcher.

3.4.3 Data analysis

The researcher adopted the guidelines by De Vos, et al. (2002), who describe data analysis as as a process of bringing order, structure and meaning to the mass of collected data. Thematic analysis was applied, which enabled the researcher to work back and forth between the raw data in the form of recorded audio tapes and transcripts, until a comprehensive set of themes was realised (Creswell, 2014).

The researcher also adopted the guidelines of the Interpretative Phenomenological Analysis (IPA) to facilitate an understanding of the lived experiences, feelings and meaning that the participants attributed to thier experiences of studying at an ODL university.

Smith (2004) advocates the variants of phenomenological methodology and a close examination of its variants (e.g. template analysis, phenomenography, descriptive phenomenology, and hermeneutic phenomenology), which results in the identification and selection of a specific type of Interpretative Phenomenological Analysis (IPA). As per the recommendations by Smith (2004), the researcher found the IPA to be the most suitable method of analysis that could facilitate the understanding of the lived experiences of students with physical impairments.

Choosing between the hermeneutic (interpretive) and transcendental (descriptive) approaches to guide the data analysis required that the researher reflects on the aims and objectives of the study, which were to explore the experiences and meanings of students with physical impairments, studying at an ODL university. The hermeneutic cycle, which attributes meaning to phenomena, and attempts to make sense of the world people live in, appealed to the researcher and the participants (Smith, 2009).

IPA creates a prime platfrom for the researcher to understand the meanings of the lived world of the participants – and focuses on participants` personal perceptions of the world or subject

of study that is believed to sit neatly in their talk. Thus, Smith (2009) refers to people as "meaning making machines", generating meanings of the world through active engagement.

Understanding the meanings inherent in participants occupies a central position in IPA and in the heart of the researcher. The findings of the study by Groenewald (2004) showed that occupying the position of "an insider" requires the researcher to use his preconceptions, which, he asserts, would help the researcher to make sense of the individual's` personal worlds and the meanings they attribute to it.

Double hermeneutism emphasised in IPA is an accurate reflection of the dual role of the researcher. In some instances, the researcher assumed the position of the participants, using the thoughts and beliefs they shared while making interpretations. In other words, the researcher interpreted the participants's lived experiences through their world.

The researcher also applied the recommendations by Carpenter (2007), who maintains that qualitative data may derive from narrative materials with verbatim transcripts from the in-depth interviews, when analysing data in phenomenological studies. This strategy, which is concerned with the approaches and procedures for data analysis can enhance the trustworthiness of the collected data. Thus, the researcher transcribed the recorded audio materials verbatim, in order to enhance trustworthiness of the data. Member checking was conducted, where the participants confirmed the authenticity of the transcribed data. The researcher followed guidelines by Pietkiewicz & Smith (2014) in analysing qualitative data, using the IPA framework:

3.4.3.1 Multiple reading and making notes

The audio recordings were listened to, a few times while transcribing. This first stage involved the close reading of the transcript and notes a number of times. This exercise helped the researcher to immerse himself into the data, by recalling the atmosphere of the interview and the setting in which it was conducted. At this stage the researcher made notes about the observations and reflected on the interview experience by recording these reflections on the margins, while transcribing data.

The focus was on the content (what is actually being discussed), language use (features such as metaphors, symbols, repetitions, pauses), context, as well as the initial interpretative comments (see sections 4.5-4.10). Some of the comments associated with personal reflexivity were generated (e.g., how personal characteristics of the interviewer, such as gender, age, social status as well as the presence of the sign language interpreter affect the kind of rapport established with the participant).

The Atlas. t.i computer program for analysing qualitative data was used in the analysis. This program is used mostly, but not exclusively in qualitative research or qualitative data analysis (Archer, 2013). The program assisted the researcher with the audit trail by organising and placing the raw data (which consisted of audio recordings and the transcripts), as well as the generated codes and themes in one online platfrom on the program. The transcripts were uploaded on to the program and provision made for the researcher to write his notes, linking them to each transcript.

3.4.3.2 Transforming notes into Emerging themes

In the second stage of data anlysis the researcher worked more with his notes, which included the emerging themes from the pilot study, rather than with the transcripts from the main study. The aim was to transform the notes into emerging themes for data triangulation. At this stage the researcher grouped the emerged codes according to their relations.

3.4.3.3 Seeking relationships and clustering themes

At this stage, the emerged themes were grouped together according to conceptual similarities. Connections between emerging themes were sought. The Atlas t.i. program was used to link the emerged themes to all the nine transcripts. The program was also used to produce the final output with all the codes and themes (See Annexure D).

3.4.3.4 Moustakas analysis method

The common data analysis technique in phenomenological studies is the Stick-Colizzi-Keen technique (Creswell, 2013), which was modified by Moustakas (1994). Although Creswell (2013) points out that the model by Colaizzi (1978) is suitable for the Heideggarian phenomenological research, Hays and Signh (2011) recommend the Stick-Colizzi-Keen technique for the interpretive rather than descriptive phenomenological studies, as is the case with this study.

The researcher worked according to the recommendation by Moustakas (1994), which resonated well with the thematic analysis, generally suited for hermeneutic (interpretive) phenomenology. These guidelines emphasise the full description of personal experiences with the phenomenon under study by developing a list of significant statements, scrutinising significant statements for repetition and overlaps, grouping significant statements into codes and themes, and describing "what" the participants experienced with the phenomenon: textural description, providing a structural description of how the experience happened, and lastly combining the textural and structural descriptions that brought out the "essence" of the experience.

3.4.3.5 Colaizzi's analysis method

The researcher deemed it fit to apply Colaizzi's (1978) method, in conjunction with the Stick-Colizzi-Keen technique. He found the Colaizzi's method of analysing data to be useful in the sense that it consitituted the steps that made the data anlysis process to be free of bias.

Therefore, the researcher read and re-read the transcripts, and he aquired a feeling of the participants'expreinces, and sought a sense of the participants expereinces while identifying significant statements, which related to the phenomenon under study. The meaning from the statements were formulated to meaning. Codes were developed, the meaning were categorised into themes and compared with the participants' account of their lived experiences. The consitency between the findings and the participants lived experinces were checked.

The findings were intergrated into exhaustive descriptions of the phenomenon under study. Member checking was conducted to confirm if the analysed data resonated with the participants's lived expereinces. The sign langauge interpreter was involved at this stage to

verify the tanscribed data gathered from participants with hearing impairments. This was done in order to eliminate errors on the collected data.

The feedback from the participants as well as the sign language interpreter confirmed the trustworthiness of the data. Finaly, the inputs from the participants as well as the sign language interpreter were incorporated into the final input of the transcripts..

3.5 The research rigour and trustworthiness of data

Rigour is maintained by using the application of rigorous, precise and thorough methods to collect, record and analyse the data (Leedy & Ormrod, 2013). In this study rigour and trustworthiness were maintained by conducting a pilot study. As Kekana (2008) points out, the strength of a phenomenological study lies in the techniques used by the researcher to ensure that the data is handled truthfully. In this study the trustworthiness of the data responded to the validity of the study. The participants' responses, combined with the literature reviewed, as well as the conceptual framework, facilitated the researcher's understanding of the participants' experiences and meaning they attribute to having physical impairments while studying at an ODL university.

3.5.1 Core factors of the person-centred theory

The core principles of the person-centred theory, which are congruence (genuineness, or realness), unconditional positive regard (acceptance and caring), as well as emphatic understating (the ability to deeply grasp the subjective world of another person), were maintained in this study to ensure trustworthiness of the data (Corey, 2009).

The researcher maintained congruence by showing geniuneness and being real and true to himself. He maintained unconditional positive regard by recognising the participants' world views and recognising that they were different. Lastly, by successfully grasping the subjective world of the participants, the researcher displayed emphatic understanding.

Trustworthiness included the credibility, conformability, dependability, and transferability of the data. The credibility of the study was maintained by establishing that the results of the data analysis were a true reflection of the participants' views (Trochim, 2006).

3.5.2 Credibility

Credibility refers to the congruence between the research findings and reality. The specific provisions by Shenton (2004) that were made in this study that ensured the credibility of the research were that:

- The research methods adopted were well established.
- Different data collection methods were adopted to triangulate the results – this included observations, the use of field notes and the reflections from the sign language interpreter.
- A comprehensive literature review provided the background and contributed to explaining the attitudes and behaviours of the participants.
- Strategies to ensure that informants were honest were employed to increase the credibility of the research.

The strategies employed in ensuring honesty among the participants included the use of the Participant Information Sheet (see Annexure A) and Consent forms (to be interviewed and recorded) (see Annexure B), where participants were assured that their right to withdraw from the study at any time will be respected. Rapport was established with each participant before the interview sessions, and each participant was encouraged to be frank and honest in responding to the interview questions.

Credibility was further achieved through recording each semi-structured interview, transcriptions as well as well as the field notes, which were taken by the researcher during the data collection process. Transcripts were shared with each individual interviewed in order for them to verify and confirm the transcribed data. The sign language interpreter was consulted to confirm the context of the sign language in instances where the researcher could not make sense of the transcribed data, due to the nature of sign language, which is a short hand format.

3.5.3 Dependability

This construct refers to the consistency of the data analysed. This means that the findings are consistent and may be replicated in similar studies (Krefting, 1991), thereby allowing future researchers to replicate the study, but not necessarily to obtain the same results.

Dependability was used in this qualitative study to examine the process and the product of the research for consistency (Hoepfl, 1997). In addition, the construct showed that the findings of the study were consistent and may be repeated (Trochim, 2006). Dependability was maintained in this study by the researcher's use of an interview guide (see Annexture C). During the data collection process, the participants were asked similar questions in line with the research questions (see section 1.9).

Shenton's (2004) strategies of ensuring that dependability is maintained were applied. These strategies included the in-depth coverage of the research design and its implementation, the operational details of the data-collection method that were used, as well as the reflexive appraisal of the project, which is highlighted in chapter 5 .

3.5.4 Conformability

Conformability refers to the degree to which the findings of the study are a function solely of the participants and conditions of the study, rather than the characteristics of the researcher (Krefting, 1991). Conformability also refers to the manner in which the results support each other, when the results are corroborated and confirmed by more than one party, especially in the case of participants with hearing impairment (Trochim, 2006).

Comformability in this study was maintained through bracketing. Bracketing is a methodological technique used in a phenomenological inquiry that requires that the researcher deliberately puts aside his or her perception about the phenomenon under investigation, and his or her prior knowledge about the subject before and throughout the investigation (Carpenter, 2007).

3.5.5 Transferability

Transferability refers to the extent to which the findings of the emprical study may be applied in other situations (Taylor, 2016). However, in qualitative research, where the findings are specific to a particular environment, it is often challenging to demonstrate transferability.

In accordance with the recommendations made by Shenton (2004), the researcher adopted and applied the following strategies to ensure transferability:

- Sufficient contextual information about the particular environment was provided, to enable the reader to make such a transference.
- Sufficient "thick descriptions" of the phenomenon were provided, mainly to enable the readers to compare the phenomenon under investigation with other, similar situations and lastly; the
- Information about the research methodology (including the context where the research took place; the number of participants the data collection methods and the time period covered) was provided.

Despite the challenges highligted, as well as the limitations to demostrate transferability in qualitative studies, transferability in this study was achieved through a detailed description of the context, selection and characteristics of the participants, as well as the use of suitable data collection and analysis techniques. In addition, verbatim quotations in support of the findings were provided to further facilitate transferability.

Lastly, the researcher made use of the field notes to record the non-verbal language that was not recorded on tapes. The results of the observation were useful when describing the intensity of the feelings that were expressed by the participants.

3.6 Ethical considerations

The researcher underwent the ethical clearance review process to obtain ethical clearance and permission to interview students with physical impairment at an ODL university. Students with physical impairments were invited to participate in the study by e-mail. The information about the research was attached to the participation information sheet (Annexure A). The

participation information sheet contained the summary of the aims and objectives of the study, as well as the interview process.

The ethical review process addressed principles of research ethics, which emphasise beneficence (the need to do good) and malfeasance (the act of not harming the participants). These principles meant that the researcher had a responsibility to minimise the risk of harm to participants, and protect their anonymity and confidentiality, as well respect participants' rights to withdraw from the study at any time during the course of the study.

Participants granted the researcher permission to have them interviewed and recorded, by signing the consent letter before the interviews commenced (Annexure B). The content of the informed consent form included an explanation that f participation was voluntary, and that participants had the right to withdraw from the study at any time without facing adverse consequences. Furthermore, the information on the form made it clear that participants had the right to answer or not answer questions posed to them.

Participants were assured that whatever information they share would be treated in the strictest confidence, and that their anonymity would be ensured. Participants were further assured that only the researcher and his supervisor would have access to the raw data in the form of audio, records as well as the transcripts. The raw data were stored on an external hard drive and required a password to access the Microsoft word files.

3.6.1 POPI Act (2013)

This consideration of ethics is in line with the Protection of Personal Information (POPI) Act, which was signed into law by the President of the Republic of South Africa Republic on 19 November 2013. The Act is South Africa's primary legislation and deals with the processing of personal information. Its primary aim is to promote the protection of personal information processed by the private and the public sectors. Furthermore, the Act encourages integrity in handling people's data.

In line with the guidelines provided by Steneck (2006), the researcher maintained the research integrity by adhering to the research behaviour that is encouraged from the perspective of professional standards, institutional and governmental regulations. These guidelines were in

line with the POPI Act (2013) and the Research integrity committee regulations at an ODL university. These said measures were satisfied and enabled the researcher to protect the integrity of the participants.

3.7 Bracketing in phenomenology

Bracketing is a methodological technique used in a phenomenological inquiry that required the resercher to deliberately put aside his own beliefs about the phenomenon under investigation (Carpenter, 2007). In line with this stipulation, the researcher put his belief aside in order to clearly see the world from the perceptive of the participants (Garvie, 1927).

Bracketing in phenomenological research is a fundamental principle – however, critics are sceptical about this notion, because "Everything begins with reproduction" (Beech, 1999). This means that there is no recoverable moment of presence, no experience that can be inspected and dissected "just as it is" – since experience is "always already" transcribed, mediated, and permeated by "pure traces" (Cerbone, 2006).

Participants in this study gave a subjective account of their experiences. This formed part of the researcher's bracketing, and ensured that the data were not contaminated by the researcher's epistemology – that is, his standpoint in relation to the phenomenon under study, since he himself has a physical impairment.

The strategies applied by the researcher to ensure bracketing included the following:

- First, member checking was done. The presentation of the transcripts and the results of the interviews with participants were verified to ensure that the researcher's interpretations were a true reflection of the interviews.
- Second, the supervision sessions throughout the process helped the researcher to acknowledge his pre-conceptions about the phenomenon under study; and
- Last, reflexivity was applied and maintained throughout the reserch process.

Reflexivity refers to the ongoing critical reflection on oneself, as a researcher and the acknowledgement and exploitation of one's subjective reality (Beech, 1999). Reflexivity can be viewed narrowly as the analytic attention to the researcher's role in qualitative research.

