

**Assessing learner support services rendered to undergraduate students at selected distance learning institutions**

**by**

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**Submitted in accordance with the requirements for  
the Degree of**

**DOCTOR OF EDUCATION**

**In the Subject**

**SOCIO-EDUCATION**

**at the**

**UNIVERSITY OF SOUTH AFRICA**

**Supervisor: Professor V. G. Gasa**

**November 2015**

## Declaration

I declare that **Assessing learner support services rendered to undergraduate students at selected distance learning institutions** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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**November 2016**

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## **Dedication**

This work is dedicated; first, to my late Dad and Mum, Mr and Mrs O.O.Rangara. You invested in my education and encouraged me to trudge on in all seasons. Rest in the knowledge that you lived an excellent purpose. Secondly, it is also dedicated to my beloved husband, Shadrack Omol and children Lisa, Effie and Joel. Your support is like no other.

## **Acknowledgements**

My immeasurable gratitude to Almighty God. I'm thankful each day, just marvelling at the gift of life and good health each day since I ventured into this project. Thank you for all the opportunities I would never have imagined.

Special thank you to my supervisor, Professor V.G. Gasa. You are blessed. You gave the experience of supervision a whole new meaning. I actually enjoyed myself, devoid of stress. Thank you for mentorship, for guidance, for counselling, for encouragement and most importantly for supervising my work. I hope that I can one day do the same for my future students.

Thank you to the University of South Africa (UNISA), a great university, for believing in me. For providing me with the opportunity to study and for awarding bursaries for two years of my study. Because of such support, I have come this far.

My blessed family; Shadrack, you always have my back. I rest in the knowledge of your total support, whenever, wherever and whatever. I cannot thank you enough. My beautiful children; Lisa, Effie and Joel. Thank you for sacrificing your time, family activities and everything that I should have done but did not because of my studies. You are great children.

My dear sister, Nelly! We have grown up together, your support has been unwavering. Even when others did not understand, you always stood by my side. You take interest in my work, studies and family, not some of the time but all the time. Thank you so much.

Professor S.O. Odebero, Dr B. Ogange, Dr S. Radeny, Dr M. Radeny Dr L. Wakiaga, Dr. A. Akidiva, Nicholas Ndiwa and Mercy, my classmate. Thank you for the technical support and input. I have come this far because you took your time to educate and mentor me.

Many gratitude to everyone who helped me knowingly or unknowingly. I may not identify all of you or even remember what you gave but I know that I have made it because of your contribution and support. God bless you all.

## **Abstract**

Distance education (DE) is now recognised as an education system independent from conventional face-to-face education. It has self-governing theories and pedagogies. It attracts students with unique characteristics different from those of on-campus students. The present distance learning student differs from the past ones by characteristics, needs and contexts. Not all students registering for distance learning conform to the characteristics of distance students described in theory. It is now acknowledged that DE systems demand special skills including time management, self-regulation and independent learning skills. Yet, few of these students enter into distance learning with prior experiences on its demands. The new student is compelled to learn to deal with challenges that come with DE i.e. the impact of 'distance', isolation and time management.

'The net generation' and 'digital natives' are now in college but with skills not automatically transferable to learning technologies. Information and communication technologies (ICT) providers are mostly focused on the 'use' rather than the 'user'. Universities are continuously adopting new technologies leaving the student bewildered as to the focus; learning or technology training. The internet has 'everything'; open course ware (OCW), open education resources (OERS), wikis and all web information. Students cannot simply find things for themselves. Furthermore distance learning has no policy on how to engage with the internet and students are left to decide what, which and how much is required for any level of study. Most universities in Africa moving from single to dual mode have not integrated distance learning pedagogy which requires restructuring in the organisation, policy and course development. DE, though spanning over two centuries has been mutually dependent on technology. The present technology demands a paradigm shift from that of correspondence days.

These issues have created the need for support strategies that can literally accompany the DE student throughout his/her academic journey. Universities have established DE units, campuses and schools for a variety of reasons. It is required that such universities provide learner support systems for their students. The purpose of this study was to assess the learner support services available for distance learning undergraduate students in two universities in Kenya i.e. Northern University (NU) and

Western University (WU). A Learner support system can comprise of numerous components. In this study, nine (9) components/indices were tested as the indices for providing support services. These are:- registration procedures, orientation programme and skills training, technology and learning materials, counselling and mentorship, interactions and communication, feedback, regional centres and library, students association and representation and course progression and satisfaction.

This study employed an evaluation research design utilising both quantitative and qualitative methods. Online questionnaires were used for quantitative data collection. For qualitative data collection two (2) instruments were used; an interview schedule for key programme implementers and a documentary analysis tool for documents and websites. The findings indicated that the main indices that distinguished the two universities were registration process, technology and learning materials, counselling/mentorship and regional centres where the t-test showed significant differences. The p values were 0.008, 0.012, 0.036 and 0.015 respectively at 0.05 significance level. In all of them, Northern University (NU) had a relatively high mean score than Western University (WU) except for the index on counselling and mentorship.

**Key words: Distance education, Learner support services, Learner support indices, distance learning platforms, Dual-mode universities/institutions, Learner characteristics, Learner needs, Independent learning, Face-to-face learning, social constructivism.**

## Abbreviations / Acronyms

AACSB	Association to advance collegiate schools of business International
ACRL	Association of College and Research Libraries
ADOBE PDF	Adobe Portable Document Format
AfDB	African Development Bank
AMREF	African Medical research foundation
ANOVA	Analysis of Variance
AVU	African virtual university
BScN	Bachelor of Science in Nursing
CATs	Continuous assessment tests
CD	Compact Disc
CDC	Content development coordinator
CD-ROM	Compact Disc-Read Only Memory
CFA	Confirmatory factor analysis
CUE	Commission for higher education
DE	Distance education
DVD	Digital Versatile Disc
E learning	Electronic learning
EFA	Exploratory factor analysis
EPC	E programme coordinator
ESSS	E learning Systems Support Specialist
FA	Factor analysis
FAQs	Frequently asked questions
ICT	Information and communications technology
IPR	International property rights
ISP	Internet service provider
JAB	Joint admissions board
LAN	Local area network
LMS	Learning management system
LSS	Learner support services/systems/structures
MODEM	Modulate-Demodulate
MOE	Ministry of Education
MOOCs	Massively open online courses
MOODLE	Modular Object-Oriented Dynamic Learning Environment
MP3&4s	MPEG (Moving Pictures Experts Group) Layer 3 & 4
MS	Microsoft

N.D.	No date
N.P.	No page
NACOSTI	National Commission for Science and Technology and Innovation
NCK	Nursing council of Kenya
NU	Northern University
OCW	Open course ware
ODEL	Open and distance electronic learning
ODL	Open and distance learning
OEMs	Open educational materials
OERS	Open educational resources
OETs	Open educational technologies
OU	Open University
OUUK	Open University of United Kingdom
PCA	Principal Component analysis
REC	Research and Ethics Committee
SAQs	Self-assessment questions
SFA	Standard factor analysis
SMART	Specific, measurable, achievable, results-focused and time-bound
SPSS	Statistical Package for the Social Science
TOR	Terms of reference
UNED	Universidad Nacional a Distancia
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNISA	University of South Africa
US	United States
USA	United States of America
USD	United States Dollar
VC	Vice chancellor
VCD	Video Compact Disc
Wi-Fi	Wireless fidelity
WU	Western university
WWW	World Wide Web



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# CHAPTER 1

## INTRODUCTION AND OVERVIEW

### 1.1 INTRODUCTION

Any learning system in which teacher behaviours are separated from learning behaviours may be defined as distance education (Stevens 2007:254-267). Since its inception in the 19<sup>th</sup> Century, distance education (DE) has grown extensively. This rapid expansion is attributed to many factors including challenges faced by institutions of higher learning and universities and modern and faster communication technologies coupled with an unquenched demand for education (Guri-Rosenblit 2009:105). Worldwide trends indicate that institutions of higher learning are currently providing one form or other of DE to a wide and varied population.

According to UNISA Task Team 4 report (2010:7), the core business of Open and Distance Learning (ODL) programmes is to open education access and participation to the student who chooses to learn off-campus. In so doing, ODL recognises the numerous distances/barriers the student has to deal with in order to effectively participate in learning. These distances include: time, geographical, economic, social, educational, epistemological and communication. The effects of these, can be reduced by effective learner support systems. Instituting support systems are often complicated by numerous intertwined factors. Segoe (2012:1-3) explains that within such factors, the university needs to understand the student demographics, motivation, needs and capacities. It also needs to conceptualise feasibilities of budgets, teaching and learning methods, human resources, technology and programmes.

Throughout history, the practice of DE has been dependent on communication technology. The present generation of DE is no different. However, the prevailing communication technologies have, to some extent, complicated the provision of DE. The rapid speed of changes within the field of communication technology has implications on choice, cost and quality of programmes. This growth has often shifted the focus of institutions from the student, who is the main stakeholder, to technology and solving institutional problems leaving the student with numerous challenges. One major problem associated with DE programmes is that of high dropout rates (Dray,

Lowenthal, Miskiewicz, Ruiz-Primo and Marczyński; 2011:29-47; Parker 1999:3; Dowdall 1992:2 and Cookson 1990:195). The face of DE programmes has changed within the last fifty years, but not the high attrition rates. Lee and Choi (2011:593-595) classify 44 factors into three categories that contribute to student dropout from DE programmes: student factors, course factors and environmental factors. Of these, student factors accounted for 55% of the total identified factors and included academic background, lack of relevant experience, lack of relevant skills and psychological issues. In addition, Marshall, Greenberg and Machun (2012:250) contend that significant research has focused on attrition factors, but that there is lack of research on how to prevent it. Although there are few studies that have correlated dropout rates and student support, it is widely assumed that a good student support system is able to reduce attrition rates (UNISA Task Team 4 Report 2010:4).

Dray, Lowenthal, Miskiewicz, Ruiz-Primo and Marczyński (2011:29-31) explain that due to the continued growth in online learning and reports of high attrition rates in it, understanding student readiness for online learning is necessary. Over the years several surveys have been developed to assess student readiness as a predictor of success in online learning. Students are expected to exert continuous effort in their studies throughout their programmes, not just to pass examinations (Alias and Rahman 2012:3), but also to practice lifelong learning. While society calls for lifelong learning, work and family responsibilities call for adults to seek forms of education other than the traditional, face-to-face instruction. DE offers adults the required formal education while allowing for flexible scheduling. But with the growth of DE, the problem of increase in attrition rates of up to 40 percent has been noted (Tait 2008:88; Carr 2000:3; Parker 1999:2 and Carter 1996:31-33 and). According to Carr (2008:39), online dropout rates are estimated to be 10%-20% higher than those of on-campus classrooms.

Apart from the threat of attrition, other problems encountered by the student of DE include isolation and lack of independent learning skills. Unlike the face-to-face classroom, the student in DE often finds himself/herself isolated from immediate interactions and feedback which may lead to low motivation and eventual dropout. Additional challenges have been discussed by scholars, including the consideration that 'distance' in itself is a problem (Kelly and Stevens 2009:1). While problems of

isolation or distance do not have any easy solutions, a support system that evaluates and profiles new students, addresses study skills in independent learning and prepares the students for the challenges ahead may have a positive impact on attrition and overall success rates. Learner support comprises of a range of human and non-human resources which guide and facilitate the educational transaction. Its sole aim is to support the student from the onset and throughout the life of the course leading to successful completion. Many students entering distance learning for the first time may not have conceptualised the differences between face-to-face and distance learning formats. While varied learning support may be available during the life of a course/programme, this study seeks to assess the availability and accessibility of such support for registered undergraduate students. The assumption is that when we foresee or anticipate challenges, we can plan to tackle and overcome them.

In the face of the aforementioned issues, instructional designers and course developers have done exceptional work in finding solutions (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:66). The rapid growth and innovations in media and communication technology has not only introduced challenges but has to a great extent also offered great opportunities and choices to meet challenges in DE. Programmes are now able to utilize a variety of media to deliver course content to students in various locations and in real time. This is an effort to serve the varied educational needs of growing populations. Although the ways in which DE is implemented differ markedly from country to country and institution to institution, most distance learning programmes rely on technologies which are either already in place or are being considered for their attributes. Such programmes are particularly beneficial for the many people who are not financially, physically or geographically able to obtain traditional education (Nirmalani and Mclsaac 2006:356–378). However, when new technologies and new systems are constantly introduced into programmes, students become overwhelmed by the need to learn new applications and still continue with their studies. This may contribute to reduced motivation especially if enough and timely support is not provided.

## **1.2 BACKGROUND OF THE STUDY**

Segoe (2012:271) states that:

Well-organised learner support systems are essential for DE students to engage in the process of learning. These services need to be developed in response to the needs of the students. It is also imperative that a range of well-planned support systems be budgeted for and be put in place to enable DE students to become competent in independent learning and to learn to interact in a virtual environment.

This statement provides advice to many universities which were previously established to register only on-campus students but which have, out of necessity, ventured into the provision of DE. Most universities in Africa moving from single to dual mode have not fully grasped that distance learning is a different pedagogy (Power and Gould-Morven 2011:20-23) which requires organisational restructuring, especially, policy and course development. In distance learning, the student characteristics, needs and contexts are so diverse that it is no longer appropriate to assume that these students are all able to learn and benefit equally from the courses offered. Not all students registering for distance learning conform to the characteristics of distance students (Coleman and Concha 2010:15-17). Recent studies have noted a younger population now registering for DE programmes (Lentell 2012:24). Due to economic recessions and the dynamics of employment/unemployment, the Open University (OU) of United Kingdom (UK) for example has experienced a substantial increase of 18-24 year olds registration in the year 2010 (Lentell 2012:24). Contrary to the belief that distance students are independent (Moore 2003:109) such a group of students may not have had prior experience in distance learning environments or independent learning skills and so may not immediately qualify as independent learners. In addition, they may not have braced themselves for the challenges that come with distance learning. In many instances, students have not even reflected on how 'distance' could impact on their learning (Kelly and Stevens 2009:2).

'The net generation' (a term used for students who have been exposed to technology all their lives and a common label for young adults) are now in college with great experience in communication technology, especially in social network technologies. However, these skills not automatically transferable to learning technologies (Renes and Strange 2011:204). Information and communication technologies (ICT) providers are mostly focused on the 'use' rather than the 'user' (Njenga and Fourie 2010:200).

Universities are continuously adopting new technologies leaving the student bewildered as to their focus; learning or technology training. The internet has 'everything' open course ware (OCW), open education resources (OERs), wikis and all web information. Students cannot simply find things for themselves. Furthermore, distance learning has no policy on how to engage with the internet, and students are left to decide what, which and how much is required for any level of study. There is need for DE to develop an emphatic learner support policy that defines the distance student and the learning transaction of how the student can be supported in these environments.

DE programmes have the capacity to scale up to huge proportions. A typical programme has the ability to hold thousands of students within one virtual classroom. This makes them demand-driven, often overlooking many factors that affect both faculty and students. Students in such environments may not be able to learn under the same learning theories postulated for their colleagues in a typical face-to-face classroom. This is a consideration that has been overlooked by many universities. Most often, face-to-face programmes are simply adapted to fit into distance learning programmes. At the same time, DE also has numerous challenges which are not immediately visible to new students. Therefore, students who are entering into this experience for the first time may need to be prepared either through counselling or self-evaluation or an online support system or need to understand what they are signing up for.

Nyerere, Gravenir and Mse (2012:201) states that:

There is a lot of potential in implementation of ODEL programmes in Kenya which, if fully exploited, could provide the much-needed access to quality education in the country. This could be achieved through, among other things, adequate budgetary and resource provision, proper infrastructure development, training of adequate staff in ODEL, and provision of student support services.

Subsequently, this study has focused on the provision of student support services in two (2) universities in Kenya. This study is built on the premise that learner support is a necessary service to and component of a student's academic experience. The

purpose of this study was to assess the availability of learner support systems for DE undergraduate students.

### **1.2.1 Practice of Distance Education beyond Kenya**

The growth and expansion of DE is conventionally attributed to the spontaneous response to the unquenched demand for education. This, compounded by the increased awareness to the benefits of education, is the same factor for the growth of DE in Kenya (Nyerere, Gravenir and Mse 2012:195). However, Tait (2008:85-86) explains that the first DE universities in different countries were founded for various other reasons. For example, the foundations of the University of London and the University of South Africa (UNISA) can be traced back to political ideologies. The former founded at a time during colonialism when the British government needed to extend education to its citizens residing in far-off colonies as well as to the local elites in those countries (Tait 2008:85-86). The latter was founded to increase access and participation of citizens of all ages (Subotzky and Prinsloo 2011:178 and Tait 2008:85-88). Foundations notwithstanding, these international universities currently perform unchallenged roles in their host countries and the world. DE universities have expanded access to education in ways that could have otherwise been impossible. Some of the first universities that offered large scale DE are the University of London founded in 1826, UNISA founded in 1873 and Universidad Nacional a Distancia (UNED) of Spain founded in 1972 (Tait 2008:85-90).

The growth and expansion of the aforementioned universities encouraged governments of various other countries towards the notion and possibilities of open universities. Open universities somewhat differ from DE universities. The former have fewer restrictions on admission requirements and course completion requirements. In the 1960s and early 1970s to date, open universities were founded to further the agenda of access and participation in education (Baggaley 2008:41-43 and Tait 2008:85-86). Furthermore, some programs have blended to what is now practiced as ODL. The introduction and use of electronic technology into an ODL program transforms it into what is referred to as Open and Distance electronic Learning (ODEL). Tait (2008:91) further explains that the formation of the Open University of United Kingdom (OUUK) for example was to widen access by giving a second chance to adult students through flexible, blended and student-centred learning models and

encourage participation of the work force to better their education through part-time programs. To this target population, barriers like prerequisite qualifications were removed to literally open up access to programmes (2008:91).

Presently, open universities record student populations in hundreds of thousands and are referred to as mega-universities. Such universities are found in the UK, Spain, China, Japan, India, South Africa and Tanzania. UNISA for instance has claimed its position as the largest DE university in Africa (Baggaley 2008:41-43). It is a mega-university and an Open and Distance Learning (ODL) institution with an operational headcount of up to 300,000 students including South African citizens, other African and international students (Subotzky and Prinsloo 2011:178). The collective goal of mega-universities is to contribute to the betterment of their individual country's economy through educating the population and the workforce. Kucukan (2011:142) and Baggaley (2011:136) concur that this agenda contributes to the self-expansion of open universities; as populations grow, so does the need and demand for education. In addition, the use of technology has enabled access and participation in these universities beyond their countries' borders.

The internet has further enabled participation in education by widening availability and accessibility through the provision of online courses and/or E learning. Lane and Van Dorp (2011:1-4) explain that a substantial number of barriers to education have been broken through the provision of ODL in all its formats. In some cases, however, a seemingly shattered barrier may on the flipside cause new challenges. For instance, the concept of "openness" has many contextual meanings. ODL in its ideal form is intended to counteract the "closed" elements in access to education (Brent, Gibbs and Gruszczynska 2012:2 and Hilton III, Wiley, Stein and Johnson 2010:38). The perceived "closed" barriers include a centralized physical campus beyond geographical reach of many students, definitive social cultural support and prohibitive costs and filtering systems defined by stringent entry and course requirements. The use of the internet and technology has also introduced other barriers. Information referred to as "open" is not entirely open or accessible due to complicated navigation procedures, computer illiteracy or even access to computers and lack of internet connectivity.

### **1.2.2 Practice of Distance Education in Kenya**

Kenya's first university, the University of Nairobi, was commissioned in 1968 (Juma 2012:11). By 2012, there were about twenty two public universities and over twenty five private universities, a big number having applied for charter (Ministry of education report 2012:227). The increase in the number of universities has been a spontaneous response to the increased demand for higher education (Ministry of education report 2012:227). According to Cortoos (2013:n.p.) the growth and demand for education in Kenya was unprecedented, exceeding expectations and has literally overshoot the Ministry of Education (MOE) projections. Kenya is an East African country with an estimated population of 40 million people as per the 2009 census (Ministry of Planning report 2010). At independence in 1963, there were no independent chartered universities in Kenya. There only existed the Royal Technical College, a constituent of the University College in East Africa (Eisemon 1992:158). The new government had to grapple with formulation and implementation of policies in all sectors including education. Since then, the education sector has been involved in implementations and reforms in equal measure (Eisemon 1992:158).

Since independence, the system of education from pre-primary to tertiary courses has been revised and changed almost four times (Nyerere, Gravenir and Mse 2012:188). A critical look at these changes indicates an underlying problem that either impedes the realisation of objectives and/or the harmonisation of the education sector with the country's growth agenda and conventional treaties. The MoE report (2012:23-26) outlines the current educational goals as providing a practical link between education and the labour market, creating entrepreneur skills and competences and strengthening partnerships in all spheres. According to Bonyo (2012:4) there is lack of data and studies which measure the extent to which objectives in the educational sector have been achieved over the years. There is lack of a comprehensive national data on admissions, progression and dropout rates. Thus, Kenya still needs to assemble a workable, controlled and quantifiable education system.

Meanwhile, increase in the demand for education has surpassed access (Boit and Kipkoech 2012:32). Strapped by low budgetary allocations and support, the universities physical facilities could not expand fast enough to accommodate the rising number of students. Additionally, there were huge numbers of students who had



achieved the minimum university entry requirements but could not gain admission due to prohibitive physical facilities. This situation encouraged the development of three scenarios which were widely supported as cost-sharing, cost-cutting and cost recovery measures for public universities. First, the four public universities available at the time expanded their infrastructure albeit at small scale but also co-opted diploma colleges and polytechnics as constituent colleges in order to benefit from their infrastructure. Second, was the growth and commissioning of private universities driven by market demand for certain courses and a readily available student population which had not been admitted into the public universities. Third, there was provision of a second stream of classes both in the public and private universities. These classes were provided either as evening, part time or distance classes (Boit and Kipkoech 2012:32).

For many universities in Kenya, this is how DE came into existence, that is, in an ad hoc manner and without strategic plans (Juma 2012:2). Distance learning, however, is not new in Kenya. The history of distance learning can be traced back to the adult studies centre at Kikuyu, a constituent college of University of Nairobi founded in 1973. According to Juma (2012:11), the Institute of adult studies had four sections: i) the extramural division; ii) adult education unit; iii) the radio and correspondence course unit; and iv) training and research unit. DE was provided by the radio and correspondence unit. It remained a quiet and controlled unit until the 1990s when both public and private universities adopted distance learning. It has since experienced an exponential growth with every university in Kenya now practicing some form of distance learning. Most universities have been attracted to DE widely for its advantages. At the onset, there was lack of serious planning with many face-to-face curricula simply being adapted for distance learning. Moreover, there was lack of experts and course designers for distance learning programs and so most programs simply modified themselves to fit in (Nyerere, Gravenir and Mse 2012:186). An example is the four year Bachelor of Education program. This face-to-face program runs for four years on a full time basis but was contracted to a distance learning program where undergraduate in-service teachers could attend face-to-face tutorials in April, August and December (school holiday months). During tutorials, students attend lectures, receive learning materials and take examinations.

### 1.2.3 Pedagogies of distance education

DE literature comprises of epistemological rather than empirical studies (Jopling 2012:311). In a metanalytic study on over fifty studies related to online tuition, Jopling (2012:311) concludes that more than half were descriptive and modelling rather than generalizable quantitative studies. Some of the findings indicate that there is need to train teachers on online and distance learning methodologies to conceptualise the differences in the pedagogy of face-to-face versus that of distance learning especially when technologies are involved. In this way, the common practice of direct adaptation of face-to-face programmes for distance learning can be minimised. Flores, Ari, Inan and Arslan-Ari (2012:252) concur that distance learning courses should be developed by specific teams which include DE experts and instructional designers. With the differences and similarities between face-to-face and distance learning in mind, there should be considerations for the numerous students who transcend from physical classroom formats into distance learning environments.

Appreciating that the two formats of learning are different is indicative that more studies focusing on the distinct features within DE will lead to its success (Moore, Dickson-Deane and Galyen 2011:130). Such definitive studies will ensure that DE formats be discussed and appreciated for their distinct educational domain rather than always being compared to face-to-face formats. In 2005, George Siemens (Mallon 2013:19 and Siemens 2005:3-10) questioned the pedagogies of distance learning as a distinct domain. He emphasized that the influence of technology and communication media in distance learning should not be assumed. Because of technology, teaching, learning and knowledge acquisition cannot be explained purely from the application of conventional learning. He proposed the theory of connectivism which entails a mechanism within a pedagogical model in which learning and ordering of knowledge emanates referred to as *chaos* (Siemens 2005:6-7). Applied to distance learning, *chaos* represent the current large and borderless sources of information through which the student navigates, finds meaning and builds knowledge. These borderless information are found within new technologies and media including the internet, www, web 2.0, emails and webinars. With the availability of information everywhere, the student is no longer dependent on content material and the teacher alone. Instead, knowledge is ever present from peers, mentors, teachers, technology, the community, the library and the host institution as well as from self. Thus connectivism involves an

integration of environmental chaos, knowledge chaos, human networks and self-organization through the platform of technology (Siemens 2005:6-8). Herein, lies the challenge for distance students. Without a prevailing framework on how to engage with all the information, students may be unaware of how much or what information is useful for their present goals. Even the whereabouts of the information can be a challenge for students who have limited access to/or literacy for technology applications. It is therefore the assumption of this study that the host institution should provide supportive frameworks that guide students on how to engage with the avalanche of information.

Another perspective to DE pedagogies is advanced by Anderson and Dron (2011:80). Using a community of Inquiry model, they examined pedagogy of DE throughout its history. They were able to correlate learning theories with educational technologies against a temporal paradigm. For example, following the invention of radio and television technologies, distance learning was able to apply pedagogical models that allowed many-to-many interaction as opposed to the preceding postal correspondence technology which had minimal interaction. The study further explains that like in the face-to-face models of learning, the application of learning theories integrates into each other; transcending from behavioural theories to behavioural-cognitive to cognitive and to constructivist theories. It is also important to note that as the teaching and learning models adopted each theory through the ages, the others like behaviourism have not been discarded. Instead, there is an assimilative mix as one blends into another with sometimes a very vague distinction between the learning theories being applied.

#### **1.2.4 Generations of Distance Education**

According to Anderson and Dron (2011:80) and McKee (2010:101), the practice of DE has five definitive generations characterized by the prevailing technology for content delivery of its time. They also contend that the technology for delivery influences the choice of pedagogical model which in turn influences the application of learning theories. For example, during the postal-correspondence era (referred to as the first generation of DE), models that involve synchronous interactions were unthought of because there was no technology that could support such a model. Therefore learning was mainly through behaviourist models. Behaviourist learning theories developed by

Watson E, Skinner B. F. and Thorndike J. (Kanuka, Smith and Kelland 2013:8) are based on the premises of stimulus–response and reward–punishment. DE of the first generation thus involved learning from the provided content material (stimulus) after which outcomes were measured using assessments and examinations (response). But from the 1930s onwards, other learning theories evolved which included cognitive, social learning, motivation and association theories.

These concepts recognise the importance of an individual's cognition, memory, drive and feelings as contributory factors to learning. Coincidentally, the second generation of DE which included communications technology (albeit in a limited way) was able to embrace pedagogies which could involve the student in some interactive processes. These technologies included radio, telephone, television and audio recorders. Through these technologies, asynchronous communication was tried out in DE learning models for the first time even though the cost soon proved prohibitive. To cut down costs, mass production, economies of scale and organizational theories of the time like division of labour were adopted by DE. This is also the period when DE was referred to as industrialized education (Keegan 1995:110-112). Still, the second generation of DE did not discard pedagogies of the first generation. Even as new theories of learning came into practice, behaviourist models were absorbed and integrated with new practices. Anderson and Dron (2011:80-81) refer to this integrated model as behaviourist–cognitive model. They further explain that such a model allowed for cognitive, social and teaching presence in distance learning.

In the third and subsequent generations of DE, the correlations have changed such that DE pedagogy is not solely influenced by educational technology. There is now a wide range and choice of technology based on each one's attributes. Presently, it is the model of learning which influences the choice of technology. Choices of technology are also influenced by factors like cost, accessibility, literacy, sophistication and context. Jopling (2012:315) contends that the pedagogies of distance learning are yet to be understood. Unlike in face-to-face learning, DE is directly influenced by technology, distance, isolation and a moderated social presence. The student is compelled to scaffold the aforementioned factors into his/her learning (Harrell and Bower 2011:187-188). Furthermore, in blended learning where there are no distinct boundaries between face-to-face and distance learning, defining the pedagogical

model becomes even more complicated. In general, the prevalent DE pedagogies are mostly based on constructivist theories within which teaching and learning methods include independent learning, self-directed learning, student-centred learning and problem based learning.

### **1.3 RATIONALE AND MOTIVATION FOR THE RESEARCH**

From experience, observation and supported by research by Marshall, Greenberg and Machun (2012:251), the current distance learning student registers for DE for numerous reasons, one of which is the convenience provided by technology. The student may not have or know how to acquire prerequisite skills for distance learning. In many instances, such a student struggles with learning because either there is no support or the support is inaccessible. The motivation for this study came from the need to listen to distance learning students who need support even with the use of technology but are not sure how to seek or access it. There is also need to sensitise distance learning providers to offer ways for educating prospective students on the demands and challenges of distance learning formats so that the students can acquire coping mechanisms as the challenges arise. While many programmes provide many forms of learner support, this support is mostly inaccessible or not very useful to the student.

### **1.4 SIGNIFICANCE OF THE STUDY**

As in most of the world, ODL in Kenya, is growing very fast (Nyerere, Gravenir and Mse 2012:195). However, in Kenya, ODL in many universities, is established in an ad hoc manner often in the absence of institutionalised policies (Juma 2012:14). This research will inform policy makers on the needs of students that require intervention so as to develop conducive learning environments. Furthermore, many researchers of ODL have focused on issues that have widely excluded the student (Hannum 2009:171) but have instead focused on other attributes of ODL practice including technology and historical foundations (Nirmalani and Mclsaac 2006:355–357). O'Donnell, Sloan and Mulholland (2012:2) also explain that although student induction and support is extremely important for students of DE, an exhaustive universal model or blueprint on student support services is still unavailable. They further contend that conclusive literature on how student support structures should be planned and

managed is minimal compared to the amount of literature available on instructional design for DE. This study aims to significantly contribute to formulation of solutions for learner support in these much needed areas.

This study focused on learner support systems in two (2) universities providing DE in Kenya. The results of the study had the following intentions:- First, inform distance education providers and policy makers on the support needs and priority areas for learning support systems especially at the onset of an ODL programme/course. Second, contribute to the formulation of learner support guidelines and also inform the already formulated learner support structures on how to improve, revise or successfully implement their frameworks. Third, contribute to the theories of learner support in order to establish its emphatic space in the policies and practice of DE; and lastly, provide a basis for instructional designers to intentionally design structures for learning support during course design.

## **1.5 PROBLEM STATEMENT**

This study has been prompted by the need to focus on the student in DE programmes. Kelly and Stevens (2009:2) succinctly state that the problem with DE is the 'distance'. They explain that students choose to register for distance education programmes for numerous reasons which may or may not include distance as a convenience. Some of the reasons include cost, flexibility of time, flexibility of learning formats and distance. Furthermore in a study of learning support needs for online students in Malaysia, Alias and Rahman (2012:3), noted that most of the students were very much adapted to exam-oriented, teacher-centred education systems in their previous school life. Yet, distance learning requires the student to quickly move from dependency to independent learning and take personal control of all his/her learning. It thus seems that the distance student has numerous needs and challenges requiring support from the education provider. DE researches also need to move from studies that test technologies to those that test other variables that influence and drive DE. One such variable is a focus on the student, his/her contextual needs and how these needs can be met (Hannum 2009:172).

Gandhi (2011:34-37) emphatically reminds all distance educators that despite all available and changing technologies, the heart of the whole experience still remains:

learning. All learning experiences need to keep the persons it has been designed for in mind. There are fundamental questions at the heart of distance learning: Who are the prospective students and what are their characteristics? How will they learn? How will they acquire and retain skills and information to help them develop? Are distance students aware that the DE pedagogy will be fundamentally different from that of the face-to-face formats? Are the students aware of characteristics of distance learning such as learner-centred formats, possible isolation from interactions, procrastination and self-discipline? How will they manage their time (especially in the face of numerous competing responsibilities)? And lastly and most importantly: What is the support they receive enabling them answer these questions so as to focus on learning in a DE environment?

Students coming from backgrounds of teacher-centred learning need an orientation on the paradigm shift they are going to be involved in upon admission. Literature is scanty on learner support provided to new students who have never before had a DE experience even though, many colleges may be providing learner support during courses/programmes (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:66). There is need for institutions providing DE programmes to be informed of and prepared with ways of solving foreseeable challenges for their students (Lentell 2012:23-25 and Howell, Williams and Lindsay 2003:1-3). One way is to prepare and orientate distance students through adequate and relevant support at the onset of learning programmes.

### **1.5.1 RESEARCH QUESTIONS**

This study employed both quantitative and qualitative approaches in assessing the extent to which support services are available to undergraduate students of distance learning. The following are the specific research questions that guided this study:

1. How have learning formats, course delivery trends and changing faces of distance education contributed to challenges in providing support to undergraduate students of distance learning?
2. To what extent are support services available to undergraduate students of distance learning upon registration into the programme?
3. What skills should be developed by the student through learner support systems for effective participation in distance learning activities?

4. What support elements can constitute to the formulation of guidelines for learner support systems for new students of distance education?

### **1.5.2 RESEARCH AIM AND OBJECTIVES**

The aim of this study was to gain information pertaining to learner support services which would contribute to an evidence-based implementation of learner support systems in DE. Towards this aim, the objectives were, to:

1. Assess the learning formats, course delivery trends and challenges that define distance education.
2. Investigate the learning support services available to registered undergraduate students of distance learning in two universities in Kenya.
3. Deduce skills distance students need to develop through learner support systems for effective participation in learning activities.
4. Recommend and formulate, from study results, guidelines for a practical support system for new students in distance education programmes.

### **1.6 RESEARCH METHODOLOGY AND DESIGN**

This study was an evaluation design with a mixed methods approach. Lund (2012:155) and Creswell, Hanson, Clark, Creswell and Petska (2005:212) define studies which involve collection and/or analysis of both quantitative and qualitative data within a single study as mixed methods studies. The context of this study endeavoured to determine the availability and accessibility of learner support structures for undergraduate students. It was expected that students were receiving one form or another of support services. The study aimed at gathering information from undergraduate students, the university administration and faculty and from documents of DE establishment. Quantitative methods using online questionnaires tested students' experiences on the subject. Qualitative methods of data collection were used to assess; one, the provision of learner support services by university administration and faculty and two, provision of the same as embedded in university websites and documents of DE establishment.

The target population was undergraduate students enrolled in DE courses /programmes in the identified universities. The study was conducted in two (2)



universities providing DE programmes in Kenya. Purposive sampling was used to identify the participating universities. Census sampling was used to identify the participating students. This is because almost every institution of higher learning provides one form or another of distance learning programmes and includes different modes (E learning, online learning, mixed mode learning, blended learning or distributed learning). All modes of distance learning were included. All consenting undergraduate students of DE were included due to considerations of the total student population and the shortfalls of online surveys. It may not have been easy to apply other sampling techniques such as probability sampling due to the varied geographical location of the students and the unlikelihood of having them together in one venue.

This study identified nine (9) common indicators of learner support structures requisite for any newly registered student in distance learning. The indicators, also referred to as indices, were identified from previous studies of five universities; University of Ulster, National Distance Education Centre of Ireland, University Teknologi of Malaysia, University of Southern Mississippi and University of South Africa (Alias and Rahman 2012:1-5; Lorenzi, MacKeogh and Fox 2012:1-7; O'Donnell, Sloan and Mulholland 2012:1-9; Zawacki-Richter 2012:N.P.; Ward, Peters and Shelley 2010:59-60; Oosthuizen, Leodolf and Hamman 2010:85-205). The indices were:- 1) Registration procedures 2) Orientation programme and skills training 3) Technology and learning materials 4) Counselling and mentorship 5) Interactions and communication 6) Feedback 7) Regional centres and library 8) Students association and representation 9) Course progression and satisfaction.