As per the recommendations by Horsburgh (2003) and Etherington (2004), the researcher applied and maintained reflecivity by operating on multiple levels. This he achieved by being intimately involved in both the process and product of the research endeavour, as articulated by Dowling (2006). The researcher further engaged in continuous self-appraisal, self-critique and declared that his own experience had not influenced the research process (Koch & Harrington, 1998).

3.8 Résumé

The chapter gave an overview of the qualitative phenomenology research design that the study adopted to collect and analyse the data collected on the experiences of students with physical impairments, who were registered at an ODL university.

The procedures for data collection, data analysis, as well as the research rigour and trustworthiness of the data were discussed. Ethical considerations were discussed, as well as the bracketing and principles used to address and ensure the trustworthiness of the data collected. Chapter Four discusses the presentation, analysis and discussion of the data.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

The previous chapter discussed the overall methodology of the study – this chapter therefore, presents, analyses and discusses the findings. The study aimed at giving a voice to students with physical impairments, who were registered at an ODL university. The objectives of the study were to explore the lived experiences as well as the meaning of being a student with a physical impairment, studying at an ODL university. Thematic data analysis method was applied, as well as the guidelines provided by the Interpretative Phenomenological Analysis (IPA) as prescribed by Smith (2004).

The themes that emerged were arranged according to the following headings: experiences, feelings and meaning of being a student with a physical impairment. Under experiences, the themes were: ODL expereinces, social experiences, accessibility, provision of student support, as well as the transactional distance. The feelings expressed were discrimination, isolation, sadness, confusion, fear, anger, confusion and stress. The meanings were categorised into three groups; namely visual, mobility and hearing impairments.

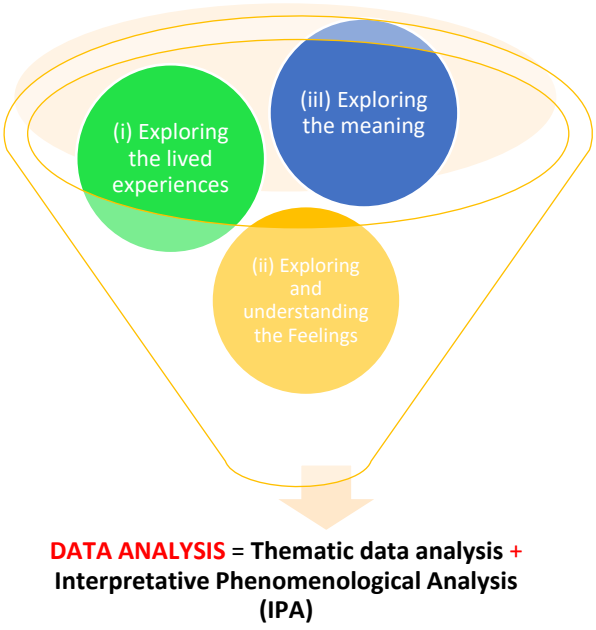

Figure 4.1: Themes

4.2 Pilot study

The pilot study was conducted with two participants, one had a visual impairment and the other one with mobility impairment. The pilot study was conducted firstly, to test what Groenewald (2004) refers to as "occupying the position of an 'insider', which required the researcher to use participants' preconceptions, and to help the researcher to make sense of the participants` personal worlds and the meaning they attribute to it (see section 3.4.3).

This was in line with gauging the researcher's level of preparedness as per the guidelines provided by Pietkiewicz & Smith (2014). The findings of the pilot study proved that the research questions were valid and that the research was able to provide answers to these questions (see section 1.9).

Secondly, the pilot study was important in the sense that the results showed that the set study objectives were achievable.

The themes that emerged from the pilot study were similar to those of the main study. The researcher's reflection on the feelings of the participants during the pilot study, helped him aknowledge and confirm the participants' feelings.

Conducting the pilot study proved to be a useful exercise. The participants shared their lived experiences, feelings and meanings they attribute to having physical impairments while studying at an ODL university. The researcher tested the Atlas t.i program when he analysed the data for the pilot study, and this was useful as it confirmed his ability and competency to use the program.

The researcher was able to establish rapport before he started with the interviews – this was evidenced by the fact that the participants appeared to be relaxed and trusting towards the end of the interviews, and this took a lot of time to finalise the data collection process. The first participant started volunteering more information just when the researcher was wrapping up.

The researcher had to restart the recording in order to capture the additional information. The pilot study also enabled the researcher to refine his bracketing skills, which require that one deliberately puts aside his or her own perceptions about the phenomenon under investigation, as well as his prior knowledge about the subject, prior to the commencement of the investigation, as well as throughout the phenomenological investigation (Carpenter, 2007;

Husserl, 1927). This aspect is important as it addresses the research rigour and trustworthiness of data. Furthermore, the supervisor provided valuable support in relation to the challenges faced by the researcher, especially to acknowledging and confirming the feelings experienced by the participants.

4.3 Results

4.3.1 Demographic profiles

A total of nine participants took part in the study. The participants met the inclusion criteria (see section 3.4.1.1) in the sense that they were registered in an ODL university, and indicated on the registration forms that they have physical impairments. Six of the participans were males, while three were female. The researcher had no control on choosing the sex of participants, because the recruitment process entailed sending out invitations via e-mail to the student population with physical impairments, and interviews were conducted with those who responded until data saturation was reached.

The participants' ages ranged from 21 to 54. In order to comply with (see section 3.4.1) the sample criteria, the participants had to be registered students at an ODL university, which would mean that they have an NQF level 4 qualification or grade 12 as their highest qualification. Thus, six participants had grade 12 or NQF level 4 as their highest qualification – three had bachelors degree or NQF level 7 as their highest qualification, while one participants held a Bachelors honours degree or NQF level 8 as her highest qualification.

The sample of students with physical impairments was made up of a representative sample of ODL students with visual (VI), hearing (HI) and mobility impairments (MI), who were studying at an ODL university in South Africa, and resided in Gauteng. The demographic profile of participants is summarised in the table below as follows:

Table 4.1: Demographic profiles

Participant	Age	Sex	Academic status	Employment status	Impairment	Field of study (faculty)
P1-HI	39	Male	Registered for undergraduate degree (NQF-7)	Employed	Hearing impairment-Deaf	Commerce
P2-HI	25	Male	Registered for postgraduate degree (NQF-8)	Unemployed	Hearing impairment-Deaf	Commerce
P3-HI	31	Male	Registered for undergraduate degree (NQF-8)	Self employed	Hearing impairment-Hard-of-hearing	Commerce
P4-HI	54	Male	Registered for undergraduate degree (NQF-8)	Unemployed	Hearing impairment-Deaf	Engineering
P5-MI	29	Female	Registered for short learning programme. Completed postgraduate degree (NQF-8)	Employed	Mobility impairment - Paraplegic	Human sciences
P6-MI	46	Male	Registered for undergraduate degree (NQF-7)	Employed	Mobility impairment-Paraplegic	Commerce

P7-VI	34	Female	Registered for undergraduate degree (NQF-7)	Employed	Visual impairment-low vision	Human Sciences
P8-VI	31	Male	Registered for postgraduate degree (NQF-8)	Employed	Visual impairment-Blind	Human Sciences
P9-VI	23	Female	Registered for undergraduate degree (NQF-5)	Unemployed	Visual impairment-low vision	Law

4.3.2 Presentation of findings

This section provides a clear and detailed description of themes and their supporting sub-themes. Following the double hermeneutic approach emphasised in IPA by Smith (2009), the themes emerged from the transcripts, which were verbatim quotes from the participants, as well as the researcher's field notes. The Atlas t.i. data analysis program was used to link the emerged themes to the nine transcripts by their conceptual similarities (see section 3.4.3.3).

The findings were confirmed by the participants and most of them resonated with their personal experiences as per the recorded and transcribed data. In cases where the context was different, the coding was amended as such. This also responded to the credibility under trustworthiness of data (see section 3.5.2). The services of a sign language interpreter were used when interviewing the four participants with hearing impairments.

This exercise of confirming the result with the participants was also in line with the core factors of the person-centred theory, namely congruence and empatic understanding highlighted by Corey (2009) (see section 3.5.1).

The following themes emerged:

4.3.2.1 Experiences

The participants gave accounts of their lived experiences in relation to their learning at an ODL university, support services, as well as their personal experiences that impact on their learning experiences.

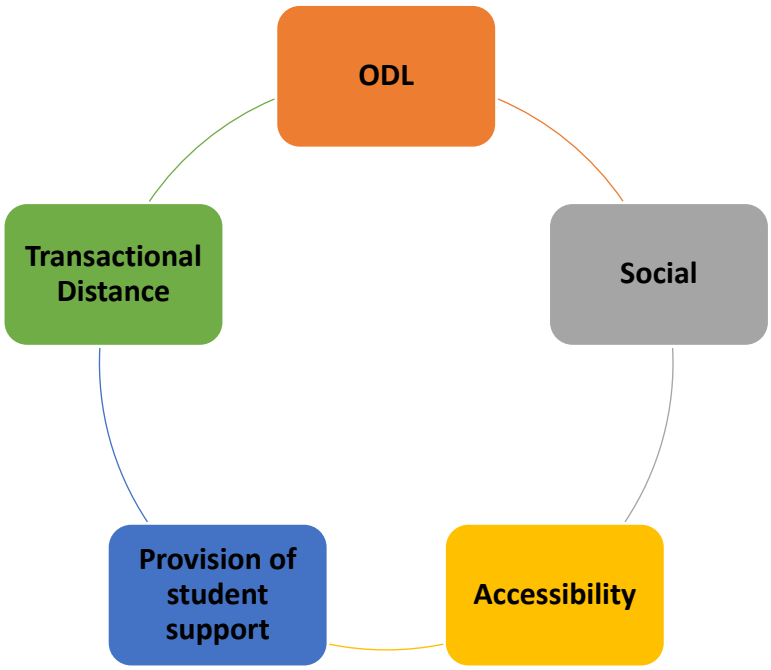

Figure 4.2.: Theme - experiences

4.3.2.1.1 ODL experiences

The participants first experience with an ODL environment was during the registration period, where they needed to be assisted but no one could, owing to the fact that staff members did not know how to communicate in sign language.

P3-HI:

> *My first year, when I registered, I registered everything on the modules and I studied but my challenge were lack of interpretation services, and it was difficult for me as a deaf person and only to find out that the interpreter was one.*

P5-MI

> *When I did my BA it was really not an issue, not having a face-to-face contact. My experience with ODL is ok. It just… it gives you that relaxation. So if you are not organised with your work, you will slack.*

P4-HI

I remember one time when I was owing twenty something thousands, because I am earning this grant (Disability), I was also growing some chickens with my mother supporting the family. My mother is getting a grant so I am also contributing income from my chickens, she will grow them. So with that money now, those chickens we sell them on the 24 before Christmas day. We will make a lot of money 8-20 thousands and will pay fees at school so it was better. This disability grant has helped me a lot. Too much, even now I am not depend at home it is helping me. It also helps me to manage money yes. The little helps me

For this participant, registering at ODL University afforded him the opportunity to study at his own pace. He was also be able to run a small business in order to pay for his tuition fees.

P3-HI:

My first year, when I registered, I registered everything on the modules and I studied but my challenge, I do have my challenges, I did have my challenges, interpretation, and it was difficult form me as a deaf person and only to find out that the interpreter was one (in the University)."

Cont

One day finally, I graduated and I felt like my stress is over and was proud of myself, yes I did it, a deaf person, yes I did it. I felt proud of myself cos I achieved from the University. I encouraged myself. Looking back, the experience that I had, I value this (education), it is the key to my future.

Graduating from an ODL university meant a lot for this participant. During tough times he persevered against all odds:

(cont)

once they realise you are deaf, they will be shocked, some will assist you by giving you information but other will not.

However, for some participants being an ODL student proved to be an unpleasant experience, owing to the attitudes of staff members.

P7-VI:

Sometimes people give you time to explain. Like in the shops you need assistance sometimes. They will think this one wants to cause trouble why are u walking alone?
Why are not you not wearing spectacles? But with a blind person then they can see. They do not understand. But with fully blind they help cos he is using a cane. They feel they need their help

Thus, students with physical impairments contend with negative attitudes on a daily basis.

P9-VI:

They knew that I was struggling with the recorder thing and she immediately saw that no, this is not working for me because I was like 30 minutes gone for nothing and she said to me, because you can write, let me rather get you a script that has big lines

Sometimes the negative attitude from staff members emanate from ignorance, or failure by the students to adhere to university's policies.

P2-HI:

I know there is a disability centre, it is there to assist but I have a disability too. Can they give me extra time for accounting? Because I need extra time, was referred me to exam department for assistance, when I contacted them they kept quiet

This participant explained that during registration she furnished the university with details pertaining to her status, and specified the kind of support she would need. However, it seemed like the information she provided on her registration forms was not shared with various student support departments such as the examination department – hence she emphasised that "they" knew.

(cont)

Exam department is not there at Johannesburg, they refer you to Florida and Pretoria, and you have to travel all the way there. When will they give us the same service? It is a serious concern.

For some participants, services decentralised to the regional offices did not cater for the needs of students with physical impairments.

P8-VI:

> *Let's say you may share that challenge with your lecturer, and the lecturer comes to an understanding and grand you an extension. If they grant you an extension, you will have limited time to prepare for your exams. So the limited time to prepare for exams, it will be the poor performance when you get your results. You end up completing the three-year qualification in seven years due to the inadequate support or lack of support to obtain the disability unit*

P7-VI:

> *The other experience is that the disability unit, doesn't provide adequate support for student with disabilities.*

P3-HI:

> *One day finally, I graduated and I felt like my stress is over and was proud of myself, yes I did it, a deaf person, yes I did it. I felt proud of myself cos I achieved from the University. I encouraged myself. Looking back, the experience that I had, I value this (education), it is the key to my future.*

For most participants, the disability unit played a huge role in providing the needed support, while for others it did not live up to its mandate.

4.3.2.1.2 Social experiences

P3-HI:

> *..the issue of sign language in the University is the same as outside. You will find that there is no sign language interpreter. When you go to Woolworths, you struggle. I think people should know just a basic sign language, and I am not saying they should be professional interpreters.*

In reflection, the researcher consider the above scenario an ethical dilemma, which calls for a review of the techniques used to record the data presented through the sign language interpreter. It is precisely because of this ethical dillema that the voices of students with hearing

impairments are not heard. However, sending the transcripts back to participant to confirm the information enabled the researcher to quality assure the contents and context of the interviews.

One participant was frustrated by the fact that he was unable to hear what was being presented, due to bad audio systems. Even though he had assistive devices to assist him with external audio stimuli, these were inefficient as the sound was not balanced, for him to be able to hear properly.