Prior to data collection, the tools were piloted for revision and clarity. The research study supervisor and the University of South Africa's research and ethics committee evaluated the research instruments. Thereafter, data collection was conducted within four (4) months. Quantitative data was analysed using online survey monkey software and exported to Microsoft Excel and SPSS version 23 for further analysis. For the qualitative data, interviews were transcribed and together with identified documents, analysed using the documentary analysis guide and uploaded onto Atlasti.7 for further analysis. Here coding was done using content and thematic analysis. The codes were then grouped into themes forming the basis for the findings and discussion reports.

## **1.7 OPERATIONAL CLARIFICATION OF KEY TERMS**

### **1.7.1 Distance education**

This is a field of education that focuses on instructional systems which deliver education through communication media to students who are not physically present (UNESCO 2002:1-25). DE is an all-inclusive term that refers to educational communities where teachers, students and collaborators are linked in discourse through networks contextual to their circumstances (Juler 1990:25-27). There are various definitions of DE by different scholars. The commonality lies on the emphasis on the term 'distance'. According to Nirmalani and Mclsaac (2006:355–357), DE involves instruction through a communication medium to persons separated from the instructor by time, space and distance.

DE, throughout history, has been driven by communications technology. The communication medium also referred to as technology, is the platform on which the instructor mounts the learning materials. The student is then expected to interact with the material and the instructor through the same or a different communication medium/technology. This communication process that the distance student needs to engage in on a constant basis is widely assumed in the traditional face-to-face classroom where both the student and the instructor are physically present. Nirmalani and Mclsaac (2006:365) emphasise that the transaction carried by the technology should be the focus and not the technology itself. They further make a distinction between 'media' and 'technology'; that technologies are used to deliver media which carries the educational message. Technologies include cassettes, radio, telephone, cable and satellite, fibre optics and so on while media includes print (text), audio, audio-visuals and computing. The intended purpose of DE is for learning to take place for the persons who invest in accessing this form of education.

In DE, there is a separation between persons involved in the educational transaction and hence the emphasis on the word 'distance'. Distance has traditionally been described as separation by geographical, temporal and spatial factors. These are the basic tenets that differentiate DE from face-to-face/conventional/on-campus education. However, more and more scholars now make reference to other forms of distance, such as:- interactional distance, social distance, transactional distance and psychological distance. This study acknowledges the aforementioned 'distances' and

all references to DE assume these concepts within. Even though comparisons are made between DE and the on-campus learning, it is purely for the purposes of definition. Both forms of education have strengths and weaknesses and there is none that is necessarily better than the other. Any attempt to merge the two in terms of practice or theory as is commonly suggested in recent times is unfounded. DE emerged from the need to serve populations who for various reasons were unable to learn on campus. The face of these populations may have changed with the passage of time but the population demanding DE still exists. The term DE in this study is recognised as an independent practice, separate from the face-to-face formats and designed to populations that require flexibility in education.

### **1.7.2 Distance learning**

Learning is a quantifiable change in behaviour attributed to experiencing a new phenomenon either physically, cognitively, socially or psychologically. The learning experiences in the physical face-to-face classroom are comparatively different to those experienced by the learner in a distance learning environment. Thus distance learning is the process of acquiring knowledge, skills and attitudes through experience, practice, study, or being taught within a distance education environment. According to Stevens (2007:254-255), distance learning is a structured learning experience that can formally take place in any place and at any time in the physical absence of an instructor. The student and the teacher are often separated. In an attempt to bridge this separation, communications media is used to facilitate the learning experience. Communications media is so intertwined with distance learning to the extent that any changes within it, often contributes to changes in distance learning. At the onset of distance learning, the student solely interacted with printed material by correspondence through postal service. Today, various media (through technology advancements) can be combined even within one technology (multimedia) to transmit various forms of learning materials including print, audio-visuials, simulations and demonstrations. Modern technologies have also enabled the student not only to interact with the learning materials but also with the teacher, the institution and fellow students. This has contributed to the development of richer knowledge, skills and attitudes.

There is also a growing mix up and imaginary integration between face-to-face programmes and distance learning. Technologies have enabled on-campus students to interact with learning materials, teachers and peers through web 2.0 technologies like Moodle, blogs and e-mails. This has given rise to terms like blended learning, distributed learning, flexible learning and computer mediated learning. However, the authenticity of distance learning should depend on the characteristics and needs of distance students. Theoretical frameworks forming the basis of pedagogy in distance learning are not yet grounded and keeps changing due to the changing faces of distance learning influenced by an ever changing technology. According to Nirmalani and Mclsaac (2006:358-361), the theories include: Theory of Independent/Autonomous Learning (Charles Wedemeyer), Theory of Industrial Education (Otto Peters) and Transactional Theory (Michael Moore). These theories complement each other in addition to other learning theories like constructivism, social constructivism, multiple intelligences, adult learning, cognitive and behaviourism. All these theories are important considerations when planning for distance learning.

### **1.7.3 E learning**

The 'e' in E learning is an abbreviation for electronic. Therefore E learning refers to the utilisation of electronic devices in learning activities. The devices range from computers and laptops to iPad, DVDs, CD, CD-ROMs, television, radio, telephone, satellite, and cable. When these devices are linked to the wide world web (www), the internet becomes a platform for E learning. At this time, it may be referred to as online learning. The differentiation is that E learning can take place with or without the internet and www, but online learning cannot. E learning can transpire within as well as outside classroom settings. According to Gandhi (2011:35), E learning is term which is very commonly used in all forms of education worldwide. It refers to the intentional use of communications and education technologies in teaching and learning. E learning is most often associated with DE and in many circumstances, they are assumed to have identical meaning. Njenga and Fourie (2010:200) observe that the impact of technology application in teaching and learning, also referred to as E learning, has brought about numerous misconceptions. Some institutions have become fixated with technology with the belief that E learning is the answer to many unasked and ill-conceived questions. They further explain that often, the questions being answered by

E learning are non-existent. In this study, E learning refers to electronic learning which may transpire in any format of education.

#### **1.7.4 Face-to-face programmes**

This term refers to the traditional classroom where both the teacher and the student are physically present during the learning transaction. Literature also interchangeably refers to face-to-face learning as the traditional classroom or conventional learning or on-campus programmes. Since the beginning of formal education, the learning set up has included a physical space where the master of knowledge (usually the teacher) was able to gather a group of students to impart knowledge, skills and attitudes synchronously. In fact, critics of DE believed that an institution of learning should be qualified as that which physically meets its students, teaches them, examines them and graduates them within its physical precincts (Baggaley 2008:36-40). But today, it is accepted that both forms of education are different but equally valid.

#### **1.7.5 Learning Management System (LMS)**

A Learning Management System (LMS) is an all-inclusive term commonly used for online learning formats. In DE, it refers to the interface hosted by the internet through the university's website. However, as the name suggests, an LMS is an apparatus of organising teaching and learning with all the associated processes that must be established within education environments. These include registrations and registers of students and teachers, rosters and timetables, documents and learning materials, academic calendars, assessments and examinations and frequently asked questions (FAQs). Many education providers would like such platforms that simplify the administration of teaching and learning activities. For this reason, LMS is now a recognised industry offering a variety of choices and combinations. In this study, the LMS is recognised as the platform for Modular Object-Oriented Dynamic Learning Environment (MOODLE) or any learning interface or any other portal in DE environments. It is found within the university's website where stakeholders may create, track or distribute learning materials. The LMS and learning interfaces like MOODLE have a mutual relationship. The LMS must be set up in order to host the portal.

### **1.7.6 Learner support services**

Learner Support Services/Systems/Structures (LSS) include all the assistance provided to the distance student by the host institution aimed at ensuring that the student benefits from the learning experience towards a successful graduation from the programme. This support should be equivalent to the support experienced by the student in a face-to-face programme. However, due to separation of students from the institution and teacher in DE, providing an equivalent learner support service is usually a challenge. According to Dzakiria (2008:103-105) learner support is the accessible help that students may need in their endeavour towards a constructive and successful learning experience. Students face a myriad of issues that directly or indirectly impact their studies. Often times, these issues cannot be compartmentalised necessitating that solutions be found so that the learner is able to successfully continue with learning activities. For example, the amount of responsibility required of the learner in distance learning formats may be a culture shock to one who is coming from teacher-centred learning. Such a student needs to gain self-regulating skills through learning support so as to quickly settle down and learn.

The terms 'student support' and 'learning support' are sometimes used interchangeably. The two terms have the same meaning. However, learning support involves the direct assistance required by the student towards a successful engagement with learning. It is part of student support but specific to issues that affect learning. Student support is an all-inclusive term for academic and non-academic assistance towards the student's learning: health, spiritual being, community engagement, hidden curriculum, extra curriculum activities and a successful graduation from the programme. According to UNISA Task Team 4 report (2010:4), at the onset of the programme, student support should include;

- Preparation for challenges of Open and Distance Learning (ODL)
- Career guidance and counselling
- Continuous administrative support
- Computer skills, technology and library training
- Tuition and mentoring support
- Peer and community support

There are numerous other support elements that should be implemented during the life of the programme as an on-going service. It is also necessary to adjust support services as the student's needs change with time. For instance, support services at registration should orientate the students towards preparing for the challenges in distance learning but as the programme progresses to the learning phase, the student should move towards being responsible for the outcomes of the academic and non-academic choices.

Students of DE comprise a wide and heterogeneous population whose needs vary. Providing support for populations who differ in environmental experiences, academic experiences, age, gender, social constraints, economic needs and numerous other variables may not be easy. Yet, support in DE is such a basic and important need for most students. UNISA Task Team 4 report (2010:3-6) explains that it is important to profile each student at the onset of the programme so as to gain an understanding of the student's needs. This optimises the student's entry into the programme by accessing relevant support and experiencing a smooth transit into the learning community. The task team further explain that if the student's needs are successfully addressed at the onset of the programme, it becomes easier for the student to gain confidence in the system and be successful in learning activities.

### **1.7.7 Moodle**

Also spelt as MOODLE is an acronym for Modular Object-Oriented Dynamic Learning Environment. It has gained usage especially with E learning formats where the course design requires an interactive platform both in real time and asynchronously. It is usually built within a learning management system specifically for learning activities, but is also an LMS in its own right. However, Moodle is a closed system where users are registered with login credentials. Once in, students and teachers are able to create, track, distribute and remove learning materials. The wider LMS, on the other hand, does not require passwords such that any prospective student visiting the university website is able to access course information, advertisements and FAQs. Apart from Moodle, there are other course management systems including Blackboard, Edmodo, SumTotal and SkillsSoft. In Kenya, Moodle is the most commonly used software.

### **1.7.8 Web 2.0**

This is an all-inclusive term for computer applications such as Wikis, blogs, chats and social networks where readers can write as well as read from the www (Turban and Volino 2010:72). As technology advances and integrates with education, these applications are becoming more and more important, especially for their interactive attributes. Web 2.0 have contributed avenues to keep conversations, group discussions and feedback. Previously, during the age of correspondence DE, the aforementioned attributes informed challenges for course and instructional designers in developing distance learning courses. However, even with so much variety in Web 2.0 applications, challenges still exist regarding costs and accessibility especially for students in developing countries. With continued improvement in internet bandwidth and use of mobile phones, Web 2.0 applications have continued to make a positive impact on DE.

## **1.8 CHAPTER DIVISION**

This thesis is structured by a sequence of five (5) chapters. They are as follows:

### Chapter 1: Introduction and overview

This chapter is an orientation into the study. It provides an insight into the background of the study within the context of DE practice in Kenya and beyond. It introduces the construct of learner support services and its mutual relationship with DE. It explains the researcher's motivation and justification of conducting the study and the perceived significance. It details the statement of the problem and thereafter outlines the research questions, the aim and objectives. Finally, it introduces the research design, the limitations of the study and clarification of key terms.

### Chapter 2: Learner support structures in distance education programmes

This chapter provides a detailed review of literature in the discourse of learner support DE. It discusses the characteristics and needs of distance learning students and associated challenges within the practice of DE. It outlines the philosophical assumptions, the origins of learner support in DE and an outlook on universities' strategies and approach the provision of learner support services. The chapter also



outlines principles which guide the provision of learner support. Finally, it discusses learner support components/indices.

### Chapter 3: Research design and methodology

In this chapter, the research methods are explained in addition to the rationale for the choice of research design. The nature of the research questions and objectives necessitated the use both quantitative and qualitative methods. The rationale for these are also explained. The chapter discusses the theoretical framework, research paradigm, the target population, sampling procedures, instrumentation, data management and the procedures for data analysis. Lastly, it includes issues of reliability, validity and ethical measures.

### Chapter 4: Data analysis and presentation of findings

Chapter four presents data analysis and findings. This chapter has two (2) sections. The first one is a presentation of quantitative findings and the second, qualitative. The findings are presented in response to the research questions.

### Chapter 5: Discussions, recommendations, summary and conclusions

This is the final chapter. It begins with discussion of the findings in chapter four. Having employed both quantitative and qualitative methods, this chapter discusses the findings in combined perspectives by comparing and contrasting the findings from either methods. It also contextualises literature from chapters two in addition to literature on global practices. The themes from qualitative analysis are discussed in relation to the research questions and objectives. This chapter also presents a recommended guidelines and framework constructed by the researcher based on the findings. Finally, it presents the recommendations, summary and conclusions of the study.

## **1.9 SUMMARY**

This chapter is an introduction and overview of the study. It has presented the construct under study and its related variables. It has contextualised learner support services in DE. It has provided insight into the study by outlining the background, motivation, justification and significance, research methodology and design,

operational definition of key terminologies and an outline of chapter divisions. It has presented an outline of literature and research methods and design which are detailed in the subsequent chapters.

## **CHAPTER 2**

### **LEARNER SUPPORT STRUCTURES IN DISTANCE EDUCATION PROGRAMMES**

#### **2.1 INTRODUCTION**

This chapter comprises review of literature on the practice of learner support structures in distance education (DE). The review, presented in subtopics, examines various aspects of learner support. It begins with a discussion on characteristics and needs of distance learning students. This is followed by challenges within the practice of DE as a basis for the need to provide learner support services. Thereafter, is the discourse on learner support proceeding to philosophical assumptions, and a review on the origins of learner support in DE. Next, is an outlook on universities' strategies and approach in the provision of learner support services. For the purpose of clarification, learner support herein is subdivided into critical stages and phases of the student's academic journey. The chapter also outlines the principles which guide the provision of learner support. Finally, is a discussion of learner support components/indices.

#### **2.2 THE EVOLUTION OF THE DISTANCE STUDENTS CHARACTERISTICS**

According to McAndrew (2010:1-4), the distance learning student has evolved through three stages: the light house keeper, the connected learner and the open learner. Open learning in the United Kingdom (UK) was at its onset intended for the learner referred to in an analogy of the light house keeper; an isolated learner in the foremost end of the country who is constantly alone, connected only by telephone, post and occasional social contact (McAndrew 2010:3). This is consistent with the picture in the generation of correspondence learning. Such a student was excluded from most educational interactions. The next generation of students following the light house keeper was the connected learner. There was improved interaction and learner support through new telecommunications media. Learning content and guides were still packaged in print and posted. But additionally, there were audio and audio-visual media in the form of cassettes or videos sent to deepen the learning experience. Therefore the student gained more support (McAndrew 2010:3). With the advent of modern ICT especially the mobile phone, the computer, interconnectivity of the www

and the versatility of the internet, DE changed and so did the student in this age (the connected learner). In this generation, the audio-visual cassettes evolved to Compact Discs (CDs), Video Compact Discs (VCDs) and Digital Versatile Discs (DVDs). These could be used by anyone with an access to the computer. The internet shortened the transactional distance between the student and the teacher and introduced a new relationship between the teacher and the student. With the mobile phone and the internet, the student became empowered to access the teacher, the university and learning materials in ways that necessitated the teacher to cede most of his/her control over the management of learning materials and by extension, the learning process (Lane and Van Dorp 2011:3).

The present generation of distance students (the open students) are found in open distance and electronic learning (ODEL) programs. The main goal of ODeL universities (Lane 2012a:137-140) is to open access to education by breaking the barriers that impede people, methods, ideas and places. What was not envisaged by the concept of openness was the effect which non-restrictive access to learning materials would have on students. The new approach to openness especially as represented by OERs indicates that both the student and the teacher need to be supported into their new roles and responsibilities. McAndrew (2010:7) refers to the student in this generation of DE as the open learner.

The evolution of the distance student is contextual in many circumstances and dependent on many factors. It is also possible that there is a blend of the three generations of distance student in one. Herein lies the challenge. Many programs are a blend of varying media and platforms with no clear-cut line as to whether or not the student is a correspondence student using print or is an open learner using accessible online learning materials. In the developing world for instance, there still exist barriers as basic as access to and ownership of computers, internet connectivity, ownership of usable mobile phones and affordability of other technologies. Many universities in developing countries still use hard copies of learning materials, couriered to/or picked up by the student (Nyerere, Gravenir and Mse 2012:201). In addition, only students with access to computers or the internet are able to use supports provided in CDs, DVDs and Web 2.0 technologies while those without the facilities are left to find support in the form of group work or travel to regional centres where they can

experience conferencing facilities, use computers and connect to the internet. A further complication is how to assess quality and validate sources of OERs within short durations of time for those who do not have continuous internet connection. Therefore, in Africa, it may seem that there is a mix of the lighthouse keeper, the connected learner and the open learner all within the same course/program.

One other characteristic of the present distance student is that he/she is attracted to DE for the reason that he/she can learn anywhere, anytime and anyhow. But Kelly and Stevens (2009:1) warn that many other students choose to register into DE for numerous conveniences of which “distance” is not necessarily one of them. And that later on in the course of the programme, distance actually becomes a problem. Kelly and Stevens (2009:2-5) found that online learning as a distance learning format is not inherently motivating and can actually be demotivating due to lack of familiarity with technology, intrapersonal and interpersonal hurdles. Therefore, motivation may also not necessarily be a characteristic of students who register for distance learning. Institutions should determine ways of supporting the distance student just as much as is done for the face-to-face student. They need to determine the extent to which ICT can supplement or incorporate support systems similar to those available to the student in the face-to-face classroom (Lorenzi, MacKeogh and Fox 2004:1-5 and Tait 2003:1-3). Institutions have the responsibility to adopt a proactive policy of managing barriers through learner support. They should render a service to the student to help clarify objectives, overcome difficulties in adapting to new or prevailing learning formats and media platforms.

Even though various methods of interacting with distance learning students have been tested, the most appropriate one has not been identified (Baggaley 2008:39-45). One of the possibilities, Baggaley (2008:39-45) warns, is that integrating face-to-face meetings into DE programs may not be a viable option for millions of students especially in the developing world where cost of travel is a consideration. Even though such an argument is open to the awareness that students need a shorter transactional distance, other avenues should be explored. On the other hand, Roberts (2004:2-5) describes one criterion for learner support guidelines in South Africa: to open regional centres which are closer to the students and from which they can benefit from constructive and frequent interactions. Such centres should be encouraged in

conventional policies and practices to serve not only registered students but also prospective students and the host society. Regional centres need not be exorbitant plans because with good strategy universities can form consortiums to complement each other (Daniel 2012:91-93).

Power and Gould-Morven (2011:20-23) contend that there is a significant impact of technology in DE to the extent that students must have access to computers and other relevant technology. Computer skills and practical experience is an important student characteristic for any current DE programme. Mandating that all potential applicants should have computer skills is one solution. However, it should also be acknowledged that students entering DE programs (even those with computer skills) will have to face other technology challenges. These include: one, navigating the university's online learning management system (LMS) and website, which, is quite new and sometimes complicated. Two, adapting to the use of technology used in the programme some of which are a new experience, for example, video conferencing; and lastly, finding adequate time among many new challenges to engage with the learning content which will most probably be accessed through technology (Tyler-Smith 2006:79-80). This is a further indication for host universities to provide orientation programmes that include technology, time management, study skills and learning strategies.

Harrell and Bower (2011:188) exemplify community colleges which enrol students only after successfully completing an orientation course. While this may seem idealistic, it is a good aspiration. Understanding student characteristics and needs is crucial in meeting the goals and objectives of any DE programme. Distance students have wide variances in demographics and contexts which complicate identification of their needs. In other instances, the student's expectations do not correlate with course or programme objectives. This may also lead to dissatisfaction, unmet expectations, frustrations and eventual dropout. Profiling students has been suggested (Subotzky and Prinsloo 2011:184 and UNISA task team 4 report 2010:5). Such mechanisms seek to understand the student's needs from present and past experiences while identifying potential areas of conflict. Proactive efforts coupled with student support may have a positive contribution towards student completion and success.

### **2.3 THE NEEDS OF THE DISTANCE LEARNING STUDENT**

Compartmentalising the needs and the character of the distance learning student in all the prevailing formats of DE is a challenge. Many schools of thought believe that the distance student should have skills for independent learning (O'Donnell, Sloan and Mulholland 2012:2; Schlosser, Michael and Terry 2009:11; Moore 1990:10-15 and Moore 1989:1-5). According to West (2011:136-137), DE has total reliance on learner autonomy, also referred to as independent or self-directed learning. Independent learning is the degree of independence of the student from the instructor. Synonyms to this concept include self-directed learning, autonomous learning and student-centred learning. These concepts all share common characteristics: that the student is frequently a self-motivated adult, he/she can establish own learning goals and define criteria of achievement, has the ability to solve arising problems by acquiring skills and seeking new information, has knowledge on or seeks human and other resources required for new ideas and practical skills and is able to form judgement on the appropriateness of the new skill or the need to abandon and form a new goal. The theory of independent study first introduced by Charles Wedemeyer (Moore and Anderson 2003:109-111) ascribes to this concept. The premise of the theory contributes to the plausible argument that distance students should acquire or possess independent learning skills. This is because distance students are habitually isolated from peers, faculty and the institution and need to work independently.

Baeten, Kyndt, Struyven and Dochy (2010:245) and Mc Combs and Vakili (2005:1584) describe student-centred education as a mode of learning which involves deep and critical appraisal of concepts in environments where students are responsible for and in charge of learning processes. This mode of learning involves flexibility in objectives or timelines, is multi-perspective, is experiential and has a problem-solving approach. The teacher is a facilitator in the learning process, presenting different perspectives through stimulation of all senses (multisensory) and using all available media (multimedia). The student in turn perceives, decodes and stores what is learnt through cognitive and metacognitive processes. Further to this, the student develops and constructs new knowledge in context of present and past experiences. There are many approaches and levels of how student-centred learning can be implemented. But just like shoes, one size does not fit all (Baeten, Kyndt, Struyven and Dochy 2010:245).

Therefore when learner-centred education is chosen as a method for learning, some important considerations should be made. These include study skills, flexible and transferable critical thinking skills, self and time management skills and interactive and collaborative skills (Bower and Hedberg 2010:463; Baggaley 2008:35-39 and Moore 1993:23). In this model of learning, students are expected to engage interactively with the teacher, fellow students, institution and learning materials. The synchronicity of the interaction and the amount of control over the content should be maintained mutually by both the student and the teacher who should both be aware of their roles and responsibilities. In DE, all these mechanisms necessitate student support for the student to successfully manoeuvre through the requirements of student-centred and independent learning.

The assumption that the distance student is an independent and self-directed learner poses a challenge. It cannot be assumed that distance students aspire to become independent students or naturally possess independent learning skills as required by distance learning environments. This is because for many students, DE is convenient but is no different from face-to-face learning (Renes and Strange 2011:203-205). Even for those who aspire to become independent students, Moore (2003:115) warns that independent or self-directed learning have hidden needs which are yet to be explored. For instance, the independent learner in DE requires a shorter transactional distance and a more present support system from the institution, teacher and fellow students despite the geographical distance. A past debate has been whether or not the distance student should be classified as an independent learner and therefore be given minimal support (Holmberg 2003b:79-86). Presently, it has been established that the distance student actually needs support no matter how he/she is classified (Kamat and Sen 2012:4). Instructional designers need to work out the balance of what and how much support individual students require.

Baggaley (2008:39-45), Moore (2003:200) and Fox and MacKeogh (2001:2) advise that in trying to strike this balance, care should be taken in the amount of support given so as not to return the student to teacher-centred learning dependencies. Teacher involvement though required in distance learning formats should focus on encouraging students towards self-directed learning. Many students whether working adults or not do not have a strong background of independent learning. Their school days



predominantly involved teacher-centred learning formats. Torenbeek, Jansen and Hofman (2011:658) concur that many first year students have a past experience of teacher-centred learning which differs from most pedagogical models of DE. They caution that DE providers should recognise this characteristic and assist new students to develop generic skills required for successful learning in DE. This should always be a factor for consideration. According to Tait (2003:1-5), there is need to determine how face-to-face student support can be delivered to the distance student without discriminating this group of students as independent students.

A middle ground is required especially for students who have not experienced different forms of student-centred learning. Towards this, instructional designers have developed and tried numerous ways by use of technology in the attempt to reduce the transactional distance. For instance, a teleconference has a less transactional distance than a one-way radio program. Similarly, a video conference has less transactional distance than a teleconference. But with new technologies and ever changing formats and platforms available for distance learning, more challenges are back-lashed to the student. Some providers have moved from printed materials to ICT formats for the provision of course content, with some presenting a mix of the two (Nyerere, Gravenir and Mse 2012:198-201). ICT formats present endless variations and even faculty members require support to develop and use learning materials on multimedia (Zawacki-Richter 2012:2 and Renes and Strange 2011:203-205).

According to Renes and Strange (2011:204) and Bates (2000:41), teaching with technology requires a high level of skill which can only be acquired through training and practice. If this be the need for faculty, consideration should be made for support requirements of the student who will need to use the same technology. While distance students are expected to have independent or autonomous learning skills, a constant introduction and updating of new formats and learning platforms does not make their efforts easier. Hannafin and Hannafin (2010:15) explain that students who are constantly confronted with new and difficult technologies and materials typically are not organised enough in their thought processes. They get confused with priorities on what to focus on or on what is vital in the competing learning tasks. They are therefore unable to independently proceed with their studies.

Reviews of research studies on independent learning (Anderson 2007:111) illustrate two useful frameworks for understanding the concept of independent learning: one, is the self-management of pedagogy and two, is the self-monitoring of cognition or metacognition and self-motivation skills. When students self-manage, they tend to recognise and control their learning goals, strategies and efforts. Similarly, when they self-monitor their cognition, they recognise and control their inner cognitive strategies. Consistent with this is that intrinsic motivation as opposed to extrinsic motivation contributes to a higher persistence and course completion rate (Harrell and Bower 2011:183). Students with intrinsic control mechanisms tend to own the initiative and responsibility for their learning activities. They have the recognition that completion and success is determined to the most extent by their own individual effort. This forms a strong association that students with intrinsic motivation will persist in DE programmes. However, students with external motivators should not at all be discouraged from enrolling into DE programs. They only need to receive extra support than their counterparts to develop skills for student-centred learning.

Issues of student motivation are not only a consideration factor in DE programmes but also apply to traditional learning models. However, students in the face-to-face classrooms, unlike the distance student, have a high support and social presence from the institution, faculty and peers. Such support occasionally compensates for low motivation, poor self-monitoring and lack of self-awareness of cognitive strategies. The distance student does not have the luxury of such support because there is no physical presence and thus requires to consciously and intentionally seek out support. The same reviews (Anderson 2007:109-111) also argue that distance students often need to use more metacognitive strategies of self-monitoring and self-evaluation than their counterparts in face-to-face programmes.

In a study aimed at establishing the relationship between student characteristics and persistence in online courses by Harrell and Bower (2011:179-184), one of the conclusions was that certain student characteristics do actually predict student completion and success. According to Tait (2000:290-291), Harrell and Bower (2011:188) and Subotzky and Prinsloo (2011:180), these characteristics may be examined through the following elements: age, gender, occupation, employment status, socioeconomic status, past educational experiences, geographical location,

socio-cultural contexts, ICT literacy skills, internet connectivity and other needs like special needs. While assessing the students' needs, there is the consideration of either identifying the individual needs of each student or lumping all students' needs together by working on averages. Tait (2000:291) explains that the cost implication to both considerations is a significant factor. Addressing each student's needs singularly may be more expensive in terms of counselling and tutoring but the returns in terms of student retention and success would equally be higher than in the "one-size-fits-all" approach.

Previous studies by Harrell and Bower (2011:180) and Subotzky and Prinsloo (2011:179) have also shown that student demographics are characteristic factors for success in DE. Gender, age, employment and disposable income are some of the demographics with considerable influence on student persistence and completion. Due to obligations and family responsibilities for example, there are more women who enrol into DE programmes than men. Yet the same socio-economic contexts lead to a higher dropout rates among females than males. Increase in age has also been shown to impact negatively on course completion. At the same time obtaining the optimal balance between work, family and study is an ongoing challenge to many DE students (Harrell and Bower 2011:179-184). Poor time management skills and procrastination contribute to increased student dropout (Michinov, Brunot, Le Bohec, Juhel and Delaval 2011:250).

Kamat and Sen (2012:2) and Ramakrishna (1995:78) identify some common characteristics of distance students which also indicate the need for learner support services. These include:

- Lack of experience in distance learning.
- Baffling bureaucratic set ups in DE programmes.
- Low self-esteem and lack confidence because of advancing age.
- Reduced academic exposure and domestic distractions.
- New educational technologies and unreliable technology.
- Anxieties regarding examinations and inadequate or improper study skills.
- Isolation from the teacher, peers, and institutions coupled with an inherent desire for physical presence of the aforementioned.

- Inability to cope with delays in feedback.
- A human need for motivational reassurance, encouragement and the desire to share joy and tribulations.

To further identify characteristics of distance students, three student characteristics were tested in the study by Harrell and Bower (2011:179-190). They are: learning styles, motivation and computer access or skills. In the domain of learning styles, the study revealed that students who prefer learning from audio-visual materials, for example, are disadvantaged by DE programmes that exclude such materials. Yet in any student cohort, it should be acknowledged that there is always a mix of students with differing learning styles. It may not be practical to design learning materials as preferred by all students with differing learning styles. However, like in the face-to-face programmes, DE should make an effort to design materials which aspire for multisensory stimulation. If this is not feasible, support should be availed to disadvantaged students.

In the same study, mixed results were reported for computer experience and skills (Harrell and Bower 2011:187). A typical expectation would be that lack of access to computers or poor internet connectivity would have a negative impact on student success. Yet, the results showed that there is an association between increased computer skills and student dropout. There are interesting suggestions for such correlation. The first one is that students with high computer skills often tend to wander into computer programmes that are not directly associated with their studies and thereby underestimate the time required for actual study. Secondly, students have a tendency to overestimate their computer skills and thereby give a false perception of their actual experience when answering questionnaires. In either case, study results will show a negative correlation (Harrell and Bower 2011:187).

Chaney, Chaney and Eddy (2010:3) also contribute to the consideration that all students have different learning styles which not only differ from individual to individual but from time to time. Often, course developers assume that everyone learns in the same way while the reality is that students learn in diverse ways. For instance, “the net generation” are now in college (Renes and Strange 2011:204). These students by virtue of exposure to technology actually use different learning styles as compared to their predecessors (Bartlett 2005:26-27). Even then, having a relatively high exposure

to technology does not translate to the assumption by course developers that this group of students need minimal assistance.

If distance students do indeed require self-directed learning skills, then it is important to recognize that DE and all its learning management platforms should offer a support system for the students to acquire these skills. Students who did not previously have self-monitoring skills need to quickly develop them so as to learn effectively (O'Donnell, Sloan and Mulholland 2012:2). Two issues remain important to the DE student: One, that the institution clearly defines its mode of DE, its learning management system and all the technology involved and two, that the host institution prepares the student and continuously offer support for the type of distance learning being offered. These issues are basic to any student, no matter his/her characteristics. It is not good practice as is currently the case to have so many impractical guidelines, policies and models for learner support. In the long run each contribution towards learner support frameworks should be sieved and condensed into viable universal standards.

## **2.4 CHALLENGES IN DISTANCE EDUCATION**

Since the 19<sup>th</sup> century to date, DE has grown extensively. Coincidentally, this growth has been inundated with numerous challenges faced by institutions of higher learning. According to (Lentell 2012:23-25 and Rajasingham 2011:1) host governments have encouraged institutions to develop distance learning programmes. Universities have in recent years been faced with significant decreases in government funding, a slump in donor funding due to economic recessions, an exponential demand for higher education both from the working adult and the youth, the changing nature of knowledge and the rapid advances of ICT. These challenges have implored institutions to re-examine how to fulfil their core function to the society which is to provide education and knowledge that is culturally appropriate. Furthermore, education systems are in continuous search for new ways of effectively responding to the changing needs of global students. One seemingly ready solution adopted by institutions towards the foregoing challenges is the provision of education through distance learning (Nyerere, Gravenir and Mse 2012:186). Following is a review on some of the challenges faced by DE practice.

### **2.4.1 Technological Challenges**

Many changes in DE can be attributed to innovations and the increased use of technology (McKee 2010:100). These changes have impacted both the on-campus (face-to-face) and off-campus (distance) learning programmes. Two phenomena are particularly observable. One, the internet and communications technology have a prominent influence on the practice of education, and two, there is increased openness of information and free availability of education materials especially through the internet. These trends are especially significant for the distance student who heavily relies on the internet. But without policies and support on how to engage with the internet, the student is easily lost or bewildered by the bombardment of information.

DE has also quickly expanded due to faster and convenient platforms of modern ICT. It can be argued that technology and DE are mutually dependent and that the growth of DE has symbiotically been dependent on the growth of communications technology. It is apparent, that in the early 20<sup>th</sup> century when print correspondence was the main medium of communication, so was the technology media for DE. The same argument corresponds to tele/radio broadcasting, video/cassette narrow casting, tele/video conferencing and today's computer based learning/electronic learning/internet and World Wide Web (www). While this phenomenon is convincing, the growth and expansion of DE may also be based on other factors like socio economic contexts, digital affordability and literacy. Just like in any other sector, paradigm shifts arise from changing societal needs, that is, from pre-industrializations to post industrialization and now to information age.

The rapid growth and innovations in media and ICT is both a plus and a challenge for DE. On a positive note, there is now a wider choice, convenience and variety of platforms for interaction. Marshall, Greenberg and Machun (2012:250-252) argue that many students even those admitted for on-campus programmes are excited by the convenience of technology and the attributes of education anytime and anywhere. Unfortunately, most often, a high percentage of these students are unable to complete their programmes because of underestimating the demands of DE. A further negative is the ever changing technology which has placed faculty, student and institution at loss as to how best interaction can be mounted and how best to keep down the cost of changing technologies (Anderson and McGreal 2012:380). Some of the

technologies are so complex requiring continuous training and support for effective interaction to take place. Frequent changes in technology also cause confusion and complications of cost and time to many students.

#### **2.4.2 Isolation and lack of Interactions**

Many challenges of DE emanate from its fabric and are also founded within its definition. The attributes of DE that attract students are, to some extent, the causes of its challenges. For example, a prospective student may be attracted by the attribute of learning at anytime and anywhere. But once registered, the student discovers that these are the same attributes that cause isolation. Most often, isolation leads to procrastination and procrastination to non-success. Additionally, other factors that attract students to distance learning include: flexibility, independence in setting goals, individualised programmes, accessibility, low cost but quality education and availability of education in their terms (Howell, Williams and Lindsay 2003:7-11). DE thus attempts to meet numerous and varied needs of students. Yet, distance students now indicate that distance has caused isolation from peers, teachers and faculty and that they are missing out on interactions, cues and immediate feedback. They have indicated that while they appreciate geographical distance, they would prefer a shorter transactional distance (Moore 1993:22-23).

#### **2.4.3 Attrition from DE programmes**

Another problem for DE is how to meet the students' needs in order to engage them in a beneficial learning experience (UNISA task team 4 report 2010:1-3 and Moore 1993:24-29). Unlike face-to-face learning, in DE, the student misses out on physical cues, interactions and feedback (Yang, Yeh and Wong 2010:288) which may lead to low motivation and eventual drop out. Different institutions use different variations of technology to reduce the transactional distance and engage students and faculty. While such efforts are intended to improve interaction, they sometimes further contribute to isolation especially if the student is not confident with the technology. Support in this case would be required by the student not only for interaction but also in the use of technology.

High attrition rate from DE programmes is a problem and a common issue and subject of debate in education journals (Tait 2008:89; Parker 1999:3; Dowdall 1992:2 and

Cookson 1990:195). There are numerous arguments for and against dropout rates. Some argue that dropout rates for distance classes have been consistently higher than those of traditional classes and tend to suggest academic non-success (Diaz 2002:100; Phipps and Merisotis 1999:12-13 and Ridley and Sammour 1996:338). Others argue that consideration of other factors such as scale of the programme, gender and advanced age of students may significantly reduce the focus on attrition as a major problem (Brigham 2003:2). Others still argue that though higher dropout rates may accurately reflect a fundamental difference in outcomes between online and traditional educational environments, the mere fact of high dropout rates is not necessarily indicative of academic non-success and that other factors like scale of the programme should always be considered (Diaz 2002:105). Whatever the argument, attrition rates remain high in distance learning environments (Subotzky and Prinsloo 2011:177), and dropout and failure rates are serious issues for any education provider. Reducing these rates has positive impact on quality, rating, success and even image of any teaching and learning institution.