P4-HI:

> *You will find they use the microphones at times and at times the microphone(audio) is not clear enough, so I used to experience that thing. If students are making noise, it affects me. When the students are ill disciplined and making a lot of noise, I have to take it out (Hearing aid) until they keep quiet. These are the things that I used to face.*

The participant explained further:

> *..if there are speakers, the experience will be better but in the cases where the speakers are absent and the hall is big, it will be like the all is swallowing the sound and when I receive it (sound) it will be very low, to a point where I will not be able to hear.*

4.3.2.1.3 Accessibility

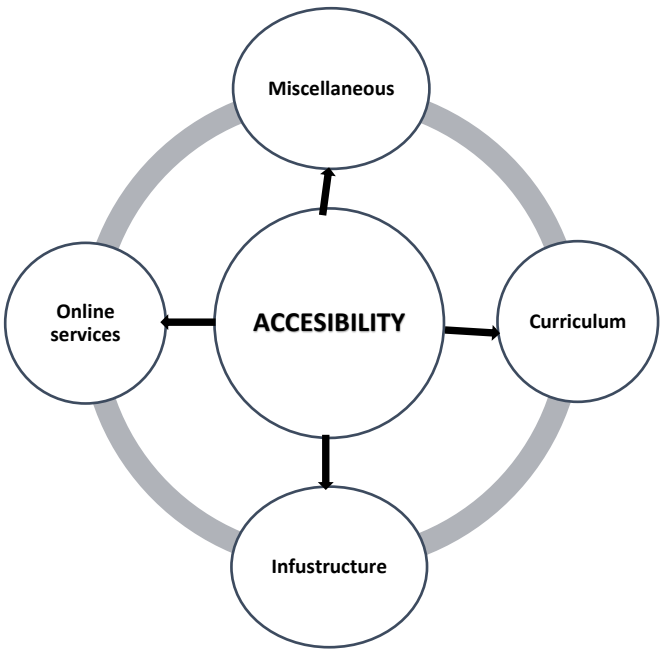

Figure 4.3: Theme - Accessibility

4.3.2.1.3.1 Curriculum

Kelly (2009) defines curriculum as the totality of student experiences that occur in the educational process. This definition is inclusive of the planned sequence of instruction, or to a view of the student's experiences in terms of the educator's or school's instructional goals. Curriculum may incorporate the planned interaction of students with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives (Reys, et al., 2003). For the purposes of this study, curriculum included, but was not limited to the planned interactions of students with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives.

Failure to develop the curriculum that is accessible in ODL may kill student morale or negatively affect attrition and throughput rates. It is important to motivate students in ODL at all time. Research has shown that learners who are motivated overcome barriers of situation and time (Simpson, 2008).

The findings of this study indicated that students with physical impairments had difficulties accessing the curriculum in the form of instructional content, materials, resources, and processes in order for them to be evaluated in relation to the attainment of the set educational objectives.

P1-HI:

> *I received a DVD, but it didn't have subtitles. It was from school of computing. It had no subtitles. The discussion classes as well as tutorial classes organised by academic departments are not inclusive and students with hearing impairment are unable to participate.*

The participant with hearing impairments highlighted that the university has an obligation to develop alternative and inclusive study materials that will make it easier for students with impairments to access the curriculum.

P7-VI:

> *..on the semester we did it, we were the first students to do it online. And for those modules they give you a video link.*

The participants with visual impairment also indicated that the manner in which some of the assessments were conducted made it difficult for them to access the curriculum; because for instance, at one stage the academic staff provided a video link they couldn't access with ease.

This meant that they had to ask a friend or family member to watch the video and explain it to them in order for them to complete the assessment. Completing the online activity also meant that they had to allocate more time to a task or activity than was allocated.

P3-HI:

> ..*I approached the lecturer and he realised I couldn't hear so he forced me to speak.*

One of the participants approached the academic staff to discuss her shortcomings but her concerns were underplayed..

The statement of the problem (see section 1.7) states that the studies conducted on experiences of students with physical impairment did not ake into consideration the voices of those students. This study listened to the voices of students with impairments.

Language was also highlighted as one of the barriers to accessing the curriculum. According to Magongwa (2008), while sign language is considered the first language of most students with hearing impairments. However, sign language is not recognised as a language that has equal standarding like all other languages.

P3-HI:

> ..*Many deaf people, they have a language, language, some cannot read English or Afrikaans but they can read sign language.*

From the literature reviewed, as well as the findings of this study, it seemed that sign language has its set of rules different from English or any indigenous languages.

P2-HI:

> *The tutorial letters are generally understandable but sometimes it is difficult. I am able to read and I understand the material and content.*

The participants further explained that they managed to read and write in English, but also highlighted that summaries in sign language should be included in the tutorial letters and study guides.

P2-HI:

> *..accessibility, there is a serious problem if the University have classes, with other hearing students, then deaf are there. They should give us an interpreter, because it is distance learning institution, but here (Working place) interpreters are here. In Cape Town, University of Stellenbosch, when a deaf student appears there is an interpreter, why are they keeping quiet, I cannot keep quiet, I cannot only e-mail and keep quiet, why are they not returning back to us? The ODL University is good, cheap, we don't have money we prefer to study with it, but we are failing. You should investigate that….*

The sentiment that language is a barrier to accessing curriculum was echoed by another participant with a hearing impairment. Therefore, there is a need for sign language interpreters to be present during discussions and tutorial classes.

P7-VI:

> *..the pictures, page numbering… some of the things it does not read. It reads something that is not there. Like the words written in italics. The software does not read italics.*

Some of the students with visual impairments needed to convert their study materials into an accessible format. This was in braille or audio.

P7-VI:

> *Yes the hard copy. I asked the lecturer for the library to scan it for me. I was already late for assignment one because the feedback was already posted on the learning management system. So he advised me to write the second assignment only. I got to exam with one assignment year marks. So to my surprise I got to the exam centre and there was no question paper prepared for me because I submitted my assignment late and they disqualified me for examination. Although I've written email to support to explain what happen I requested to be admitted to examination admission so the paper was not there. So I had to sit there for two hours waiting for the paper.*

The above quote shows how the lack of support for students with impairments creates a barrier for them to access the curriculum and materials for assessment.

P8-VI:

> *When writing assignments for research, you musty indicate the page number when you cite, so there is the possibility that you will state the incorrect page number after reading the page number on the converted material.*

The concerns raised by the students with hearing impairments were that the conversion of their study material hindered their ability to fully engage with the tutorial letters. The inability to see pictures and graphs served as a limitation on their part to access the curriculum fully, especially when some of the assessments were based on the material. The fact that the conversion process changes the format and numbering of the original material made matters worse, especially in cases where one needed to cite sources..

P7-VI:

> *Your first chapter may be on page number five and mine on page number three. I have tried with the lecturer and explain my condition and she was like we can't give an exception.*

When referencing in Havard for example, it is requested of the students to provide the author/'s name/s' as well as indicate the page number relating to the cited information.

This disadvantaged the students with visual impairments because after the conversion of the study materials, the page numbers change – and are not identical to page numbers in the original materials used by the lecturer and the rest of the students who registered for that module. This means that the student with visual impairments, who converts their study material would be penalised for incorrect citation.

The findings also showed that the participants tried to approach the academic staff to explain the challenges they were faced with, but no one responded to their plight: P8-VI:

> *The machines that convert it doesn't perform that duty professionally. To convert in that way that it confused diagrams and pages numbers as well as layout in a way that it does not reflect what the hard copy says.*

Another challenge that students with physical impairments who need assistive devices faced was study materials that were delivered late in the semester, when teaching and learning had advanced. The implications for these learners were that they still needed to procure laptops with software that they would use to access the assessments.

4.3.2.1.3.2 Infrastructure

Accessibility to the university's building proved to be a major challenge for students with mobility impairments.

P5-MI:

> *For me discussion classes was the main issue because it was not wheelchair friendly so it didn't encourage me to want that kind of engagement with the lectures but it did lack and I felt like you also need to be part of those discussions.*

Another participants mentioned that inaccessible university buildings made it difficult for her to interact and engage with fellow students as well as academic staff members while at the campus:

This experience sparked feelings of isolation in participants. As alluded already, this inaccessibility is a barrier as articulated by the Social Model of disability (see section 2.4.3).

According to the Social Model of disabilty, if these barriers are removed, the disability will not exist. In this context, inaccessibility to campus did not only prevent the students from accessing the buildings, but also excluded them from fully participating in their learning activities .

P5-MI:

> *..when I went to register, every time when I went to register at the university I would have somebody..*

This means that students with mobility impairments often have to be accompanied by someone when coming to campus:

P5-MI:

> *..including parking, bathroom or there is no body to assist you, all that otherwise there isn't really much difference. Facilities for me are major major and major issue. Especially with old buildings..*

Inaccessibility was not only limited to the discussion classroom and lectures' offices, but to bathrooms, parking areas, and other student support departments as indicated by P5-MI above. This concern was also extended to the lack of personnel to assist with parking and directing students to user-friendly pathways towards the buildings.

P8-VI:

> *..there is also a high level of inaccessibility at the University, a person using wheelchair can't access the buildings because of the stairs. So it is discouraging them or disempowering them in being part of that particular students in those buildings. These challenges should be addressed urgently.*

A participant with visual impairments acknowledged the challenges faced by students with mobility impairments with regards to accessing the buildings:

P9-VI:

> *..The steps challenges is not for only paraplegics. For me as a partially blind is problem for me. The ramps are much easier for me. Sometimes especially at main campus, their steps are uneven, for me I can't see like well.*

The researcher was under the impression that accessibility to infrastructure mostly impacted negatively on student with mobility impairments – however, this barrier also impacted negatively on students with visual impairments.

P4-HI:

> *..The paraplegics, accessibility, it was quite challenging for those people who are using wheelchairs and crutches. They would not even able to get in some of the lecture room because some of the lecture room they are underground. You have access those classrooms using the steps. So I think accessibility was bad. That is mostly which I noticed as compared to here.*

Another participant with hearing impairments shared his thoughts around issues of inaccessible buildings, and explained that this was a common concern all over – the participants mentioned this challenge was never addressed at the face-to-face university he used to attend in the Eastern Cape, before registering at this ODL university. His observation was that this ODL university is however, on the right track as far as addressing this challenge is concerned.

Matshedisho (2010) and Leyser (2008) argue that the provision of reasonable accommodation to students with physical impairments in terms of modifying buildings will afford students with physical impairments equal opportuinties to participate fully in the teaching and learning activities.

Furthermore, Williams (2016) has reiterated that this lack of support impacts negatively on the perseverance of mostly female students with physical impairments. The findings emphasised the relevance of the biopsychosocial model of disability. The inaccessibility to buildings did not only impact on the physical domain but on the emotional and psychological domain also; and have impacted negatively on students experiences, since it sparked feelings of isolation and stress.

4.3.2.1.3.3 Online platforms

Baloyi (2012) considers interactivity as crucial when defining and developing learner support in an ODL isnstitution. Some students were found to not prefer online interactions. In her study, Nsamba (2016) used the technophobia theory to explain why students don't like using computers, and refers to this as resistance to, fear of and anxiety towards computers or having hostile thoughts about computers.

A similar study by Gilbert, Lee-Kelly and Barton (2003) conducted in the UK indicated that technology anxiety correlates with demographic variables such as age, sex and academic qualifications. According to the findings of this study older people, especially women, are the most technophobic. Despite the increased use of ICTs and the Internet in education the world over, there are still people who do not make use of computers – either because of their fear of technology, or because they simply aver them, or because of reasons known only to them.

The findings of this study highlighted "other reasons" that were not highlighted in the study conducted by (Gilbert et al., 2003). Participants in this study did not indicate to in any way that

they aver computers, or that they had a phobia for technology – but cited the inaccessibility of the ODL university's online platforms as resons for not using computers.

P5-MI:

> *The learning management system helped to an extent. Like we could share question papers and get clarity especially psychology assessment.*

P8-VI:

> *..In a distance learning education, you need a high level of internet connection, and you will agree with me that learning in a distance learning environment without internet access, it's true that it will be difficult for you to succeed because you require a great deal of internet.*

Another participant highlighted that geographical location may impact on students' ability to access ODL online platforms:

P4-HI:

> *..They can only disadvantage those in rural homes. And those who are not familiar with IT stuff. Cos tis changing to online.*

P1-HI:

> *..I never had face-to-face interacting with students, only though online system.*

This participant explained that since he did not have face-to-face interaction with his fellow students, he relied on the use of online platforms, especially the learning management system to interact with the lectures and students.

P4-HI:

> *..Study material arrives late, so it is quicker for me to check on the learning management system for solutions of assignments. So with that site, it comes now maybe one week before you write. Solutions used to comes after the exams so you couldn't see where you went wrong. Now, I am able to get access to that before exams.*

One of the advantages of having access to the learning management system is that it provides easy access to study material, which includes tutorial letters, study guides as well as feedback on assignments.

Another benefit enjoyed by students who have access to online systems is that they are able to interact with other students who are registered for similar modules, and are able to access study material and obtain timeous feedbacks on assignments, as well as feedback on academic enquires.

One participant mentioned that she was grateful that there were computer labs at the regional service centres or satellite campuses. Her concern though, was that even though there were computers at the centres, she was unable to access the online platforms – firstly due to the fact that she was not skilled in using computer programs, and also owing to the unavailability of support staff members.

This means that those staff members employed to serve students in computer labs should be equipped to assist students to use various technologies to access the online platforms.

P7-VI:

> ..*At the computer labs yes they don't have software. And I will still need assistance from someone.*

This challenge also sparked feelings of isolation and stress in students with physical impairments, who felt that they were being discriminated against. It also shows that student support in terms of technological development is not inclusive to all students in ODL.

P1-HI:

> ..*I tried mmm to apply for aggrotat exams through one of the online platforms (e-mail). However I couldn't get a response. The only responses I got from the system was that my application for aggrotat was received in good honour within the institution but I never got the response. I still remember I came back but they said I was too late that I was supposed to write aggrotat during January (2017). The qualification was facing out. I came several times until last month (June) when they agree to give me supplementary exam for the EUP*

Some of the participants grew despondet with the use of the university online system because in some instances they wouldn't receive responses to their enquiries.

P5-MI:

> *.. physically because online for me it was Mmmmmm I gona receive my material in time so I wanted to be there and ask question.*

It was clear during the interviews that participants had lost confidence in these online systems. This was evidenced by the statement made by one participant, who indicated that she would rather use online services for banking and for doing shopping. The participant further indicated that this worked for her in the past, and morever saved her time – but would rather go to the institution in person, to sort out any issues – and this she said, had worked for her.

P7-VI:

> *.. I think maybe they do have because when I write my online module the lecturer advised me that if I don't want to write the exams at home I can go to the library or use any internet café. But I can't use internet café because they don't have the software and if I come with mine they complain that I going to put virus in their computers. So the lecturer said if any problems arise I need to come to the library.*

Most ODL universities worldwide have telecentres rendering support services, where students are allocated some time to access computers and other online systems at nearby internet cafés. The academic staff often encourages students to make use of these services. However, most, if not all internet cafés do not have special software required by students with visual impairments. It is also not clear how time allocated to students with physical impairments is being managed.