Howell, Williams and Lindsay (2003:2-6) observe in "*Thirty-two trends affecting distance education: An informed foundation for strategic planning*" that many factors contribute to attrition. In the case of adult students, many are increasingly requiring education programmes that are flexible enough to accommodate their many responsibilities and full-time jobs or family needs. Yet, institutions now realise that admitting students with competing needs could negatively affect the students' expected outcomes, sometimes to the extent of defining success levels of the institution. Furthermore, these students do not necessarily have the skills which have been associated with distance learning including motivation, autonomy and self-engagement (Simpson 2008:160). Instead, many students now register into DE because technology has made learning convenient (Renes and Strange 2011:204). Unfortunately, they may lack self-managing and independent learning skills. They are then often unable to complete their courses unless individualised support is provided.

#### **2.4.4 Criticisms of DE programmes**

Apart from its own intrinsic challenges, DE institutions have had a fair share of resistance and criticism especially from main stream single mode universities. But remarkably, by involving faculty from mainstream universities, DE has been able to



slowly change the negative attitudes. Academia now appreciate that students can learn effectively from teaching methods other than lectures. Courses designed for on campus study are able to use technologies intended for distance learning (Renes and Strange 2011:204). This has encouraged interactive student-centred methods as opposed to the traditional passive learning methods. DE has also advanced education and capacity building agendas in ways that conventional learning systems would have never managed (AVU report of 2010:10). More focus has now drifted from criticising the existence of DE and instead turned to the problems experienced by the DE student.

#### **2.4.5 The challenge of meeting the distance student's needs**

It is paramount that DE providers identify and understand their students in terms of their needs and characteristics (Renes and Strange 2011:204; Ludwig-Hardman and Dunlap 2003:2 and McLoughlin 2002:149). This is especially important for planning and strategizing for student support services. Any learning institution that is customer service-oriented needs to understand the culture and characteristics of its students for both its success and those of the students (Tait 2000:290-291). The past generations of distance students had easily identifiable needs, their characteristics were well understood and they could easily be differentiated from students in face-to-face formats (McAndrew 2010:4-7 and Ramakrishna 1995:78). But presently, due to the revolutionary changes in ICT and the changing roles of both students and teachers (Jacklin and La Riche 2009:738) student characteristics have so diversified that they can no longer be lumped together. Furthermore, due to blended learning, there is a very thin line between the on-campus and the off-campus student (Marshall, Greenberg and Machun 2012:250). These complications, notwithstanding student needs, have to be identified as a baseline for planning and providing learner support services.

#### **2.4.6 The challenge of costing the DE subsystems**

DE has been documented as cost effective education for both the student and the institution (Nirmalani and Mclsaac 2006:355; Schlosser, Michael and Terry 2009:4 and Sherry 1996:337). But this is a simplistic perception which may or may not be correct depending on the framework for cost analysis (Lei and Gupta 2010:618). Students of DE expect a cost effective education but with good interactivity in the form of support

from the host. Proponents of the belief that DE is cheaper than traditional face-to-face education argue that because DE programmes can accommodate huge numbers of students simultaneously, then the economies of scale make it both affordable and cost effective (Lei and Gupta 2010:618). Yet, these same economies of scale have serious repercussions in providing effective systems including learner support. This is because the more the students, the more difficult it is to attend to each student's needs in the form of support. Rumble (2001:75-79) argues that once all cost determinants are considered then the outlook of what may have seemed as cost effective changes drastically. Furthermore, the cost of a DE programme will differ depending on the perspectives of respective stakeholders. The educational provider or institution may consider a programme cost effective yet a critical look may identify that most costs have been transferred as a spread share to the students. On the other hand, students may find a programme cost effective when most costs are met by the government or the employer. Similarly, employers will argue that a programme is cost effective if the student will not require leave from office but still be able to engage in the learning activities.

Costing a DE programme includes direct and indirect costs of other elements of the course which includes administration, course development, course delivery (media and technology), student expenses, faculty and staff, student support services and library. From this standpoint, these cost considerations are similar for both distance learning and conventional face-to-face programmes. Therefore, before comparing any two systems of education, a cost analysis for each one is useful in determining how much the course processes will cost in order to set a budget, determine a price and compare the costs of different options available for the output (Nganga 2008:10-18).

Another outlook to costing is discussed by Power and Gould-Morven (2011:20-23). They forward the theory that higher education has three main and direct stakeholders: students, faculty and administration. These three stakeholders represent different agenda in meeting the educational objectives. The student is interested in accessing his/her choice programme in ways that are consistent, cost effective and convenient to his/her life goals. The faculty usually fronts a quality agenda and will most often resist changes and/or new programmes depending on their perception of the value of the new programme. Lastly, the administration's focus is always concerned with issues

of cost efficiency and cost effectiveness. In concurrence, Daniel, Kanwar and Uvalic-Trumbic (2009:31-34) propose a hypothetical triangle whose sides comprise of cost, quality and access. They contend that universities consistently try to strike a balance between these three factors. But that in fact, this is an effort in futility because the three factors have a symbiotic pull against each other. For example, should the administration seek to enhance access by increasing the number of admissions, faculty will resist the change probably citing issues like faculty-student ratio, quality standards and remuneration.

For DE programmes, the same pulls may be observable. Touted for its cost effectiveness and economies of scale, DE would be expected to expand faster than is the case, especially in traditional dual mode universities. Power and Gould-Morven (2011:21) explain that the uptake of distance learning in such institutions has been slow because faculty has equally been slow in transforming its attitude. They report that the new form of DE-online learning has faced even more resistance from faculty. The reasons for resistance vary from increased workload, compromised quality, intellectual property, feelings of alienation from students, technology phobia to professional discomfort. According to Power and Gould-Morven (2011:20-23) there should be trade-offs in order for universities to grow. For instance, faculty should recognise that the administration seeks to increase the number of students to a growing demand for education which cannot otherwise be provided by physical space.

Most learning support systems are mounted on media which often need sophisticated and expensive technological support (Lei and Gupta 2010:618). An example is the provision of synchronous interaction on video and satellite technologies. Integrating such technology comparatively increases the cost of the programme.. Although course delivery is sometimes synonymous to media and technology, it is useful to analyse their processes and costs as involved in distance learning programmes. This is especially important for the media which will be used in learner support structures. For distance learning, media represents the platform for instruction and the connection between the student and the teacher. Likewise, most learner support services are also transmitted through media. Therefore media has major cost considerations in distance learning. The choice of media and their usage, to a great extent, determines the cost of the whole programme. Broadcasting of radio or television for instance is a standard

cost which does not depend on the number of listeners or viewers, but television and radio are still expensive in comparison to print. A mix of print media and face-to-face tutorials has been utilised in many institutions citing cost effectiveness. The cost of postage and couriers may reduce when learning materials are posted online, but the cost of maintenance and access to technology becomes a major consideration. Every choice of media should also be evaluated for its capability and attributes of providing learner support in order to minimise further costs. It is important to make a cost analysis for every component of a DE programme

#### **2.4.7 The challenge of engaging with the Internet and open education resources (OERs)**

The use of modern communication technology in education, with continuous improvements and adaptations, has renewed the impetus in education participation not only for DE but also in traditional face-to-face education systems (Lane 2012b:4-7 and Lane and Van Dorp 2011:4-8). Universities have opened access by availing teaching, learning and research resources through the internet, a phenomenon referred to as open education resources (OERs) (Lane 2012a:135; Lane 2012b:3; Carson, Kanchanaraksa, Gooding, Mulder and Schuwer 2012:19 and Lane and Van Dorp 2011:1). Digital technologies and the internet are the main platforms that support the use of OERs. E learning, which includes all learning on any electronic platforms, is also with some considerations driven by digital technologies and the internet. Yet questions have arisen as to how “open” E learning can be (Brent, Gibbs and Gruszczynska 2012:3-7; Gaskell 2010:2-3 and McAndrew 2010:1-4) considering that digital platforms are not always available to all students. E learning is technology-dependent and is directly intertwined with issues of access, availability and internet connectivity. These are issues of concern to the practice of ODeL particularly in developing countries. Additionally, the use of E learning formats may also be restrictive to many students’ technological capabilities, literacy and skills. Even though the impact and value OERs and ODeL cannot be ignored, their practice have many indications for student support.

According to Lane (2012b:136-137) the first free and open publication was undertaken by the Massachusetts Institute of Technology (MIT) in 2001 and was referred to as Open Course Ware (OCW). Soon after, MIT’s initiative was joined by numerous other

universities who shared similar visionary commitments with MIT. Since then, there has been no end to the amount of educational materials mounted on the internet as OERs. Numerous nomenclatures have subsequently arisen and are in use. These are: OWCs, OERs, open educational technologies (OETs), Open Educational Materials (OEMs) and MOOCs. UNESCO's (n.d.) preferred term is OER in reference to any educational material that is in the public domain or has been introduced to the public with an open licence. The nature of these open materials portends that anyone can legally and freely copy, use, adapt and re-share them. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects and audio/visual /animations.

OERs are not a recent entry to the education sector but their increased acknowledgement and use are fairly recent especially in universities in developing countries (Ritcher and McPherson 2012:204). OERs' vision for openness is to enable availability and accessibility of educational materials to all who need it. Therefore OER is open in the sense that it can be, as defined by Lane (2012a:137-138), accessed, used, manipulated, re-used and disseminated as any case may require. Lane (2012a:137-138) further clarifies that OERs are educational materials mounted under intellectual property licenses to permit free access, use and repurposing. This has great impact on the present and future education practices. It continues to change the role of the teacher because OERs enables anyone requiring an education to access course materials informally without registering for a formal certification course. In the formal ODL courses, OERs enables the student to access numerous information which the teacher may not possess. Teachers who are intimidated by technology (Lane and Van Dorp 2011:8-11), for instance working with MP3/4, ADOBE tools and interchangeability of Ms Word to other formats like Apple tools, will experience challenges in accessing OERs. Students, too, require self-managing and self-regulating skills to effectively work with the overload of OERs otherwise they may not meet their deadlines. These are indicators for learner support.

OERs have a direct relationship with DE. They are both a positive progressive trend as well as a problem for practice. Universities and academia who originate OERs intend for them to be shared within the immediate and distance environments. Yet, OERs are rarely accessed physically from their source. Thus DE technologies are

needed and utilised to distribute it. DE course designers can easily tap into the already available materials, adapt them accordingly and use them as teaching and learning resources. This is a positive and is also one of the objectives for UNESCO in encouraging the use of OERs in Africa (UNESCO 2014:N.P.). Another plus, is that by openly sharing materials, Africa's professional development can be enhanced through the knowledge and trainings available through OER (UNESCO 2014: N.P.). But such beliefs have not gone unchallenged. According to Ritcher and McPherson (2012:202), the mere provision of OERs is widely overrated and may not necessarily have a great impact in reducing educational deficits in Africa. This is because, like all aid to developing countries, numerous barriers impede the achievement of noble objectives. For instance, OERs need to be contextualised to fit into the socio-cultural beliefs of the student and the teacher to the extent that even well designed and high quality materials may turn out to be unusable to the recipient. Fortunately, such sentiments apply only to a small number of programmes. Moreover, the world is now referred to as a global village (Munene 2007:77). The global culture dictates that a professional educated in any part of the world should equally be able to practice anywhere in the world. Therefore, the issue of contextual barriers as discussed by Ritcher and McPherson (2012:202-203) should have further discussions especially as pertains to the practicality and feasibility of suggested solutions.

According to Brent, Gibbs and Gruszcsynska (2012:5-9) there are four main problems in the usage of OERs: i) Academia have reservations on freely sharing their work which has incurred resources both in terms of time and funding, ii) there are no clear guidelines on the usage of OERs within international property rights (IPR) and copyrighting, iii) academia's bewilderment on how to use search engines effectively and still determine the quality and authenticity of the OER materials, and iv) academia's concern with the loss of control and image as the master of ones' subject. These are important issues when formulating support policies because even faculty need to be supported in OER practice by either providing clear guidelines or through counselling to allay their fears. Additionally, Brent, Gibbs and Gruszcsynska (2012:7-8) explain that many teachers perceive the use of their own experiences as examples to have more impact on their students understanding than using other people's work (OERs) as examples in their teaching.

## 2.5 THE DISCOURSE OF LEARNER SUPPORT

Learner support comprises of a range of human and non-human resources, which guide and facilitate the educational transaction for the student. It consists of elements provided by the host university, which are capable of responding to the student's needs either as an individual or group throughout the academic journey (Dzakiria 2008:103 and Thorpe 2002:108). A learner support mechanism endeavours to address the student's requirements that may affect his/her learning including career and course choice guidance, preparatory needs, study skills, access procedures to seminars, psychosocial needs, collaborative and group discussions, guidance on tutorials, learning materials, assessments and writing of assignments. It also includes guidance and counselling on non-academic issues (Tait 2000:289 and Keegan 1995:108). The disposition of distance learning includes student-centred learning, independent learning and constructivist pedagogies, which require the student to grow towards self-reliance and the teacher towards that of a mentor and/or facilitator.

A breakdown of the functional systems of DE within any institution underscores five interdependent fundamentals: i) the mission and vision of the institution, ii) the student, iii) faculty, iv) course design, curriculum and learning issues, and v) instructional and learning resources. A breakdown in one will most often affect all the others (Lentell 2012:25). This study has its attention focused on the learner component. A student of DE will not only need learning materials but will have three (3) other requirements: Infrastructure support, interactions support and consumer information (Association to advance collegiate schools of business International (AACSB) 2007:3). These three (3) requirements in sum up the overarching concept of learner support. Garrison and Baynton (1987:5) further explain that learner support comprises of all the resources within the student's access which, contribute to a smooth engagement in the learning process.

Stevens and Kelly (2012:140) and Thorpe (2002:108) affirm that learner support is an important requirement not only for distance students but also for pure online students using the latest learning technologies. Therefore, planning should include learner support. According to Thorpe (2002:108), learner support is not only a subsystem of DE, but also a part of all the integrated processes within DE. It should be a major offering of any educational institution, integrated within activities that involve tutoring

through face-to-face or electronic techniques, emails and other correspondences, telephone and computer mediated learning, counselling, mentoring and administrative services on campus and at regional centres (Stevens and Kelly 2012:139; Roberts 2004:1-3 and Tait 2000:289).

One of UNISA's ODL documents (UNISA Task Team 4 report 2010:7) explains that student support consists of learning resources and processes that are generically designed for a particular student cohort based on the general societal trends and the perceived needs derived from the students' profiles. Student support is concerned with how the student cohort or individual students interact with the learning environment and educational processes. Its goal is to ensure an optimal fit between the student's aspirations, resources and abilities with the institution's offerings, academic requirements and characteristics. By inference, other aims of student support include:

- Attract and retain a potential student's interest in undertaking a course/programme by exposing him/her to the attributes of the programme while at the same time providing guidance which can enable the student to assess his/her capacity to engage in the course/programme.
- Enable student growth, engagement and success through the provision of within-reach skills training, guidance, counselling, tutoring and mentoring services.
- Help the student to sustain his/her motivation and drive to persist through the life of the course/programme leading to a successful completion and subsequent graduation.
- Reduce attrition rates and raise the institution's profile in its ability to attract and successfully graduate students through well-designed relevant programmes.
- Provide a learning environment free of transactional barriers especially within communication, administration and any other transactions (UNISA Task Team 4 report 2010:7).

One difficulty for most universities adopting DE is whether to conceptualise learner support structures as a subsystem or a complementary addition to course materials. King (2012:14) contends that most dual mode universities have not equalised their commitment to students' needs. Often off-campus students experience less support than their on-campus colleagues. A practical approach would be to conceptualise



learner support as a key function of the programme making it both a subsystem and an integrated part of the DE programme (Segoe 2012:100-102; UNISA Task Team 4 report 2010:2-8 and Qakisa-Makoe 2005:58). According to Ryan (2004:125-128), Tait and Mills (2004:192) and Tait (2000:289), when planning for learner support services, the most important consideration should be the needs of the student, driven both externally and internally. Such consideration recognises the student's experiences and challenges that arise in his/her daily life in and out of school.

## **2.6 PHILOSOPHICAL ASSUMPTIONS OF LEARNER SUPPORT IN DISTANCE EDUCATION**

Jacklin and Le Riche (2009:736) postulate varying perspectives to the concept of learner support. They contend that support has both negative and positive connotations. Disapproving views believe that support implies the presence of problems experienced by students, requiring 'support' as an 'answer' to problems. This standpoint argues that support involves pastoral care, vulnerability, uplifting the weak and patriarchal kind of care with the existence of a superior overseeing the activities of a weak student such that the system is always seeking incidences or problems (Jacklin and Le Riche 2009:736). The positive outlook on the other hand, views support as a necessity; a partner, service and component required by the student as he/she navigates through the student journey (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:68; Stevens and Kelly 2012:141; Zawacki-Richter and Kourotchkina 2012:170; Boyle, Kwon, Ross and Simpson 2010:115; UNISA Task Team 4 report 2010:5; Kelly and Stevens 2009:2 and Rekkedal 2008:78). These scholars argue that support involves community, self-help, peer support and a proactive institutional involvement in addressing issues and understanding the learner within his/her context and needs.

The disapproving argument is self-contradictory. While it claims that providing learner support implies a solution to a problem, it also acknowledges that interactions and social relations (support) are important elements that contribute to effective learning (Heo, Lim and Kim 2010:1385). Interactions are everyday learning phenomena, which may or may not contribute to problems. Admittedly, it is difficult to conceptualise the problem that learner support seeks to resolve. However, studies have shown that ODL continues to grapple with challenges of student persistence, retention and success

and that provision of learner support positively impacts on the foregoing challenges (Hawkins, Graham, Sudweeks and Barbour 2013:79; Drake 2011:9; Subotzky and Prinsloo 2011:184; Fowler and Boylan 2010:10).

From the standpoint of universities providing learner support as a norm rather than a necessity, Jacklin and Le Riche (2009:739) studied student perspectives and experiences on learner support. The results show that students perceive learner support as a necessity and appreciate the presence of support albeit not in the formats in which the university provides it. The same study shows that students view other forms of support, like family and mentoring, which may not be captured by the institution as very important. These supports include family and friends as well as peer support from colleagues (Jacklin and Le Riche 2009:741). In another study focused on establishing the impact of student-to-student mentorship, Boyle, Kwon, Ross and Simpson (2010:115) clarify, that learner support ought not to be complicated or sophisticated. Basic support, such as mentoring and guidance, has a positive impact on student persistence. This is recommended especially for students coming from disadvantaged educational backgrounds and for universities which do not have an expansive learner support framework. In another study, at the Open University of United Kingdom (OUUK), Keegan (2003:3) established that there are four categories of distance students in issues of support. They comprise of students who: one, need learner support but do not want the support; two, need the support services and want them; three, do not need support services but want them anyway; and four, neither need nor want student support. In the study, Keegan (2003:3) reports that the last category comprised less than 10% of the student population. This means that 90% would like learner support availed to them whether or not they will use it.

UNISA Task Team 4 report (2010:13) outlines assumptions that underpin the provision of learner support to include the following:

- i) Optimising the students experience in terms of administrative and career support at the point of entry will positively affect the student's confidence, motivation, identity with the institution, persistence and transition into the learning phase and all proceeding experiences.
- ii) Identifying, profiling and addressing the student's academic needs and skills during the admission phase will prepare and support the student to

succeed in learning activities not only in higher learning but in the future as a lifelong learner.

- iii) Providing explicit information of the student's responsibilities and supporting the student to define his/her roles and expectations at the onset of the programme will positively impact on independent study, persistence and success in the proceeding phases of study.
- iv) The university governance and culture is an integral part of student life that positively affects student persistence and success. It is therefore crucial that the student gets an introduction to the institution, the student association/representation and community so that he/she becomes a part of it.
- v) Introducing students to all available resources and support will positively influence their ability to settle down quickly and get on with the student journey towards a successful graduation.

These assumptions informed the premise of this study. The first experience in a student's life at the university has the capacity to influence his/her ability to persist and succeed (Torenbeek, Jansen and Hofman 2011:655). In a prospective study informed by profiling students upon registration, Purnell, McCarthy and McLeod (2010:80) were able to trail students at risk and provide proactive support in terms of tutorials, follow-ups and counselling. Even though results were not generalised, the study indicated that students perceived support systems as a positive influence on their ability to stay and proceed with the academic programme. The first year, especially the immediate period following registration, is critical for the student's motivation in persisting with the programme (Purnell, McCarthy and McLeod 2010:80).

According to Cochran, Campbell, Baker and Leeds (2014:28), factors like socio-economic background and financial worries, role identity and self-belief influence the student's ability to fit-in and persist in the programme. Thus, being at risk of dropping out should be informed by other factors in addition to academic background. Additionally, in distance learning, where technology is an integral part of learning, students at risk may also include those who are new to technology (Purnell, McCarthy and McLeod 2010:79 and Power and Gould-Morven 2011:21). Even those who are not new to technology referred to as the 'net generation' (Jones 2010:365) or 'digital

natives' (Renes and Strange 2011:205) may have issues. Such students experience challenges with Web 2.0 applications like the Modular Object-Oriented Dynamic Learning Environment (MOODLE) or the university's online LMS. It is therefore the university's responsibility, within a supportive framework, to assist new students towards acquiring the requisite technology skills. This should include continuous computer literacy and ICT applications, variations and programmes. All newly registered students should be trained in the use of technology for the programme and especially the university's LMS.

## **2.7 THE DEVELOPMENT OF LEARNER SUPPORT STRUCTURES IN DISTANCE EDUCATION**

There are numerous models of DE which a university can benchmark to institute distance learning programmes (King 2012:10). One model of managing DE programmes is based on organisational theories. A DE system founded on organisational principles could benefit from industrial models of operation (Daniel 2012:89-91; Lentell 2012:23-25 and Keegan 1980:13-21). From this standpoint, successful DE programmes should have a strategic plan, organisational system, policies and resources that support not only the teacher and the student but also the institution and all other stakeholders. All parts of the system should be collaborative and integrative in order to service a smooth implementation and running. Learner support should be an integral component of the DE system.

Because DE is technology-driven, any change in technology has the potential to cause proportionate changes in functions of a DE system. This is a challenge to numerous and diverse policies available for DE practice which in turn have also affected the provision of learner support. For example Baggaley (2011:136-139) observes that the internet (a modern driver of DE) is posing serious challenges to the policies and practice of DE in ways that are yet to be understood. Baggaley (2011:139) states that "no innovation has marched so quickly and so confidently into the field of learning" with irreversible and adverse effects. Yet, with no end in sight for ongoing innovations, planners are unable to stabilise their strategies and by extension DE policies. Policy makers must constantly create space for adoption of new technologies. The variety in models and possible combinations of technology also means that students are

constantly mastering new tools, which should ordinarily only provide support to their learning.

The need for DE to have clear policies is important for the definition of DE practice. This is because every practice by professional definition must have a clear domain of concern and a philosophical boundary. It is no wonder that judging from all the names by which it is referred, DE is suffering from an identity crisis (Moore, Dickson-Deane and Galyen 2011:129 and King, Young, Drivere-Richmond and Schrader 2001:4). Without definite policies for DE, even learner support policies are not able to define their space especially in the supportive use of technology and the internet. While DE sorts out policy issues, its programmes are already up and running. Therefore, students need support structures that will help them manoeuvre through and succeed in their academic journey.

Tait (2008:87) recounts that in the past, because of lack of student support caused by social absence of the teacher, peers, extra curriculum activities and the institution, DE pedagogies received substantial criticism. At the time, teaching and learning was believed to involve mainly face-to-face contact lectures from a master instructor (Lane and Van Dorp 2011:3) combined with the hidden curriculum and the social presence in the institution. This form of education is invaluable to the development of students' all-inclusive learning as they gain knowledge first hand from a skilled master of knowledge and from the presence of their peers. Unfortunately, because of the inherent nature of DE, this is widely lacking. The students miss out on moral training, teamwork that is present in activities like sports and salient social skills, which further contribute to knowledge, skills and attitudes.

Even with such criticism, DE has survived because it has a defined clientele that cannot otherwise learn on-campus (Renes and Strange 2011:206). The proponents were in constant battle for recognition and seemingly (Tait 2008:86), as the years went by, the phenomenon of non-success rates in distance learning programmes increased to an extent that the critical issues needed to be discussed. For example, Tait (2008:86) reports that between 1841 and 1901 student registration for distance learning examinations at the University of London had risen from just over 240 to almost 7500, half of whom failed to graduate on time. Some of the obvious reasons for non-success included isolation and lack of student support. Yet for a long time the

attrition problem was rarely discussed. Unfortunately, such brutal rates are still observed today from many institutions that have not put enough emphasis on addressing students' needs in their policies (Cochran, Campbell, Baker and Leeds 2014:28). There is need to understand the challenges of distance students and provide support to help them in their persistence towards successful graduation.

At the onset of upscaling DE in the University of London or University of South Africa (UNISA), learner support was not an immediate component (Tait 2008:86-89). As DE was fighting survival wars from critics, most of its efforts focused on remaining relevant. Tait (2008:87-89) explains that the need for student support was widely ignored because it was not a facet of running correspondence courses at the time. Both the university of London and UNISA at the time closely monitored the objective to build capacity and recognise graduates rather than focus on the number of individuals who registered but did not make it to graduation. However, by 1958, UNISA for instance had registered a dropout rate of up to 40% (Tait 2008:88). Rising attrition rates coupled with the need to gain ranking within standard university matriculation jolted most universities to pay closer attention to learner support.

Daniel (2012:89) and Lentell (2012:24) warn that most universities moving from single mode to dual mode have not fully grasped that distance learning is a different pedagogy which requires restructuring in the organisation, policy and course development. Without these intentional efforts, the potential of distance learning as a system that promotes successful graduation of students may not be realised. In distance learning pedagogy, the student and his/her context should be at the centre of the system (Cochran, Campbell, Baker and Leeds 2014:27-29). Everything and everyone in the system should be part of a supportive framework for the student throughout his/her academic journey. This framework referred to as learner support should be integrated into all facets of the student's experience as well as a structured service accessible throughout the student's journey (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:68).

It would be expected that universities currently venturing into DE be informed from the experiences of their older counterparts to make adequate frameworks for learner support. However, observably, many universities still venture into DE with good reason but with poor focus on the student and his/her needs (Daniel 2012:89; King 2012:10

and Lentell 2012:24). In Kenya, DE has expanded in an unplanned fashion (Juma 2012:24-26) with different universities citing various contributory factors including economies of scale, geographical distribution, growth of ICT and downsizing of institutional funding (Boit and Kipkoech 2012:34-38 and Nyerere, Gravenir, and Mse 2012:186). One major factor, however, is that the rapid population growth has surpassed the rate of expansion at public universities necessitating university administration to execute alternative modes of education that can accommodate the increased demand. The unprecedented rise in population has subsequently increased demand for education, surpassing all expectations and projections for the education sector. With increase in the number of admissions, focus is turning to the questions on quality, teaching and learning experiences as well as learner support frameworks.

Boit and Kipkoech (2012:34-38) recount that Kenya's first university, the University of Nairobi was commissioned in 1968. This is a public university whose history dates back to 1956. At pre-independent Kenya, the institution was referred to as the Royal Technical College, a constituent college of the University of London. It admitted students who graduated with certification from the University of London. By 1964, post-independence, it became a constituent of the University College in East Africa which later transformed to the University of Nairobi (Eisemon 1992:158). In the early years, the numbers of student admissions into public universities were manageable, but in the later years, the demand for education created substantial challenges both to the government and to the universities. Presently, a joint admissions board (JAB) manages the admission of students into public universities in Kenya.

According to Boit and Kipkoech (2012:34), the JAB recorded a rise of students admitted to public universities from 3500 in 1986 to 41000 in 1991, that is, a 40% increase in 5 years. During this period, strapped by low budgetary allocations, the universities' physical facilities could not expand to a scale that could accommodate the rising numbers of students. Worse still, there were huge numbers of students who had attained the minimum university entry requirements but who missed chances due to prohibitive physical facilities. Students had to attend the universities in turns, alternating semesters and trimesters; a trend referred to as "double intake". Occasionally, one group would have to stay home for a continuous three to four months. Even though this demand is still unquenched, Kenya's higher education has

made substantial strides. To date, there are at least ten public universities and over twenty private ones (Boit and Kipkoech 2012:34-38).

By the year 2000, DE, a previously controlled department at the College of External Studies at the University of Nairobi, became an attractive solution to the prevailing challenges. DE has been adopted by almost all universities in one form or the other. Universities have opened regional centres, offered evening courses and adopted electronic learning (E learning) and online learning. However, there are not enough experts for DE course design and development. Because of this, the face-to-face programmes are most often, simply modified to fit into DE programmes (Nyerere, Gravenir, and Mse 2012:186). However, not all is lost. The African Virtual University (AVU), commissioned in 1997, is one attempt to bring order into the DE sector. AVU report (2010:10) states that the main mission for AVU is “to bridge the digital divide and knowledge gap between Africa and the rest of the world by dramatically increasing access to global resources throughout Africa”. This mission statement, however, has not spelt out how the Kenyan policy for DE will affect its operations, its impact on the development of such a policy or how students accessing AVU receive support. Originally, AVU was a World Bank project whose noble objective did not spell out how students experiencing satellite technologies for the first time are trained and supported. According to the AVU report of 2010 (2010:10), AVU is now majorly funded by the African Development Bank (AfDB) with focus on self-sustainability, deliver programmes that are contextualised to Africa and make impact on capacity building for African member states. More details were explained in the previous chapter. It is noteworthy, within this chapter, to impress that AVU will need to define how students who would like to access their programmes and technologies in their private study sites are integrated and supported.

As DE grows in Kenya and other developing countries, there is need to plan for and implement all its facets within new programmes. It is understandable that in the era of stringent budgets and low funding, setting priorities and vote allocations for subsystems is difficult (Duranton and Mason 2012:82 and King 2012:12). However, focus should lead to understanding the wider picture and opportunity costs for both the student and the university if services like learner support are underprovided. For



example, a high attrition rate resulting from lack of learner support may lower the university's profile, which in turn leads to lower enrolments.

## **2.8 APPROACHES TO PROVISION OF LEARNER SUPPORT IN DISTANCE EDUCATION**

Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:67) and Thorpe (2002:106) observe that at times, the boundary between learner support and course implementation is unclear because every stage of implementation from course advertisement, recruitment, and academic journey to graduation requires the presence of learner support. This is a pertinent observation as Thorpe (2002:106) further explains that past generations of DE considered learner support as that which happens after course materials are prepared and the programme implemented. Learner support was considered as a complementary service. However, in the third and subsequent generations of DE, the application of education technology has changed the concept of separation (especially temporal separation) within online transactions. Numerous courses are currently generated and executed online. Therefore, current learner support frameworks are embedded in the structure of the course/programme. This makes course design and learner support inseparable activities (Thorpe 2002:106).

For online courses, entrenching support within the course is practical. However, for mixed mode or blended DE, there is need to plan for physical, definitive and accessible support structures as a subsystem of DE. Students in such DE programmes should have clear procedures of how, when and where to access extra support as needs arise. Students should be aware of how to access learner support. According to King (2012:12), universities, which venture into dual-mode never have a mission for DE in the first place. They adopt DE as an adjunct due to prevailing paradigms. Therefore, in dual-mode universities, it is important to institute intentional support and attention to DE students especially in the face of undefined policies.

According to Tait (2013:185), DE providers need to re-strategize a fresh approach to the provision of learner support services. After thirty years of modern DE (Anderson and Dron 2010:81-86) and in the fourth and fifth generation of practice, the indicators for learner support have changed in diverse ways, but the provision has changed

minimally. First, the impact of ICT in DE is yet to be appreciated even though its effects are widely observable (Tait 2013:186). One of the effects of ICT is in the administration of DE. Distribution of labour has changed significantly from the days of postal correspondence and courier of learning materials. Where students previously needed to contact a tutor at a study centre or a regional office, he/she can now contact the head office directly through computer-enabled communications.

Secondly, another indicator for change is the evolving status of the student to customer or consumer status. Mature students having experienced marketing ideologies from travels and shopping around the world now demand a service-oriented approach to the provision of education (Tait 2013:188). Even though such marketing ideologies may cause more problems than solutions. Tait (2013:189) observes that if education is viewed as a trading commodity, the consumer may not have an informed choice because learning has to be experienced in order to be valued.

A third indicator for change is that regional centres need to transform from the intermediary status to regional campuses especially with the advent of ICT. In modern regional centres, DE students can access all services and establish identity just like their colleagues at the head/main campus (Tait 2013:192). Fourth, there is combined impact of increased working hours, the demand for lifelong learning and the outdated ODL rhetoric that students can learn while they work. Students are increasingly challenged by having to work and be expected to manage their learning in their free time, already reduced by excess workload. In fact, empirical research in the future will need to prove that ODL students just like their counterparts in face-to-face formats also need study leave from their places of work. Furthermore, it can no longer be assumed that distance students have facilities at home which can transform to quiet study rooms or libraries when they get home from work (Tait 2013:193).

The above arguments are important for planning and approach of delivering learner support services. It is already observable in Kenya that almost every city has a regional campus of one university or another. This is a step in the right direction especially for the provision of learner support services. It eases follow-up on students, promotes social presence and identity for students as they can physically access staff and administrative processes (Nyerere, Gravenir, and Mse 2012:195). However, in most developing countries, Kenya included, there are challenges in implementing modern

approaches in pure prescriptions. For one, as discussed previously, DE delivery is in such a mix that it is not easily identifiable, which generation of DE is in practice. Many times, computer-facilitated learning is in combination with correspondence learning. Planners need to ponder on such factors in order to determine the extent to which ICT can influence teaching and learning, the division of labour and general course administration.

According to Simpson (2008:159-161) there are two main approaches to the provision of learner support services in DE. The first one, (reactive) involves identifying students' weaknesses, then proposing and implementing possible solutions. The second, (proactive) is to provide guidance and counselling to all students to develop learning and coping skills, which are presumably the basic needs for students of distance learning. Simpson (2008:159) analyses these two approaches and describes them as both problematic. The former is believed to be a remedial approach, which may not motivate students, but instead lead them to mediocre performance. It focuses on weaknesses. Learning skills approach, on the other hand, is problematic in that its successes lack empirical evidence. Furthermore, its demonstration is based on the assumption that students who have acquired good learning are those who are performing and coping well in their studies (Simpson 2008:159).

The aforementioned two approaches, though criticised, are useful when implemented in constructive ways. A deeper analysis on the reactive (remedial) approach expands it so that it not only focuses on identifying students' weaknesses but also identifies their needs. Rather than referring to it as a reactive approach, the Task Team 4 report on student support at UNISA (2010:1-4) describes it as a needs approach which involves the identification of students' strengths, weaknesses, opportunities and threats. It also recognises that students' needs change throughout their learning journey. The lack of theoretical backing for the learning skills approach is admissible. However, this does not alter the fact that students of DE need strategies and learning skills to help them navigate through the isolation and transactional distance that come with distance learning (Duranton and Mason 2012:86).

In answer to these arguments, Simpson (2008:160-163) further proposes that learner support frameworks should be based on motivational theories that focus on student's strengths and a proactive administration/institution. He refers to this as a strengths

approach based on the premise (Simpson 2008:160-163) that people perform their best when they focus on strengths rather than weaknesses. Also that the key to student success is to identify and build on existing talents and transferrable skills. In essence, strength's approach is a combination of the reactive/needs approach, proactive and the learning skills approach.