4.3.2.1.3.4 Miscellaneous

4.3.2.1.3.4.1 Accessing sign language interpretation services

The failure to provide adequate sign language interpretation services for students with hearing impairments created the perception among students with physical impairments that the university does not see interpretation services as necessary. The participant (P3-HI) below described that the lack of sign language interpreters is a serious challenge that needs urgent attention:

P3-HI:

> *..I do have my challenges, I did have my challenges, interpretation, and it was difficult for me as a deaf person and only to find out that the interpreter was one (in the University). That is a challenge. But how do we appoint other interpreters because sometimes you find that the lecturer, the interpreter is with another lecturer and what about us?*

P1-HI:

> *You don't request to have impairment, it is part of our lives. You have to accept it. However, accessibility, should be prioritised. The institution should accommodate people with impairments.*

According to Magongwa (2008), while sign language is the first language of most students with hearing impairments, it is not recognised as a language with equal status with all other languages. However, the Department of basic education has made some strides and will accomodate the first cohort of matriculants to write their examination in sign language from 2018 onwards (DoE, 2018)

P2-HI:

> *..I hope in the near future the new generations experiences will be better than this, the older one is not nice. Because some people they don't have courage to continue, they fall off the way, we need to encourage each other. We have 11 official languages, sign language doesn't feature, and we need to teach people sign language. It is a long way to go.*

One participant was however, optimistic about the willingness of the general population to learn sign language.

4.3.2.1.3.4.2 Accessing student support services

This study corroborated the findings of a study conduted by Kangai et al. (2011), which validated the findings of a study conducted by Lewis (1980), that most ODL students seems to have more personal problems, which affect their studies, as compared to students who attend face-to-face universities.

P2: HI:

> *..I needed an advice, I needed counselling on what to do and how they can help me to build my confidence, again because going back and writing mmmmmm. Is okay then to make an appointment when coming to see them? Remember I'm deaf, when I get there, how are they gona communicate? I need clarity, maybe an interpreter to assist me, should I say everything and only to find out de is no interpreter.*

As can be seen from the statement by P2: HI above, accessing student counselling services seemed to be a challenge for some students with physical impairments, especially for students with hearing impairments, because of the communication challenge.

Even if sign language interpretation services were readily available, this would still pose a challenge for students with hearing impairments, because of the level of confidentiality required during the counseling session. Thus, involving a sign language interpreter to bridge this gap in communication would compromise confidentiality.

P2-HI:

> *..I cannot, still now, I can't. But hearing people can access it. And they saying you have student counsellors they're there but I am deaf and I can't access it. They are not organising interpreters, I want it to be the same as to speaking students..*

The participant indicated that hearing people are able to access counselling services, and this perpetuated a sense of inequality as far as accessing these services is concerned. For students not to be able to access counselling services when stressed, aggrieved or anxious impacted negatively on their learning experiences. This state of affairs did not augur well with this participant.

4.3.2.1.4 Provision of student support services

Evidence from literature shows that the provision of effective support to students with physical impairments promotes retention and attrition. There seems to be a need to orientate students in ODL universities. As students with physical impairments use various assistive devices for learning, some of them have to adjust and use the available resources offered by the university.

Matshedisho (2007) indicated that most institutions of higher learning worldwide have developed support for students with impairments. Examples of these students support services are counselling, library, examinations, student funding and registration. These function independently from the academic support structures such as lecturers and tutorial classes.

These student support services personnel should be able to reach out to all the students with physical impairments and orientate them on how to access their services.

P2-HI:

The challenge for one year then I asked, the big problem started when I was doing my Bcom. When I was going deeper, so many material trying to study I couldn't catch up, I needed support, trying to explain about the material and the classes.

According to the participants, student support in ODL universities is vital. Their assertion is in line with the assertion by Rumble (2000) and Tait (2000), who share similar views regarding the provision of adequate student support in ODL – that the ability to access student support boost student morale and increases throughput.

4.3.2.1.4.1 Resources
4.3.2.1.4.1.1 Assistive devices

Unlike the general student population in ODL institutions, students with physical impairments often need assistive devices such as equipment or instruments that will enable them to be efficient in their learning activities. These include mobility devices, hearing aids, magnifying glasses and computers with either speech output or text enlargement softwares. Most students, as is the case with the study participants, rely on subsidy from the university to purchase assistive devices.

The findings of this study confirmed that this ODL university subsidised the purchase of assistive devices, and even has devices that may be used as, and when required by students with physical impairements (see section 1.4).

P9-VI:

> *..I was using my daisy reader, you put the CD in it yes. It reads for you but you know when you using daisy reader, there are some challenges because you find that it also gives you some problems. Sometimes mine would give me problems such as if I put the CD in, then I listen and listen after sometimes it just stops. When it stops and I try to forward it or maybe rewind it, it doesn't want anything and then it will skip some pages you see, so those were the challenges before I wrote my exams and it was difficult, it was really difficult.*

Thus, in spite of the fact that this ODL university provides students with assistive devices, there are challenges that students with physical impairments encountered when using the devices optimally. This may be due to the malfunctioning of the device, or due to the fact that perhaps the university does not maintain the functional state of the devices.

P8-VI:

> *Firstly, in distance education environment, for me I would need support of a device with the internet. In most cases there is no adequate support which enables the student with impairments to learn conductively in a distance learning environment*

Even in instances where the university subsidised the purchase of these assistive devices, having devices did not benefit participants, due to the lack of internet connectivity. For example, one participant received subsidy to purchase a laptop installed with Jaws – but was not able to access online platforms due to lack of internet connectivity. Thus, the financial assistance given did not include the cost of buying data.

P9-VI:

> *They are there (assistive devices), but staff don't know how to use them. So it makes no sense for those to be there. it is more like you have travel to a place for nothing and go back. With me it is worse, it is very sad because I am only depending on the disability grant.*

Even in cases where assistive devices are available at regional service centres, staff members are these centres are not equipped to use these services, and can therefore, not assist students in this regard.

P9-VI:

I have a laptop, I got it end of last month (July). I requested it from last year (2016) when I came to register (2016-July). I did everything and I was hoping that by the time I start with my studies in January latest February. I would have received my assistive devices but it didn't happen. There were always stories that this and that then I had to wait forever

It seemed like students were not given timeous feedback on their applications for assistive devices. Often students received feedback months after they had assignments and started with their learning activities. This had a negative impact on accessing the curriculum and study material, since the students with physical impairments relied on the use of the devices.

P9-VI:

What happened is that at first, I applied for…. to write using JAWS but now I thought that my assistive devices I will get them earlier and it didn't happen. There were some delays. And with that the time for exams was about ……..it was nearby and It's been a while since I used the computer and there were challenges that I would face if I continued to use the computer with the JAWS. Like I forgot some strokes, I only did computer course for the blind in 2014 and after that I never touched the computer. So you see, if I use the computer in 2017, especially for exams it would give real problems cos I won't be able to finish my paper

This delay did not only made it impossible for the participant to access the curriculum, but affected how she was supposed to write examinations. The student applied for a laptop with a special software to assist her to read the text,. This meant that she had to request that the format of her examination paper be changed – she also had to request that a scriber be allocated to assist her – since she did not have enough time to familiarise herself with the software. Furthermore, the delay also had an impact on her time management in preparing for examinations.

4.3.2.1.4.1.2 Study material

The study material in ODL forms an integral part of the curriculum, as well as the student support system. During registration students have an option to choose a format in which they want to receive the study material. Thus, they have an option to choose materials in enlarged fonts, electronic copies or braille.

The ODL university offers assistance in converting the study materials into electronic copies, braille or large fonts to accommodate students with physical impairments. The participants indicated that after they have registered, they are supposed to approach the disability centre to ask for assistance with the conversion of the study material. In some cases, they will receive normal study materials like the rest of the student population, in spite of having indicated their preference or format.

P7-VI:

> *..You find that when you have indicated in the special assistance form that you want braille study material, what you will often get, you will receive them but after the due date of the first assignment.*

The disability centre starts with the process of converting study materials after they have received the requests from students, and the turn around time is usually determined by the number of registered modules, as well as the capacity of the staff who deal with such requests.

P8-VI:

> *..It does not sit well with me because the disability unit must ensure that they provide me with relevant study material at the right time. What I have indicated in the special form*

The problem associated with the conversion of study materials into other formata is that often the converted material is not similar to the original format – pictures and diagrams often fall away.

P7-VI:

> *The other challenge is that the required material in the electronic format, have lot of errors that are not correctly captured and that impact negatively during the course of my studies*

because it comes a point where you have to guess that was not correctly done. Another thing challenging there once u scan the book convert it changes the whole content

This process excluded the prescribed text books for each modules. Students only get to know what has been prescribed for them (recommended and prescribed books) after they have received the converted study material.

P7-VI:

So there is no way you could find the book, I tried the library and they did not have the book on the shelves. So I tried the lecturer if he has the library book

It is only after the students with physical impairments have received their study materials that they will be able to get prescribed books as well as recommends books. This process is time consuming; since students have to contact publishers in order to get electronic copies. In some instances publishers will require that students with visual impairments purchase hard copies of the books like everyone else, and will only send "free electronic'' copies after they have produced the proof of payment.

P7-VI:

Bacause I remember I had incident, actually it happened twice. The first time it was with English module. Fortunately I had to buy three of the four books, so the other publisher actually they provided me with the book early. I got the book and wrote the first assignment, and with the second assignment, I couldn't write it in time. I remember I got the book three days before the exam. And within those three days I had to write assignment two and prepare for the exam

Students with visual impairments in particular, have to get electronic copies of the prescribed and recommended books, together with the study materials.

P7-VI:

..and at that time of the semester the mind needs to be pure and something comes like that it distracts everything. It disturbs a lot. And the workload you have to work under pressure. Instead of doing the module in three months you have to work in one week

(cont)

"*..Let's say you may share that challenge with your lecturer, and the lecturer comes to an understanding and grand you an extension. If they grant you an extension, you will have limitted time to prepare for your exams. So the limited time to prepare for exams, it will be the poor performance when you get your results. You end up completing the three-year qualification in seven years due to eth inadequate support or lack of support to obtain from the University*

These limitations mean that student with physical impairments will have less time to complete the formative assessments, and lesser time to prepare for examinations as well. This pressure often leads to anxiety, stress as well as low self-esteem in students with physical impairments.

P7-VI

First time I get my book I familiarise myself with the whole book. Read from the beginning to the end. Find out which chapter is on which page. because each chapter starts on a new page. But with the converted one it switches everything

The converted study materials also require students to have advanced study skills, as they require enough time to familiarise themselves with the books, and correct the mistakes that resulted from the conversion process.

4.3.2.1.4.1.3 Tutorial classes

The study by Brown (1996) sought to establish the role of internal and external factors in student attrition, difficulty to contact tutors, as well as the lack of adequate support from tutors. These factors ranked first and second among factors that contribute to students' dropout, , followed by the demands of the course, job or career responsibilities, feelings of isolation, financial difficulties, as well as family issues.

The provision of tutorial classes is regarded as one of the student support services aimed at bridging the gap between the ODL university student and face-to-face students. Participants with hearing impairments faced the challenges of being excluded in the tutorial classes provided by the ODL university.

Abrams and Jerningan (1984) also found a correlation between tutorial support and student success, where students who met with their tutors on an average of 2.26 times during the autumn semester had higher grade point averages, whereas those who had only met with their tutors on an average of 1.81 times failed the course.

For instance Tladi (2010) argues that the provision of student support for students registered for accounting modules needed to be efficient (Tladi, 2010).

P2-HI:

> *One long barrier is accounting, accounting mmmmmm, FAC-160-1, I tried to study study study and thought I'll get it right, come exam period, trying to write it, time, they gave me, I couldn't control I couldn't cope for two hours, for me it doesn't work, questions I couldn't understand but continued writing and before I could finish, time is up. Then I failed FAC-160-1. And others, they were passing passing. FAC-160-1 I couldn't, the questions were so many. And the time allocated was so little*

Tladi (2010) identified factors that affected examination attrition on an accounting module at the ODL university from which this researcher drew the sample:

- Motivational factors: these refer to students' commitment to stay in and graduate from institutions of higher learning, which are often related to their perception of the relevance of higher learning.
- Psychosocial factors: these are the social and emotional factors related to the higher learning experience, and can best be described as students' ability to fit in with the institutional culture, departments and other students, as well as their ability to cope with the changes and demands of the higher learning environment.
- Financial factors: these relate not only to affordability, but to the perceived cost of education versus its benefits.

These are factors highlighted by the biopsychosocial model of disability, which views impairments holistically, and should be taken into consideration when providing support for students with special needs.

P2-HI:

I thought I wanted to be included in the class, organisers were there but couldn't organise sign language interpreter in the class. How am I going to do? Ok, should I leave? I left. But once accounting class, I thought because it is numbers, then I Couldn't hear what they were saying, I couldn't follow, and I couldn't catch up. Why? because he was writing but I couldn't understand, it is in the book, exactly what's in the book and I was wondering what to do. Then during break I just vanished, I tried to get somebody to interpret in the class and I was referred and referred and referred. Then I couldn't get help.

The participant indicated that he felt excluded in one of the tutorial classes due to the lack of sign language services. He ended up leaving the class because he needed a lot of support, since he was struggling with that particualr module.

P2-HI:

.. I want the university to encourage us and have interpreter, education is equal, we should get it equally.

This experience left the participant feeling demotivated.

P5-MI:

But when I did my honours degree, there I needed face-to-face because I think the work got more difficult and I felt like I needed somebody to explain

As articulated by P5-MI above, the tutorial support was effective while she was studying towards her undergraduate qualification; but such services were not offered for post-graduate students.

4.3.2.1.4.1.4 ODL adjustment

P 8-VI:

..It is very difficult, on top of that, the education level is higher at tertiary and it doesn't correspond, it is not easy to cope, to adjust because the education of the two sectors doesn't

correspond. The standard of secondary education is very low and cannot be compared to the tertiary education. It must correspond, when student leave secondary they must be prepared for tertiary.

P7-VI:

..Changing to that it was not easy, first you have to deal with emotional challenges.

Adjusting to an ODL environment seemed to have proven to be a challenge for most participants with physical impairments, as evidenced by the statement of P7-VI above. Some students also argue that the transition from high school to tertiary institutions is difficult by the different educational standards, as suggested by P8-VI above.

4.3.2.1.4.1.5 Finance

The participants also highligted the extra costs and financial implications associated with having physical impairments while studying at an ODL university. For one participant, having a hearing impairment meant that he had to travel to the main campus whenever he needed assistance with his studies or accessing student support services. He indicated that although there are satellite centres, these do not provide sign language services. Since he lived in Johannesburg, he had to spend money to travel to and from Pretoria, which is almost 60 km away from Johannesburg.

P2-HI:

..The problem is I am based here in Johannesburg. When I go to (Pretoria), when I got there, they help me, they know me and everything is fine. But I cannot always go to Pretoria, is expensive.

The participant further indicated that in instances where he decided to access services offered at the satellite centre in Johannesburg, he would need to organise his personal sign language interpreter. Instead of the staff making an exception and allowing him to jump the queues, he would be forced to be in the queue, and the longer he queued the more money the sign language interpreter charged him, because the services are charged pe hour.