Similar to the UNISA Task Team 4 report (2010:3-4), Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:66) report that many universities base their learner support systems on the needs approach. They emphasise on the importance of retaining this approach in order to exhaust research studies on it before dismissing it or confidently embracing it. They also contend that universities need to implement support frameworks based on action-oriented, clearly defined, evidence-based and applicable principles which manifest in the proactive needs approach. Additionally, they also observe in their literature review, that in the past, support tools have been developed and implemented in an ad hoc manner. Many universities tend to avail services, but are not proactive in ensuring that students utilise the services. They assume that students will find and use whatever support is appropriate for them. They refer to this as "goulash", a non-directional mash up which has the potential danger of wastage of funds, labor, time and other university resources without assisting the learner for whom the support is intended. In view of these combinations, together with review of researches on the provision of learner support (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:68-70; Nelson, Karen, Quinn, Marrington and Clark 2012:84-87 and Task Team 4 report on student support at UNISA 2010:18-22) a practical approach for planning learner support services should include the following general steps:

- i) Carry out a needs assessment to identify the gaps
- ii) Identify students' needs and characteristics
- iii) Identify components of a practical learner support system
- iv) Outline critical stages of the learner support system based on the students' needs
- v) Construct a proactive and easy to implement learner support system based on principles of good practice
- vi) Implement the system with indicators for monitoring and evaluation

- vii) Make continuous improvement through monitoring and evaluation (which leads back to identifying gaps).

## **2.9 CRITICAL STAGES FOR THE PROVISION OF LEARNER SUPPORT IN THE STUDENT JOURNEY**

The student's academic journey from the period of registration to graduation is referred to as his/her student walk (Subotzky and Prinsloo 2011:184 and Task Team 4 report on student support at UNISA 2010:7) or student life cycle (Ryan 2004:128). According to Ryan (2004:128), during this period, there are critical points during which the student should receive proactive support to ensure a smooth academic life. These include: the initial time when the student is thinking of the possibility of studying, questions on the credibility and integrity of the institution, programme information, self-evaluation, decision making on career, enrolment and registration, payment and funding options, preparation for study, technical coaching and help, studying, motivation, annual re-registration, course progression, graduation and alumni.

Not very different from the aforementioned, Segoe (2012:100-102) and Qakisa-Makoe (2005:58) on the other hand identify stages/phases instead of critical points. These are important times in the student's journey when support interventions are required. These stages are not definite points but transitional. The stages/phases overlap smoothly from one stage to another because support is continuous throughout the student's walk. The support is both present and salient. According to Segoe (2012:100-102), stages at which students critically need support also form the basis for classifying the types of learner support that are required in DE learning formats. The stages include registration support, student services, contact sessions, technology support and feedback strategies. Even though support is an ongoing and continuous process, these stages are classified into stages/phases for the sake of planning and implementation.

UNISA Task Team 4 report 2010 (2010:3-21) and Qakisa-Makoe (2005:58) on the other hand, categorize the stages/phases of learner support into three: entry phase support, also referred to as the pre-course phase; teaching and learning support phase, also referred to as the during-course phase; and exit support phase, also referred to as the post-course phase. They also explain that within these phases

numerous activities that provide student support ought to be integrated. Such support activities include:

- i) Preparing prospective students for challenges in ODL. This is in recognition that ODL posits numerous challenges, which the student will have to overcome. It also recognises that ODL attracts a diverse community of students (disabled, gifted, foreign, national, rural, school leaving adults, working adults, disadvantaged women and men) who present diverse needs and characteristics.
- ii) Career guidance and counselling. This begins when the course is being marketed at the pre-course phase. At this time, prospective students are provided with career guidance and counselling so that they are able to identify courses that fit their profile, strengths, interests and life goals. It is believed that one of the factors that positively affects student retention and success is making the correct choice of career (Subotzky and Prinsloo 2011:180). Once an informed choice is made, career guidance and counselling continues through to the teaching and learning phases. At which time, registered students are supported to take responsibility of their choices, to cope with learning as well as social and other intervening factors. As they gain confidence, students are also encouraged to join mentorship programmes, so that by the time of exit/post-course phase they will also be motivated to mentor, guide and counsel their juniors.
- iii) Students are profiled so that their strengths and weakness are continuously monitored throughout the academic journey. This determines the type and amount of support offered to each individual student. Remedial interventions as determined by prescribed indicators are proactively implemented. Examples of indicators include assessment results, self-evaluations and personality profiles.
- iv) Continuous administrative support in the form of timely and accurate information is given throughout the student's walk and programme. DE students often grapple with isolation and distance (Duranton and Mason 2012:82). Proactive administrative support constantly reaches out to students and motivates them in an effort to bridge the transactional distance. Every effort should be made for the student to experience the social presence of the administration.

- v) A well-designed and intelligent communication system integrated within the learning activities reduces the transactional distance. Communication is the key to bridging all distances experienced in DE programmes. It facilitates continuous interactions between the students and all teaching and learning activities, continuous feedback, timely individualised tutorials and all support required for successful learning.
- vi) Support for technology training and computer skills training is recommended for every programme and for every student population. Even though technology may look the same, each university has unique combinations and use of technology that comprise the learning management system. No two university websites and learning management systems are similar. Therefore, students should be trained on how to navigate through the virtual campus and use the learning platforms.
- vii) Learning skills training is a useful support for students who need to acquire skills in time management, studying, self-regulation and responsibility, independent learning, student-centred learning, writing assignments and assessments and general coping mechanisms. Within this support, students are also guided on course outline and the definitions of progression and success.

## **2.10 EXAMPLES OF APPROACHES TO LEARNER SUPPORT IN THREE UNIVERSITIES**

Universities do not usually approach the provision of learner support services in a similar fashion. Some universities define the stages or critical points for engaging students with learner support while others do not. Others prepare a welcome package, which contains all the relevant information on how to access learner support should the student need it (O'Donnell, Sloan and Mulholland 2012:3). The University of Ulster (O'Donnell, Sloan and Mulholland 2012:3), for example, has a two-pronged package available to students throughout their academic journey. At the onset, the package is designed as a student induction and support module, after which the two parts, "the primer" and "the survival guide", are then introduced. The primer is further divided into two: part one is 'preparing for your online course' (the technical issues) and part two is 'being an online student' (the personal and practical issues). The primer is aimed at

inducting students into the online learning management system, which includes the use of various information technologies, information on structure and course delivery, advice on communication and collaborations, assessment methods, self-evaluation quizzes and student support links.

The primer is given to students upon registration but prior to the commencement of their courses. The survival guide on the other hand introduces students to the available support that they may need throughout their academic journey. In this format, students are not required to engage the tools on a mandatory basis but are expected to use it whenever the need arises (O'Donnell, Sloan and Mulholland 2012:4). This package leaves the onus on the student who is expected to self-diagnose his/her needs and deficiencies and then seek solutions through the tools. Unfortunately, self-diagnosis is not a common strength for many students. Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:68), Simpson (2008:168) and Thorpe (2002:109) explain that students are rarely concerned with organisational structures of who reports to the other or which department is concerned with their issues. Therefore, they will rarely seek out support, sometimes because they are not even aware that they require support and other times for the reason that they are already overwhelmed with other issues to the extent that they do not recognise support as a priority. UNISA Task Team 4 report (2010:1-3), for example, has recognised that reactive systems fail to identify struggling students because complex combination of factors often make student problems more hidden than overt. Students need to be profiled so that they are proactively given support according to their needs. Profiling is important since students may not be aware of their strengths and/or weaknesses.

In Massey University of New Zealand, Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:66-70) describe what they refer to as a holistic and proactive learner support structure. This pilot system is founded on two main premises. First, there is continuous blurring between on-campus and off-campus programmes such that it is possible to deliver services for distance learning within the already existing structures of on-campus students and that support systems should benefit all students, especially those in dual-mode universities. Additionally, it also recognises that learner support services ought to be integrated within all other services. Secondly, the framework is evidenced-based having been founded on study findings from various international



scholars. It recognises the key influencing factors for student retention and success as its basis for the provision of learner support. According to Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:68-69), these factors include: choosing the appropriate course, early screening of vulnerable students, a proactive support from family, friends and the institution. They further outline the critical stages for learner support as:

- i) Thinking about studying
- ii) Making choices
- iii) Enrolment
- iv) First weeks
- v) Progression to completion (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:71-76).

The critical stages for the above-discussed universities have more similarities than differences. Both consider pre-entry support as crucial to a successful choice and fit of course/programme. Students need support in the form of career guidance right from the moment that they start thinking about studying. Additionally, in these universities profiling of students upon registration and follow-up within the first weeks is considered a critical time for implementing learner support. This is followed by a proactive support throughout the student journey. Also important is the recognition that students' needs change on a temporal basis as they progress up the years of study. For instance, a student profiled as a "high achiever" may occasionally drop down to "at risk" if other factors like social pressures or finances disrupt his/her studies.

## **2.11 PRINCIPLES FOR THE PROVISION OF LEARNER SUPPORT**

Segoe (2012:113) and McLoughlin (2002:156-159) explain that there should be guidelines and principles to steer the process of designing and implementing learner support systems:

- i) Support should be part of the planning and delivery of any quality DE programme and not an added-on component. There should be a symbiotic and interdependent relationship between the programme and learner support.

- ii) Support should applaud the distance programme's philosophy, pedagogy and beliefs and must not work against the design of the programme.
- iii) Support should be goal-oriented at every stage of the student walk. Assistance and guidance should seamlessly scaffold in and out of learning materials.
- iv) All support should be tailored within the goal of meeting all students' needs, but it should also be flexible and adaptable with a capacity to attend to every student's unique needs.
- v) Support should be available and accessible throughout the student's academic journey with none being used at the cost of another.
- vi) Learner support should provide a framework to guide students through their studies, develop learning and coping skills, develop independent learning and good decision-making skills and grow into life-long learning.

These principles reaffirm that learner support services have a specific domain in DE programmes (Duraton and Mason 2012:81-85; Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:65-68; Boyle, Kwon, Ross and Simpson 2010:115-121 and Ukpo 2006:253-259). These scholars acknowledge that learner support is an integral part of DE, which should scaffold into every learning component during course design, development and implementation. Support should be available, accessible and adaptable. Once learner support has asserted its domain, course designers should constantly re-strategize its implementation just as frequently as they do the changes in technology and all other facets of the course. For example, every time new technology is introduced, students will require support that addresses not only the use of the new technology, but also the new format of learning materials mounted on that technology.

Universities may be tempted to down play learner support due to factors like cost and time. Yet, Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:65) explain that with good planning and cost effective designs, learner support reduces opportunity costs for the university as well as for the students who would have otherwise dropped out. There are advantages to meeting the cost of providing learner support. One, is that should support increase the cost of providing DE, this cost is recoverable through increased efficiency and accountability because students will

demand to experience the services for which they are paying. Secondly, the university will be compelled to make cost comparisons of technology and carefully calculate the need to engage in frequent change. Thirdly, there will be a general reduction on student attrition rates with subsequent improvement on the university's profile.

The principles of learner support also advocate for students' responsibility in their learning. There is mutual shared responsibility between the learner and the university. The learner must be responsible for the services and learning provided by the university while the university must provide learning and all appropriate support as per the course requirements. It is however, important to emphasise that the university should clearly communicate the support for which it is responsible and that which the student will source for and access for themselves. Concurrently, care should be taken while drawing such lines. In the past for example, guidance and counselling have been reactive as it was one of the services for which students were expected to source for themselves. However, according to Simpson (2010:168), most students who need counselling are rarely in a position to acknowledge and/or access it. Therefore, the service should be proactive. Additionally, students who are struggling in academics and course progression are often already too overwhelmed by the causative factors to access remedials by themselves.

## **2.12 COMPONENTS OF LEARNER SUPPORT STRUCTURES**

There are numerous terminologies for the elements within the framework of learner support services. Different universities differ in the names they use for each element in the provision and scaffolding of the same. However, it is noteworthy that despite the variations in terminology, the elements or components of services provided within learner support structures do not have a wide variation. For example, what some refer to as the student life cycle is the same as student walk or academic journey. In addition, what some refer to as advising is the same term as supervision. Some universities have critical points/stages at which specific support should be provided. Others scaffold the services transitionally within the academic programme while others make a blend of the two approaches. For the purpose of this study and for explanatory purpose, each component will be addressed. For the same reason, components of learner support are recognised as intentionally planned and goal-directed implementation of support services within each stage of the student walk.

According to Segoe (2012:102-117), Commonwealth of learning (2009:34-43) and Creed, Allsop, Mills and Morpeth (2005:13-20) there are two broad components of learner support. The first one is the tutorial support and the second one is the organisational and emotional support. Tutorial support includes intellectual, mentorship, tutorship and all learning activities while organisational/emotional support comprises of guidance, counselling, administrative procedures and any other non-academic student concerns. Again, this categorisation is appreciable only for advisory purposes because it otherwise has potential problems. For instance, if teaching and learning are classified only as tutorial support, then it will be difficult for both the teacher and the student to undertake counselling for emotional issues that arise during teaching and learning.

In many instances, the student cultivates a strong relationship with the teacher because they have frequent interaction. This necessitates that the teacher provides initial counsel in the face of an immediate problem and then have the option to continue with the service or refer the student for further management. For the student, meeting with a different counsellor other than the teacher means that more time is spent in cultivating a new relationship before the problem is addressed. Ideally, the teacher should be the first counsellor, only referring the student to the professional counselling office if the emotional issues are complicated and adversely affecting learning activities. Another predicament with this categorisation is that it can easily miss numerous processes that require support but which do not fall on either tutorial or emotional support. These are processes which may fall into both tutorial and organisational support. For instance, technology is an organisational concern, but because it is the media for learning and the platform for delivery of learning materials, it also becomes a tutorial issue. Most often the tutor gives support on matters like formatting/writing, use of software and access of learning materials. Classifying components of learner support is, therefore, a difficult matter. For the purpose of this study, nine (9) components / indices have been identified and blended from studies in five (5) universities. These are: 1) Registration procedures, 2) Orientation programme and skills training, 3) Technology and learning materials support, 4) Counselling and mentorship, 5) Interactions and communication, 6) Feedback, 7) Regional centres and library, 8) Students association and representation, 9) Course progression and satisfaction.

## **2.13 SUMMARY**

Students of DE have unique characteristics and needs that require understanding and support throughout the stages of their academic journey. This chapter has reviewed literature on characteristics and needs of the distance learning student. It has forwarded arguments on the various perspectives of learner support as a system and practice in DE. It has supported the assumption that learner support is a necessary function of DE. For the purpose of clarity and for the purpose of this study, learner support structures have been subdivided into components and the basis explained. A review of literature on the components of learner support has also been presented.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter is a description and discussion of the research methodology for this study. It includes the the research design, theoretical framework, research paradigm, a background of study sites, the target population, the sample, sampling techniques and procedures, instrumentation and procedures for data collection. It also describes the measures of trustworthiness and steps taken to manage ethical issues. It presents data handling procedures and the process of data analysis within which the relevant statistical tests applicable to this study are explained.

#### **3.2 RESEARCH DESIGN**

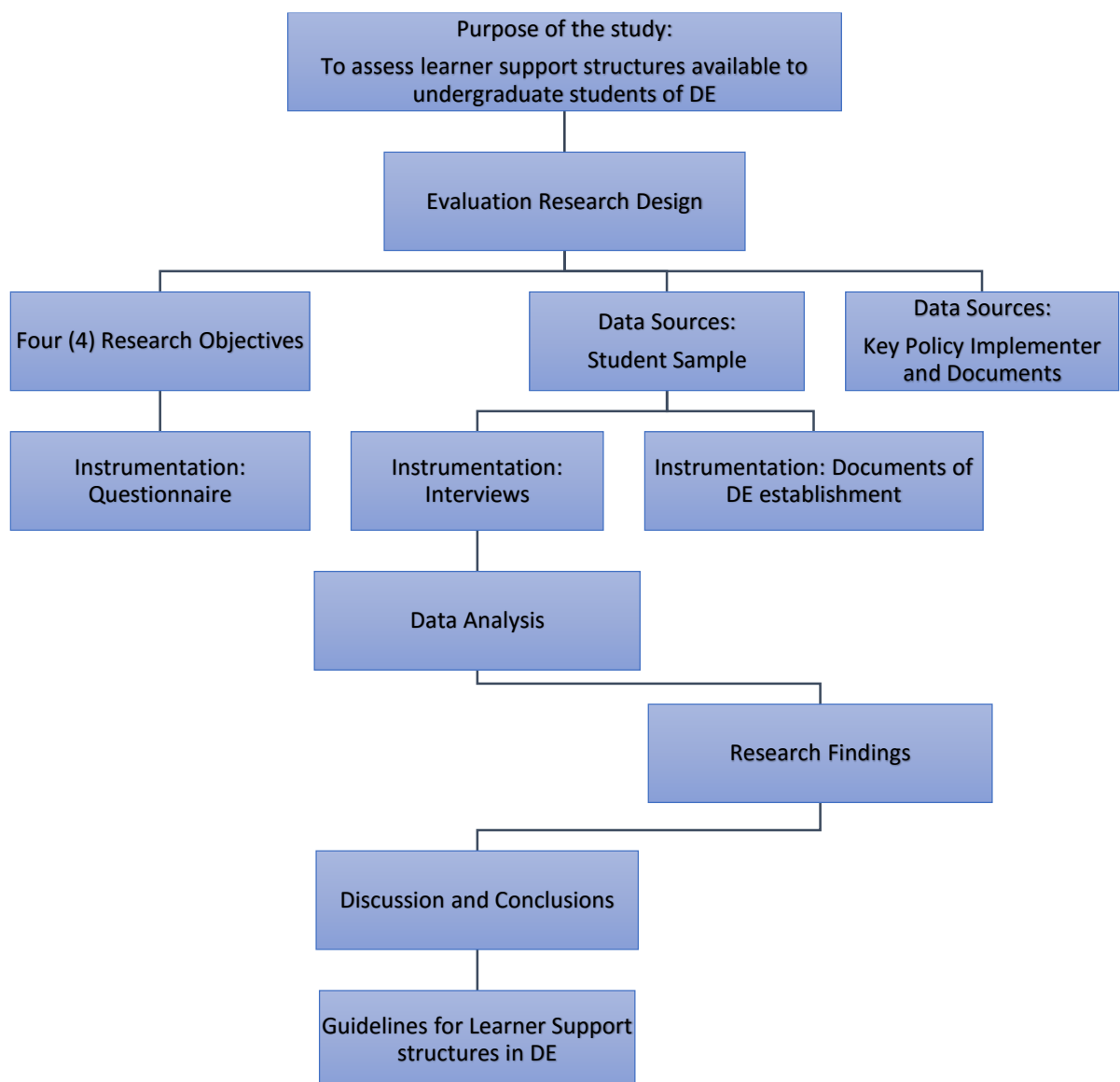
This study was an evaluation design with a mixed methods approach. Lund (2012:155) and Creswell, Hanson, Clark, Creswell and Petska (2005:212) define studies which involve collection and/or analysis of both quantitative and qualitative data within a single study as mixed methods studies (Figure 4.1). The context of this study endeavoured to determine the availability and accessibility of learner support structures for undergraduate students. It was expected that students would be receiving one form or another of the support services. The study aimed at gathering information from undergraduate students, the university administration and faculty and from documents of DE establishment. Quantitative methods using online questionnaires tested students' experiences. Qualitative methods of data collection were used to assess; one, the provision of learner support services by university administration and faculty and two, provision of the same as embedded in university websites and documents of DE establishment.

Both qualitative and quantitative methods have their strengths and weaknesses but have often arrived at the shortfall in which, neither method standing alone can convincingly answer all research questions. According to Lavelle, Vuk and Barber (2013:275), Lund (2012:157) and Velez (2008:2), combining both methods has advantages and disadvantages which tend to compensate for each other's weaknesses. For example, data gathered using both methods is both inductive and

deductive. Qualitative methods tend to explore the details in the phenomenon while quantitative tend to deduce explanations to the phenomenon.

Creswell (2012:10-11) and Mouton (2006:158-162) explain that one form of evaluation research is that which seeks to answer the question of whether or not an intervention was or is being properly implemented and the target population adequately covered. Evaluation designs are also used as follow up on societal trends. Distance learning is a societal trend with significant impact to the societies where it is practiced. It caters for populations which would otherwise not be in a position to access conventional education systems. But, its practice is defined by distance created between the student and all activities creating the need for student support (Figure 3.1).

**Figure 3. 1 Research Design**



According to Lund (2012:157), employing both methods has a double-edged advantage of both exploration and comprehension as well as complementarity and augmentation providing a strong base for construct validity. In this study, the student was required to rate his/her experiences of learner support while the university was expected to explain the mechanisms of providing such support. This provided answers to issues of availability and accessibility through quantitative data while the structured interviews from programme implementers and analysis of documents from the university provided exploration of the construct.

It is expected that universities and other DE providers should provide structures that assist the student to minimise issues that may arise due to distance. This study identified nine (9) common indicators of learner support structures requisite for any newly registered student in distance learning. The indicators/indices were identified from studies of University of Ulster, National Distance Education Centre of Ireland, University Teknologi of Malaysia, University of Southern Mississippi and University of South Africa (Alias and Rahman 2012:1-5; Lorenzi, MacKeogh and Fox 2012:1-7; O'Donnell, Sloan and Mulholland 2012:1-9; Zawacki-Richter 2012:N.P.; Ward, Peters and Shelley 2010:59-60; Oosthuizen, Leodolf and Hamman 2010:85-205). The indices were: 1) Registration procedures, 2) Orientation programme and skills training, 3) Technology and learning materials support, 4) Counselling and mentorship, 5) Interactions and communication, 6) Feedback, 7) Regional centres and library, 8) Students association and representation, 9) Course progression and satisfaction. The quantitative data was collected from the students' responses to online questionnaires aimed at establishing the magnitude of each index. The qualitative data was collected from relevant key office holders and university documents to explain the in-depth perspectives of the study indices.

### **3.3 THEORETICAL FRAMEWORK**

Theories are collections of rational and scientific explanations of facts, phenomena or events that occur in society or that are basic tenets to daily living (Garrison 2000:3-5). Learner support is a phenomenon in education whose boundaries are still under formulation. There are no definitive theories that explain the practice of learner support. However, there are theories associated with the practice of learner support referred to as theoretical foundations/theoretical assumptions. Three theories are



herein discussed; the social constructivist theory, the theory of independent learning and the transactional theory as they relate to learner support.

### **3.3.1 Social Constructivist Theory and Learner Support**

The theoretical framework for this study is based on the social constructivist theory. In DE, learner support structures are intended to bridge the social distance between the student and the institution, peers and teacher. The support should compensate for the distance student's need for physical presence which the on-campus student experiences from the institution, peers and teacher on a daily basis. Palincsar (1998:346) describes a study done by Dalute and Dalton in 1993 illustrating how children learn in social settings. According to the study, peer interaction resembled student-teacher interactions leading to conclusions that such collaboration contributed to more children writing richer stories than those who wrote stories in isolation. The implication is that within collaborative learning, and with physical and social presence of peers, students are able to access other perspectives from their peers and teachers which eventually enrich their knowledge of the subject.

There is consensus from studies that have focused on examining learning theories applicable to distance learning that learning in DE is a build up from cognitive and behaviourist pedagogies of the 20<sup>th</sup> century to social-constructivist pedagogies of present practice (Anderson and Dron 2010:81-86; West 2011:136; Hannafin and Hannafin 2010:12-15 and Ward, Peters and Shelley 2010:59-62). In these studies constructivism borrows a lot from the theories of independent and student-centred learning (both facets of distance learning). It hinges on the student's personal ability to construct new knowledge based on past and present experiences and be able to apply knowledge in daily problem-solving and decision-making situations. Application of constructivist and independent learning skills, intertwine. Constructivist principles are much easier to apply in face-to-face formats because students in such formats gain a lot of support from the physical presence of faculty and peers in their quest towards independent learning. Additionally, students who lack self-regulation in face-to-face formats are able to cope because of propping and cueing by faculty and peers.

On the other hand, students of DE who lack the requisite self-regulation skills needed for constructivist learning are often unable to achieve the associated shifts especially because of the isolation and absence of instructors and peers. Hannafin and Hannafin

(2010:14) concur that students who lack self-regulation skills often fail to develop theories or explanations (high order learning skills) in learning forums. Yet there is expectation for students of DE to develop independent and high order thinking skills quickly, in order to cope with self-regulated studies. This is an indication for providing support to new students of DE, to gain learning skills that include time management, self-regulation and study skills.

Social constructivist theories in addition to other constructivists acknowledge the social nature of knowledge and the need for social set-ups in the learning environment (Palincsar 1998:348). Heo, Lim and Kim (2010:1385) and Moore (1993:23) refer to these setups as interactions. Interactions are part of the learning process which form part of the support that students require in a successful learning environment (Heo, Lim and Kim 2010:1385; Ward, Peters and Shelley 2010:59 and Driscoll 2000:54). The student in distance learning lacks three types of interactions: learner-teacher, learner-learner and learner-institution interactions (Moore 1989:2). The learner-teacher interaction, for example, encourages support in the form of immediate feedback and continuous remedial during class activities. In a summary of 50 years of research of college pedagogy, Onwuegbuzie, Witch, Collins, Filer, Weidmaier and Moore (2007:177) identified skills that describe an effective teacher as one who is able to: encourage student-faculty contact, encourage cooperation among students, encourage active learning, provide prompt feedback, emphasize time on tasks, communicate high expectations and respect diverse talents and learning styles. Although this is assessable on the teacher in a physical classroom, it may not be as easy to experience the same teaching skills in DE settings. The degree to which such dimensions of instructional effectiveness are fulfilled in distance learning not only depends on the instructor's behaviour and expertise but also by the techniques and media/technology through which instruction is delivered. The student needs induction and support in order to appreciate and recognise the teacher's role in his/her learning experiences (Ward, Peters and Shelley 2010:59).

Lev Vygotsky (1896-1934), a Soviet cognitive psychologist, developed the Social Constructivist Theory (Palincsar 1998:345-375). His basic premise was based on the assumption that children cannot learn in the absence of social contexts; learning being the acquisition of new knowledge, skills and attitudes that cause change in the growth

and development of an individual. Vygotsky believed that the environment, especially the human presence contributes to the constructs made by the child as he/she formulates new knowledge. This theory is classified under the constructivist theories which underpin the belief that learning occurs through an active experiential process in which the student combines his/her old experiences with the new ones in order to construct knowledge. New knowledge is linked to old knowledge which creates each individual's perception of what is being learnt. To develop effective learning materials, constructivists believe that previous knowledge and experiences of the students should account for the construction of new knowledge. Social Constructivist Theory adds on to the constructivism principles on the premise that learning cannot be separated from social contexts.

An interpretation of the Social Constructivist Theory argues that students learn with the help of the environment, their age group or other people around them and from masters who are more advanced in concepts and ideas. It can also be argued within this theory that learning is a collaborative process. Like all constructivist theories, this is a theory that ascribes to student-centered learning where the students are expected to have self-regulating skills; they choose what is relevant to learn within their current goals, learn in the context of their self-appointed time in balance with all other learning needs and access the teacher as a facilitator rather than the source of information. In self-centered learning strategies, students are expected to learn actively, discover knowledge and skills, make appropriate decisions and solve arising problems based on old experiences and new constructs.

This theory is applicable to distance learning because essentially students in this format of learning are isolated from peers, teachers and institutions, yet the learning material and expected outcomes are the same for all the students in the programme. For example, all students registered for a nursing degree are expected to become professionals within the standardized professional body despite their geographical locations. Although students are isolated from each other, the outcome should be equivocal. This means that during the life of the course, there should be a bridge that connects the students towards the intended goal. Technology in DE for instance should be used to connect students as is currently being practiced by many universities. In the absence of immediate social presence as required within the social

constructivist learning premise, student support then becomes an all important element.

### **3.3.2 The Theory of Independent Learning**

Charles Wedemeyer was a professor of education at the University of Wisconsin-Madison. He is considered by many authors as the 'father of modern distance education'. In 1965, based on his experience on self-motivation and self-seeking skills to acquire an education, he proposed the Theory of Independent Learning as it applies to distance learning. He believed in the independence of the student and the independence of learning processes from the control of the teacher. He believed that teachers should be freed from control of content in order to facilitate other forms of learning. He also believed that the basis of learning is a good working relationship between the teacher and the student. And that all other issues pertaining to learning could be sorted by mechanisms other than the teacher. He is credited with the first initial and predictive use of education technology. Pyari (2011:96) describes Wedemeyer's theory of independent study as:

A study system consisting of various forms of teaching-learning arrangements in which teachers and students carry out their essential tasks and responsibilities apart from one another, communicating in a variety of ways. Its purposes are to free on-campus or external students with the opportunity to continue learning in their own environments and developing in all students the capacity to carry on self-directed learning, the ultimate maturity required of the educated person.

According to Schlosser, Michael and Terry (2009:11) Wedemeyer proposed characteristics emphasizing student independence and which should characterize the distance student within the theory of independent learning. A DE system should:

- i) Be capable of operation in any place where there are students whether or not there are teachers at the same place at the same time.
- ii) Place greater responsibility for learning on the student.
- iii) Free faculty members from custodial type duties.
- iv) Be given to truly educational tasks.

- v) Offer students and adults wider choices (more opportunities) in courses, formats, and methodologies.
- vi) Use, as appropriate, all the teaching media and methods that have been proved effective.
- vii) Mix media and methods so that each subject or unit within a subject is taught in the best way known.
- viii) Cause the redesign and development of courses to fit into an “articulated media programme”.
- ix) Preserve and enhance opportunities for adaptation to individual differences.
- x) Evaluate student achievement simply, not by raising barriers concerned with the place, rate, method, or sequence of student study.
- xi) Permit students to start, stop, and learn at their own pace.

This theory is still applicable today to the extent that it predicts the functional expectations of most DE systems and the students within such systems. It mostly explains mechanisms through which students acquire an education especially in open learning institutions. Distance learning pedagogies maybe hinged on the assumption that most learning is student-centred, requiring independent learning skills. Students who are new to distance learning formats are not conversant with such skills (O'Donnell, Sloan and Mulholland 2012:2) and need learner support in order to succeed in DE.

### **3.3.3 Transactional Theory of DE and Learner Support**

The inherent separation of the student from the physical presence of learning activities in DE has the potential of creating communication gaps and barriers, misunderstandings and learning deficiencies (Moore 1993:22). According to Moore (1997:25-30), this separation is more transactional and pedagogical than geographical. Transaction is the interplay between the environment, the individual and the resultant behaviours. Each individual in the DE transaction is unique from the vantage of where he/she is physically present, the mode through which he/she accesses learning, the creation of his/her learning environment and the influence of the aforementioned in his/her relationship with the education provider. In DE, the intent of the student is to access education through learning formats as provided for by the

university while the intent of the teacher and the institution is to facilitate learning in the best ways possible for the student to acquire education. Moore (1993:23) and Benson and Samarawickrema (2009:7-9) acknowledge that there exists transactional distance in any educational event but that in E learning and DE, the separation of the teacher and the student significantly affects their transaction. Learner support structures seek to reduce the transactional distance.

Transactional distance is present in all learning activities including the lesson plan, content material, class interactions, administration, peer support, feedback and general social activities. In order to minimise the transactional distance, DE has formulated mechanisms that aim at closing the gaps and barriers that exist between the student and all that he/she requires to transact. According to Shearer (2010:1-3), Moore's Transactional Theory describes an interrelationship between three variables in any DE programme. These are: dialogue, structure and learner autonomy. These three variables interact in ways that either reduce or increase transactional distance.

Dialogue refers to conversations, relationships and interactions that occur during interactions. It includes input from each party, including the student, the teacher, the learning materials and the institution. In other words, it represents communication and feedback during the learning process. Dialogue should have a structure that positively builds up from the contributions of all parties with the aim of stimulating responses that contribute to learning and overall learning outcomes. This means that in the absence of mutual and sincere relationships, the transactional distance increases while the reverse minimises the transactional distance (Shearer 2010:2). Support structures build up dialogue by minimising communication barriers.

Structure, as discussed by Shearer (2010:2), refers to the yardstick that measures the educational programme's receptiveness to the student's needs. This is important in the machinations of learner support. Good structures are supportive to the student in his/her endeavour to acquire education. Structure also represents the education programme itself as a combination of operational procedures, goals and objectives, implementation plans, evaluation methods, quality, adaptability and reliability. The purpose of a definitive structure is to present a programme that is client-centred, market-oriented and beneficial to the institution. Lastly, learner autonomy refers to the extent to which the student is responsible for his/her own learning but still works within

the objectives of the programme (Shearer 2010:2). The student has responsibilities towards his/her learning (Task Team 4 report on student support at UNISA 2010:3). Part of the responsibility includes awareness of his/her needs and how to access support. Thus when discussing learning transactions and interactions in DE, it is important to consider them from the viewpoint of how dialogue, structure and learner autonomy have been integrated because this integration forms the learner support framework.

Moore's Transactional Theory (Moore 1993:22-30) also provides theoretical foundation for learner support. The more and better the dialogue, the less the transactional distance. In addition, well-structured dialogue increases learner autonomy with an overall decline on the need for learner support. Nevertheless, the prevailing situation is not as ideal. Dialogue, structure and learner autonomy are rarely at a balance. This skewness necessitates the need for learner support in order for the three elements to balance. Support frameworks include all mechanisms that facilitate dialogue, structure and learner autonomy. For example, support frameworks enable communication between the student and the learning material, and teacher and institution with a positive impact on dialogue.

### **3.4 RESEARCH PARADIGM**

A paradigm (Maree 2010:47) is a set of assumptions or beliefs about fundamental aspects of reality which give rise to a particular worldview. It addresses fundamental assumptions taken on faith such as beliefs about the nature of reality (ontology), the relationship between the knower and the known (epistemology) and assumptions about methodology (methods). Such definitions infer that paradigms are not individualised but are descriptive of collective practices and beliefs of a society or a community at any given time. Kinash (2008:n.p.) concurs that paradigms are contextual. That as societies change, paradigms also change. Society dynamics, including all its facets such religion, reality, relationships and culture, change on a temporal basis because the society is neither closed nor static. In the world of research, paradigms have been applied in an attempt to bring clarity to the practice. Similar to societal dynamics, paradigms are not static. Paradigms provide interpretation on world views of the past, present and future. According to Maree (2010:56), they provide an explanatory background on emerging world perceptions

and how environmental phenomena can be understood. Applied to DE practice, the past, present and future practices exhibit distinct paradigm shifts especially because of external drivers, including changes in technology. Research in DE is equally driven by epistemology of the need to build theories, pedagogies and practices which can distinguish DE as an independent education system.

Research practices based on paradigms can be classified as positivism/post positivism, critical theory and constructivism (Guba and Lincoln 1994 in Maree 2010:57). The aim of this research study was to gain information pertaining to learner support services which can contribute to an evidence based implementation of such systems for new students of DE. The methodology intended to investigate answers through multiple perspectives: from the student, the host institution and the trends in the practice of DE. This approach was expected to yield multiple realities, each explicable from the data acquired from different participants. It was thus classified under Critical Theory. Within this, quantitative methods were used to evaluate (from the students) what and how much they receive and/or expect to receive as support. Qualitative methods were used to provide depth of inquiry into the construct.

There are many ways of understanding Critical Theory. One view is that of structuralism; that the society functions within systems and subsystems, that each system is composed of interdependent parts without which the whole system cannot function. This is applicable to DE both from without and within. The growth of DE and technology has become a definitive part of the society. The proper functioning of this branch of education is important to the whole society where it is being practiced. From within, this study focused on one of the subsystems of DE, that is, learner support system. The student is the key stakeholder whose needs should be understood from multiple perspectives including the mechanisms through which s/he is supported in the life of his/her studies.



**Table 3. 1 Research Paradigms**

<b>Paradigm</b>	<b>Ontology</b>	<b>Epistemology</b>	<b>Methodology</b>
<b>Positivist</b>	Reality/ truth is viewed from a single/ one stand point.	There is no relationship between the knower and the known.	Main focus is on quantitative methods.
<b>Critical Theory</b>	Reality/ truth is viewed from multiple stand points.	There is a dependant relationship between the knower and the known.	Both qualitative methods are predominantly used.
<b>Interpretivism/ Constructivism</b>	Reality/ truth is viewed from multiple stand points.	There is a dependant relationship between the knower and the known.	Main focus is on qualitative methods.

Based on Table 3.1, classifications for paradigms emanate from five basic questions: What is knowledge? What are the phenomena? What is the relationship between the phenomena? How does causation occur? And of what use is the research? (Maree 2010:58). Although these questions are distinct from each other, in an inquiry, the search for their answers is not usually a distinct process. It may thus be more realistic to classify them based on ontology, epistemology and methodology.