P2-HI:

> *..as people with impairments, we must not stay long on the queues. We must be upfront. But the staff will say "stay there" I would explain that I am deaf and as a person with impairment I should go at the front but they will refuse. This is serious because I can't continue writing, sometimes they will be helping the next one, what about me? If I have my own interpreter, the problem with the interpreters is that they are busy. 30 % only that I can get help from. When on the queue, the problem is I am wasting their time because they have to go somewhere else. So on the queue you stay for hours then the interpreter will leave, she has another appointment and the University staff will be like nooo!!, be on the queue. There is a serious barrier. In Pretoria and Florida, they (services) are not the same as here (Johannesburg). ."*

P7-VI

> *Yoooo coming to that it is very expensive for visually impaired it is very expensive.*

Mobility-impared participants, felt that they were incuring more expenses than other participants with physical impairments (that is, participants in every category thought they were incurring more expenses than those in the other category).

P6-MI:

> *I get that from staff budget, I am covered with that. For wheelchairs and other stuff I buy myself. The other thing is if you are disabled, you must modify your car. It is also expensive. The cheapest is 12 thousands. We don't have any discounts. Not sure if South African Revenue Services (SARS) is giving something*

For those with mobility impairments, the highlighted expense related to assistive devices such as wheelchairs. Participants who were working had their employers cover the rest of their tuition as well as study materials.

4.3.2.1.4.1.6 Accommodating all disabilities

Some of the concerns raised by participants were that there was no reasonable accommodation for students with physical impairments in the regional service centres.

P8-VI:

> *Some do not have disability unit, in some of those that they have, they cannot accommodate all the disabilities, and they accommodate certain disabilities, which is incorrect. We must be in a position that when you have a unit they must accommodate equally and adequately*

In the opinion of one participant ODL universities still lag behind as far as accommodating students with different types of impairments is concerned.

P6-MI:

> *Our University is still far to accommodate disabled students. We still far I must be honest, we still far. They should check Wits (University of the Witwatersrand) how it is accessible. As I speak there is a lot of mmm disabled students at Wits. One of the Indian guy is a quad (quadriplegic) but you can see there is access, the computers and everything. If you can get our University and say you want to employ someone who is quad, they will say no!! We can't assist.*

He recommended that the university should benchmark against face-to-face universities in order to improve the servce rendered.

4.3.2.1.4.1.7 Examinations

P7-VI:

> *They use NVDA. First time I used that one was when I was writing my first exam. I was shocked to hear that voice first time in my life*

As a result of this expereince sparked feelings of anxiety in students and impacted negatively on their performance during examinations. The participant further explained that the set up in the examination room was not friendly and it took her time to settle down.

P9-VI:

It was my first time to use that thing. I expected something smaller. That was big, it was something else. In a size like this. You have to press some buttons. It was the first time I saw that time during the exam. My first time. But the lady that brought that recorder, she knew that it was my first time and I actually told that I never used that thing you are bringing. She said you should have been at least been introduced to it before you used it. But I wrote my exams

The above participant explained how anxious she was when she had to use the recorder for the first time during examination. She was under the impression that the assistive device was small and portable, but to her surprise it was big. Morever, she had to learn how to use the device just before she sat for her first examination.

P9-VI:

I have received the time table. It was amended actually. The module was taken from the time table it was re granted but the paper was not prepared.

In the above instance, the participant had to wait for two hours before her examination script was delivered.

P3-HI:

In exam, when I got there, there was no interpreter, then I was looking at the invigilator I find it very difficult and very sensitive, but I pushed and struggled.

The participants with hearing impairments indicated that there was a need for a sign language interpreter to be present in examination rooms to assist, should the need arise.

P9-VI:

..those invigilators know nothing about technical issues. Like if something goes wrong they can't assist you like these software, the set up was not friendly at all. My personal laptop, just decided to break in the middle of the exam last semester. The set up was not friendly at all. I suggest that they find a technical person to be available to assist

Responses from other participants suggested that invigilators should receive training in basic Information, Communication and Technology (ICT) skills. The participant (P9-VI) related that

her laptop crashed while she was busy writing her paper, and that no one could to assist her, to ensure that she finished writing the paper.

P7-VI:

> *And you know when you do things for the first time you don't get full information. I went to the exam, prepared myself. You know with the visual (Impaired) students when they write exams they need more time to write exam. For me it was only two hours and it was essay type. I automatically thought they will give me more time but they said "it is your fault. The doctor should have recommended early in March and the doctor should recommend how many extra minutes you request.*

As can be seen from P7-VI's statement above, there was an expectation from the participants that they would automatically be allocated extra time during examinations.

4.3.2.1.5 Transactional distance

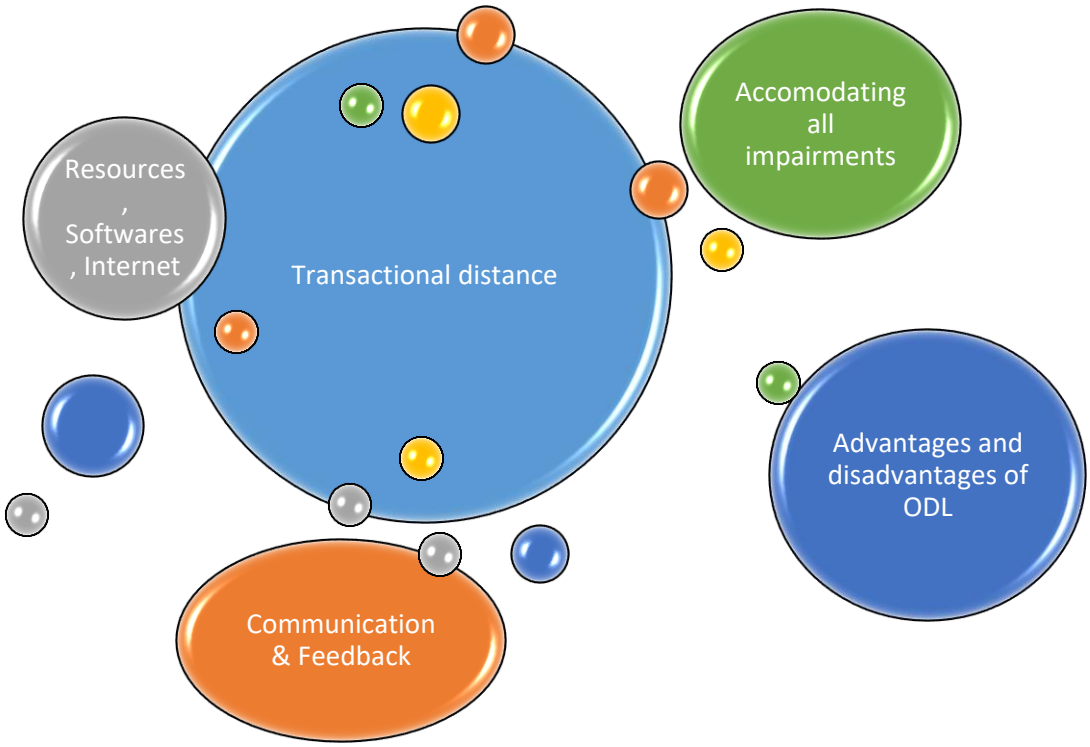

Figure 4.5: Transactional distance

4.3.2.1.5.1 Advantages of ODL

ODL affords people an opportunity to study while in fulltime employment. Moore's (1993) concept of "transactional distance" encompasses the distance that he asserts, exists in all educational relationships. This distance is determined by the amount of dialogue that takes place between the learner and the instructor, as well as the level of structure that exists in the design of the course. Moore (1993) argues that the separation of students and their teachers in ODL is not only geographical, “but more importantly”, pedagogical. He further refers to this pedagogical separation as transactional distance. Transactional distance is described as a psychological and communication gap that occurs due to the separation of students and their instructors in ODL institutions (Moore, 1993).

P6-MI:

> *..for the distance education, I was already matured. When I came to the University and I was in employed at that time. , I had no other opportunity. I was supposed to compromise with that because I had to go to work, I had to study on the other hand, I had no other alternative.*

P1-HI:

> *Then I was taken by Eskom group of companies. In 2009, before I completed the course, it was also a contract employment for 18 months……so as I continued to get some employment, so I found it beneficial to use distance learning institutions in order to improve or upgrade my studies*

Thus, an ODL environment affords people in fulltime employment an opportunity to progress academically, as evidenced in the statements of the above participants.

P4-HI:

> *I am able to finance myself, by doing some extra things like business purposes so that I support myself*

Studying through an ODL institution also affords people who are self-employed an opportunity to enhance their entrepreneurial skills in order for their bussinesses to flourish, as suggeted by P4-HI above.

P5-MI:

So I think I needed a space where I could move at my own pace and not having to also struggle with transport going to school, coming back all those issue at that time. It was convenient for me. I feel like ODL for me was ok. It was. I guess I had not struggled. Also if you struggle with transport it is much easier with ODL. You don't have to worry to pay extra money

Studying in the comfort of one's home also help students save on transportation costs, compared to when one attends full time classes at a face-to-face institution.

4.3.2.1.5.2 Lack of resources

P8-VI:

I am forced to come to the campus due to lack of resources. It is not by choice if I visit the campus regularly. I need internet access. I don't have what will enable me to cope with distance education

P9-VI:

..there are only two computers that we use there (computer lab) that have NVDA. Sometimes I could be told it has a problem sometimes it is off line

Due to students having limited resources to ensure their success in ODL universities, some of the participants were forced to go to campus regularly, in order to access resources such as computers and internet, as well as assistive devices.

4.3.2.1.5.3 Communication

According to Liversidge (2003) universities often do not provide the total communication and language access that allows for effective communication among the hearing, Deaf and hard-of-hearing students in various settings that cater for specific situations and events.

Liversidge (2003) found out that services and auxiliary aids such as interpreters, assistive listening devices, television with a provision for closed captions, telecommunication devices

for the Deaf and electronic text screens are not available in all places at all times. Normal university events such as graduation ceremonies, lecture series, guest speakers, seminars and extracurricular activities that are not accompanied by sign language interpreters essentially exclude the participation of students with hearing impairments.

P1-HI:

> *My problem with education is communicating telephonically. Sometimes I can't read lips proper. That makes it difficult for me to communicate mostly telephonically. Sign language, I think it will improve my ability to study or to learn. Because apart from lip reading, I will be able to get extra lessons in the form of sign languages.*

P4-HI:

> *It is always advantageous for face-to-face when communicating for me because I used to have an element of consulting a person who is next to me, maybe to repeat what the lecturer was saying.*

Some participants expressed the dissatisfaction with the lack of communication from the university

P7-VI:

> *I sent emails and nobody replied*

P9-VI:

> *When you call, the phone is not answered. So most of the time ,I don't have access to their emails because you find that sometimes I don't have data on my phone and when I don't have data I can't send those e-mails you see*

Responding means that the university staff should be able to resolve enquiries at hand, or refer them to the relevant departments.

P2-HI:

> *Yes, respond back and positively so. Because you can respond back and say sorry I can't help you that is not it, it doesn't help me in any way, but if you respond me in a positive way, it is a*

ok maybe will make an appointment or will assist or we need time to appointment and get an interpreter then it is good. I will wait for the interpreter, there is no barrier in that way, the barrier should be remove, they should respond back to us.

P1-HI:

On my PMF assignment I got 96% and was fully prepared, I knew I was gona pass with distinction. However, I failed because the institution didn't response to my emails. That was the problem. Knowing that I only communicate through emails and sms, I couldn't communicate over the phone.

4.3.2.2 Feelings

The third research question related to participants'feelings. The participants explained how it felt like to study at an ODL university.

Figure 4.5: Feelings

4.3.2.2.1 Discrimination

P3-HI:

I feel this is discrimination, other people they choose to assist but with me as deaf person why am I not being assisted? Am I different to other students?

Most of the participants expressed the above sentiment. A sense that the university has not put in place measures that ensure that students with physical impairments across all regional centres access student support services was also expresssed by participants.

Furthermore, the participant indicated that students with hearing impairments were being forced to stay on the queues to access the services, inspite of the fact that staff had been informed about their limitations.

P2-HI:

I cannot, still now, I can't. But hearing people can access it

P3-HI:

I feel like we are all the same but those people, especially students without impairments are problematic like in a class. Sometimes the lecturer will find out and announce that we have a deaf student in class. The reaction of students will be shocking. I just look at them because I believe we all normal.

(cont)

Some lectures don't know deaf, (sign language) some will try to assist, some will be panicking, then the lectures themselves, will have to give me a lecture but the problem is one, tutorials are there, but they can't explain to us, why can't they teach me but can teach others? I can't accept this

The inability for participants to access some services, while other students could do so with ease was debilitating and sparked feelings of being discriminated.

4.3.2.2.2 Isolation

The inability for participants to access the university buildings stirred up participants' emotions and sparked feelings of isolation.

P5-MI:

> *Ya for me discussion classes was the main issue because it was not wheelchair friendly so it didn't encourage me to want that kind of engagement with the lectures but It did lack and I felt like you also need to be part of those discussion so that mmmmmm*

Owing to inaccessibility to the discussion rooms, this participant, ended up occupying the seat at the back of the classroom, and this made it difficult for her to connect with the rest of the class.

(cont)

> *..The isolation thing is major. So I think once maybe they can build facilities where everybody is sitting here I can sit with the rest of the crew. You will feel like an inconvenience asking everyone to assist you*

For participants isolation is a major concern, which needs to be attended to urgently.

4.3.2.2.3 Sadness

Participants were overwhelmed by feelings of sadness caused mostly by the negative attitudes of other students and staff members towards them.

P3-HI:

> *..sometimes I go home with, mm when I visit the lectures, and once they found that I am deaf, it's like they are surprise that I am deaf and to me because of their treatment I feel a deeper with sadness*

P9-VI:

> *..I still feel embarrassed and sad at some point because,… I feel like I did my best when I wrote my assignments but when the results came back and some assignments I was not happy at all. I even felt that the lecturer who was marking this was not impressed by the way I wrote because I can't see on the page*

4.3.2.2.4 Anger

With the lack of feedback mechanism in place, participants were unable to receive feedback or even enquire about issues related to their studies.

P3-HI:

> *On my PMF assignment I got 96% and was fully prepared, I knew I was going pass with distinction. However, I failed because the institution didn't response to my emails. That was the problem. Knowing that I only communicate through emails and sms, I couldn't communicate over the phone.*

P7-VI:

> *..they make me angry especially when you complain and your complain is not taken into consideration.*

This lack of communication mechanisms sparked anger among participants, especially those who relied on a single mode of communication, such as e-mail, as is the case with participants with hearing impairment.

4.3.2.2.5 Fear

One of the participants indicated that there were measures in place to address the barrier of inaccessibility to older buildings, where evacuation chairs were made available for students with mobility impairments. However, because participants never went through an orientation process, or given any explanation on how these equipments could be used to address this barrier, the equipments were of no use to them.

P5-MI:

> *I have issues with those evacuation chairs. Maybe it is my fear*

4.3.2.2.6 Confusion

One participant explained that he couldn't grasp what was being said, because while the lecturer was busy other students would be talking at the same time. The participant indicated that he does not respond well to multiple sounds stimuli.

P4-HI:

> *I prefer that only one person should talk and we all listen. When you are talking just general, I wish one person will talk at a time. Let's say we laughing at each other or there is an argument, so if everybody is taking and talking at the same time, I feel confused*

4.3.2.2.7 Stress

Participants also contended with stress. One participant explained that the lack of academic support was the reason why he failed the module, and that this may lead to the perception that deaf students were not competent enough.

P2-HI:

> *Stress, feel like I am stressed, they make me feel like I am deaf and stupid, I feel like I cannot continue with this, I feel sorry for myself, I can't feel sorry for myself, it is not good.*

4.3.2.3 The meaning of having a physical impairment while studying in an ODL institution

4.3.2.3.1 Hearing impairments

The study conducted by the Deaf Federation of South Africa (2006) on the status of the Deaf in tertiary institutions in South Africa revealed that Deaf people who were in tertiary institutions at that time felt that they were not getting full access to institutions of higher learning. According to participants in that study, this was attributed to several factors, such as the failure of secondary schools to prepare learners for the higher learning environment,

inadequate support services – including SASL interpreters, tutors, note-takers and Deaf role models. Almost two decades later, the status quo seems not to have changed.

Communication or the lack of it, coninues to create a barrier for students with hearing impairments in ODL institutions. Being unable to access the servicess of an interpreter serves as a barrier to their full participation in the learning activities. Although sign language is not recognised as one of the 11 official languages in South Africa, it is the first language of most of the students with hearing impairments. The modes of communication with the ODL university for these students is limited to e-mails; as they are unable to use telephones. Not receiving responses as well as feedback, often left them no choice but to go to the institution in person but still, they would not get the assistance that they wanted, because of the staff members inability to assist them, due to their lack or poor sign language skills.

In ODL universities, students participate in self-directed learning, where they get study material and do everything at their own time, space and environment. The study material is designed in such a way that the student is able to engage with it. The findings of this study showed that the design of the study material did not take into consideration the needs of students with hearing impairments, including the online activities. The audio-visual materials did not have the subtitles, and this meant that the students had to request their friends or family members to assist them listen to the audio-visual materials in order for them to complete the tasks given.

The implication therefore, is that students with hearing impairments did not have access to alternative materials for assessment; and this implied that they had to find someone to listen to the audio material and translate the contents for them. This also means that they needed extra time to engage with the study material compared to their peers.

P4-HI:

> *..if everybody is taking and talking at the same time, I feel confused. It doesn't match in my mind.*

For other students with hearing impairments, especially those who are hard-of-hearing, participating in group work was a challenge. One participant explained that he got confused when receiving multiple audio stimuli at once. In group work, peole often discuss and often, they talk at once. These students indicated that they prefered a situation where only one person at a time would talk.

P4-HI:

Let's say if they put the speakers, it is better in the whole room but if there is no speakers and the hall is big, that hall it swallows the sound so when it comes to me it doesn't come, it is very weak so I could not even hear.

When organising classes or events, the university should organise adequate sound system to accommodate students with hearing impairments.

4.3.2.3.2 Mobility impairments

For most participants with mobility impairments accessibility to buildings seemed to be a major barrier experienced when they visited the campus or regional services centres. Where there is limited access to building, participants were unable to access discussion or tutorial classes or even the ofices of academic staff.

In cases where participants had to acess the tutorial classes, they would find themselves alone or placed far from the group that attended the class. This impacted on their participation and sparked feelings of isolation. Participants with mobility impairments also struggle to find parking space. There is also, often no personnel available to carry them from their vehicles to the wheelchairs. This means that each time after they have found parking space, they would depend on either a security personel or other students to assist them.

4.3.2.3.3 Visual impairments

In most cases students with visual impairments have to convert the study material to braille, audio or other formats. While the converted material promotes access to the curriculum, there are some limitations to accessing information presented in graphs, figures as well as pictures in the converted materials. Often, the illustrations are not exported during the conversion process.

Also, the page numbers in the converted materials also change. This means that students with impairments had to contact the academic staff to obtain clarity in order to understand what was required of them for the assessments. This exercise meant that they needed more time to engage

with their study materials as compared to their peers, who did not need to convert their study material.

Providing a link for accessing video clips on the online platform also became a barrier for students with visual impairments – meaning that they needed to ask a friend or family member to watch the video clips and explain to them what was required of them in order to complete the assessment.

The requirement to convert the content into new formats extended to the prescribed and recommended books also, which are mostly hard copies. Students with visual impairments were unable to access these at the libraries and local bookshops, leaving them no option but to liaise directly with publishers. In most cases publishers would require them to purchase hard copies that they did not necessarily need and produce the proof of payment before the publisher could organise soft copies for them.

When writing research reports, final year and post-graduate students who are visually impaired, who used converted study material struggled because the sources from which they quoted would be on different page to that of the original source. They would then be penalised and not be awarded full marks. This means that they would loose marks; not necessarily because they were ill prepared, but because the citation in the new formats did not correspond with citations in the original source.

Receiving assistive devices late meant that students with visual imapirments had very limited time to fully engage with the study material. This also meant that they had to request an extension to submit assignments – however, for summative assessments, the ODL university seldom changed the dates to accommodate and make up for the time students lost.

4.4. Similarities

For most participants with impairments, requesting the converted study material always resulted in delays. Therefore, time management seemed to be a challenge, and was attributed to the lack of adequate student support systems. As indicated earlier, delays in receiving study material impacted negatively on participants' learning experiences.

Therefore, communication was the main barrier for students with hearing impairments, but this barrier was not encountered by students with other forms of physical impairments.

The researchers had initially assumed that inaccessibility to buildings only affected students with mobility impairments – however, one participant with a visual impairment explained that she was also hindered by the same barrier.

P9-VI:

> *…The stairs challenges is not for only paraplegics. For me as a partially blind is problem for me. The ramps are much easier for me. Sometimes especially at main campus, their steps are uneven, for me I can't see like well.*

The female participants with hearing impairments and low vision, shared some concerns regarding safety:

P7-VI:

> *..carring the employer's laptop from work to my place is not safe because if they can take that laptop from my hands I have to pay for it.*

P9-VI:

> *..I don't use my cane. Because I noticed that if I have cane, there is lot of nyaope boys around, if they see me they may take advantage so that's why I don't use it. I only use it here in Pretoria with comfort. But at Tembisa no matter the place I am forced to struggle because anyone may see me and take advantage of me you see.*

4.5. Differences

4.5.1 Student support

Participants with physical impairments require the support that suit their particular circumstances. As student with physical impairments each has his or her own special needs, a blanket approach in providing generic support is not going to be effective. For instance, not all students with hearing impairments require the services of a sign language interpreter – some students acquired the impairment later in life, but still have the ability to talk, probably owing to the fact that only their auditory organs were affected. One research participant was able to talk and lip read but still needed to sign where possible. The other one who was hard-of-hearing required assistive devices to help him adjust the volume on his hearing device for him to be able to hear clearly.

Participants with mobility impairments required assistive devices based on the severity of their impairments. Some needed assistive devices such as wheelchairs or crutches. The assistive devices for particpants with visual impairments were also informed by the severity of their impairment. Some required computer programs such as JAWS or NVDA to help them access curriculum and online material, while others prefered braille or large print study material. Some assistive devices were considered to be medical, such as hearing aids for hard-of-hearing students.

P7–VI:

> *Yoooo coming to that, it is very expensive for visually impaired, it is very expensive.*

P9-VI:

> *I don't know how much they can spend for me because now they spent R24 600.00 if I included that magnifier it was going to be thirty something*

P4-HI:

> *I have two hearing aids, you find that this side, Steve Biko (hospital) is treating me on this ear, I am going there, I have two operations with them and two at KZN. So they gave me these, they always have check-ups. This one* **(pointing to right ear)** *has not been tackled enough, if the hearing aids is inside and it is hot.. it is better now because its winter, it doesn't get wet, so if it is summer, it get wet because of sweat. So you find that it is discharging, so I always put it here. When I feel it is a very quiet place, there is also order, I put both of my hearing aids. The sound will be better.*

Though most of the participants received financial assistance from the university to cover for the cost of assistive devices and study material, many a times the study material and assistive devices do not get to be delivered on time. These delays had an impact on their learning experiences.

4.5.2 Aquiring skills before studying in ODL

Participants who registered in this ODL institution while employed seemed to have acquired some life skills that enabled them to deal with life challenges that could hinder their academic

progress in an ODL university in an effective manner. The acquired skills were found to be in line with the student retention framework developed by Tinto (1975), where skills acquired prior to registering at a college played a role in students' retention and attrition. Participants who had been exposed to the work environment prior to registration had acquired special skills that foster adjustment to situations, whenever they were confronted with challenges – like in the case of a participant who applied similar strategies to those he applied at his workplace, and managed to deal with his communication limitations.

One participant used the lip reading skill he learnt and aquired before registering at this ODL university to bridge the communication gaps each time he visited the campus.

P1-HI:

> *I can read English, Afrikaans, if you speaking English I can read that, praat Afrikaans, I can read, Venda is my home language. Zulu, Sotho, Xhosa, Tswana and Tsonga, I can lip read*

P1-HI:

> *I attended a course in programming course, in Information processing with Access College*

P7-VI:

> *I had to learn to use the computer. To re- use the computer because before I knew how to use the computer without using at the screen. But I had to without using the screen*

Thus, it was easy for this participant to adjust in the ODL environment, as he had already acquired computer skills, as opposed to the one without skills, who was struggling with basic concepts of computer literacy.

4.6. Repetitions

P3-HI

> *Those who are blind are better than deaf.*

(cont)

"The blind, because they can hear, deaf, is a challenge, communication, blind is easy because they can hear and understand but deaf, communication, they will say wait wait wait!! Let me find somebody else, and I will be wasting my time on the queue so blind is better. For us (deaf) to find assistance is difficult because they don't know the sign language.

(cont)

With other impairments, I don't think it is a challenge because the blind and those using wheelchairs are accommodated but for the deaf it is too difficult. This is a serious challenge. But they saying all impairments are welcomed but once they realise that I am deaf, it is totally different, it means that outside Yoooo, few impairments are being accommodated in ODL.

P2-HI:

We look at the opportunities of accessibility, other impairments are better than others

One of the repeated phrases by almost all participants was that each and every participant thought those who had a different impairment are less challenged. Participants with hearing impairments thought that having a visual impairment was better – they assumed or had a perception that participants with visual impairments had less challenges and encountered less barriers as compared to them.

4.7. Contradictions

One participant decided to change a career path after she had acquired the visual impairment. When asked why she embarked on a career change she mentioned that she had a desire to learn about humans behaviour.

P7- VI:

There is no much difference but this one I learn more with human behaviour

When comparing the career she was in before she acquired an impairment, and the one she had embarked on, it was clear that they all involve human behaviour.The researcher found the statements to be contradictory.

P5 MI:

> *I think honestly when it comes to disability I think if there are no barriers in terms of facilities, accommodation, transport and all those necessary things to make your life a bit easier there isn't really much difference. There is not much. If I can get to… u know. The place and be able to wheel myself in ……there is no difference then it is ok,*

One participant contradicted herself when she elaborated on the issue of inaccessibility and how it impacted on her. However, during the course of the interview, she changed tunes, to the effect that inaccessibility to buildings did not impact negatively on her.

4.8. Missing information: Silence

Silence sometimes conveys an implied message. When issues of identity were discussed, participants would often take long pauses before saying how they identifed themselves. The researcher responded to the silence by keeping quiet too, while maintaining eye contact, affording participants time to reflect on their thoughts. Thus, the researcher perceived that the issue of identity was seemingly an emotional one for most participants, even though they raised it themselves.

P5-MI

> *Yes I classify myself as such. I have no issues with the right terms or Mmmmmm (silence) I am a woman living with a physical disability. I have no issues around that. It's just for me how do you make life easier*

The participant mentioned that she had no issues around who she was – however, she spoke with a low tone, slower pitch coupled with silence; and according to the resesrcher, her body language seemed to be contradicting what she was saying. To repeatedly say that she had no issues was of concern to the researcher. During the reflecting session after the interview she highlighted that she was well, and that should the need arise, she would access psychological

services at her workplace, which she said, were freely available to staff. The resercher was then able to confirm the feelings which confirmed the contradiction.

4.9. Use of language

Participants used the words “included” and “forcing”; and the researcher observed that the words seemed to come from a deeper place within them – because in most cases, thier facial expression would change when expressing a very sad emotion. Although participants with hearing impairments were using sign language, with the assistance of a sign language interpreter, the researcher relied on the sign language interpreter for translations, and could sense the sad feeling, associated with the slow pace at which they were signing, as compared to when the conversation was well paced. Where the pitch and tone were heard on the audio stimuli, the same may be observed on the sign langauge.

P3-HI:

> *I want to be included. I am forcing. Because if they accept my appointment, then they should assist me like any other student*

The participant below did not mind the label that society attached to people who have limitations such as hers. Her main concern was that barriers that in a way rendered her disabled should be removed.

P5-MI:

> *You may call me whatever, it does not matter. Just make sure there is a lift and a ramp there. For me access because I feel like when you …especially when you have a physical impairment. I feel like there is limited freedom. So if they take whatever freedom you have left which is exactly…. getting to a place without any help whatever I think it is a major issue for...*

This statement confirmed the principles of the social model of disability, where society, by putting the barrier, renders persons disabled.

P7-VI:

> *Now I am no longer fully sighted. Being called disable person, being called disabled.*
> *The word disabled*

However, this was not the case with the participant below, who considered labelling an issue with implications, as it influences how people with disability perceive themselves..

P6-MI:

> *EE (Employment Equity Department) was also involved in student's matters*

This was one of a few participant who delved on policy issues surrounding disability. His use of past tense "was" implies that those who were tasked with implementing the policy were no longer involved in driving forward disability policies by doing the monitoring and evaluation. It seemed as though the EE department is not working closely with the disability unit.

P7-VI:

> *You have to fight on your own because if u sit on your own on the corner*

The use of words such as "fight", as well as the phrase "on your own'' convets a deeper meaning, and suggests that participants had to rely on their own in order to resolve some difficult issues they faced in the ODL environment. It also implies that the student support services did not faciliate the resolution of queries or enquiries from participants.

4.10. Résumé

The chapter opened with reflections on the pilot study. It also provided an overview of the participants demographics.

The chapter closes with a synthesis of the data collected in relation to the similarities, differences, silence, repetitions and contradictions among students with mobility, visual and hearing impairments. Participants' triumphs and challenges were unpacked. The next chapter discusses and summarises the findings of the study, draws conclusions and makes recommnendations for future studies.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

The previous chapter presented the findings, analysed and discussed the data collected. This final chapter draws conclusions from both the literature review and main parts of this study. The chapter also outlines the strength and limitations of the study. Lastly, the chapter makes recommendations for the collaborative planning, interventions and future research studies.