### **3.5 SETTING: THE TWO UNIVERSITIES UNDER STUDY**

There were two universities within his study. The first university was given the pseudonym of Western University (WU). It is a public university which grew out of a college of science and technology. The former college was founded in 1972 as Western College (pseudonym) providing trainings in Arts and Sciences to technicians at certificate and diploma level. Later, in 2002, it became a constituent college of Lake University, wherein its name was changed to WU. In 2007, it became a full government accredited university. In the same year, through an Act of parliament, the university became an independent and fully-fledged university. It is run through government funding and the students are admitted through the national Joint Admissions Board (JAB).

The university website was easily accessible online from various search engines and also as a direct web address. There was substantial information available on the website. The web page and LMS for DE was accessible through the main university

website. The directorate of DE was commissioned in September 2014 under the name of directorate for Open, Distance and E learning (ODEL). However, undergraduate DE programmes had been in existence for the previous three (3) years in the School of Nursing. ODEL was formally established to expand the scope of DE in the university. It was established to provide a DE platform for more departments in addition to that of nursing. At the time of this study, there were four (4) undergraduate programmes in addition to that of the School of Nursing.

The second university was given the pseudonym of Northern University (NU). It was founded in the year 2001. It is also a public university accredited and fully funded by the government. The university was gazetted in October 1990. Like WU, it was also first established as a constituent college of Lake University (pseudonym). At that time, it was formed by merging the physical infrastructure of the region's government training institute with those of the adjacent teachers' college. In the year 2001, through an Act of parliament, it became an independent and fully fledged university. Its first E learning courses were rolled out in 2011, eight (8) years after the initial plan. Previously in 2007, the university had planned and implemented print-based DE on small scale. During that time, the university's senate had resolved to embrace Open and Distance Learning (ODL). But as plans were revised, new ideas and formats of DE emerged. Later, the university purchased video-conferencing equipment with the intention of using it as the main component of DE. However, all these did not fully take off until 2011 when a formal DE directorate was established under the name of E-campus. The new directorate implemented DE programmes based on web based/E learning delivery formats.

### **3.6 TARGET POPULATION**

The study was carried out in two (2) universities providing DE programmes in Kenya. The target population was undergraduate students registered in DE courses/programmes in Kenya. The study focused on institutions which had implemented distance learning programmes within the last twenty (20) years. Within this time, technology and costs had influenced course delivery trends with a direct impact to the provision of learner support services (reference to literature review chapters 2). Out of the sixty six (66) universities in Kenya (Commission for higher education (CUE) 2014), there are over twenty (20) practicing distance education (DE)

in some form or the other. The modes of distance learning include E learning, online learning, mixed mode learning, blended learning or distributed learning. All modes of distance learning were included in the context of this study.

### **3.7 SAMPLING TECHNIQUES**

Purposive sampling was applied to identify the two (2) participating universities. Purposive sampling is a non-probability sampling technique. It does not involve probability criteria of calculating or planning of the how the population will be represented. Instead, the researcher has a free hand of selecting the representative population based on the study objectives and accessibility of the selected sample. The inclusion criteria is not premeditated, rather, the researcher can make a decision based on the study variables and constructs (Lucas 2014:394). Based on this, application letters were sent to twenty one (21) universities in Kenya. The first two (2) out of four (4) universities which responded within the time of this study were taken as the sample.

Census was used to determine participating undergraduate students. According to Daniel (2012:60), the decision to sample or take a census of the whole population depends on many factors. Some of these include: the inability to gain access or locate the participants within a population, the uncertainty to the response rate and having a small target population. Additionally, Fricker Jr and Schonlau (2002:365) explain that the response rate to internet based surveys tends to be poor. They observe many feasible reasons for this including the fact that some respondents rarely visit their emails while some emails end up in respondents' junk mail. For this study, population census was used because of the geographical dispersion of the students, the unlikeliness of having them together in one venue and the total number of undergraduate students in DE programmes which was less than two hundred (200) in each of the two (2) universities. Therefore, probability sampling techniques were not feasible for the target population. The email addresses for the undergraduate students were accessed from the universities' administration.

### 3.8 SAMPLE SIZE

According to Creswell (2012:146), the general rule of thumb is to select as large a sample as is possible that allows for statistical tests and is also representative of the population; The larger the sample, the less the sampling error (potential error that the sample will be different from the population). Additionally, Pearson (2010:191) explains that the rule of thumb backed by the Central Theorem is that the sampling distribution of any statistic will tend to display a normal distribution if the sample size is large enough by thirty (30) to fifty (50) observations. Pearson (2010:193) gives the formula for calculating sample size as:

$$n = \left[ \frac{z_{\alpha/2} \sigma}{E} \right]^2 \text{ or } n = (z_{\alpha/2} \sigma / E)^2$$

Where  $n$  = the sample size,  $z_{\alpha/2}$  = confidence level or deviations from the mean,  $\sigma$  = standard deviation estimation and  $E$  = Estimated margin error.

For this study, the sample size was to be calculated within 95% confidence level, an estimated variance of 50% and a margin error of 1. The calculation was as follows:

$$n = (1.96 \times 5/1)^2 = 96.4 \approx 96 \text{ students}$$

Where  $z_{\alpha/2} = 1.96$ ,  $\sigma = 5$  and  $E = 1$

Using the calculation, the sample size should have been ninety six (96) students. However, upon reaching the sites, the number of students were less than two hundred (200) in either university, therefore the whole population was taken as the sample. In WU, there were one hundred and twenty two (122) while at NU, there were 150 students. A total of two hundred and seventy two (272) questionnaires were sent out. Tables 3.2 and 3.3 illustrate the breakdown.

**Table 3. 2      Response Rate at WU**  
**Western University (WU)**

Total number of questionnaires sent out on email	<b>122</b>
Bounced emails	<b>19</b>
Questionnaires for response	<b>103</b>
Questionnaires received back	<b>44</b>
Response rate %	<b>42.72</b>
Completed questionnaires	<b>36</b>
Total	<b>n=36</b>

**Table 3. 3      Response Rate at NU**  
**Northern University (NU)**

Total number of questionnaires sent out on email	<b>150</b>
Bounced emails	<b>15</b>
Questionnaires for response	<b>135</b>
Questionnaires received back	<b>60</b>
Response rate %	<b>44.44</b>
Completed questionnaires	<b>54</b>
Total	<b>n=54</b>

Fricker Jr and Schonlau (2002:365) explain that online surveys rarely receive high response rates. They also explain that the response rate through monkey surveys perform worse than in conventional surveys. It was hoped that the response rate in this study would reach a threshold of at least 50%. However, as indicated on Tables 3.2 and 3.3, the study attained a response rate of 43% (n=44) and 44% (n=60) for WU ad NU respectively.

The sample size for key policy implementers was based on census of all the heads of departments directly concern with the provision of DE. These included, the director of distance learning, chairman of department, dean of students, academic registrar, administration representative, the ICT director, systems support specialists, content development coordinator, the librarian and learner support service coordinator. Additional interviewees snowballed from the director of ODL or DE directorates from each university. At times, the heads of department would nominate or delegate a member of faculty or representative to take the interview.

### **3.9 INSTRUMENTATION**

There were three (3) instruments for data collection in this study. An online questionnaire, a documentary analysis tool and a structured interview.

#### **3.9.1 Questionnaire**

The questionnaire was constructed to gather mostly quantitative data with two (2) short answer questions for qualitative data. It was used to gather data from the student sample. The questionnaire was uploaded onto an online software for surveys with a link provided for each participant. It was divided into three parts. The first part, contained the consent form (representing Q1). The second part contained seventy five (75) Likert scale questions. The questions were divided into nine (9) sections, with each comprising the test indices for learner support structures. The last part comprised of twelve (12) questions for the respondents' general characteristics. In total, there were eighty eight (88) items to be answered (See Appendix C).

#### **3.9.2 Documentary Analysis Tool**

This tool was used to gather qualitative data from the relevant documents of DE establishment. The documents included: the Commission of University Education (CUE) standards, documents of establishment, status reports, newsletters, distance education guidelines/policy, mission and vision statements, University charter, strategic plans, University websites and learning management system (LMS). The items on this tool (See Appendix D) included: the age of the document, characteristics, intended audience, intended message, its statement on the practice of DE and the provision of learner support services.

#### **3.9.3 Structured Interviews**

This tool (See Appendix E) was used together with a voice recorder to gather qualitative data from key policy implementers and/or representatives of persons in the institution involved in the planning or nominated by directors in provision of DE and learner support services. These included the director of distance learning, chairman of department, dean of students, registrar, administration, the ICT director, systems support specialists, content development coordinator, the librarian and learner support

service coordinator. The list of persons snowballed to other staff concerned with DE who were also interviewed.

### **3.10 PROCEDURE FOR DATA COLLECTION**

Data collection was conducted within four (4) months with intermittent breakages for travel and accommodation. The following section describes how the data collection was organised.

#### **3.10.1 Onset Process**

Ethical approval was granted following successful application to the UNISA Research and Ethics Committee (REC) and the Kenya National Commission for Science and Technology and Innovation (NACOSTI) (See Appendices F and G).

#### **3.10.2 Contacting the target Institution**

Applications with the research proposal were sent to all universities whose email addresses were available on their websites for permission to conduct research. In total, twenty one (21) applications were sent out. Two (2) universities were sampled for the study as explained in the sampling procedure (See section 3.7). Further applications were made to the research and ethics approval committee in the participating universities. Following the universities' approvals, emails and phone calls were made to set up interview appointments with key implementers as advised by the universities' research and ethics committees.

#### **3.10.3 Piloting data collection tools**

Two (2) months prior to the four (4) months of data collection, the internet questionnaire survey was set up through a license purchased from Survey Monkey, Inc. Participants for the pilot study were accessed through snowballing from colleagues. Links were sent to fifteen (15) students from various universities and two (2) post-doctoral fellows; all of them having been students or were still students of DE. They were drawn from UNISA, University of London, Kenya Methodist University, Middlesex University, State University of New York, Cambridge University, University of Wales, Cranfield College and Maseno University. Their responses contributed to editing, revision and rewriting of the final questionnaire as explained in the section 3.14 on validity.

### **3.10.4 Administration of Tools**

The following section explains the processes which were used in administering the study instruments.

#### **3.10.4.1 Questionnaires**

The questionnaires were administered to the sample population through the online Survey Monkey software. This phase took four (4) months including intermittent travel from one university to the other. For NU, administration of questionnaires was conducted within a period of one (1) month. In week one, the questionnaire was sent out by providing a link in each email. Weekly reminders were sent out every Friday for the subsequent three (3) weeks. On the last day of week four, the link was closed and the questionnaires which had been returned were stored in the Survey Monkey cloud account. Within the next two (2) months, the researcher travelled to WU and the process of administering the questionnaires was repeated as was done in NU. This also took a period of one (1) month. In the fourth month, all data was downloaded from the cloud account for editing and into the data analysis phase.

#### **3.10.4.2 Structured interviews**

Appointments were made with the key departments concerned with DE to identify representatives for the structured interviews. The interviews were conducted at the universities according to pre-arranged appointments and within the four (4) months of study. At each interview, the respondent was informed of the study and requested to sign a consent form. Thereafter, the interview was recorded to be reviewed later during data analysis. Each interview took an average of forty five (45) minutes. The researcher also took notes from observations, during the interview and for the whole period of stay at the universities.

#### **3.10.4.3 Documentary Analysis**

The time for data collection progressed for four (4) months overlapping into the data analysis period. Documentary analysis began as soon as the researcher arrived in the university and continued through into the data analysis phase. Data analysis was conducted through a period of two (2) months, following the four (4) months of questionnaires and interviews. There were a total of forty (41) documents from the two (2) universities including interview scripts and websites. The documents, received



from the DE directorates, were included into the study according to their relevance to the practice of DE. At NU, for example, the director of E learning shared five (5) important documents according to her advice in addition to six (6) others from her library. These were the university's strategic plan which included the strategic plan for DE, the DE guidelines, the national guidelines for DE, the Commission for University Education (CUE) policy document and the evaluative report (E campus at one year). Other documents included; the university charter, mission and vision statements. The same process applied at WU. In addition to strategic plan for DE, the DE guidelines, the national guidelines for DE, the Commission for University Education (CUE) policy document, the director provided three (3) documents of establishment for the DE program in Bsc Nursing, draft DE policy and the university newsletter. At NU, the director explained that these documents were the guides for DE establishment and continued to be used as reference and guidelines for improvement. Other documents included: the universities' websites, E learning portals and the Learning Management Systems (LMS). To access, the E learning portal at both universities, the researcher was given temporary registration, a username and password. The researcher was granted limited access by the directors to access the LMS for three (3) months. One must be registered for a programme as a student or as a member of faculty/administrator in order to log in. For both universities, the portal was the pathway to the LMS powered by MOODLE. Later on, during data analysis, transcripts from interviews and analysis of websites and LMS brought the total number of documents to forty one (41).

### **3.11 STATEMENT ON RESEARCH ETHICS**

Nearly all research that involves human beings gives rise to ethical issues. In this study, the following ethical considerations were made.

#### **3.11.1 Informed Consent and Disclosure**

The research design, procedure, purpose and implications were explained to all potential participants before the data collection procedures commenced. Through application letters, the researcher introduced herself and explained the purpose of the research to the universities' research and ethics committees. The consent letter for participants was on the first page of the questionnaires and the interview scripts. At

the sites, the letter was given to each participant requesting for his/her consent. The letter also informed the participant on his/her rights including the choice to consent or decline to participate in the study. The right to stop at any time during the process was also explained. On the online questionnaire, the letter was the first item. It was structured such that the participant would not be able to proceed to the questions if s/he did not give consent.

### **3.11.2 Privacy and Confidentiality**

Privacy is concerned with access to people's reserved lives or other people accessing information about participants. Confidentiality is related to the way the information received from the participants is handled. The participants were advised to use initials or nicknames for identification and differentiation for the purposes of analysis but they were also informed that they were free to use their real names. It was explained in the consent letter that there would be no association or intention to associate the names with any participant. They were reassured that the study results would not be shared with anyone else known to them and was intended only for purposes of data. They were also reassured that the data would not affect their studies or the relationship with the institution in any way.

### **3.11.3 Risk or Harm**

It was explained to the participant that they would not be harmed in any way and that the research procedure would not pose any danger to him/her. The research would only involve their time and that participation would pose no threat either to them or to anyone else. The participant was guaranteed that whatever information he/she gave would not in any way affect his/her person, study in college or relationship with lecturers. For the programme implementers, the consent letter gave an assurance that their participation would not in any way affect their work or relationship with the university.

## **3.12 LIMITATIONS OF THE STUDY**

This study had the following limitations: first, it was difficult to control the independent variables being tested because distance learning students differ in location, experiences and homogeneity in access and ownership of technologies for distance learning. Secondly, the media for delivery was not a consideration. This was a

limitation because each student interacts differently from each media even when the same media was used. For example, to access the LMS, one student may use a smart phone while another may use the computer. This would generate different experiences for the two students. In DE, each student has a unique experience in the learning process with numerous intervening variables. Lastly, it was difficult to locate the students in one sitting, therefore online questionnaires were sent through email. Some emails bounced back, an indication of the limitation of ascertaining that the whole sample population had been reached.

### **3.13 DELIMITATIONS OF THE STUDY**

Although there are over sixty six (66) universities in Kenya, this study was conducted in only two (2) universities. DE is a relatively new practice for most universities in Kenya and has only grown in the last twenty (20) years. Purposive sampling was applied to identify the two (2) universities so as to enable an in depth study on the students' needs for support and how the history and growth of DE at the university affects the support systems. The data was gathered from particular staff as well as from university documents. Additionally, this study was interested in students' needs as they come into a new environment of learning. Therefore only undergraduate students of DE were included.

### **3.14 VALIDITY**

Validity strives to reassure all that the instrument actually measures what it intends to measure. The results from the study should depict the actual state of the population being studied. According to McBurney and White (2009:169-188), a study is believed to be valid if the conclusions correctly reflect the actual state of the world even if the results may not be generalizable. They further explain that there are four (4) types of validity: internal, external, construct and statistical validity. Internal validity seeks to establish that the established relationship between the independent and dependent variables can logically be explained without the interference of other variables. That even though it is not possible to completely eliminate all intervening variables, such variables have been identified and successfully avoided. Internal validity was very important to this study because the objective of the study intended to link theory with the practice of DE. Intervening variables like variations in modes of delivery and

technology were identified and acknowledged. The main construct, the independent variable, was the learner support available to students. This variable was further subdivided into nine (9) composite variables from which test items were derived. The nine (9) variables were derived based on literature review, evidence-based-practice from other universities and conventional best practice.

Construct validity has to do with measurement and instruments. It requires that the instrument measures what it intends and that the data resulting from the tools can validly explain plausible arguments of the conclusions being made. According to McBurney and White (2009:169-188), construct validity seeks to rule out other theoretical explanations that can be developed from the results. Towards this, the university supervisors at UNISA and the research and ethics committee evaluated the research instruments. The instruments were used following their approval. The data collection tools were piloted and feedback was received. This informed revision and clarity of the instruments based on the following: on the positive, the respondents reported that the construct had been well captured. The questions were too many and the respondents got tired midway through the questionnaire. They also observed that some questions were repetitive while some were unnecessary. These were taken into account and the instruments were edited and reconstructed. The final questionnaire comprised of eighty eight (88) statements down from one hundred and twelve (112), including the first page containing the consent form.

### **3.15 RELIABILITY**

Reliability of the test instrument seeks to establish that the instrument yields consistent results both within the test items and from the respondents. Reliability should yield consistency despite the change of test administrators or use of alternative forms of the test (Dick 2014:2). This means that the instrument is confined to testing a single construct which should not change regardless of the test items. Scientifically, “a reliable instrument should have a small random measurement error and also measure one single dimension” (Salkind 2010:3) where random measurement error is the major cause of inconsistencies affecting reliability. When testing reliability on scientific computer applications (SPSS or Microsoft Excel), the concern is to test the extent to which random measurement errors may affect the results. In reality, item scores are based on the “true score theory” (Gebotys 2007:4). This theory assumes that the

observed score on any particular test (X) is a composite summation of two hypothetical measures, that is, the true score (T) and the random measurement error (E):

$$X = T + E$$

The aim of testing the reliability of an instrument is to establish how closely related or the correlation between the true scores and the observed scores of the items on the instrument. This correlation is often an estimate. According to Gebotys (2007:4-5), there are two methods of estimating the correlations. These are methods requiring two separate test administrations and methods using one test administration. In this study, the second method was used. Herein, reliability is estimated based on scores from a single test administration which seeks to establish the correlations and consistencies between the test items across the whole instrument. To accomplish this, this method splits the items on the instrument into two halves after which, the correlation of the halves is tested. There are many ways through which the instrument can be halved. These include: first, dividing the instrument into two so that the first half is referred to as part 1 and the second, part 2 or dividing the instrument into even and odd numbers. Based on split-half methods, the most widely used method is the Cronbach's Alpha ( $\alpha$ ), calculated based on the following formula:

$$\alpha = k / k - 1 \left( \frac{-1 - \sum \sigma^2_i}{\sigma^2_x} \right)$$

Where k is the number of items on the test/scale,  $\sigma^2_i$  is the variance of item i, and  $\sigma^2_x$  is the total test variance. Cronbach's  $\alpha$  can also be conceived as the average of all the possible split-half reliabilities (calculation of split-half reliabilities is discussed in section 3.15.1) estimated on the single test/scale. Unlike the split-half methods, Cronbach's  $\alpha$  is not affected by how the items are arranged in the test/scale (Gebotys 2007:6). A perfect correlation between score of items is indexed as 1.0 and is indicated on the computation result of alpha = 1.0. The closer the alpha result is to 1.0, the more reliable the instrument.

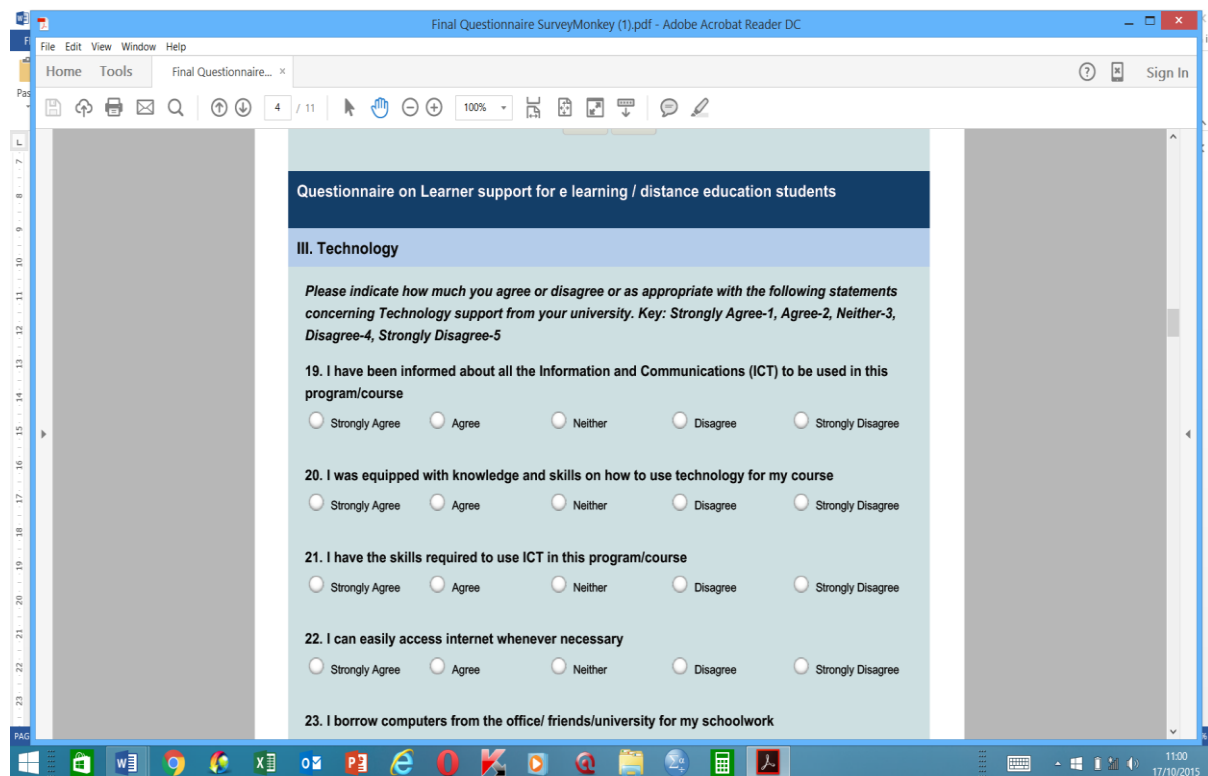
### **3.15.1 Procedure for Computing Reliability**

In this study, SPSS application was used to compute the alpha score both on Cronbach's  $\alpha$  and split-half method. The main construct being tested is students support services. Therefore, the questionnaire was constructed to test variables within the construct. The variables were: 1) Registration procedures, 2) Orientation

programme and skills training, 3) Technology and learning materials, 4) Counselling and mentorship, 5) Interactions and communication, 6) Regional centres and library, 7) Students association and representation, 8) Feedback, and 9) Course progression and satisfaction. Within these variables, statements were constructed which required the respondent to choose an answer within the following Likert scales (Figure 4.2 is an example):

- Strongly agree – Agree – Neither – Disagree – Strongly disagree
- Always – Often – Sometimes – Rarely – Never
- Yes – No

**Figure 3.2 Excerpt of the online questionnaire**



In preparation for piloting, the student questionnaire was uploaded onto an online survey software. The original tool before post-piloting edit, had ninety four (94) statements within the nine (9) variable items and seventeen (17) items for demographic data. It was sent to fifteen (15) colleagues and students who had consented to participate in the study. The questionnaires were returned within a period of one (1) week after which the survey links were closed and participants contacted by email and telephone to give feedback. Nine (9) questionnaires were received back (the feedback is discussed in the validity section, 3.14). Results for the nine (9)

questionnaires were exported to SPSS and Microsoft Excel for analysis. After editing, the final tool contained eighty eight (88) statements.

Based on completeness, of the nine (9) returned questionnaires, SPSS excluded the results of three (3) questionnaires and computed reliability results based on six (6) questionnaire (See Table 3.4). Furthermore, the test items (variables) numbered ninety four (94) items and based on a 5 point scale (Strongly Agree to Strongly Disagree, Always to Never). SPSS excluded eight (8) items which were on the 2 point scale of 'Yes – No'. Some of these are the items which were deleted from the questionnaire following feedback from respondents. This means that reliability tests were run on the actual items on the final questionnaire. Following are the results. The final number of items are indicated on Tables 3.4 and 3.5.

### 3.15.2 Cronbach's Alpha

**Table 3. 4 Case Processing Summary**

		N	%
Cases	Valid	6	66.7
	Excluded <sup>a</sup>	3	33.3
	Total	9	100.0

**Table 3. 5 Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.974	.974	88

**Table 3. 6 Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.498	1.333	4.667	3.333	3.500	.491	88
Item Variances	.809	.167	2.300	2.133	13.800	.313	88
Inter-Item Covariances	.243	-1.367	1.900	3.267	-1.390	.149	88
Inter-Item Correlations	.302	-1.000	1.000	2.000	-1.000	.173	88

Table 3.6 displays the summary of statistics for Cronbach's alpha reliability test. On average, test instruments with a Cronbach's alpha of 0.7 and more are accepted as reliable (Geobotys 2003:6). It is also notable that testing an instrument with a large number of items usually tends to inflate the  $\alpha$  score while an instrument with, for example, ten (10) or less items tend to deflate the  $\alpha$  score. For this study, an  $\alpha$  score of 0.974 was indicative of a reliable instrument (See Table 3.7).

### 3.15.3 Split- Half reliability statistics

**Table 3.7 Case Processing Summary**

		N	%
Cases	Valid	6	66.7
	Excluded <sup>a</sup>	3	33.3
	Total	9	100.0

a. Listwise deletion based on all variables in the procedure.

**Table 3.8 Reliability Statistics**

Cronbach's Alpha	Part 1	Value	.946
		N of Items	42 <sup>a</sup>
	Part 2	Value	.956
		N of Items	46 <sup>b</sup>
Total N of Items		88	
Correlation Between Forms			.902
Spearman-Brown Coefficient	Equal Length		.949
	Unequal Length		.949
Guttman Split-Half Coefficient			.948

a. The items are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42.

b. The items are: 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88.

Tables 3.7 to 3.10 display the summary of statistics for Cronbach's  $\alpha$  based on split-half reliability test. Here also, three (3) questionnaires were excluded. Eighty eight (88) items were split into half as indicated on the table footnotes. This method also indicated a reliable instrument. Table 3.5 shows a score of 0.946 for the first part and a score of 0.956 for part 2. These results indicated a reliable instrument.



**Table 3. 9 Summary Item Statistics**

		Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	Part 1	2.540	1.333	4.667	3.333	3.500	.592	42 <sup>a</sup>
	Part 2	2.460	1.667	4.333	2.667	2.600	.406	46 <sup>b</sup>
	Both Parts	2.498	1.333	4.667	3.333	3.500	.491	88
Item Variances	Part 1	.871	.167	2.300	2.133	13.800	.332	42 <sup>a</sup>
	Part 2	.751	.167	2.167	2.000	13.000	.295	46 <sup>b</sup>
	Both Parts	.809	.167	2.300	2.133	13.800	.313	88
Inter-Item Covariances	Part 1	.258	-.800	1.900	2.700	-2.375	.202	42 <sup>a</sup>
	Part 2	.242	-.967	1.800	2.767	-1.862	.104	46 <sup>b</sup>
	Both Parts	.243	-1.367	1.900	3.267	-1.390	.149	88
Inter-Item Correlations	Part 1	.251	-1.000	1.000	2.000	-1.000	.206	42 <sup>a</sup>
	Part 2	.367	-.866	1.000	1.866	-1.155	.137	46 <sup>b</sup>
	Both Parts	.302	-1.000	1.000	2.000	-1.000	.173	88

a. The items are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42.

b. The items are: 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88.

**Table 3. 10 Scale Statistics**

	Mean	Variance	Std. Deviation	N of Items
Part 1	106.67	481.067	21.933	42 <sup>a</sup>
Part 2	113.17	536.167	23.155	46 <sup>b</sup>
Both Parts	219.83	1933.767	43.975	88

a. The items are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42.

a. The items are: 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88.

### 3.16 DATA ANALYSIS

To achieve the study objectives, data was analysed in two (2) blended stages. The first was quantitative analysis. Here, questionnaires continued to be received for each university within a period of one (1) month. At the end of the period, the links were closed. The questionnaires were edited for completeness and exported to SPSS and

Microsoft excel. In the latter, the data was coded based on the answers and the scales as follows:

5 = strongly agree, 4 = agree, 3 = neither, 2 = disagree and 1 = strongly disagree.

5 = always, 4 = often, 3 = sometimes, 2 = rarely and 1 = never.

2 = yes, 1 = no, 2 = female, 1 = male and 2 = married, 1 = single.

These were then transcribed into SPSS. The data was subjected to analysis in both descriptive and inferential statistics. The former resulted in frequencies, means, mode, median, percentiles, standard deviation and variances. These were tabulated in frequency distribution tables, pie charts, bar graphs and histograms. Following the aforementioned descriptive statistics, there was need to establish the differences within and between the universities. For this, the following statistical tests were used: t-test, Chi-Square test, Analysis of Variance (ANOVA) and factor analysis.

### **3.16.1 T-test**

The standard t-test is recommended for comparing means between two groups under the same independent variable. The groups are often divided into control and experimental groups especially within experimental study designs (Nayak and Hazra 2011:86). However, it may equally apply to groups testing smaller variables within a study. For example, in this study, it was used to compare the groups of those who owned a computer/laptop and those who did not, within the controls of 24-hour-internet access. The paired t-test, on the other hand, is used to compare means of two groups before and after a given treatment. This is mostly useful in experimental designs with pre-tests and post-test measurements.

### **3.16.2 Chi-Square test**

The chi-square test is also known as the test for independence. It is useful in cross tabulation results where there are two rows and more than two columns. The rows being defined by a different variable from that of the columns, chi-square test seeks to establish the association between the two variables by computing a p value. In this study, an example of cross tabulation involved the association of gender, computer ownership, 24-hour internet access and universities.

### **3.16.3 Analysis of Variance (ANOVA)**

The one-way ANOVA is similar to the t-test but instead of comparing only two means, ANOVA can be used to compare means from three or more groups and also as an alternative to the t-test (Nayak and Hazra 2011:86). The ANOVA results in a p value. If the p value is less than the critical value then the difference in means is significant against the hypothesis that all population means are identical.

### **3.16.4 Factor Analysis**

This was useful especially because the questionnaire contained seventy five (75) questions derived from the original nine (9) indices. It was important to condense the resulting data into smaller components that would answer the research questions. Factor analysis (FA) was used to reduce the data into components that had strong associations so as to measure the construct more efficiently. There is theory behind when and why of the use of FA. It is described as a statistical technique that differs from others. It does not compare group differences, correlations or regressions. Instead it is used as a data reduction technique. It makes a summary of the data by reducing it into smaller variables referred to as components or factors. It does this without losing the information in the data. It is usually applicable once a tool is developed with numerous scales and measures which can then be reduced mathematically to a smaller number of subscales that together measure the construct. Incidentally, they may also measure emerging variables which may be important to the study but which may not have been in consideration originally.

According to Kline (2014:28) there are two main approaches to FA. These are Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). CFA is typically used in the early stages of research when trying to develop a theory or to gather information about relationships among variables. EFA is more commonly used within studies to test hypotheses. The term "Factor Analysis" is a generic umbrella term that represents a couple of different but related techniques. One, is the Principal Component Analysis (PCA) and the second, is the Standard Factor Analysis (SFA). The two techniques have a lot of similarities as well as differences and, many times, they are interchangeably used when referring to FA in general. However, they both try to do the same thing. They try to develop a small number of linear combinations within the original variables so that as much of the variability in the correlations as possible

can be captured. But they do this in a number of different ways. In PCA, the original variables are transformed into a smaller set of variables that have very strong linear correlations or linear combinations while looking at the variance in all the variables while in SFA, factors are estimated using a mathematical model. In this study, the PCA was utilised. There are two (2) basic steps when conducting a PCA (Kline 2014:30):

Assessing the suitability of the data for Factor Analysis. Like other statistical tests, there are assumptions that have to be met. There are two issues that determine whether data is suitable. One is the sample size and two is the strength of the relationship among the variables or the items within the measurement tool. There is little agreement as to how big a sample should be. However, the recommendation is “the bigger the better” (see Section 3.8). This is because with small samples, the correlations coefficients among the variables tend to be less reliable because of high variability. But one could still have a smaller sample size with a smaller and appropriate analysis for smaller sample sizes, but it has to be taken into account that there could be some kind of unexplained variability or the results may not be as reliable as assumed. This is determined by the strength of the inter-correlations among the items within the measurement scale.

The standard is that these items need to have a correlation of at least .30 or greater. If there are only a few correlations above .30 then FA might not be appropriate. But this also depends on how many items are available. There are some statistical measures generated by SPSS that can help to determine the appropriateness of the interrelationships. One of them is the Bartlett’s test of sphericity and another is the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy. These can be used as a way to determine the suitability of data. The Bartlett’s test of sphericity uses the  $p$  value such that if the  $p$  value is less than or equal to .05 ( $\leq 0.05$ ), then the result is significant enough to pass the suitability test. The KMO measure results ranges from 0 to 1 with .60 considered to be an optimum. Any value  $\geq .60$  is a good fit for FA. The closer the result is to 1 the better.

#### **3.16.4.1 Component/Factor extraction**

This involves determining the smallest number of items which can best be used to represent relationships among the items. There are a variety of approaches that can be used to extract this number of components. The PCA extraction technique can be

performed using SPSS. It is typically up to the researcher to determine the number of factors which he/she considers as adequate in order to describe the underlying relationships, but there has to be a balance between two conflicting needs (Kline 2014:30):

- i) Find a simple solution with as few factors as possible. There is always need to be as efficient as is possible.
- ii) Produce a complete picture to explain as much of the variance that is present within the data as is possible.

So there needs to be a balance between being complete and measuring what is being tested as well as being efficient with the measurement. There are three (3) measures that can help to determine the efficiency and depth of the measurement in accounting for the variance. These are:

- i) Kaiser's criterion
- ii) The scree test
- iii) Parallel analysis

Kaiser's criterion uses an Eigen value. An Eigen value of 1.0 or greater forms the components that the researcher would want to use. The Eigen value represents the amount of total variance explained by that factor. The scree test involves plotting each of the Eigen values of each of the items and inspecting the (scatter plot) plot to find the point in the plot where the shape of the curve starts to change direction and becomes horizontal. Parallel analysis is used as a quality check that works by comparing the size of the Eigen values collected from the data to the Eigen values of a randomly generated data set of the same size.

#### **3.16.4.2 Factor rotation and interpretation**

Once the number of components or items have been determined, the next step is to try and interpret them. To assist in the interpretation, the components are referred to as rotated (Kline 2014:33). This does not change the underlying outcome or solution, it presents a pattern of what is referred to as loadings in a manner that is easier to interpret. Basically, it shows the variables that clump together and which can then be

used to interpret the results. In this study, FA and PCA were used on the questionnaire and the findings explained in chapter 4.

### **3.17 QUALITATIVE DATA ANALYSIS**

The second stage was qualitative data analysis. The interview recordings were transcribed and typed into Microsoft (MS) Word document. The websites were each analysed using the documentary analysis tool and the results transcribed into Microsoft (MS) Word. Other documents which were in PDF were analysed as was. All interview transcriptions, completed qualitative data from the questionnaires, and documents were uploaded onto Atlas ti.7, a qualitative analysis software. Here, data was coded into categories using the nine (9) thematic areas. Both codes and quotations were further analysed through content and thematic analyses. For content analysis, data was combed through for issues of DE and learner support. Thematic analysis was based on the study variables. Memos were written as the coding went on based on hunches and emerging ideas. The codes were later grouped into thematic components and further analysed to illustrate the overall meaning with the support of the written memos. The memos were compiled together with the new themes into the report. The report also included quotes that represented the themes being discussed.

Finally, both quantitative and qualitative results were combined for triangulation. This aids in comparison and corroboration or contradictions. The use of both qualitative and quantitative methods meant that the same information was gathered in different ways and from varied sources. The information could be compared in seeking answers to the research questions giving numerous perspectives on the phenomenon. Triangulation in this study was used to understand the independent variable. For example, if the university reported that learner support services were available, then the student needed to confirm that he/she had received the services. In this way, the findings from student questionnaires can be compared with those from the university administration for corroborations or contradictions.

### **3.18 SUMMARY**

This chapter has detailed the research design and methodology. It explains the rationale for the research design and explored various applications of evaluation

designs and mixed methods. It has presented the theoretical background, the research paradigm, the target population, the sampling techniques and the sampling procedures. It also included the steps taken to ensure trustworthiness, ethical practice and data collection procedures. Finally, it has outlined data handling procedures, analysis and progress towards compilation and interpretation of findings.

## CHAPTER 4

### DATA ANALYSIS AND PRESENTATION OF RESULTS

#### 4.1 INTRODUCTION

This chapter presents research findings from data generated and analysed from two (2) universities. It was an evaluation study that employed both quantitative and qualitative methods. For the quantitative segment, students answered online questionnaires. For the qualitative, there were structured interviews of key policy implementors in addition to analysis of university documents in relation to the establishment of distance education (DE). The study had four (4) objectives, to:

1. Assess the learning formats, course delivery trends and challenges that define distance education.
2. Investigate the learning support services available to registered undergraduate students of distance learning in two universities in Kenya.
3. Deduce skills distance students need to develop through learner support systems for effective participation in learning activities.
4. Recommend and formulate, from study results, guidelines for a practical support system for new students in distance education programmes.

Towards attaining the objectives, nine (9) Indices of learner support services were tested: 1) Registration procedures, 2) Orientation programme and skills training, 3) Technology and learning materials, 4) Counselling and mentorship 5) Interactions and communication 6) Regional centres and library 7) Students association and representation, 8) Feedback, and 9) Course progression and satisfaction. Data was collected from two (2) universities with the pseudonyms of Western University (WU) for the first one and Northern University (NU) for the second.

The findings are presented in two phases. Phase one comprises results of quantitative data analysis from the questionnaires. This focused partly on answering the second and third research questions:

- Research Q 2: To what extent are support services available to undergraduate students of distance learning upon registration into the programme?



- Research Q 3: What skills should be developed by the student through learner support systems for effective participation in distance learning activities?

The first phase begins with descriptive statistics on demographic data, followed by inferential statistics on the learner support indices and descriptive statistics of results of individual indices. This phase is further presented in two (2) segments. First, the students' characteristics that influence their needs and determine the provision of distance learning. These were analysed from twelve (12) questions at the end of the questionnaire (see Appendix C) and include gender, age, marital status, having children, working and studying, full time studying, computer ownership, internet access and the definition of DE. The remaining one (1) question was the consent form. The second segment are the results of seventy five (75) questions derived from the nine (9) indices. Each index was presented in the questionnaire (See Appendix C) with specific likert scale statements. There were thirty six (36) respondents from WU and fifty four (54) from NU totalling ninety (n=90). The respondent was required to rate each question based on his/her experience of the support index. The results for each index is presented as a subsection with descriptive statistics followed by inferential statistics.

Phase two consists of the qualitative data analysis which was devoted to answering the aforementioned questions as well as the remaining two research questions:

- Research Q 1: How have learning formats, course delivery trends and changing faces of distance education contributed to challenges in providing support to undergraduate students of distance learning?
- Research Q 4: What support elements can constitute to the formulation of guidelines for learner support systems for new students of distance education?

This phase comprises of results analysed from interviews with key informants/office holders and documents of DE establishment. The results were aggregated under three (3) themes which developed from the coded data. The three (3) themes were:

1. Pursuits to maximise the DE learning experience
2. Formulas and frameworks
3. Strategies for policy formulation in DE

The demographics for participants are also presented in the two phases. Section 4.2 presents the demographics of participants in quantitative analysis while those of qualitative analysis are presented in Sections 4.7 and 4.8.

## 4.2 DEMOGRAPHICS OF PARTICIPANTS : QUANTITATIVE METHODS

Following are the results by demographics, characteristics and attributes of study participants.

### 4.2.1 Survey participants (Quantitative methods)

Table 4.1 is a breakdown of the survey participants.

**Table 4. 1: Demographics of Survey Participants**

<i>University</i>	<i>Student Population</i>	<i>Sample (all undergraduate students)</i>	<i>Questionnaires returned</i>	<i>Questionnaires for this study</i>
<i>WU</i>	300+	135	44	36
<i>NU</i>	1000+	103	60	54
<i>TOTAL</i>	1300+	235	104	N =90

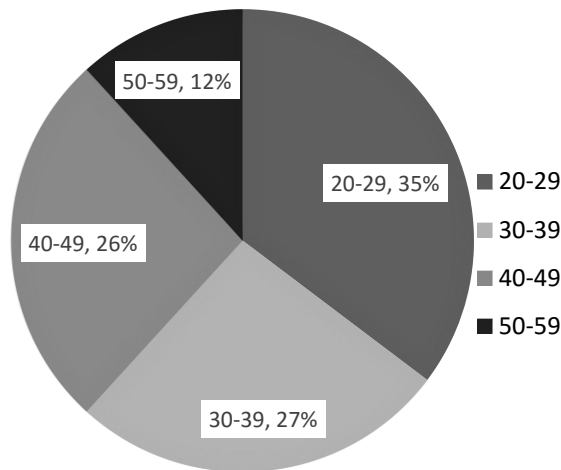
## 4.3 CHARACTERISTICS OF RESPONDENTS

### 4.3.1 Age

Literature in chapter 2, indicates that age is one of the factors which characterises students of DE. By stereotype, DE is believed to attract students who are older than twenty five (25) years of age and who have other life responsibilities in addition to their studies. In this section, the questionnaire contained an open-ended question in which the student was expected to write his/her age in years. This data was analysed using Ms Excel and the following results obtained.

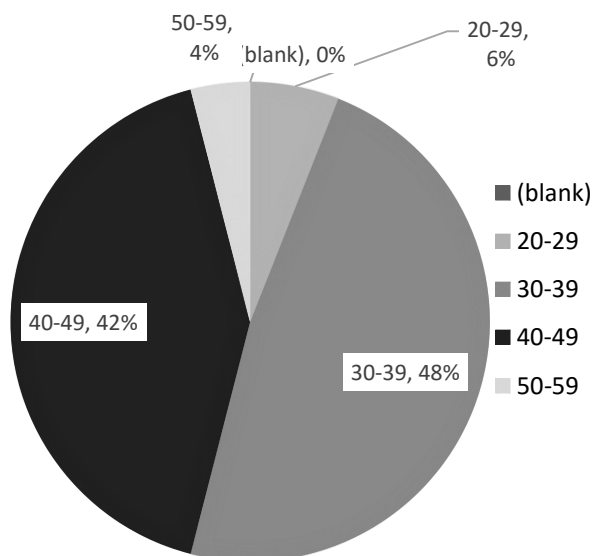
**Figure 4. 1: Percentage Count of Age WU**

**Percentage Count of Age WU (N=90)**



**Figure 4. 2: Percentage Count of Age NU**

**Percentage Count of Age NU (n=90)**



Figures 4.1 and 4.2 indicate the percentage of age groups of respondents by University. The ages ranged between 23 to 52 years (n=36) and 24 to 52 (n=90) years for WU and NU respectively. 35% (n=36) of respondents at WU were below the age of 30 years while there was only 6% (n=54) for the same age group at NU. Over 90% of respondents at NU were below the age of 50 years while WU recorded about 83% (n=36) for the same.

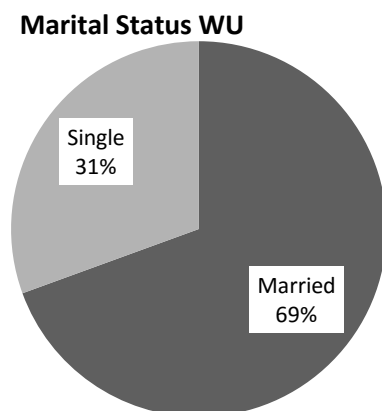
**Table 4. 2: Age group means by University**

<i>Age Group Means by University</i>			
	<b>WU</b>	<b>NU</b>	<b>Grand Total</b>
<b>&lt;10 or (blank)</b>			
<i>Count of Age</i>	2.0		2.0
<i>Average of Age</i>	0.0		0.0
<b>20-29</b>			
<i>Count of Age</i>	12.0	3.0	15.0
<i>Average of Age</i>	26.8	27.0	26.9
<b>30-39</b>			
<i>Count of Age</i>	9.0	24.0	33.0
<i>Average of Age</i>	33.7	33.9	33.8
<b>40-49</b>			
<i>Count of Age</i>	9.0	21.0	30.0
<i>Average of Age</i>	43.8	43.1	43.3
<b>50-59</b>			
<i>Count of Age</i>	4.0	2.0	6.0
<i>Average of Age</i>	50.5	51.0	50.7
<b>Total Average of Age</b>	<b>33.9</b>	<b>38.0</b>	<b>36.3</b>

Table 4.2 outlines the means within age groups and from the totals for each University. The mean age of respondents at WU was about 34 years (n=36) compared to that of NU which was 38 years (n=54). The mean age for all the respondents was 36% (n=90). It does seem like the respondents comprised of persons in early midlife.

### 4.3.2 Marital Status

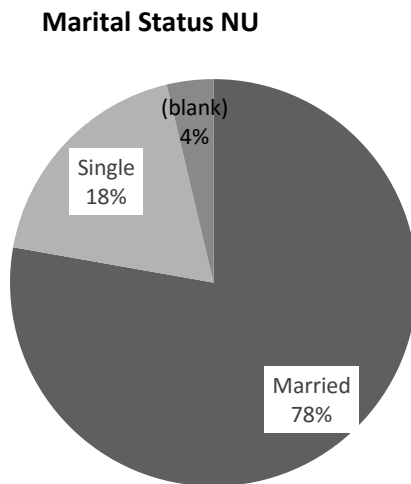
**Figure 4. 3: Marital Status WU**



In literature (See Chapter 2), marital status is also a characteristic of distance students that impacts the practice of DE. The traditional student of DE would probably have a family, be married, have children and/or be in gainful employment. These are additional responsibilities that eat into the time required for learning. In this study, the

determinants for extra responsibilities was enquired in two categories: single or married. The results are shown in Figures 4.3 and 4.4.

**Figure 4. 4: Marital Status NU**

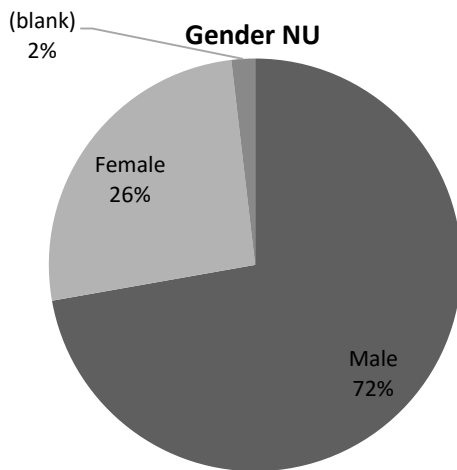


Figures 4.3 and 4.4 illustrate that there were more respondents in marital status group in NU, by 9% (n=54), than those in the same category at WU (n=36). Overall, over 60% of respondents were in marriages in both Universities. With regards to single status, there was 31% (n=36) in WU compared to 18% (n=54) in NU, making a difference of 13% (n=90) between universities.

### **4.3.3 Gender**

DE is characterised by flexibility of time and space such that the student has the responsibility to organise his/her study time within other competing needs. For this reason, DE has been thought to be more attractive to women than men. In this study, the respondent was required to indicate his/her gender.

**Figure 4. 5: Gender WU**



**Figure 4. 6: Gender NU**

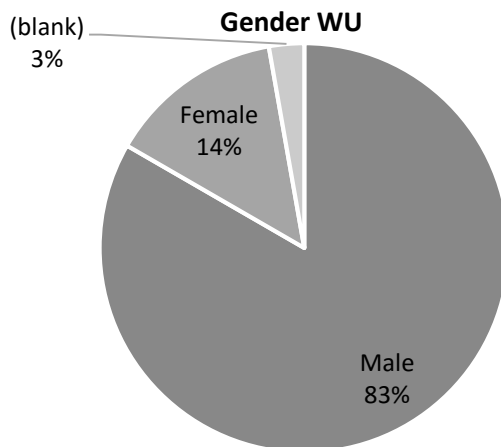


Figure 4.5 shows that WU recorded 83% (n=36) as male and 15% (n=36) as female while according to Figure 4.6, NU recorded 72% (n=54) and 28% (n=54) respectively. Therefore, there were more male students than female students in either University.

#### **4.3.4 Computer Ownership**

Through its history, DE has evolved in tandem with technological innovations and changes. At its onset, DE relied on postal services to courier learning materials to and from the student. Today, with E learning and online learning, computer ownership is believed to be an important component of DE. The respondent was required to indicate whether they owned a personal computer/laptop.

**Table 4. 3: Percentage of respondents ownership of computer**

	WU	NU	Grand Total
<b>No</b>			
Count of Own computer/laptop	31	50	81
% of Own computer/laptop	86%	93%	90%
<b>Yes</b>			
Count of Own computer/laptop	5	4	9
% of Own computer/laptop	14%	7%	10%
<b>Total Count</b>	<b>36</b>	<b>54</b>	<b>90</b>
<b>Total %</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.3 indicates that there were high percentages of respondents who did not own computers. 86% (n=36) of students at WU did not own a computer or a laptop while NU recorded 93% (n=54) on the same.

**Table 4. 4: Group Statistics**

Own a computer/laptop		N	Mean	Std. Deviation	Std. Error Mean
University	No	81	1.62	.489	.054
	Yes	9	1.44	.527	.176

**Table 4. 5: Independent Samples t test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
University	Equal variances assumed	.300	.585	.998	88	.321	.173	.173	-.171	.517
	Equal variances not assumed			.940	9.595	.370	.173	.184	-.239	.585

To compare the means of this result, the independent t test was performed at significance level of  $\leq 0.05$ . Table 4.5 indicates a p value of 0.321 within assumed variances. This shows that although there are differences between computer ownership within the universities (as shown by percentages) there was no significant

difference between the universities. Very few respondents from both sides of the divide owned computers/laptops.

### 4.3.5 Gender and Computer Ownership

Purchase of a computer may be expensive for a DE student who has numerous responsibilities competing not only for his/her time but also for financial resources. In this section, data was analysed to establish whether there were differences in computer ownership by gender.

**Table 4. 6: Percentage of computer ownership by Gender**

	<b>WU</b>	<b>NU</b>	<b>Grand Total</b>
<b>No Own computer/laptop</b>	<b>86.1%</b>	<b>92.6%</b>	<b>90.0%</b>
Male	63.9%	64.8%	64.4%
Female	22.2%	25.9%	24.4%
(blank)	0.0%	1.9%	1.1%
<b>Yes Own computer/laptop</b>	<b>13.9%</b>	<b>7.4%</b>	<b>10.0%</b>
Male	5.6%	7.4%	6.7%
Female	8.3%	0.0%	3.3%
<b>Grand Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Table 4.6 represents two categories, No – not own computer and Yes – own computer. Within each category, were counts of male and female respondents. For the 90% (n=90) of respondents who did not own computers, 64% (n=90) were male and 24% (n=90) were female. In WU, the total of non-computer ownership stood at 86% (n=36) while for NU, there was 93% (n=54) for the same. For the 14% who owned computers in WU (n=36), 8% were female and 6% male, giving a difference of 2% (n=36). In contrast, 7.4% (n=54) who owned computers in NU, all were male. No female respondent from NU owned a computer.

With computer ownership as a fixed factor, analysis of variance (ANOVA) was conducted to establish the differences by gender and university (Tables 4.7 and 4.8).

**Table 4. 7: Group Statistics**

University	Gender	N	Mean	Std. Deviation	Std. Error Mean
WU	Own a computer/laptop Male	25	1.0800	.27689	.05538
	Female	11	1.2727	.46710	.14084
NU	Own a computer/laptop Male	39	1.1026	.30735	.04922
	Female	14	1.0000	.00000	.00000



**Table 4. 8: ANOVA**

			Sum of Squares	df	Mean Square	F	Sig.
Gender	Between Groups (Combined)		.028	1	.028	.133	.716
	Linear Term	Unweighted	.028	1	.028	.133	.716
		Weighted	.028	1	.028	.133	.716
	Within Groups		17.950	87	.206		
	Total		17.978	88			
University	Between Groups (Combined)		.242	1	.242	.997	.321
	Linear Term	Unweighted	.242	1	.242	.997	.321
		Weighted	.242	1	.242	.997	.321
	Within Groups		21.358	88	.243		
	Total		21.600	89			

The results indicate a p value of 0.716 between male and female and a p value of 0.321 between WU and NU at  $\leq 0.05$  significance level. Both show that the differences were not significant. Both gender had low scores of those who own computers regardless of the university.

#### 4.3.6 24-Hour Internet Access

In current education systems, the internet has a substantial contribution to learning both for DE and face-to-face formats. Even for print based DE, the internet hosts the university website, the Learning Management System (LMS) where applicable, the online library, information data bases and cloud data banks. It is also useful for communication purposes including emails and social media. The respondent was required to indicate the availability of internet access on 24-hour basis. Occasional internet was not a consideration because communications to and from the University should have a 24-7 platform.

**Table 4. 9: Percentage of rspondents having 24-hour internet access**

	WU	NU	Grand Total
<b>No</b>			
% of I have 24hour-internet-connectivity	22%	41%	33%
Count of I have24hour-internet-connectivity	8	22	30
<b>Yes</b>			
% of I have 24hour-internet-connectivity	78%	59%	67%
Count of I have24hour-internet-connectivity	28	32	60
<b>Total %</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Total Count</b>	<b>36</b>	<b>54</b>	<b>90</b>

According to Table 4.9, 78% (n=36) of respondents in WU and 59% (n=54) in NU had 24-hour internet access. There were more respondents able to experience 24-hour internet access at WU than at NU by 19% (n=90).

### 4.3.7 24-Hour Internet Access and Computer Ownership

From the results (See Table 4.9), it did seem that there were more respondents who had internet access than computer ownership. As indicated on Table 5.3, there were only 14% (n=36) of respondents who owned computers yet Table 5.9 shows that 78% (n=36) had 24-hour internet access in WU while in NU there was 59% (n=54) for the same. This showed disparities. Untested explanations may include use of computers/laptops provided for by the office or access of the internet through the use of smart phones. The results of the two factors, 24-hour internet access and computer ownership are presented in Table 4.10.

**Table 4. 10: Percentage of respondents 24-hour internet access and computer ownership**

	<b>WU</b>	<b>NU</b>	<b>Grand Total</b>
<b>No 24 Hr Internet Access</b>	<b>22%</b>	<b>41%</b>	<b>33%</b>
No Own Computer	22%	41%	33%
Yes Own Computer	0%	0%	0%
<b>Yes 24 Hr Internet Access</b>	<b>78%</b>	<b>59%</b>	<b>67%</b>
No Own Computer	64%	52%	57%
Yes Own Computer	14%	7%	10%
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.10 indicates that 64% (n=36) of respondents did not own personal computers but had 24-hour internet access compared to 52% (n=54) for NU for the same factor. In contrast, only 14% (n=36) and 7% (n=54) owned computers and had 24-hour internet access for WU and NU respectively.

With computer ownership as a fixed factor, analysis of variance (ANOVA) was conducted to establish the differences by 24-hour-internet access and university (See Tables 4.11 and 4.12).

**Table 4. 11: Group Statistics**

	University	N	Mean	Std. Deviation	Std. Error Mean
Have 24-hour internet connectivity	WU	36	1.7778	.42164	.07027
	NU	54	1.5926	.49597	.06749
Own a computer/laptop	WU	36	1.1389	.35074	.05846
	NU	54	1.0741	.26435	.03597

**Table 4. 12: ANOVA**

				Sum of Squares	df	Mean Square	F	Sig.	
University	Between Groups	(Combined)		.242	1	.242	.997	.321	
		Linear Term	Unweighted	.242	1	.242	.997	.321	
			Weighted	.242	1	.242	.997	.321	
	Within Groups				21.358	88	.243		
	Total				21.600	89			
Have 24-hour internet connectivity	Between Groups	(Combined)		1.111	1	1.111	5.176	.025	
		Linear Term	Unweighted	1.111	1	1.111	5.176	.025	
			Weighted	1.111	1	1.111	5.176	.025	
	Within Groups				18.889	88	.215		
	Total				20.000	89			

The results indicate a p value of 0.321 between WU and NU and a p value of 0.025 between groups of 24-hour-internet access at  $\leq 0.05$  significance level. This indicates no significant difference between universities on computer ownership. However, concerning 24-hour-internet access, the difference between those who had internet connectivity and those who did not when both universities combined was significant at 0.025 (See Table 4.12).

### 4.3.8 Have Children and Full time study

Apart from marital status, there may be single parents who may not be captured in the combined factors of married and have child(ren) . There may also be married persons who do not have child(ren). Within these considerations, the respondent was required to indicate whether he/she had child(ren) in addition to full time study or studying and working. Table 4.13 illustrates results for the factors of having children or not and full time study.

**Table 4. 13: Percentage of respondents who have children and full time study**

	WU	NU	Grand Total
<b>No Have Children</b>	<b>19%</b>	<b>17%</b>	<b>18%</b>
No Full time Study	14%	15%	14%
Yes Full time Study	6%	2%	3%
<b>Yes Have Children</b>	<b>81%</b>	<b>83%</b>	<b>82%</b>
No Full time Study	72%	65%	68%
Yes Full time Study	6%	15%	11%
(blank)	3%	4%	3%
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

There were two categories: No – Have children and Yes – have children. Table 4.13 indicates that 81% (n=36) and 83% (n=54) of respondents had children in WU and NU respectively. Within each category, the respondent was required to indicate whether or not he/she was in full time study. In the first category, 6% (n=36) of respondents had no children and were in full time study in WU and only 2% (n=54) recorded for the same in NU. In the second category, 72% (n=36) of respondents had children while in part time study and 65% (n=54) had the same in WU and NU respectively.

**Table 4. 14: Group Statistics**

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
Fulltime student	No	74	1.8243	.38314	.04454	1.7356	1.9131	1.00	2.00	
	Yes	13	1.7692	.43853	.12163	1.5042	2.0342	1.00	2.00	
	Total	87	1.8161	.38966	.04178	1.7330	1.8991	1.00	2.00	
	Mod el Fixed Effects			.39144	.04197	1.7327	1.8995			
	Random Effects				.04197 <sup>a</sup>	1.2829 <sup>a</sup>	2.3493 <sup>a</sup>			-.00541
University	No	74	1.58	.497	.058	1.47	1.70	1	2	
	Yes	13	1.69	.480	.133	1.40	1.98	1	2	
	Total	87	1.60	.493	.053	1.49	1.70	1	2	
	Mod el Fixed Effects			.494	.053	1.49	1.70			
	Random Effects				.053 <sup>a</sup>	.92 <sup>a</sup>	2.27 <sup>a</sup>			-.005

With the university as a fixed factor, analysis of variance (ANOVA) was conducted to establish the differences between having children or not by full time study and university (See Tables 4.14 and 4.15).

**Table 4. 15: ANOVA**

				Sum of Squares	df	Mean Square	F	Sig.	
Fulltime student	Between	(Combined)		.034	1	.034	.219	.641	
	Groups	Linear	Unweighted	.034	1	.034	.219	.641	
		Term	Weighted	.034	1	.034	.219	.641	
	Within Groups				13.024	85	.153		
	Total				13.057	86			
University	Between	(Combined)		.137	1	.137	.559	.457	
	Groups	Linear	Unweighted	.137	1	.137	.559	.457	
		Term	Weighted	.137	1	.137	.559	.457	
	Within Groups				20.783	85	.245		
	Total				20.920	86			

The results on Table 4.15 indicate a p value of 0.641 between having children/not having children and full time study and a p value of 0.457 between the factors in WU and NU at  $\leq 0.05$  significance level. Both showed that there were no significant differences between those who had children and those who did not who were in full time study, regardless of the university.

#### **4.3.9 Mode of Course Delivery**

When the student is clear on what the DE programme entails, it may be much easier to seek and find support when he/she requires it. There exists a lack of uniformity in the use and definition of terms within the practice of DE. This is especially so, given the influence of technology in the practice. This section was in search of the student's perception on the mode of delivery. The respondent was required to make a choice of what he/she believed to be the course delivery for her/his programme.

**Table 4. 16: Respondents' understanding of Mode of Course Delivery**

	<b>WU</b>	<b>NU</b>	<b>Grand Total</b>
Online Only	8%	85%	54%
Online and DE Learning Materials Offline	50%	2%	21%
Both Online and On campus Learning	39%	11%	23%
Holiday Programme	0%	2%	1%
DE materials by Post/Courier	3%	0%	1%
<b>Grand Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Figure 4. 7: Percentage of Respondents' Understanding on Mode of Course Delivery**

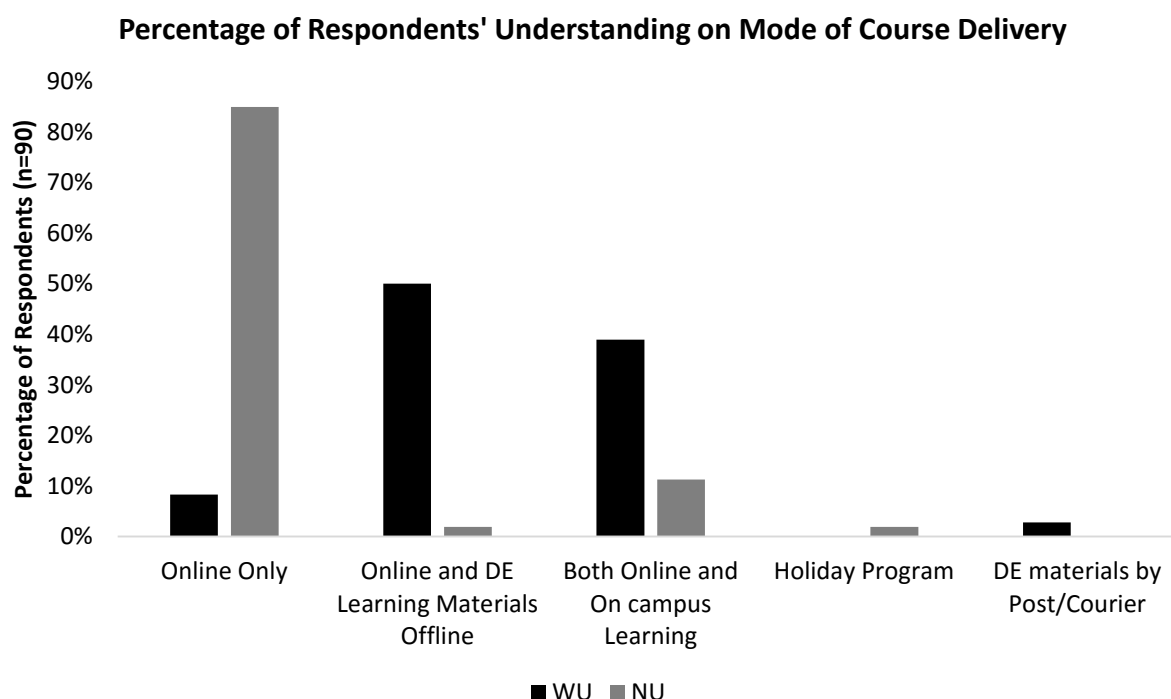


Table 4.16 and Figure 4.7 show that 8% (n=36) of respondents from WU defined their learning process as purely online in comparison to 85% (n=54) in NU. The majority of respondents at NU (n=54) seemed to define their programme as purely online. Over 50% (n=36) of respondents from WU believed that their studies were a mix of DE learning materials online as well as offline. There was a wider variance of perceptions to course delivery in WU than in NU (See Figure 4.7).

#### **4.4 LEARNER SUPPORT INDICES**

In this section, data from the answers by respondents on the online questionnaire was analysed. There were nine (9) aforementioned indices within which there were a total of seventy five (75) statements in the questionnaire (See Appendix C). For descriptive

statistics, Microsoft Excel software was used to generate totals, means, modes, percentages and distribution tables. These were then transformed, using the same software into charts and graphs.

Key: Strongly agree = 5, Agree = 4, Neither =3, Disagree = 2 and Strongly Disagree =1.

Always =5, Often = 4, Sometimes = 3, Rarely = 2 and Never = 1.

Western University = University 1 and Northern University = University 2

For the inferential statistics, SPSS (version 23) software was employed to conduct factor extraction and reduction. The indices were rotated based on the Kaiser-Mayer Olkin (KMO) indicators and the proportion of variance based on the results of Principal Component Analysis (PCA) as explained in Chapter 3. Following are the results.

## 4.5 DESCRIPTIVE STATISTICS FOR LEARNER SUPPORT INDICES

### 4.5.1 Registration Support

Registration processes were concerned with the services offered to support the student to join his/her programme. The registration process was presented in the questionnaire by six (6) questions. The student was required to rate issues concerning access and availability of information on registration, comprehension, career guidance and self-evaluation procedures for programme fitness. Table 4.17 outlines the mean scores and mode for individual questions.

#### 4.5.1.1 Registration Support Indices

Table 4. 17: Registration Measures of Central Tendency (n=90)

		University	Mean	Mode
1	Reginfoaccess	1	4	4
		2	4	4
2	Regprocessclear	1	4	4
		2	4	4
3	Regunderstand	1	4	4
		2	4	4
4	RegCourseinfoacces	1	4	4
		2	4	4
5	Regguidancereceived	1	4	4
		2	4	4
6	RegSelfevalhelpadeq	1	4	4
		2	4	5

The means indicate that the respondents from both WU and NU seemed generally pleased with support during registration processes. Respondents from both university

(n=90) had a mean score of 4 (See Table 4.17). Additionally, this was also the score from most respondents in both Universities.

Figure 4. 8: Students' Rating of Support Services during Registration Process

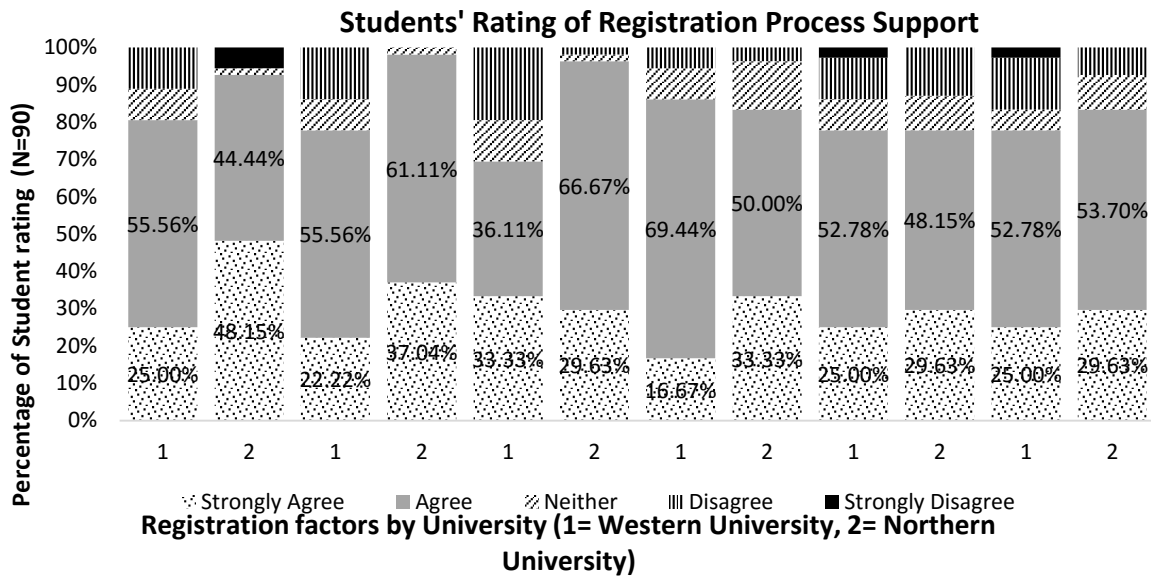


Figure 4.8 illustrates that in the registration index, 82% (n = 36) of respondents at WU were pleased with the University's support during registration compared to 92% (n = 54) of those at NU, giving a difference of 10% (n=90) between universities. The results on Figure 4.8 show slight differences in the students' ratings of support services during registration processes. Both universities seemed to have provided sufficient registration information to students with scores of over 90% (n=90) for 4. Understanding the registration process had the highest indication that students encountered some problems in this index. Here, upto 20% (n=36) of students in WU rated 1 while in NU the same was rated by less than 5% (n=54) of the students. In receiving guidance to the registration process, students from both universities indicated equivalence at about 80% (n=90) for combined score of 4 and above.

#### 4.5.2 Orientation Support

Orientation support processes are intended to assist students with a smooth transition into higher education and especially so for distance learning environments. This index involves induction, to help the student with an understanding of the structure and process of his/her chosen programme/course. It also involves introducing the available human and physical resources, trainings on study skills and time management, the conduct of study groups, orientation to examinations and assignments as well as how



to seek and access help from faculty and staff. Table 4.18 outlines the eleven (11) indicators and results from the student ratings of the variable on orientation index as per the questionnaire (See Appendix C).

#### 4.5.2.1 Orientation Support Indices

The results of means and modes are presented in tables 4.18 below. Unlike for the registration index, the orientation process scored mixed patterns. There was a mean score of 3 from both WU (n=35) and NU (n=54) respondents on questions 5 to 8 concerning time management skills, orientation to social support, skills to manage workload and other competing responsibilities and orientation to study groups. On these, the respondents from both sides of the divide did not show a clear pattern. Incidentally, orientation to study groups had the most common score at 2 from respondents in WU (n=36) indicating dissatisfaction with this indicator.

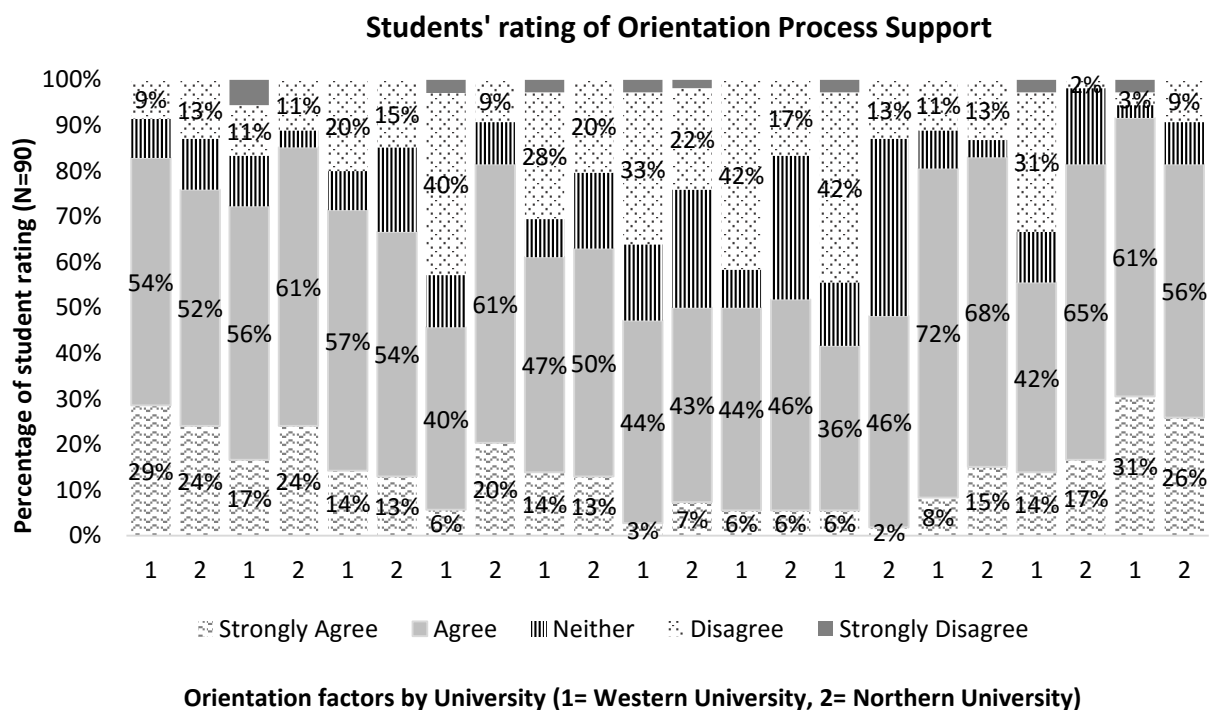
Table 4. 18: Orientation measures of Central Tendency (n=90)

	Orientation Index	University	Mean	Mode
1	OrientProgunderstand	1	4	4
		2	4	4
2	OrientHR	1	4	4
		2	4	4
3	OreIntprogunderstructure	1	4	4
		2	4	4
4	OrientskillsISP	1	3	4
		2	4	4
5	Orientimemanagemt	1	3	4
		2	4	4
6	Orientsocialsupport	1	3	4
		2	3	4
7	Orientworkloadskills	1	3	4
		2	3	4
8	Orientstudygroups	1	3	2
		2	3	4
9	OrientExamsCats	1	4	4
		2	4	4
10	OrientLSS	1	3	4
		2	4	4
11	OrientaccessHelp	1	4	4
		2	4	4

Figure 4.9 indicates that the highest rating on 5 for both WU and NU was on the eleventh (11<sup>th</sup>) indicator in support services during orientation on how and where to access help, which scored 31% (n=36) and 26% (n=54) respectively. The highest

rating for both universities was in orientation on examinations and assignments which scored 72% (n=36) and 68% (n=54) on 4 for WU and NU respectively. Other than this, there seemed to be a wide variation in the ratings on the orientation indicators. The lowest rating indicating dissatisfaction was orientation to study groups. Here, 45% (n=36) of respondents in WU scored 2 and below while the same recorded 13% (n=54) of those at NU giving a difference of 22%. The highest disparity between Universities was in orientation to time management skills where 4 rated 40% (n=36) in WU respondents and 9% (n=54) by those of NU, giving a difference of 27% (n=90).