5.2 Summary

5.2.1 The conceptual framework and literature review

This section summarises the conceptual framework and the literature reviewed for this study, with relevance to the research questions asked in this study. The section also discusses the conceptual framework and the integrative review.

The person-centred theory was discussed in the study, including the theoretical background as well as the justification for applying the theory in the study. The key concepts of the theory were discussed in line with the phenomenological research design (see section 3.2).

The origins and definition of the biopsychosocial model of disability were also discussed. This model offers a coherent explanation of disability, which takes into account that disability originates from a health problem, but is influenced by psychological and social factors. The model further provided inclusive definitions of disability as seen from the medical and social models of disability, and also provided a theoretical basis for the definition of disability and impairment (see section 2.4).

The literature reviewed provided the background on ODL (see section 2.7), with a focus on the pedagogy, andragogy, heutagogy, technology and instructional systems design that aimed to deliver education to students who are not physically “on site.” The findings of studies on students with physical impairments were discussed, as well as the transactional distance theory by Moore (1993) and the five generation model of ODL by Taylor (2001).

The transactional distance theory (see section 2.6.1) shows the association and interaction between practitioners in ODL and distance learners, who are engaged in distance learning practices, activities and interventions in ODL institutions of higher learning. The theory provides guidelines on how to plan and develop student support in ODL institutions.

The five generation model of ODL (See section 2.6.2) shows that with a shift from every generation, there are technological and pedagogical implications for students with physical impairments. The model also highlights the implications of the 11 factors highlighted by Tait (2000), which need to be considered when developing student support structures in ODL.

Lastly, the literature reviewed discused the experiences of students with physical impairments in institutions of higher learning (see section 2.7). The review shows that studies have been conducted on the experiences of students with hearing, visual and mobility impairments.

Meanwhile, Williams (2016) notes that the lack of student support services impacts negatively on the perseverance of female students with physical impairments. The findings of her studies showed that some participants were sensitive and fragile psychologically; with more traumatic experiences than others – while some were stronger physically, even when they all suffered the same disabling impairments and pain. The findings of this study showed that the lack of student support services impact negatively on both sexes. Although this is a qualitative study and did not generalise the findings to the wider population, the challenges outlined were not limited to female participants only. In contrast, junior students; that is, those who are in their first-year of studies, seemed to be more fragile and sensitive, when compared to final year and post-graduate students who had already entered the job market.

5.2.2 Emerging themes according to the realisation of objectives

The following themes emerged, which were in line with the research objectives, when the phenomenological research design was employed:

5.2.2.1 Exploration of students'experiences

The first objective of the study was to explore the experiences of students with physical impairments in an ODL university:

Earlier research conducted by Howell (2005) revealed that students with various impairments experienced challenges in institutions of higher learning. The findings of this study showed that participants had various experiences while studying in an ODL university. Some experiences were positive, while others were negative. From the thematic analysis, the emerged sub themes from the main theme of experiences were ODL and social experiences, accessibility, provision of student support and transactional distance.

Some of these positive experiences offered by ODL institutions were highlighted by Moore (1993), such as the flexibility afforded to participants to study in their own time, and in the comfort of their homes. This also makes it possible for some the students to work and earn an income to finance the costs of their studies. One of the participants indicated that studying at an ODL university afforded him the opportunity to develop and manage his own business. ODL universities also affords mature students time to attend to family matters. Another advantage of studying at an ODL university is its affordability, when compared to face-to-face universities.

Although it is considered affordable to study at an ODL university, students with physical impairments have special needs that require them to use assistive devices in order to be efficient in their learning areas. These devices; it has been argued, are expensive and are not normally covered in full by subsidies offered by ODL universities or bursaries.

Adjusting in an ODL environment seemed to be a challenge for most students with physical impairments. Some participants had difficulty transitioning from high school to tertiary institutions, because of the high standard of education at tertiary institutions. In addition, students with physical impairments had to deal with stereotypes and attitudes from university staff and fellow students. These often stem out of ignorance regarding impairments.

The findings of this study confirmed the findings of another study conducted by Gumbi et al. (2015), which explored the challenges faced by students with various disabilities and impairments. Their findings showed that students with special needs are faced with barriers

such as physical access to buildings. Students with impairments also require extra time to engage with their study material.

Simpson (2008) warns against the danger of not developing an accessible curriculum that would lead to low attrition and improved throughput rates. This means that students may drop out of university, unless measures are put into place to make the curriculum accessible.

The findings of this study shows that student with physical impairments have some difficulties accessing the curriculum in the form of tutorial letters, which have not been designed to be interactive. The failure by the university to develop alternative and inclusive study material contribute to these negative experiences. Participants with hearing impairments highlighted the need for the university to develop alternative and inclusive study material that will make it easier for them to access the curriculum.

The inability to access support services was attributed to the lack of resources, such as sign language interpretation services, among other factors. This assertion confirms the view held by Rumble (2000) and Tait (2000), who share the same sentiments regarding the provision of adequate student support in ODL, which boosts motivation and increase throughput among ODL students.

The continuous absence of assistive devices and sign language interpreting services contribute to negative experiences because they have negative impact on their academic progress. The inaccessibility is a barrier and confirms the principles of the Social Model of disability (see section 2.4.3).

5.2.2.2 Exploration of meaning

The second objective of the study was to explore the meaning attributed to the experiences of students with physical impairments at an ODL university:

The meanings explored were attributed to the participants lived experiences. Both the negative and positive experiences brought about the different meanings for students with physical impairments. Participants shared their views regarding what it meant to have a physical impairments while studying at an ODL university.

The implications for participants with hearing impairments was that they had limitted options of communicating with the university. For them the telephone was not considered a viable option as it requires a two-way communication.

The text or typed words made it possible for participants to express their needs and give details of how the university should assist them in that regard. Thus the e-mail became the preferred option since it allows for the said interaction. However, participants indicated that this option was inefficient since the university did not respond timeously or never responds to e-mails When participants did not receive feedback or responses from the university, the logical step was to physically go in person to campus. Being physically on site still required the assistance of the sign langauge interpreter as most staff members are not competent in sign language.

Visiting the campus meant different things for those with mobility impairments. Since the buildings are not easily accessible, participants would take forever to access the buildings. For students with mobility impairments, this meant that there might be infrastructural barriers that may be a challenge to access. In cases where there are ramps, they may be further away from the main entrances, which required them to ask for assistance from security personnel or other students. While there may be parking bays designated for people with impairments, it was not guranteed that these would be accessed; and in cases where participants were able to access them, assistance would be sought from security personnel to assist with offloading the wheelchairs. This means that particicipants with mobility impairments would need extra time to access the buildings.

Studying at an ODL university while having physical impairments also means that participants struggle to readily access the study material. For participants with visual impairments the slow process of converting the study material to their preferred formats such as braille, large print or electronic formats might take a lot of time, which impacted negatively on their study schedule.

The challenges of having the study material converted is that the converted book or tutorial letter differs with the original material, especially in terms of page numbers and graphs and pictures, which often fall away during the conversion process. This may pose a challenge, especially when participants have to quote from the original source.

Most post-graduate participants with visual impairments explained how they were penalised, as a result of this barrier. They gave instances where they forfeited marks, not necessarily because they did not know how to cite sources properly, but because the citation did not correspond, in terms of page numbers, to the one in the original material. The same challenges extended to the prescribed text books, where participants had to negotiate with publishers for alternative formats of the prescribed text books. In cases where publishers could not provide the requested alternative format, the university hardly assisted participants with alternative forms of assessments. Furthermore, to access the recommended material from the library, participants needed to have assistive devices, which were also not guaranteed; since there are very few of them at the main campus library. This also meant that participants would struggle to navigate through the audio-visual material, which in most cases does not have subtitles.

Group sessions had also proven to be ineffective for participants with hearing impairments. At times these participants did not respond well to multiple audio stimuli.

The findings also showed that there were limited or no alternative assessments for students with hearing and visual impairments. For instance, the links provided to participants with hearing impairments to access video clips without subtitles, serve as a barrier for both students with visual and hearing impairments. The one who is visualy impaired, will hear the audio but will not be able to see. The one with a hearing impairment will see the visuals but will not hear. Both have to ask somebody to help somebody to assist with completing the assessment task.

This means that more time needed to be allocated to these students, since they that they have to engage with the study material longer compared to their peers. This have a negative impact on their final examinations because the dates could not be extended. These meanings and experiences brought about various feelings which will be discussed in the next section.

5.2.2.3 Exploration of feelings and thoughts

The third objective of the study was to explore and understand the feelings of students with physical impairments in relation to the ODL environment:
The participants discussed feelings emanating from their experiences. These included feelings of discrimination, isolation, sadness, anger, fear, confusion and stress (see section 4.3.2.2).

The feelings of discrimination were brought about by staff members who showed bias when attending to students with physical impairments. The participants indicated that in most cases, they were the last to be attended to – and in some cases, their needs were not prioritised, especially in the case of participants with hearing impairments – who reported that they were forced to speak or stay in the queues like other students. Similarly, students with mobility impairments were forced to attend discussion classes in non- disability friendly buildings.

The feelings expressed by participants confirmed the findings of a study conducted by Kangai et al. (2011) , which indicated that students with physical physical impairments from one ODL university in Zimbabwe needed extra counselling support. Although the ODL university has counselling services, accessing these services seems to be a challenge, especially for students with hearing impairments, due to the fact that staff members were not conversant in sign langauge, and engaging the services of a sign language interpreter compromises confidentiality (see section 4.4.2.4.2)

The current study explored reasons why there is such need, and the findings of this study revealed that this need is motivated by the lack of reasonable accommodation. The inaccessibility of the buildings and the lack of adequate assistive devices sparked feelings of isolation in participants. Most participants with physical impairments were not able to participate fully in discussions classes or online forums. This inability to participate made it difficult for them to connect with lecturers and fellow students.

The failure for the university to respond to queries sparked anger among students with physical impairments – for instance, when their queries or complaints were not attended to timeously.

During examination times most participants with physical impairments would experience feelings of anxiety and stress before they start writing their paper. This was caused by the inaccessibility of the buildings, and in some other cases the unavailability of the sign language interpreter for students with hearing impairments if they choose to opt for oral examinations. This was in spite of the fact that participants notified the university of their special requirements before and during the examination session.

5.3 Synthesis of research findings

The researcher indicated that the main study would provide a synthesis of data from participants' responses and the literature reviewed (see section 2.7).

The findings of the current study corroborated the findings of the study by Saunders et al. (2009), which elaborated on the outcomes of failing to orientate students with physical impairments in institutions of higher leaning. The challenges highlighted, faced by most students with physical impairments can be avoided if students get orientated as to where to get the resources they need for their learning activities. The transition from high schools to universities seems to be another area of concern, which ODL universities should prioritise to ensure a smooth transtion from high schools to ODL universities.

The findings of this study confirmed the findings of the study conducted by the Foundation of Tertiary Institutions (2011) regarding the challenges faced by students with mobility impairments, specifically due to the absence of ramps in the buildings, and also showed that participants with visual impairments were experiencing this challenge, especially students with low vision. The researcher gathered that (See section 4.4) participants with low vision prefer ramps as the stairs may pose a risk, especially where there is insufficient lighting on the staircases.

Tait (2000) highlighted the 11 factors that ODL universities should consider when developing student support structures in ODL. These are gender, age, domestic situation, employment, unemployment, disposable income, educational background, geographical situation, language, ethnicity and cultural characteristics. These 11 factors are in line with the recommendations by Matshedisho (2007) and Howell (2005) regarding widening access and support for students with physical impairments in higher learning environments.

Makoe (2010) also share Tait's (2000) sentiments and highlighted four most important factors that should be considered when developing a student support framework, specifically in the context of ODL in South Africa. While the 11 factors are deemed important for planning purposes, they did not adress issues pertaining to physical impairment. Disability as an umbrella term that encopasses impairments should be considered as the twelth factor, so that it can be factored in when institutions develop frameworks for student support. In this way, ODL univesities will be able to address challenges that arise as a result of the lack of student

support services, which do not fully cater for the needs of students with physical impairments in ODL environments.

Whereas the literature reviewed explored the experiences of students with physical impairments, the meanings that these students attribute to their expereinces have not been fully explored. By adopting the biopsychosocial model of disability as a framework for this study, the researcher highlighted the negative impact that these experiences had on participants.

The literature reviewed (see section 1.6) indicates that the voices of students with physical impairments in ODL universities are seldom heard. Although Mokiwa and Phasha (2012) explored the experiences of visually impaired students in an ODL university, their study focused on the learning experiences of these students in relation to the use of technology.

Participants in this study with visual, hearing and mobility impairments gave accounts of their experiences in an ODL environment, which they ascribed to the learning (teaching and learning activities in the ODL context), personal as well as social factors. Furthermore, the study captured the feelings as well as meanings that these students attached to the construct impairment, and by so doing, gave a voice to students with physical impairments studying at an ODL university.

Although there seems to be scarcity of literature on the experiences of students with physical impairments in ODL universities, some studies have been conducted on the the experiences of students with various forms of impairments in face-to-face universities. However, the lived experiences of students with hearing impairments seem not to have been explored extensively, compared to the lived experiences of students with other forms of physical impairments.

The study conducted by Gumbi et al. (2015) showed that students with physical impairments contended with issues of time management, due to the barriers they faced daily at institutions of higher leraning. Such issues entailed students requiring more time to read a section of a book, as well as extra time to finish writing exam papers.

The findings of this main study corroborated the findings of a study conducted by Gumbi et al. (2015), and further examined the factors that are responsible for the said challenges – and how these challenges impact on students' learning experiences in ODL environments. The feelings sparked by these challenges were also explored. Students with visual impairments, unlike the general student population, have to wait few weeks or days after registration before their study

material could be converted into the prefered formats, which are either braille, electronic or enlarged font.

After students with impairments have received their study material, they still have to negotiate with publishers for accessing the precribed text books in their prefered formats. The inaccesibility of study material in the preferred formats (see section 4.3.2.1.4.1.2) deprived participants with physical impairment sufficient time to engage with the study materials timeously, in order to be able to submit the assessments on time, unlike their peers. Upon receipt of the study material, participants with physical impairments still needed to make arrangements to have the materials converted into the preferred formats. In cases where assessments required participants to access audio-visual material, students with visual and hearing impairments had to ask for assistance from friends, family or fellow students, to help them fully understand the content of the material.

Participants with mobility impairments experienced challenges related to time management as the university and examination halls are not accessible; as such, they had to ask for assistance to be taken to their particular examination venues.

5.4 Strengths and limitations of the study

5.4.1 Strengths of the study

The strengths of this study were based on the following factors:

- The study highlighted the need to include disability in the factors recommended for planning student support frameworks in ODL.
- This study has never been done before and has new information on the experiences, feelings and meaning that students with physical impairments attribute to their meaning physical impairments.
- The study has given the stuents with physical impairments a voice that has been absent in the literature.