Figure 4. 9: Students' Rating of Support Services During Orientation Process



### 4.5.3 Technolgy and Learning Materials Support

This index involves practices concerning support, both for technology and learning materials in the programme and online Learning Management Systems (LMS). The respondent was expected to rate twelve (12) questions in this section. The indicators included support structures in the choice, use and skills required in Information and Communication Technology (ICT) equipment. It also included computer ownership and use, internet access and use, access and availability of learning materials and support from the ICT personnel.

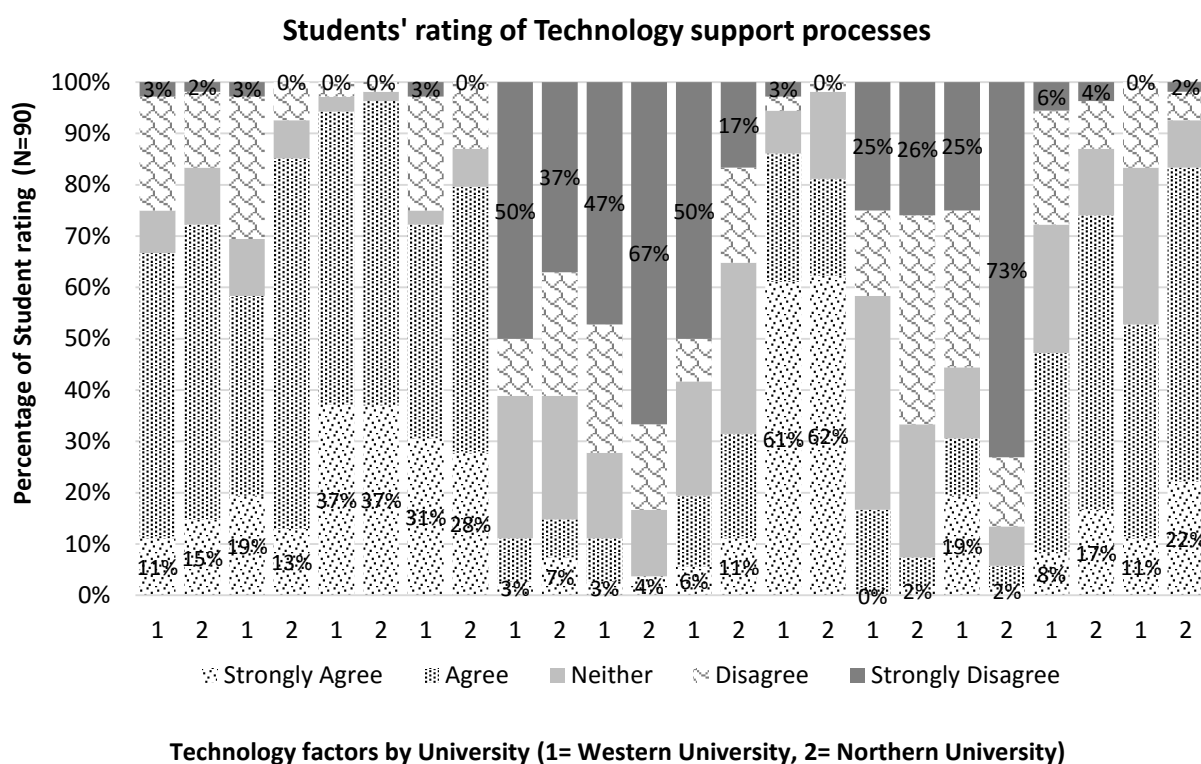
### 4.5.3.1 Technology and Learning Materials Support Indices

Table 4.19 outlines the results for the means and modes of this index. There were mixed patterns for both means and modes within the individual indicators. These were statements testing the support concerning ownership of computers, use of computers at regional campuses, use of office internet, use of personal modem for internet access, access of internet at a cyber café and ICT in access and use of learning materials. Here, there was general dissatisfaction with respondents from both sides of the divide having a mean score of 1 with most occurring at 1 and 2. There was visible dissatisfaction with support in the fifth (5<sup>th</sup>) to tenth (10<sup>th</sup>) questions.

**Table 4. 19: Technology measures of Central Tendency (n=90)**

	<b>Technology Index</b>	<b>University</b>	<b>Mean</b>	<b>Mode</b>
<b>1</b>	<b>ICTtobeused</b>	1	4	4
		2	4	4
<b>2</b>	<b>ICTskillsEquped</b>	1	3	4
		2	4	4
<b>3</b>	<b>ICTskillsPossess</b>	1	4	4
		2	4	4
<b>4</b>	<b>ICTinternetaccess</b>	1	4	4
		2	4	4
<b>5</b>	<b>ICTnotowncomp</b>	1	2	1
		2	2	1
<b>6</b>	<b>ICTcompUniRegcampus</b>	1	2	1
		2	2	1
<b>7</b>	<b>ICTofficlinternet</b>	1	2	1
		2	3	3
<b>8</b>	<b>ICTinternetmodem</b>	1	4	5
		2	4	5
<b>9</b>	<b>ICTinternetCybercafe</b>	1	3	3
		2	2	2
<b>10</b>	<b>ICTothermediaLearningmaterials</b>	1	3	2
		2	1	1
<b>11</b>	<b>ICTpersonnelsupportaccess</b>	1	3	4
		2	4	4
<b>12</b>	<b>ICTpersonnelSupportHelpful</b>	1	3	4
		2	4	4

Figure 4. 10: Students' Rating of Technology Support Processes



In the use of internet and access through a personal modem (See Figure 4.10), the majority of students were in tandem. Over 80% (n=90) of respondents rated 4 and above from both universities. Delivery of learning materials through ICT formats (10<sup>th</sup> question) received the widest disparity of ratings, with a rating of 1 from 25% (n=36) from respondents of WU and 73% (n=54) from those in NU. Figure 5.10 also shows that the issue of possessing ICT skills required for the programme/course (3<sup>rd</sup> question) received equivalent rating of 37% (n=90) from both universities at 5. While the previous question which assessed whether the students had received knowledge and skills for ICT use from the university was rated as satisfactory by 58% (n=36) of WU and 85% (n=54) of those at NU. This indicated disparity in the way the two universities equipped the student to use ICT for distance learning programmes. The use of computers at regional campuses was rated 1 by 47% (n=36) and 67% (n=54) by WU and NU respectively. This is an indication that the majority of students rarely used the computers at the regional centres. Assistance from the ICT personnel (12<sup>th</sup> question) did not score very highly in WU with less than 50% (n=36) seemingly happy while in contrast, NU had over 80% (n=54) of respondents in the same score of 4 and above for the same question. This also indicated disparity in technology support as provided by both universities.

#### 4.5.4 Counselling and Mentorship Support

This index required the respondent to rate his/her knowledge on counselling and how to access it from a lecturer, counsellor or mentor. It also required to rate the student's perception on the relationship and importance of a counsellor in his/her academic journey, whether he/she had a mentor and whether lecturers and counsellors were available when needed by the student. There were ten (10) questions concerning this index. These included the student's ability to differentiate counselling and mentorship services that maybe provided by the lecturer, counsellor or mentor. Also included was the student's knowledge and skills in accessing counselling and mentorship support, his/her rating of the need for such support, the availability and responsiveness of the staff concerned.

##### 4.5.4.1 Counselling and Mentorship Support Indices

Table 4. 20: Counselling and Mentorship measures of central tendency (n=90)

	Counselling & Mentorship Index	University	Mean	Mode
1	CMdiferencesOnWho	1	4	4
		2	4	4
2	CMlecturer	1	4	4
		2	3	4
3	CMhowtoReachCounsellor	1	3	4
		2	3	4
4	CMcounsellorsimportant	1	4	4
		2	4	4
5	CMcounsellorAvail	1	3	4
		2	2	3
6	CMmentorsimportant	1	4	4
		2	4	4
7	CMhaveMentor	1	3	4
		2	3	2
8	CMlecturersResponsive	1	4	4
		2	4	4
9	CMlecturersAnyAvail	1	4	4
		2	3	3
10	CMcounsellorNonacademic	1	2	2
		2	2	1

Table 4.20 indicates lack of a clear pattern by the mean scores of individual questions. There was a mix of mean scores of 3 and 4 for both universities. The tenth (10<sup>th</sup>) question received the lowest rating by most students. Here, respondents from WU (n=36) rated 2 in mode while those from NU (n=54) rated 1. This indicated that students were dissatisfied by counselling support especially for non-academic issues.

Figure 4. 11: Students' Rating of Counselling and Mentorship Support Processes

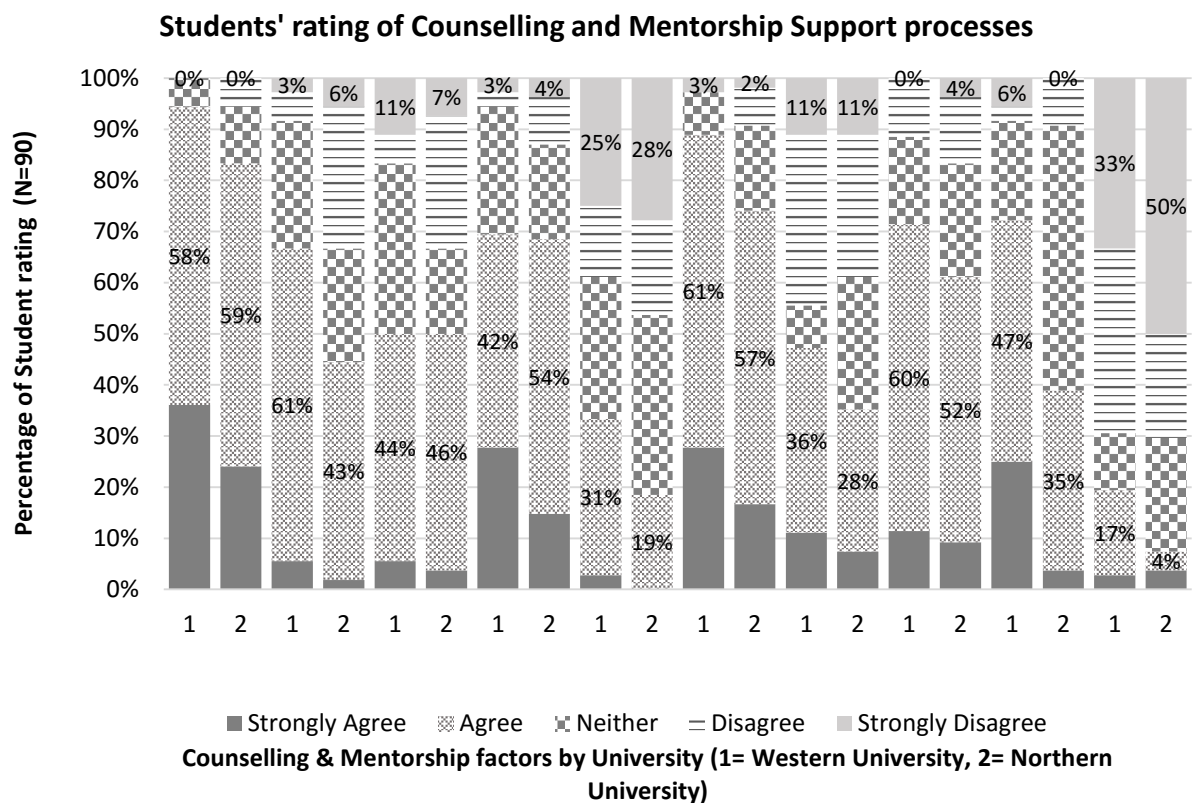


Figure 4.11 indicates that only 36% (n=36) and 24% (n=54) rated 5 in the first (1<sup>st</sup>) question for WU and NU respectively. Here, the respondent was required to rate his/her knowledge on the difference between a lecturer, counsellor and mentor. The results are an indication that problems may arise in the student's decision making skills as to whom to approach when in need of any particular support. WU respondents had the highest rating of 61% (n=36) in 4 for acknowledging that they receive counsel from their lecturers and that they regarded mentors as important to their studies (6<sup>th</sup> question). NU on the other hand had the highest rating of 59% (n=54) in 4 for the knowledge in differentiating the services of a lecturer, counsellor and mentor as far as counselling and mentorship is concerned. The chart (Figure 4.11) also indicates that on the index (5<sup>th</sup> question) of the counsellor's availability when needed by the student, there was rating of 1 by 25% (n=36) and 28% (n=54) of the respondents in WU and NU respectively. Additionally, 33% (n=36) of WU respondents rated 1 on the tenth (10<sup>th</sup>) question enquiring whether the student would consider asking for help from the counsellor for non-academic issues. In this, 50% (n=54) of respondents at NU also rated 1. These may be indicators that students were dissatisfied with the availability and access of counselling and mentorship support.

## 4.5.5 Interactions and Communications Support

This index is considered the backbone of distance learning platforms. In DE environments, there exists a constant separation of the student from faculty, fellow students and the university. Therefore, interactions and communications becomes the mechanism through which the student is able to bridge all the distances caused by separation. Here, there were ten (10) questions which required the respondents to rate the communication channels, the content and coherence of information from lecturers and administration, the availability of general basic information, interaction opportunities with peers and faculty, use and dynamics of discussion/study groups and the response of university administration to student queries. The student also rated his/her contributions to study groups and whether he/she attached any importance to communications and interactions between all stakeholders.

### 4.5.5.1 Interactions and Communications Support Indices

Table 4.21 illustrates the means and modes of Indices for Interactions and communications.

Table 4. 21: Interactions and Communication measures of central tendency (n=90)

		University	Mean	Mode
1	IntCOMinfoRecievedFreq	1	4	4
		2	4	4
2	IntCOMlecturerComEffectively	1	4	4
		2	4	4
3	IntCOMlecturersStdsGood	1	4	4
		2	4	4
4	IntCOMuniversityComEffectively	1	3	4
		2	4	4
5	IntCOMpeerInteraction	1	4	4
		2	4	4
6	IntCOMfellowStds	1	4	4
		2	4	4
7	IntCOMstudygrpsCollaborate	1	4	4
		2	4	4
8	IntCOMlecturersImportant	1	4	4
		2	4	4
9	IntCOMfellowStdsImport	1	4	4
		2	4	4
10	IntCOMunivofficeResponse	1	3	3
		2	4	4

The respondents seemed generally happy with the support services provided by the two universities for this index. Most respondents from both WU and NU rated 4 for all

the Indices except for the tenth (10<sup>th</sup>) question where respondents from WU showed no clear pattern indicated by a mean of 3 and a mode of 3. Here, the respondent was asked to rate the communications responsiveness of the university's offices. NU on the other hand had a mean score of 4 and mode of 4 in the same question, indicating that the students were generally pleased with the university's responsiveness in communications and interactions.

Figure 4. 12: Students' Rating of Interaction and Communication Support

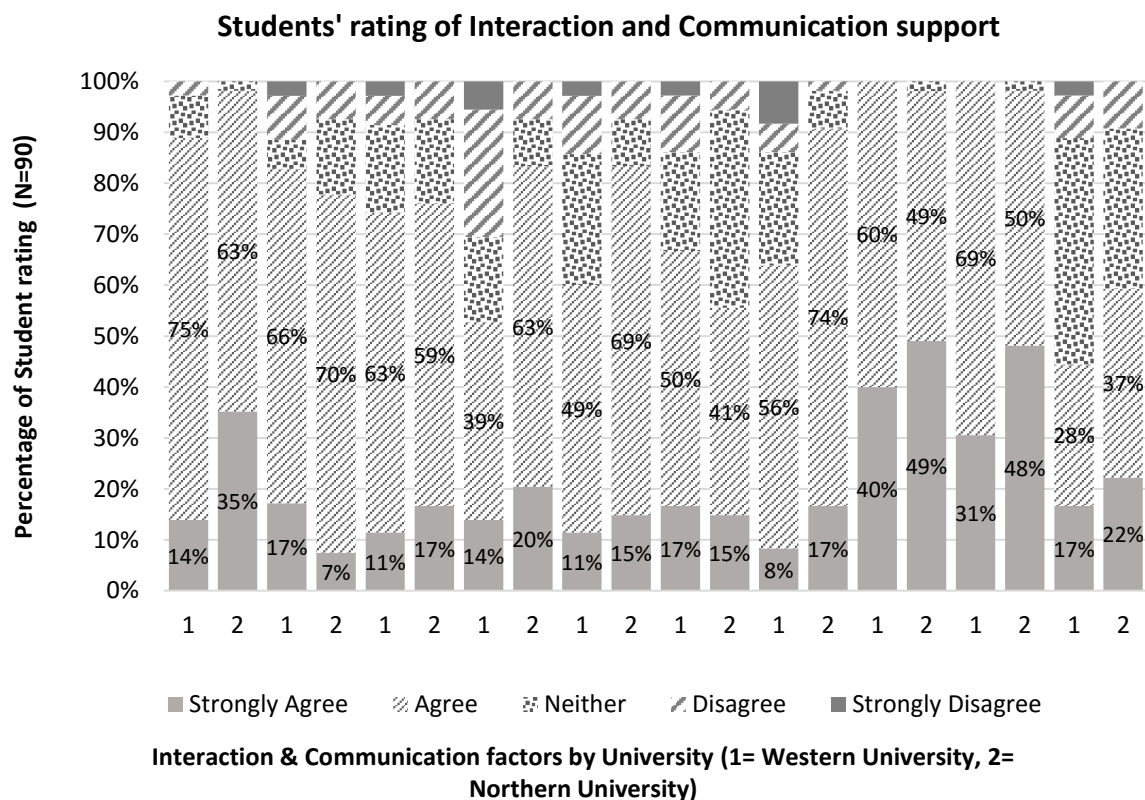


Figure 4.12 is a chart of the student's rating of this index. It displays high ratings on most of the questions. The majority of students from the divide seemed to have experienced support from this index. There was a combined rating of over 70% (n=90) satisfaction for all questions except for the tenth (10<sup>th</sup>) one which asked the respondent to rate the university's administration's ability to communicate information coherently and effectively. On this, there was 45% (n=36) rating of 4 and above by respondents from WU and 59% (n=54) for those from NU. Although both scores indicated that students were somewhat pleased with the support service, there was a disparity of 14% (n=90) between universities.



## 4.5.6 Regional Centres and Library Support

This support system is intended to assist the distance student to access a unit of the main university closest to her/him for services which he/her would otherwise have to travel to the main campus. The regional centre is also expected to host a physical library where the students can access physical books, use the computer and other supportive resources. However, with ICT-based learning management systems, this support maybe by-passed by online facilities including an online library. In this index, there were eight (8) questions. The student was expected to rate the frequency of visits to the regional centres, availability of supportive resources from the same, trainings and utilisation of both physical and online libraries and the turnaround feedback mechanisms from the librarians and administration at the centres.

### 4.5.6.1 Regional Centres and Library Support Indices

Illustrated by Table 4.22, there was a mean of 3 for most of the questions in this index from both WU and NU indicating lack of a clear pattern from the respondents. The lowest mean score was 2 from both universities occurring on the fourth (4<sup>th</sup>) question. Here, the respondent was asked to rate his/her general use of the closest regional centre.

Table 4. 22: Regional Centres and Library Measures of Central Tendency (n=90)

		University	Mean	Mode
1	REGIvisitRegOffice	1	3	3
		2	3	1
2	REGunivfacilities	1	3	2
		2	3	4
3	REGtrainedLibrary	1	3	4
		2	3	4
4	REGuseRegLib	1	2	1
		2	2	1
5	REGlibraryAdequateResources	1	3	3
		2	3	3
6	REGcomfortableUseLibrary	1	3	2
		2	3	4
7	REGuseOnlineLibrary	1	2	1
		2	3	3
8	REGlibRespondsTimely	1	3	4
		2	3	3

The mean score indicated either unavailability or under-usage of this support. Aggregated means and modes for the indices further illustrated the lack of a clear

pattern especially for respondents from NU who had an aggregated mean score of 3 and mode of 3. However, in WU, the respondents showed a pattern of displeasure with the support indicated by a mean score of 2 and the most occurring score at 1.

Figure 4. 13: Students' Rating of Support at Regional Centres and Library

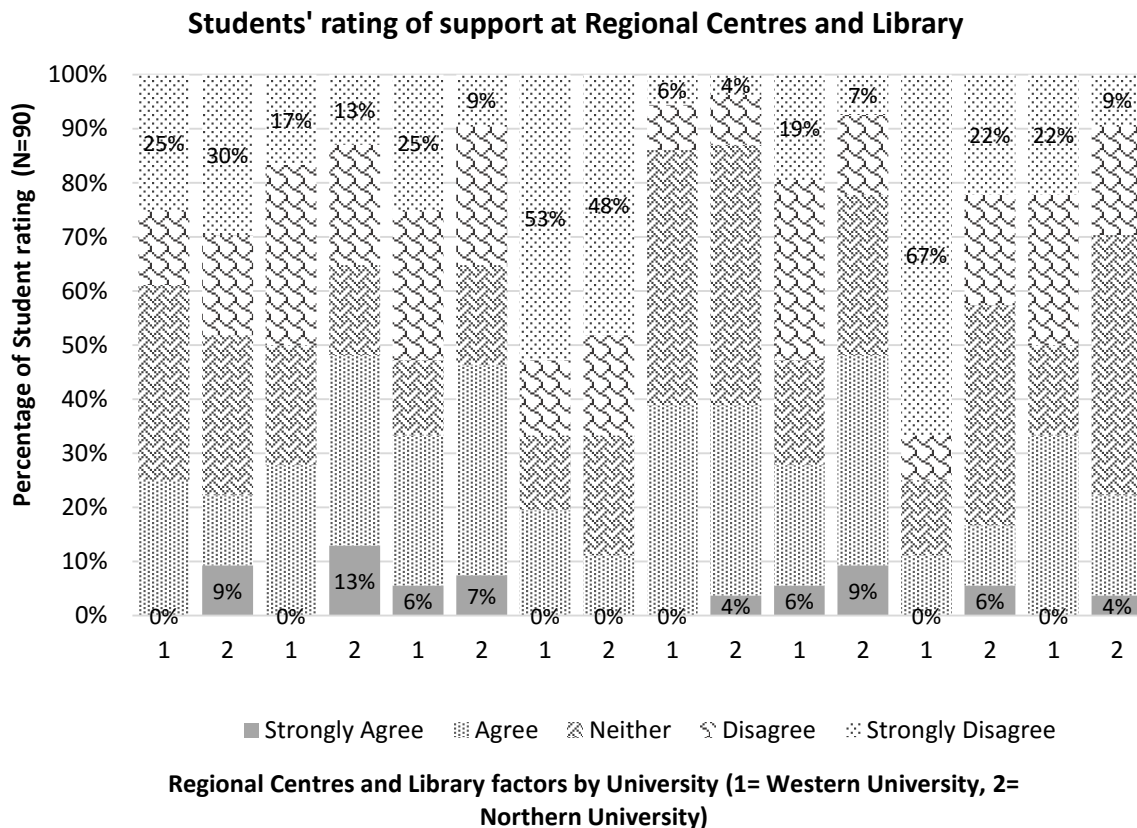


Figure 4.13 further illustrates the student's rating for regional centres and library. There was a high score of displeasure consistent with the divide of 1 by over 25% (n=90) for most of the questions, particularly for the fourth (4<sup>th</sup>) question which enquired whether the student visits and utilises the library at the centre. Here, 53% (n=36) of respondents at WU and 48% (n=54) at NU indicated that they did not use this facility. The highest rating of 5 for WU was 6% (n=36) for two (2) of the questions, the 3<sup>rd</sup> and 6<sup>th</sup>, while that of NU the highest score of 5 was 13% (n=54) on the second (2<sup>nd</sup>) question. This shows that the majority of students, approximately 90% (n=90) did not strongly agree with the support at regional centres. The generally high ratings for 1 is an indication that this support system was not working very well. The use of the library, both online and at the regional centre, scored highly in 1, indicative that that the student was not efficiently using the library. In the 7<sup>th</sup> question, the student was asked to rate his/her use of the university's online library; 67% (n=36) and 22% (n=54) of the

students rated 1 for WU and NU respectively. This shows that the library whether physical or digital was not providing sufficient support.

#### 4.5.7 Student Feedback Support

This index is intertwined with interactions and communications. However, it was intended to specifically illustrate the information and turnaround mechanisms which the university uses to support student queries and concerns. The questionnaire contained five (5) questions for this index. The student was required to rate his/her knowledge on the availability of feedback channels, how to use the channels, the nature and content of feedback from examinations and assessments, feedback from faculty and other relevant university staff and the general feedback system in the university.

##### 4.5.7.1 Student Feedback Support Indices

Tables 4.23 illustrate the means and modes of Indices for this index. The respondents from both universities did not show a clear pattern for the questions except in the third (3<sup>rd</sup>) question where they indicated general satisfaction. Here, the student was asked to rate whether feedback from the faculty on assignments was constructive. For this, there was a mean score of 4 from both WU and NU (n=90). Generally, the most occurring score was 4 for almost all the questions in both universities.

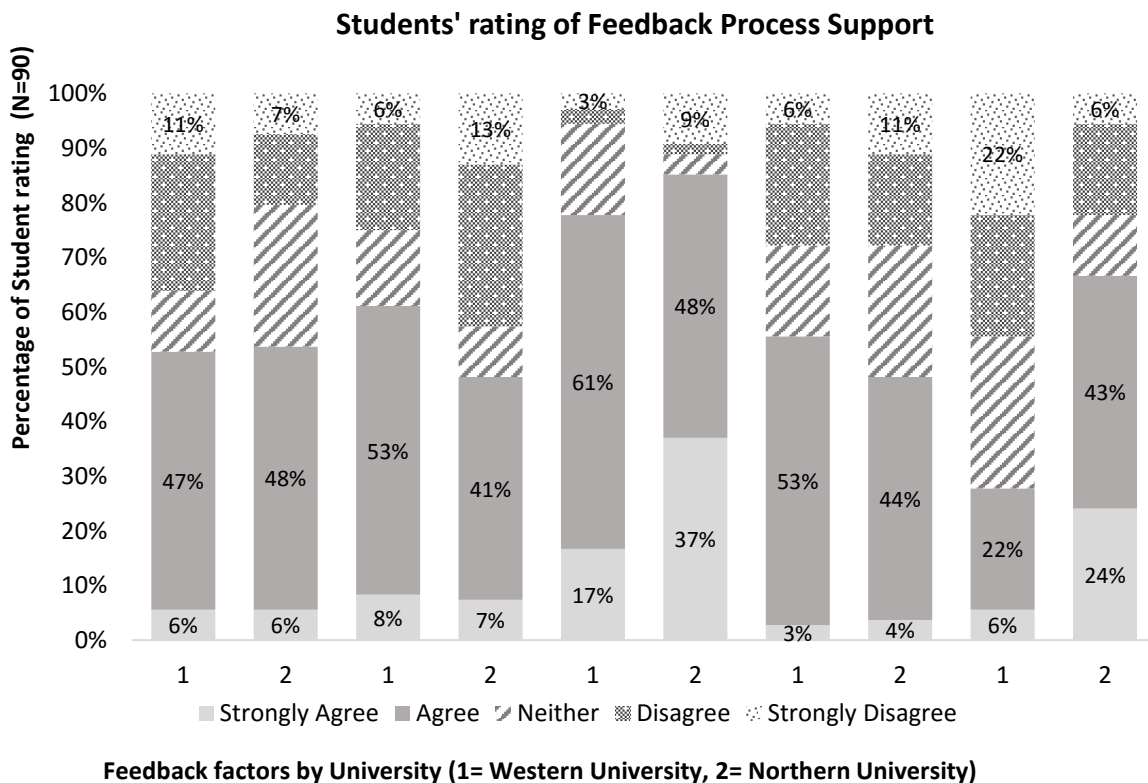
**Table 4. 23: Student Feedback Measures of Central Tendency (n=90)**

		University	Mean	Mode
1	STDFBKknowChannels	1	3	4
		2	3	4
2	STDFBKassignStisfactory	1	3	4
		2	3	4
3	STDFBKassignConstructive	1	4	4
		2	4	4
4	STDBKlectAvailDiscussion	1	3	4
		2	3	4
5	STDFBKtimelyAllOffices	1	3	3
		2	4	4

Figure 4.14 displays an almost similar trend in students' rating for 5 and 1. Up to 10% (n=90) of students from the divide did not express very strong feelings either positively or negatively concerning this index. This may indicate that on average, this support system was widely available. However, it is noteworthy that the 5<sup>th</sup> question concerning

timely feedback from all staff was rated 1 by 22% (n=36) and 6% (n=54) from WU and NU students respectively.

Figure 4. 14: Students' Rating of Feedback Process Support



5 was rated by 6% (n=36) and 24% (n=54) for the same. There seems to be an inverse relationship whereby students at WU strongly disagreed on the issue of timely feedback at 22% (n=36) while those at NU strongly agreed on the same at 24% (n=54). However, it is not possible to establish the significance of this from the chart. Figure 4.14 also shows a distributed response with no index scoring less than 3% (n=90) from the divide. As indicated in Table 5.23, in this chart, there also seemed to be confidence in the students on the third (3<sup>rd</sup>) question, that feedback from the lecturers concerning examinations and assessments was constructive. Here, respondents expressed satisfaction by ratings of 79% (n=36) and 76% (n=54) for WU and NU respectively. On the 4<sup>th</sup> question concerning the availability of lecturers when students desired to discuss feedback, 56% (n=36) of students from WU and 48% (n=54) of those at NU rated 4 and above indicating an average satisfaction with the support in this index.

#### 4.5.8 Student Association and representation support

This is support for students on three fronts. One, is for the student who requires peer influence through association in societies and clubs. Two, for the student to voice his/her issues through the student council as an administratively established channel. And third, to support the student to develop leadership skills should he/she choose to vie for a leadership position. In this index, the student was required to rate five (5) questions. These included, the student's awareness on the existence or availability of associations, importance of representative councils and the student's involvement. It also required the student to rate on sufficiency and effectiveness of associations, clubs and the representative council.

##### 4.5.8.1 Student Association and Representation Support Indices

Table 4.24 illustrates the means for each of the questions by university. There was a mean of 3 for half of the questions and 4 for the rest for both WU and NU indicating lack of a distinct pattern from the respondents. However, in the first (1<sup>st</sup>) question where the student was asked to rate the support on how to join student associations, the most occurring score was 2. This was indicative that most students were dissatisfied with the support in this index.

Table 4. 24: Student Association and Representation Measures of Central Tendency (n=90)

		University	Mean	Mode
1	<b>SARknowToJoin</b>	1	3	2
		2	3	3
2	<b>SARimportantLearning</b>	1	4	4
		2	4	4
3	<b>SARunivSupports</b>	1	4	4
		2	4	4
4	<b>SARrepsMe</b>	1	3	3
		2	3	3
5	<b>SARvarietySufficient</b>	1	3	3
		2	3	3

Table 4.24 further confirms that the respondents mostly stood in middle ground on rating the support in this index. However, the most occurring score from respondents in NU was 4 indicating overall little satisfaction with this index.

Figure 4.15: Students' Rating of Associations and Representation Support Services

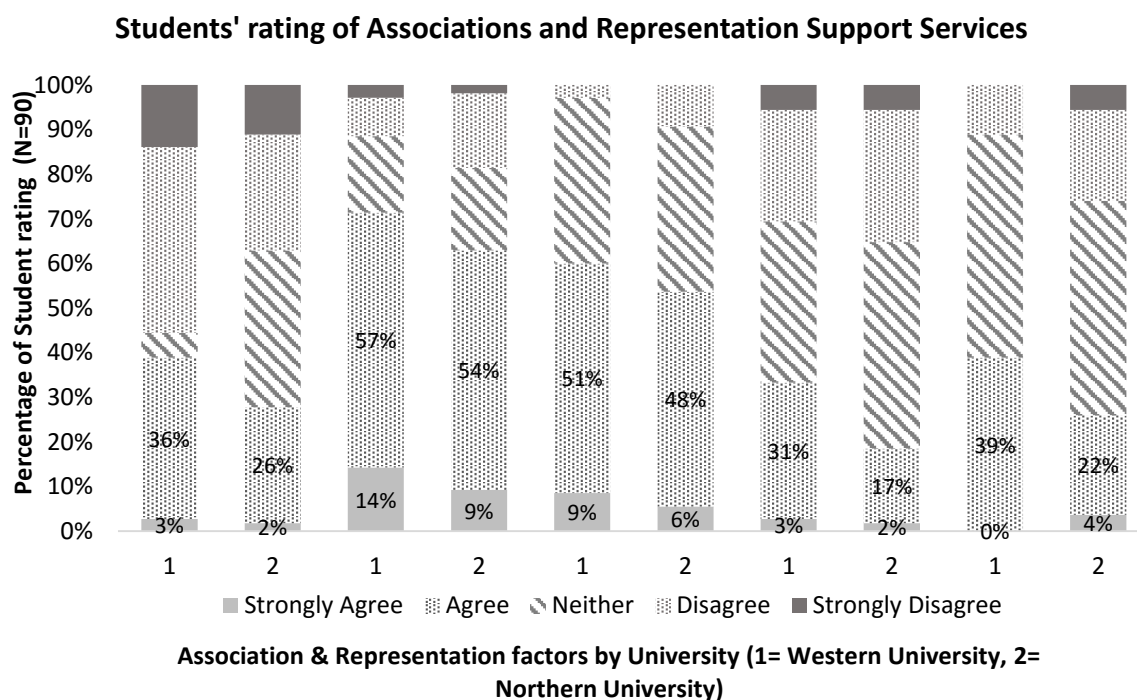


Figure 4.15, also indicates that this index lacked a distinct pattern from the scores by respondents from both WU and NU. There was over 50% (n=90) of respondents scoring on 3 on for whether the associations/councils were representative (4th question) in both universities. Equally, there was over 50% (n=90) on 3 for whether there were sufficient opportunities for associations and representations (5th question). The highest rating was in the second (2nd) question which asked the student to rate whether this index was important for his/her learning. Most students seemed to agree; 71% (n=36) and 63% (n=54) of respondents from WU and NU expressed satisfaction respectively. Additionally, over 60% (n=90) also from both sides of the divide were in agreement with the statement that the university supports student associations.

#### 4.5.9 Course Progression and Satisfaction Support

Student satisfaction and his/her determination to continue with the programme is fundamental to the university's existence. Therefore, there should be supportive mechanisms that ensure student satisfaction and enable a smooth progression of students through the life of the programme/course. For this index, there were eight (8) questions. The questions included receiving adequate information concerning examinations and assessments, grading systems, requirements for progression to

higher levels of the course, access to all supports necessary for the programme, expectations and general course satisfaction.