5.4.2 Limitations of the study

The findings of this study cannot be generalised to the wider population, owing to the subjective experiences of each participant, and the fact that the study sample was small. However, the researcher's aim was not to generalise the findings in a probabilistic context (Greyling, 2008).

5.5 Recommendations

The researcher made several recommendations for intervention about empowerment services, quality assurance, as well as the synchronisation of ICT systems.

5.5.1 Interventions

5.5.1.1 Empowerment services

Issues of empowerment should be included in the awareness and advocacy campaigns that are being co-ordinated by the disability unit in the ODL university. The intervention should also address issues that emanated from the findings of this study, in relation to self-esteem, self concepts and confidence in students with physical impairments, especially those transitioning from high school to institutions of higher learning. This intervention should be conceived as a multidisciplinary project constituting various stakeholders such as student wellness and student counselling departments.

5.5.1.2 Quality assusrance

The design and development of study materials should be quality assured before being dispatched to the students, especially students with physical impairments. The universal design framework should be adopted in cases where study materials ought to be accessible in different formats, such as text, which mostly consists of the print version, as well as the audio and visual versions.

In instances where there are pictures and graphs in the study guides, provision should be made to have explanations in the form of audios in relation to those pictures and graphical content.

This will ensure inclusivity and full accessibility of the curriculum by students with visual impairments. In this way, students with visual impairments will be able to receive study material on time and be able to submit formative assessments on time.
Similarly, the audio-visual content on the learning management system in the form of DVDs or any other forms should include subtitles that will cater for students with hearing impairments.

5.5.1.3 Implementation of sign language services

The first sign language examinations in schools are set to be written at the end of the 2018 academic year. Universities will be admitting students with hearing impairments who are used to writing examinations in sign language. The ODL universities should put measures in place to accommodate these cohort of studuents.

5.5.1.4 Synchronisation of ICT systems

The ICT systems should connect to each other. When students indicate their "disability" status on the online registration form, the information should be shared automatically with all service departments. This intervention will assist the ODL universities firstly, to save costs since the students will receive one and correct batch of the study material in their preferred format. Secondly, the examination department will have adequate time to prepare for the logistical aspects for students with physical impairments. These logisitics include, among other things:

- Preparation of examination scripts as well as question papers in the preferred format.
- Preparation of examination rooms or venues, as well as the testing and quality assurance of assistive technology/devices needed by the students.

The ODL universities should consider using the non-formal platforms for communication purposes that will ensure and promote real time communication. The use of social media such as FaceBook, Skype or WhatsApp may be effective tools for communication, and may address the limitations raised by the participants. A pilot project may be developed and policies amended as such, while the universities are preparing to move to the fifth generation to be fully online universities, as advocated by Taylor (2001).

5.5.2 Collaborative planning

5.5.2.1 Finance

With the roll out of the free education across institutions of higher learning in South Africa, the ODL universities need to correctly profile registered students with physical impairments. This will assist the universities to ensure that the needs of students with physical impairments are catered for under this new funding model. The needs in this context refer to assistive devices as well as tuition fees. The planning process should be coordinated by disability units as well as the student funding departments.

5.5.2.2 Conversion of study material

The academic departments should be aware and be given copies the converted materials. The converted material should also have a different title to the original material. This will eliminate the current challenges faced by students with visual impairments, who are being penalised for citing pages that do not correspond with the original materials. Guidelines should also be provided to publishers who will be issuing audio books.

5.5.2.3 The evaluation of services offered by disability units

The Registrars should coordinate the process of evaluating services offered by the disability units, and how the provision of services can be improved to be on par with the level of service envisaged by Howell (2005); Matshedisho (2007) and (Saunders et al., 2009) . Furthermore, the disability units must be capacitated where necessary. This will also ensure that services are decentralised to all campuses and regional service centres. This will address the issue of the unavailability of staff members at regional services centres. This collaborative planning will also respond to one of the stated intervention suggested by the researcher (see section 5.5.1.2)

5.5.3 Future research

5.5.3.1 Policy

Firstly, future research should look into issues of policy and how these may be developed or amended to make the curriculum more inclusive and accessible for students with physical impairments. This will ensure that the third intervention (see section 5.5.1.3) is successfully implemented. The proposed research should also provide guidelines on the implementation of policies by developing effective monitoring and evaluation tools.

5.5.3.2 Student support framework

Future research should also look into developing a holistic student support framework that will address issues relating to

- Inclusive assessments, which will inform and promote andragogy that strives to be learner- oriented. It is clear from the findings of this research that some students with physical impairments struggle to engage with the audio-visual material, due to barriers imposed by their lack of eyesight and hearing. Future research should address issues pertaining to accommodating students with visual impairments; like in cases where the assessment material contains pictures and figures, as well as students with hearing impairments, in cases where the assessment material is in audio format.
- The framework should address issues pertaining to finance, bursary and the roll out of free education in relation to the assistive devices, since the current model does not cover all the costs relating to assitive devices.
- Although most of the ODL universities have telecentres where students are allocated certain minutes to access computers and online services at nearby internet cafés, most of these centres do not have special softwares and assitive devices to ensure that students with physical impairments are able to acess them fully and adequately the online services to complete summative and formative asessments. Thus, future research should look into the possibility or viability for students with physical impairments to access such centres and/or provide alternative possible ways where they can access internet services in their communities.

5.6 Personal reflections

Listening to participants relating their stories and reading the transcripts was overwhelming for the researcher, as some of the participants' experiences were similar to his. The empathy and level of respect that the researcher displayed towards the participants enabled him to establish the highest level of rapport with participants, who as a result, allowed him into their worlds as they were sharing their lived experiences.

The researcher was humbled by the fact that in spite of the challenges that participants face on a daily basis, and in spite of the fact that they are vulnerable in so many respects, they managed to accomplish their dreams, and are still on the path to accomplishing them. At times during the interviews and when listening to transcripts, the researcher would be reminded of his limitations, due to his mobility impairment, but had to remind himself that the study was not about him, and thus had to compose himself. The researcher was also wary not to "contaminate" the study by changing or tweeking the data.

Acquiring the skill of bracketing also proved to be difficult, especially during the pilot study. The conversation on bracketing that the researcher had with his supervisor prepared him to acknowledge the feelings displayed by the participants. Having done so, the level of rapport he had established with participants made it possible for participants to open up with ease, and shared their experiences and feelings.

The journey to completing this study has not been an easy one, but the researcher appreciates the feedback from the supervisor and participants, as well as the sign language interpreter. The experience the researcher gained during the course of this study fostered openmindedness and patience in him. It also helped him to appreciate the efforts that people make to generate new scientific knowledge.

5.7 Conclusion

The literature reviewed provided guidelines on how to develop the student support system in ODL universities. The biopsychosocial model of disability adopted by the researcher provided him with a clear theoretical background when dealing with issues pertaining to impairments. The model suggests that there should be an application of the medical, social, as well as the

psychological factors in developing student support systems. This should be done in order to eliminate the highlighted challenges.

The person-centred theory grounded the study in the discipline of psychology and provided guidelines on how each participant's case should be attended to, individually.

The qualitative research approach was employed and semi structured interviews were conducted to collect the data. The phenemonological research paradigm adopted for this study was considered the most suitable method of enquiry as it provides the right platform for data collection. Ethical considerations were followed and bracketing ensured the trustworthiness of the collected data, and rendered it bias free. Two participants took part in the pilot study, while nine participated in the main study. Out of the nine, four had hearing impairments, two had mobility impairments, while three had visual impairments. The sign language interpreter assisted in data collection for participants with hearing impairments. The data collected was captured on a tape recorder and transcribed. The Atlas t. i computer program for analysing qualitative data was used to organise the generated codes and to generate themes from the transcribed data.

The participants shared their lived experiences and also explained how those experiences impacted on their learning experiences.

In conclusion, the study achieved its aim of exploring the lived expreinces and meaning of being a student with a physical impairments studying in an ODL university.

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ANNEXURE A: Participant Information Sheet

12th May 2017

Title: ***A phenomenological study of the lived experiences and meaning of being a student with physical impairment at an open distance learning university.***

Dear Prospective Participant

My name is Tonny Nelson Matjila and I am doing research with Dr RM Dhlomo-Sibiya an external Supervisor in the Department of Psychology towards a Masters Research (Full Dissertation) at the University of South Africa. We are inviting you to participate in a study entitled: ***A phenomenological study of the lived experiences and meaning of being a student with physical impairment at an open distance learning university.***

WHAT IS THE PURPOSE OF THE STUDY?

I am conducting this research to understand the experiences and meaning of students with physical impairments studying at open distance and university.

WHY AM I BEING INVITED TO PARTICIPATE?

Your voice will contribute to the development and amendment of policies around issues of disability in the University.

The proposal went through the ethics committee on the departmental, college and the institutional level where it was aggressively probed and scrutinised to check if it meets all requirements indicated on the Protection of Personal Information Act.

Your contact details were obtained from the portfolio of the Registrar which is Registrar Academic, Enrolments and Administration.

I am looking at interviewing between 8-15 participants who have indicated their disability during registration and who are willing to be interviewed.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

Your actual role will to discuss your experiences as a student with physical impairment and also share what it means to you to be a student with physical impairments studying at an open distance and learning university. There will be no right or wrong answers and the main three questions asked will be the following:
What does studying in an ODL university mean to you as a student with a physical impairment?
What are your experiences of learning in an ODL university while having impairment?
How does it feel to study at an ODL university?

The study involves audio recording however, I will need your permission. There is a consent form which may be printed or may be e-mailed to you before I can audio record your responses. This will help me to write down the true reflection of your responses. The transcript and the interpretation of your responses will be forwarded to you so that you may confirm whether it is a true reflection of what you meant.

The duration of the interviews will take approximately between 30-60 minutes

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

ARE THEIR ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

Since the research is focusing on the experiences relating to physical impairments, which may be a sensitive issue, it might happen that you feel emotional at times. Should that happen, kindly inform the researcher. Should there be heighted emotions, the researcher will be willing refer you to a counsellor or psychologist closest to your residence

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings

Your responses may be reviewed by people responsible for making sure that research is done properly, including members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, who are the research and his supervisor, unless you give permission for other people to see the records.

Your anonymous data may be used for other purposes, such as a research report, journal articles and/or conference proceedings. Your privacy will be protected in any publication of the information that may be: a *report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.*

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet. For future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Indicate how information will be destroyed if necessary *[e.g. hard copies will be shredded and/or electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme]*.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participants will not receive any remuneration, monetary reward or incentives for participating in the study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the *Department of Psychology, secondly* Research Ethics Review Committee of the **College of Human Sciences** and lastly **Research Permission Subcommittee of the Senate Research, Innovation and Postgraduate Degrees Committee, University of South Africa of Unisa**. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Tonny Matjila on 072 216 0066 or tmatjit@unisa.ac.za / 42238099@mylife.unisa.c.za . The findings will also be accessible on the Unisa repository system by searching with the title of the study indicated above on http://uir.unisa.ac.za/handle/10500/14514

Should you require any further information or want to contact the researcher about any aspect of this study, please contact 012 441 5774/ 072 216 0066/ tmatjit@unisa.ac.za or 42238099@mylife.unisa.ac.za

Should you have concerns about the way in which the research has been conducted, you may contact the supervisor, Dr Dhlomo- Sibiya on 082 968 1008 / mbalidsibiya@gmail.com. Alternatively, contact the Research Ethics Chairperson of the Ethics Committee, Department of Psychology, Prof P Kruger, 012 429 6235

Thank you for taking time to read this information sheet and for participating in this study.
Thank you.

ANNEXURE B: Consent Form

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the audio responses.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…… (please print)

Participant Signature……. . Date……

Researcher's Name & Surname……(please print)

Researcher's signature……..Date……

ANNEXURE C: Interview Schedulle

Semi structured interviews will be conducted using three main questions. Conforming to Groenewald's (2004) and Markson's (1971) structures of phenomenological interviews, the current researcher will ask the following questions in order to obtain data that will reflect on the participant's experiences, feelings, beliefs and convictions about the themes in question:

- What does studying in an ODL university mean to you as a student with a physical impairment?
- What are your experiences of learning in an ODL university while having impairment?
- How does it feel to study at an ODL University?

Sub questions or follow up questions were asked to seek clarity or more information from the participant's responses.

ANNEXURE D: Themes And Codes

ACCESSIBILITY

4 Codes:

○ Accessibility: Curriculum / ○ Accessibility: Online Programmes / ○ Accessibility / ○ Accessibility: Infrastructure

FEELINGS

24 Codes:

○ Anger / ○ Anxious / ○ Confused / ○ Disappointed / ○ Discriminated / ○ Doubtful / ○ Embarrassed / ○ Emotional / ○ Excluded / ○ Fearful / ○ Frustrated / ○ Helpless / ○ Isolation / ○ lonely / ○ Mistrust / ○ nervous / ○ Sadness / ○ Shocked / ○ Sorry / ○ Stressed / ○ Stupid / ○ Unsafe / ○ Vulnerable / ○ Worried

EXPERIENCES

4 Codes:

○ Experience: Face-to-face university / ○ Experience: Work-commutation / ○ Experiences: ODL / ○ Experiences: Personal

FEELINGS

24 Codes:

○ Angry / ○ Anxious / ○ Confused / ○ Disappointed / ○ Discriminated / ○ Doubtful / ○ Embarrassed / ○ Emotional / ○ Excluded / ○ Fearful / ○ Frustrated / ○ Helpless / ○ Isolation / ○ lonely / ○ Mistrust / ○ nervous / ○ Sad / ○ Shocked / ○ Sorry / ○ Stressed / ○ Stupid / ○ Unsafe / ○ Vulnerable / ○ Worried

MEANING

1 Codes:

○ Meaning of having hearing a hearing impairment

STUDENT SUPPORT SERVICES

19 Codes:

○ Assistive devices / ○ Challenges / ○ Coping mechanisms / ○ Exams / ○ Finance / ○ Lack of orientation / ○ Lack of services / ○ Lack of student support / ○ Learning from other institutions / ○ ODL Adjustment / ○ Preference / ○ Regional Service centres / ○ Resources / ○ Solutions / ○ Student Support: Academic / ○ Student Support: Finance / ○ Student Support: Tutorial classes / ○ Study skills / ○ Time Management

TRANSACTIONAL DISTANCE

27 Codes:

○ Accommodating disability / ○ Advantages of ODL / ○ Attitudes / ○ Barriers / ○ Challenge: Communication / ○ Challenges / ○ communication strategy / ○ Communication: Solutions / ○ Communication preference / ○ Disadvantages of ODL / ○ Equality / ○ Excluded / ○ Expectations / ○ Feedback / ○ Impact if impairment on impairment on learning experience / ○ Interaction / ○ Lack of support / ○ Learning from other institutions / ○ Limitations / ○ ODL Adjustment / ○ Participation / ○ preference / ○ Prior knowledge / ○ Response time / ○ Solutions / ○ Study skills / ○ Time Management