#### 4.5.9.1 Course Progression and Satisfaction Support Indices

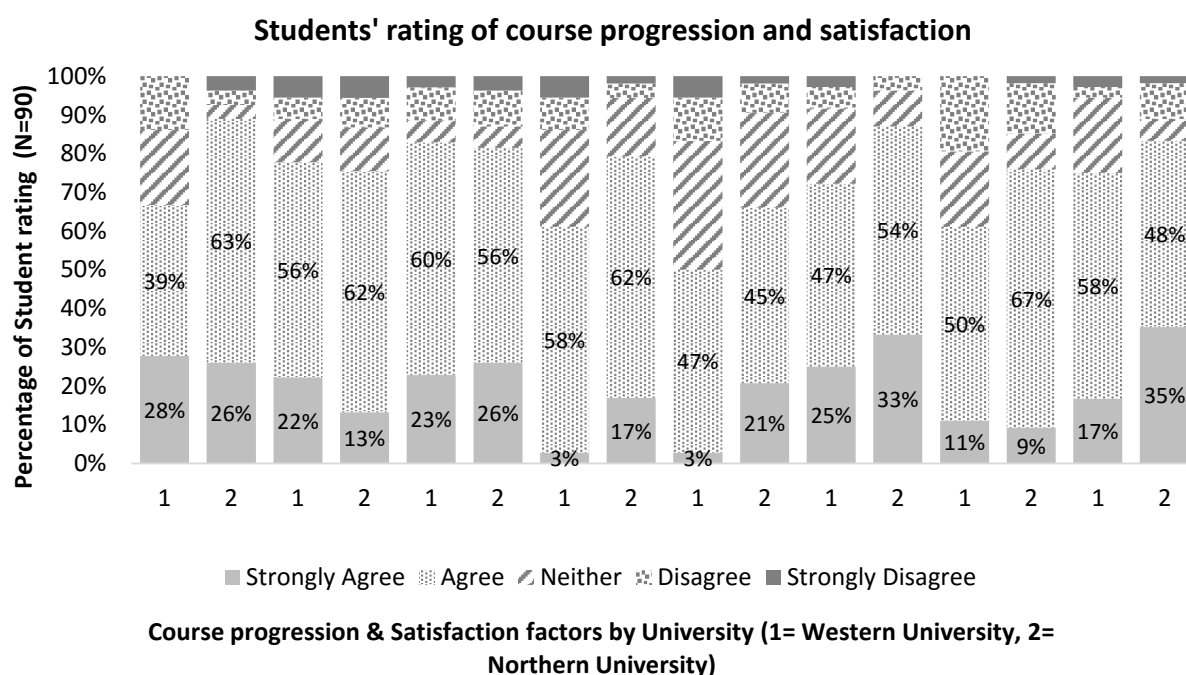
Table 4.25 illustrates the means and modes of Indices for course progression and satisfaction. The respondents seemed generally happy with the support services provided by the two universities for this index. Most respondents from both WU and NU rated 4 for all the indices except for the fourth (4<sup>th</sup>) and fifth (5<sup>th</sup>) question where respondents from WU showed no clear pattern indicated by a mean of 3. In the 4<sup>th</sup> and 5<sup>th</sup> questions, the student was asked to rate whether support for this index was available and accessible respectively.

**Table 4. 25: Course Progression and Satisfaction Measures of Central Tendency (n=90)**

		University	Mean	Mode
1	<b>CPSinfoAssessments</b>	1	4	4
		2	4	4
2	<b>CPSassessmentsGrading</b>	1	4	4
		2	4	4
3	<b>CPSupgradingScores</b>	1	4	4
		2	4	4
4	<b>CPSIssAvailable</b>	1	3	4
		2	4	4
5	<b>CPSIssAccessible</b>	1	3	4
		2	4	4
6	<b>CPSIssUseful</b>	1	4	4
		2	4	4
7	<b>CPSunivSatisfaction</b>	1	4	4
		2	4	4
8	<b>CPSmetExpectations</b>	1	4	4
		2	4	4

Figure 4.16 illustrates that the highest rating of 4 and above was 89% (n=54) by respondents in NU who seemed to be satisfied with the way the university was running their particular programme/course. This was in the first (1<sup>st</sup>) question where the student was asked to rate the availability of information on assessments. Comparatively, at WU only 67% (n=36) of respondents expressed satisfaction with the same question. Although respondents from both universities seemed happy in this question, there was a disparity of 22% (n=90). In general, respondents were happy with the support for course progression. This is also evident from the ratings in 1 from less than 10% (n=90) of respondents for any of the eight (8) questions by from either university.

Figure 4. 16: Student's Rating of Course Progression and Satisfaction Support Services



#### 4.5.10 PRINCIPAL COMPONENT ANALYSIS

The coefficients from factor analysis were used to derive weighted indices for the nine (9) aforementioned dimensions. As seen from the Bartlett's test, KMO coefficients and amount of variation explained by the first two principal components, the items within each indicator variable, were sufficient to construct the indices (Table 4.26).

Table 4. 26: Principal Component Analysis

Indicator	KMO	Proportion of variance explained by first 2 PCA
Registration support	0.660	64.1
Orientation support	0.838	52.3
Technology support	0.587	41.8
Counselling and mentorship	0.763	52.6
Interaction and communication	0.639	51.0
Regional centres and library use	0.838	68.1
Students feedback support	0.735	66.6
Student representation and association	0.641	52.2
Course progression and satisfaction	0.694	66.9

Table 4.26 indicates that all p-values for Bartlett's' test of sphericity were significant ( $p < 0.00$ ) from the KMO column.



The weighted indices were then subjected to independent t-tests for each index to establish the mean differences between WU and NU. Table 4.27 illustrates the findings.

**Table 4. 27: Rotated Components by PCA**

		<b>Mean</b>	<b>Std. Error Mean</b>	<b>t</b>	<b>sig</b>
<b>Regis Process</b>	<b>WU</b>	11.0516	.35125	2.708	.008
	<b>NU</b>	12.0206	.17536		
<b>Orientation1</b>	<b>WU</b>	17.5127	.72923	1.973	.052
	<b>NU</b>	19.0010	.38616		
<b>ICT1</b>	<b>WU</b>	11.2895	.35803	2.557	.012
	<b>NU</b>	12.3859	.25661		
<b>CM1</b>	<b>WU</b>	15.8185	.46675	2.130	.036
	<b>NU</b>	14.5488	.37241		
<b>IntCom1</b>	<b>WU</b>	13.2326	.40442	.994	.323
	<b>NU</b>	13.6649	.23416		
<b>Regional1</b>	<b>WU</b>	11.3057	.70411	2.477	.015
	<b>NU</b>	13.3382	.47845		
<b>STDFBK1</b>	<b>WU</b>	11.4179	.44540	.643	.522
	<b>NU</b>	11.8050	.39124		
<b>SAR1</b>	<b>WU</b>	8.1907	.31206	.891	.376
	<b>NU</b>	7.8276	.25843		
<b>CPS1</b>	<b>WU</b>	20.2382	.64564	1.725	.088
	<b>NU</b>	21.6040	.48402		

The main characteristics that distinguished the two universities were registration process, ICT, counselling/mentorship and regional centres where the t-test showed significant differences between them (See Table 4.27). The p values were 0.008, 0.012, 0.036 and 0.015 respectively at 0.05 significance level. In all of them, NU had a relatively high mean score than WU except for the index of counselling and mentorship. This corroborates the results in the descriptive statistics for individual indices in section 4.5. In the registration process, technology and modes of course delivery, counselling/mentorship and regional centres support processes, the percentage scores had indicated differences between individual indices as well as differences between universities.

## 4.6 RESULTS OF INTERVIEWS FROM KEY INFORMANTS AND DOCUMENTARY ANALYSIS: QUALITATIVE METHODS

This is the second phase of this chapter. It contains results from qualitative analysis. It has five (5) subsections. The first, is a presentation of the demographics of interview participants, followed by an outline of the documents which were included in the documentary analysis and the results from coding. The third, fourth and fifth sections are a presentation of results based on the three themes that resulted from the combined analysis of interview transcripts and documents of DE establishment.

## 4.7 DEMOGRAPHICS OF INTERVIEW PARTICIPANTS

Table 4. 28: Demographics of Participants

University	Position in the University	Pseudonym	Gender
<b>1</b>	<b>Western University (WU)</b>		
	Director of ODEL	Prof Witt	Male
	ICT personnel (Duo)	Mr Wanyee and Mr Omware	Males
	Chairman, Department of Nursing	Dr Ruud	Male
	MOODLE expert	Mr Vinny	Male
	LSS coordinator, School of Nursing	Ms Diana	Female
	E librarian	Mr Bob	Male
	The registrar	Registrar	Male
<b>2</b>	<b>Northern University (NU)</b>		
	Director E campus	Dr Rice	Female
	Learner support services (LSS) Coordinator	Ms Bok	Female
	Content development coordinator (CDC)	Dr Ross	Female
	E campus administrator	Mr M	Male
	E librarian	Ms R	Female
	E learning systems support specialist (ESSS)	Ms B	Female
	Dean of students	Dean of students	Male
<b>3</b>	<b>Parent university to WU and NU</b>	<b>Lake University</b>	
<b>4</b>	<b>University Benchmarked by WU</b>	<b>Midrock University</b>	

The intended sampled participants were heads and directors of departments directly involved with implementation of DE programmes. However, with the understanding that some of these heads may be unavailable or too busy, the sampling procedures

(Chapter 3) gave an allowance of these office holders to delegate or nominate a knowledgeable member of staff for the interviews. In addition, sampling procedures also allowed for snowballing whereby an interviewee would nominate the next knowledgeable member of staff. This resulted participants outlined with the pseudonyms in Table 4.28.

#### 4.8 BREAKDOWN OF ANALYSED DOCUMENTS

In this section, results were presented based on data from forty one (41) documents combined from the two universities, that is, WU and NU.

**Table 4.29 Breakdown of Analysed Documents**

	<i>NU</i>	<i>WU</i>	<i>No of Documents</i>
1. Commission of University standards and guidelines (CUE)	1	1	1
2. Main Campus website	1	1	2
3. E learning website	1	1	2
4. Mission and Vision	1	1	2
5. University Strategic Plan	1	1	2
6. University Charter	1	1	2
7. Evaluation Report	1	1	2
8. Current Annual Newsletter	1	1	2
9. DE Policy	1	1	2
10. E campus Responsibilities Document	1	1	2
11. Benchmarking Report 1		1	1
12. Benchmarking Report 2		1	1
13. DE implementation report		1	1
14. Status Report		1	1
15. Department of Nursing E learning Policy		1	1
16. Director Interview Script	1	1	2
17. ICT Head / Delegate Interview script	1	1	2
18. E Systems Support Specialist interview script	1		1
19. Content Specialist Interview script	1	} 1	2
20. Learner Support Services Coordinator script	1		2
21. Chairman BScN interview script		1	1
22. Librarian interview script	1	1	2
23. Academic Registrar Interview script	1	1	2
24. Moodlist interview script		1	1
25. E campus Administrator interview script	1		1
26. Ninety (90) documents from student survey questionnaire			1
TOTALS	18	20	41

These documents comprised of interview scripts, university documents of DE establishment, open-ended questions from the student survey questionnaire and documents compiled through documentary analysis of the university’s websites. The university documents of establishment were as outlined in Tables 4.29 and 4.30:

**Table 4. 29: Summary of Analysed Documents**

	<b>Item</b>	<b>No.</b>
1	WU Interview scripts	7
2	NU Interview scripts	8
3	WU Documents and website	15
4	NU Documents and website	10
5	Ninety (90) documents from student survey questionnaire	1
	<b>Total</b>	<b>41</b>

The documents were uploaded onto Atlas.ti7 qualitative analysis software and coded in two stages. In stage one, codes were assigned through each document. At this stage, the number of codes totalled to 152 codes. In the second stage, the coded documents went through a second coding whereby some codes were merged into single codes. In the end, there were one hundred and forty six (146) codes with a code concurrence totalling to four hundred and eight (408). Additionally, the codes were grouped under seven (7) new titles herein referred to as super codes. Figures 4.17 and 4.18 illustrate the results after stage two coding. The seven super codes were referred to as:

- i) Learner Support Structures
- ii) Establishing DE programmes
- iii) DE Models
- iv) DE faces and formats
- v) Challenges in DE practices
- vi) Skills for DE student
- vii) Guidelines and Policies

Figure 4. 17: Combined Code Distribution WU and NU Data

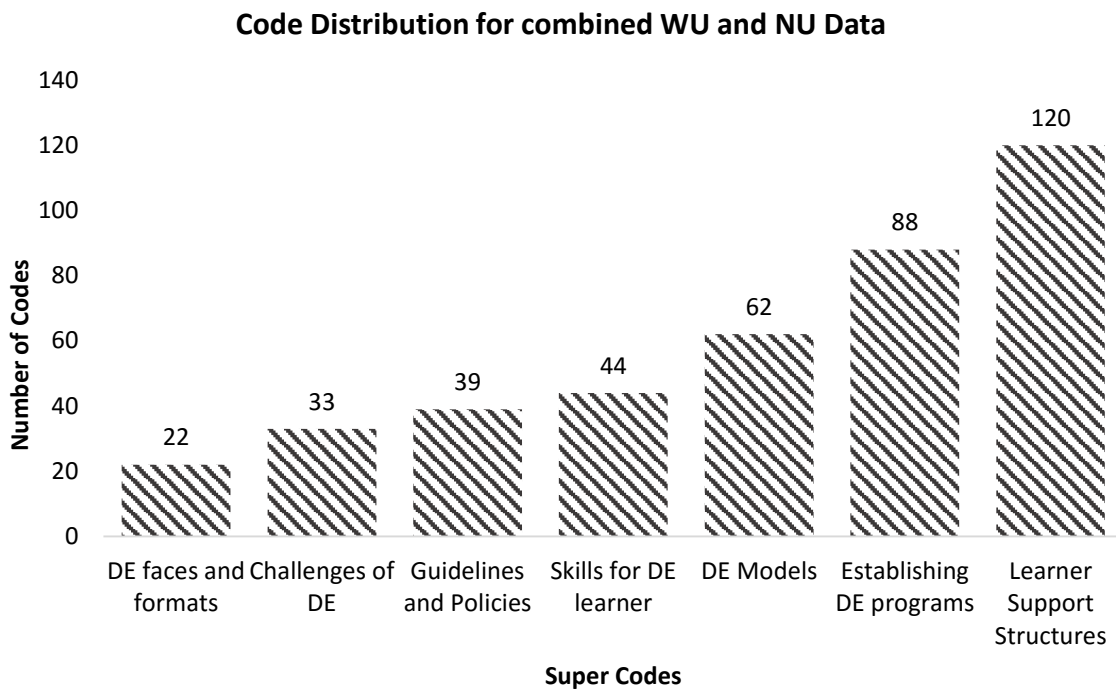


Figure 4.17 shows that learner support structures were the most heavily coded. This may be due to the focus of the study and the study objectives. It may also have resulted from content analysis where only documents relative to the construct were included in analysis. The chronological order for the remaining of the codes are as depicted in the chart (Figure 4.17).

Figure 4. 18: Percentage Count of Codes and Quotations by University

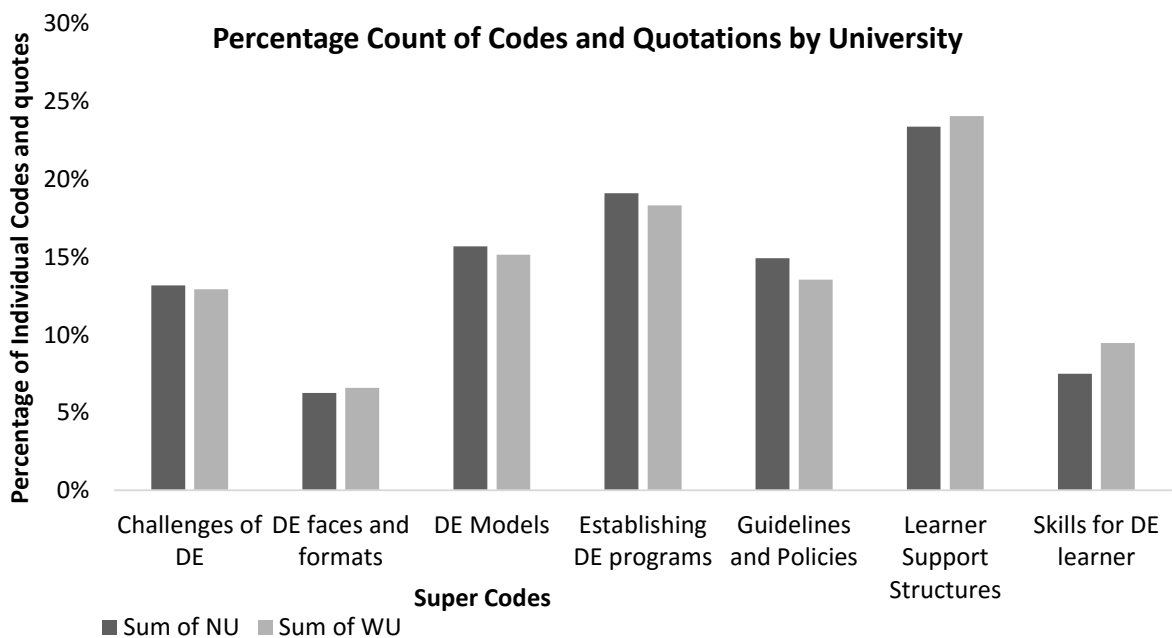


Figure 4.18 exhibits the percentage of quotes and codes by university. There seemed to be similarities in the trends even though the two universities' DE programmes differed in many ways. First, the age of the programmes differed by one or so years. Secondly, the geographical locations differed by almost 200 km. Lastly, the DE programmes were established on different models. The chart, Figure 4.18, shows that the code with the least quotation from both Universities is DE faces and formats. The code with a large disparity between universities was, skills for the DE student.

In order to answer the research questions, the seven super codes (Figures 4.17 and 4.18) were grouped into the following three (3) themes:

1. Pursuits to maximise the DE learning experience
  - Learner Support Structures
  - Establishing DE programmes
  - DE Models
2. Formulas and frameworks
  - DE faces and formats
  - Challenges in DE practices
3. Strategies for policy formulation in DE
  - Skills for DE student
  - Guidelines and Policies

Following are the thematic findings presented in sections 4.9, 4.10 and 4.11.

#### **4.9 PURSUITS TO MAXIMISE DE LEARNING EXPERIENCE**

In addition to the survey questionnaire, qualitative analysis also yielded results for support services available in the two universities. This theme partly answered the following question:

Research Question 2: To what extent were support services available for undergraduate students of distance learning upon registration into the programme?

This theme is described under three (3) subtitles, i.e. Learner Support Structures, Establishing DE programmes and DE Models.

## **4.9.1 Learner Support Structures**

This was the first facet of the theme: pursuits to maximise DE learning experience. Mr Vinny, the MOODLE expert at WU orientates this theme by his statement:

Sometimes DE programme course designers fail to recognise it as a different pedagogy. They just transform the on-campus programmes into DE programmes. When this happens, students who got into ODEL would get frustrated and never want another ODEL experience.

### **4.9.1.1 Structure for Support systems**

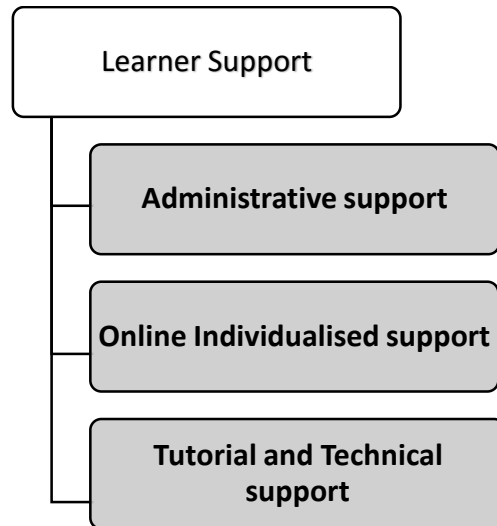
At WU, the support structure did not seem very clear, however, it was easy to pick what was available and what was missing from the interviews and documents. At NU on the other hand, most informants made an effort to report the structure. The strategic plan at NU recognised and mentioned learner support systems at faculties, schools and the general university as crucial for service delivery. This was not specific to DE but was a yardstick for the university's values.

Dr Rice, the E learning director at NU, reported that support was both available and accessible through a link in the LMS on the E learning platform. Ms. B, an E learning Systems Support Specialist (ESSS) described the support system at E learning as a three (3)-tiered framework (See Figure 4.19). The top most was the administrative support which handled issues of application, registrations and admission processes. At this level, the point person was the administrative assistant. He/she handled student inquiries, emails, advertisements, fee payment advice, registration and all associated processes. He/she also coordinated with the departmental programme coordinators. This was especially important to give guidance to the students who made enquiries that were of academic nature.

The second tier of support began once the student was admitted and acquired log-in credentials for the E learning portal. The student then received support at the course level. He/she received support from everyone including the persons at the first tier. The support began with orientation, thereafter, it became individualised according to each student's specific needs. At orientation, leading to the third tier, each student was assigned tutorial and technical support from a programme coordinator and an ESSS.

Ms. B., an ESSS, stressed on the need to understand that the supports systems focused on the student and that it was completely centred on the LMS.

Figure 4. 19: Structure of learner support services at NU



#### 4.9.1.2 Learner support: Application

At WU, one had to get to the ODEL website and click on its 'Apply Now' link in order to access the application process for E learning programmes. Upon opening the page, there was an outline of all the courses available for E learning and the application procedure. Also present was important information given through the registration process which supports the student as he/she goes through the application process. These included information on:

- A prerequisite for the student to have a functional e-mail address for correspondence with ODEL.
- That applications would be online, but the student needs to download the application form, fill it, scan it and send it back to ODEL. The form cannot be filled online.
- The feedback turnaround was specified as 72 hours upon receipt on working days and a provisional letter of acknowledgement within 7 working days.
- There was a link through which the application form could be downloaded.

Dr Ross, the Content Development Coordinator (CDC) at NU, reported that there was online support for any student with regards to making applications. There was an



assumption that the prospective student should be ICT-literate to be able to manoeuvre the web, use the internet and make applications as directed/supported.

#### **4.9.1.3 Learner support: Registration and Admissions**

Prof Witt, the director of ODEL at WU, admitted that the processes of registration and admission were not user-friendly. However, he reported that the directorate was open to assist students when they made telephone or physical enquiries. As the systems were established, Learner support should have been incorporated into the online registration and admission system. Ms. Diana, the LSS coordinator at School of Nursing, concurred that the process, especially for prospective nursing students still had many manual steps. First, the student needed to have his/her certificates and school grades certified by the Nursing Council of Kenya. Secondly, he/she made applications to the university which was to be processed for authenticity after which the student would be issued with an admission or regret letter. In between, the student was required to pay registration fees into the university bank account. However, since the ODEL directorate was established, Prof Witt reported that the process had improved and was still undergoing improvements. For example, instead of the student having to visit the bank in order to make fee payments, he/she was now able to make payments to the university account through mobile telephone money transfer. At WU, there seemed to be a lack of coordination or integration between the ODEL and the registrar's office. The registrar did not seem to be aware whether there were foreign or international students. He reported that ODEL was yet to give returns on student numbers and nationalities to his office. The registrar's office was also the central registry where all new students should have been registered before proceeding to the schools.

At NU, the LSS Coordinator explained that the students were supported during online application and registration. There was an open-help telephone line. Through this line, students were supported on how to go through the process of application, registration and later on admissions. Additionally, there were general forums on the LMS where prospective students could post questions and receive answers. However, after documentary analysis of the website, I observed that the prospective students could not access these forums because they would need login credentials. Therefore, these forums may not have been useful to prospective students as was reported by the LSS.

Nonetheless, there was a frequently asked questions (FAQs) link where prospective students could gain support from answers to some of the questions. Ms. Bok, the LSS coordinator, believed that DE was not new and that most applicants already knew what they were getting into. She did not vouch too much on the need for a self-evaluation process. She observed that the issue that concerned most of their prospective students was to get an assurance that the degree or certification would be equivalent to that of the on-campus graduate.

#### **4.9.1.4 Learner support: Orientation**

At WU, Following admission, the student was invited on-campus for one (1) week face-to-face orientation. The focus was to train him/her on how to use the LMS and the MOODLE platform. The ICT duo and Mr Bob, the e-librarian, explained that the student was taught various DE skills that would enable him/her experience a successful academic journey. These included; how to access course and learning materials, how to upload assignments, how to take the online continuous assessment tests (CATs), how to hold discussions and queries and all the processes of the LMS. More specifically, Mr Bob explained that although information literacy was not formally taught, the student was walked through the library and taught how to use the digital catalogue, how to run queries for research topics and the general rules and regulations of library usage. This shows that support for orientation was available but accessibility was only to the extent that the student travelled to the main campus. The student had to be physically present for orientation. For orientation to the library during the face-to-face meetings, Mr Bob reported that the library had been involved with only one (1) group during the three (3) years of DE students' cohorts. Therefore, they had formally asked ODEL directorate in one of the recent workshops to involve the library in its planning and course development.

Before the establishment of ODEL directorate, individual schools held orientation for their students. At the School of Nursing, Ms. Diana, the LSS coordinator explained that the nursing student came on-campus for orientation to acquire skills required for the academic journey. These included, all the aforementioned, like the library skills. In addition, the student was informed of additional materials from the lecturers depending on the subject and course units. The ICT staff also gave orientation to ICT skills. For example, they got into MOODLE with the student where he/she was taught step-by-

step how to access, load and manoeuvre information on the MOODLE platform. Dr Ruud, the Chairman, Department of Nursing, added that orientation was scheduled within the first monthly face-to-face meetings. He emphasised that the students were taught time management and study skills. They received information on responsibilities of all involved parties, the general policy of the programme, the rules and regulations and how to troubleshoot for both academic and non-academic issues. The ICT duo indicated that in the future, the face-to-face orientation would change to online orientation even though they believed that the face-to-face sessions were equally important; that they served a more salient psychological orientation. For instance, students were able to physically meet their colleagues and faculty so that future online meetings were based on familiarity rather than new connections.

The NU had an online orientation system. Orientation was mandatory and designed as a prerequisite. If a student did not complete orientation then he/she would not proceed to the learning phase. Dr Rice, the director reported from one of their studies that students who completed the orientation on time were most likely to hold effective engagements with the LMS. The online orientation was designed to be completed in two (2) weeks. Ms. B., an ESSS, explained that a student would enrol into his/her courses only upon completion of orientation. Mr M, the administrator and Dr Ross, the CDC, explained that the following were achieved during orientation: student profiling, introduction to each other by staff and fellow students, communication skills, how to use the discussion forums, how to download course materials and upload assignments, when to use the various discussion boards and generally get comfortable with the MOODLE interface and the LMS. Orientation exercise was scored for each student so that when a student scored less than 85%, he/she was required to question her/his readiness for DE learning. Ms. Bok, the LSS coordinator, and Mr M, the E-campus administrator, explained that though the orientation exercise could be completed within six (6) hours, it was designed for two (2) weeks. Therefore, the student was supposed to learn and acquire most of the skills required for successful engagement with the LMS. Mr M. added that online orientation was a collaborative exercise. That usually all E learning faculty and staff were involved even though there was a specific lecturer assigned for every student for support and monitoring. If the student was not progressing, the support lecturer would prompt the student with help. In the words of the lecturer:

Hey, go back to this or that task..... You did not do this and this and this”....  
"Yes, go back..... This is what's stopping you from completing the orientation and moving to the coursework.....

A student who did not succeed in finishing the orientation exercise was given another opportunity. This meant that orientation results were not for condemnation, but for students to reflect on their readiness for DE learning at NU.

Ms. R, the e-librarian at NU reported that research skills which also involved the use of the e-library was one of the courses taught during orientation. She added that there were plans to incorporate information literacy skills into the orientation or teach it as a course in the future. Ms. B., the ESSS, also explained that during orientation, the student learnt the roles of the E -staff, when and for what to contact each member of staff. As a rule, all members of staff had their contact information displayed in the E learning portal. However, issues like sense of belonging and integration with the main campus seemed to be missing from the online orientation. An interview with the Dean of students in the main campus revealed that there was little integration between himself and the DE students. Furthermore, Ms B, the ESSS, also confirmed that DE students did not cultivate a sense of belonging especially to the extracurricular activities on main campus.

#### **4.9.1.5 Learner support: Technology**

At WU, The course delivery formats required that the student be ICT literate. This was however not explicitly stated in the documents. It was assumed that the student who applied for a DE programme should own a computer and be able to effectively use it. Ms. Diana, the LSS coordinator, contended that during orientation, it was impressed on the students, the need to own a computer and a reliable internet access as basic tools for their learning. However, Prof Witt, the Director, concurred that the perquisites of owning a computer and to have internet access were widely assumed and that these should be specified to the student in order to successfully engage in DE at WU.

The ICT duo at WU further reported that students ought to know that it was impossible to engage in any distance learning in current times without a laptop or computer. They explained that although this was assumed in policy, they had not experienced a case

whereby the student did not have a laptop. Once the student arrived on campus for orientation, the importance of owning a computer was emphasised:

That is always a key thing that we say.... “Surely, in distance learning you cannot join without a laptop”.... “How?”... Laughter...surely...how do you do it? Or a computer? Yah... not only a laptop but even a computer? .....So ....we have been so happy... Because we have never realized a case where someone has no access to a computer or a laptop... they have.....

During orientation, students were also educated on the need to subscribe to an internet access point either through Wi-Fi or modem. They were educated on how to make choices from the many Internet Service Providers (ISPs). For example, Mr Wanyee, ICT, explained that they were supported to understand reliability versus the cost of the internet from the ISP. This depended on the location of the student. Some ISPs provided cheaper bundles with services only available in some parts of the country while others were more expensive but could be accessed anywhere around the country. He also reported that from observation, he had noted that at least the majority of students who come for face-to-face sessions were technology savvy. He had also noted that most of them came with laptops and had assumed that these were personal. He noted that students mostly had issues with internet connectivity and manoeuvring the LMS and MOODLE, but not computer ownership.

At NU, Ms. Bok, the LSS, explained that students who made enquiries were informed as to the prerequisites of the need to have basic computer skills, own a computer, have good internet access and all other basics. However, like in WU, this information was lacking in policy. Beyond the orientation, technical support continued through each assigned ESSS and E-Programme Coordinator (EPC). Mr M,, the administrator, added that there had been very few cases of technology challenges that could be associated with the LMS or MOODLE. But in the few cases, students were always supported by the ESSS assigned for specific programmes.

#### **4.9.1.6 Learner support: Tutorial Support**

At WU, it seemed that students had not adopted to DE pedagogy because Prof Witt commented that most students still preferred to travel on-campus in order to meet

lecturers even though tutorial support was available through MOODLE and during face-to-face sessions. There were discussion forums on MOODLE, but the challenge was that most of the students and some faculty were still intimidated by the LMS. Mr Vinny, the MOODLE expert, also noted that this was compounded by the version of MOODLE which the university was using. He reported that this was a free version and inferior to the licensed ones. But it was serving those who could navigate it. He reported that the rate of usage in discussion forums was very low.

At NU, the model for course delivery was such that students were expected to travel on-campus for face-to-face sessions for a week per term. Dr Ross, the CDC referred to these as mid-semester sessions. She reported that the policy was silent as to whether or not these sessions were mandatory for students especially given that it would involve too much travel for international students. Ms. B. an ESSS on the other hand contended that the sessions were not mandatory. They both reported that the sessions were important because this was the time when the student was expected to sit for his/her exams. The provision of taking exams at regional campuses or centre had not fully materialised. The option of taking the examinations at registered centres for those students who could not travel to the university for the sessions was sometimes available. During the face-to-face sessions, the student received tutorial as well as counselling support. He/she also received individualised support as was deemed necessary.

Still at NU, Mr M., the E-campus administrator, explained that their programmes were flexible to the extent that the student was allowed to register for the number of modules he/she would be able to complete considering all his/her competing needs. He added that tutorial support was always available right from the onset during orientation. After orientation, each student was expected to register for specific modules whereby tutorials became individualised to each programme and each student as need be. Tutors followed up on students who were lagging behind and supported them to move ahead. Dr Ross, the CDC, gave an example of how she prompts students:

Rosanna, I can see that you have not even started... can you start off and even post something in the discussion forum....

Dr Ross explained that these kind of prompts and weekly discussions helped students to get organised and keep to deadlines. Contributions to discussions in the discussion forums were also rated so that students got compelled to participate in discussions.

#### **4.9.1.7 Learner support: Learning Materials**

At WU, Mr Vinny echoed by Dr Ruud explained that for the nursing DE programme, the Nursing Council of Kenya (NCK) supported by African Medical research foundation (AMREF) had hired course developers, and produced and owned the learning materials. Students admitted at the WU for the nursing programme were expected to purchase the learning materials from the nursing council. Dr Ruud reported that the student was to make payments at the university which collectively ordered for the modules/learning materials from the nursing council for all registered students. Dr Ruud reported that the cost of the learning materials was USD 300 in addition to university fees. This was a challenge to many of their prospective students. He suggested that maybe the nursing council and the university could work out a collective amount for both the learning materials and the fees that was affordable.

The learning materials were in the form of CD-ROMS and print. They were structured into weekly content with intermittent learning activities, discussions and assignments or exercises. However, the two, reported that as a school, they had experienced certain challenges with the learning materials, especially in comparison to those for the on-campus Bachelor of Nursing (BScN) programme. They had observed first, that some content was excessive, some too little while some had obsolete information. In their opinion, the modules needed to be reviewed. Secondly, the CD-ROMS were not very interactive and were also outdated because they took too long to open. Furthermore, some new laptops no longer had CD drives. As a stop gap measure, Dr Ruud reported that the course lecturer usually had to keep adding and merging information with that from the CD-ROMs so that both the on-campus and DE students could experience equal learning.

The students were taught skills on the use of the learning materials. For example, the modules and courses were password-protected. This meant that even though the whole course content was loaded onto a CD-ROM, the student had to receive a password in order to access the next unit. The student could only receive the password upon successful completion of the preceding unit or as deemed appropriate by the

faculty. However, since the ICT put up a functional MOODLE, this was changing and now the lecturers and students were able to hold discussions and tutorials on the MOODLE and the LMS.

#### **4.9.1.8 Learner support: Examinations and feedback turnaround**

At both the NU and the WU, examinations had to be taken on-campus with few exceptions at regional campuses or learning centres. Assignments and CATs were taken online. At both universities, there was a conflict on feedback for examinations and CATs for on-campus and DE programmes. The conventional university policy was that the student received examination results at the end of the academic year which determined his/her progress into the next year. However, this was not practical for DE policy because examination feedback was a support element for the DE student. At WU, Ms. Diana, The LSS coordinator explained that the DE programme did not have a policy on feedback and turnaround for examination, assignments and CATs results. It did not practice within the policies of the university either because this would have disadvantaged the DE student. Because the DE programme was modular, the student needed to receive feedback in order to remedy or continue onto the next module. Therefore, she explained that the DE student received feedback at every face-to-face session even though there was no written policy. A further challenge was that the lecturers doubled for both DE and on-campus programmes and this often caused the conflict in practice.

#### **4.9.1.9 Learner support: Communication and Feedback at WU**

At WU, Prof Witt, the director, observed that students preferred phone calls to emails. This may have been because phone calls were convenient and provided immediate feedbacks. He also reported that may be, the culture of immediate feedback on email had not been inculcated both for the faculty, administration and the students. This may have to change in the future, because the director indicated that he was often overwhelmed by phone calls. Additionally, students would soon realise that in the long run making phone calls may be more expensive than emails.

Mr Wanyee of ICT, WU, also emphasised that they were working tirelessly for all email users to get into the habit of making frequent checks and replies to emails. The ICT duo explained that students, staff and faculty were provided with corporate email



accounts on the university Local Area Network (LAN). This was intended for effective communication on a trusted platform as opposed to other conventional email accounts. For instance, losing messages through spam or blocked systems was minimised in the university platform. In addition, students were trained on the use of discussion and query forums on MOODLE. Through such forums, students were expected to communicate to each other and to the staff and faculty in order to gain support through feedback.

At WU, the policy for communication and feedback was stipulated on the service charter that turnaround for feedback would not surpass seventy two (72) hours. The director reported that ODEL had lived up to this for the most part. Except for given exceptions, ODEL usually responded within the same day. ODEL had a communications coordinator who was mandated to give prompt feedback. However, on MOODLE, the onus was on the specific staff or faculty that had been addressed. Prof Witt, the director, pointed out that because MOODLE usage was still new and challenging, most communications and feedback were done through emails.

#### **4.9.1.10 Learner support: Communication and Feedback at NU**

At NU, there seemed to be clear structures for communication and feedback. Dr Ross and Ms. Bok explained that the first channel for students was to use the discussion forums for the specific schools or for specific lecturers or the general forums. In this way, the technical staff and the E-campus coordinators could pick up the issues in case the specific lecturer did not respond. Sometimes, if the technical staff, who were always online, observed that the lecturer or the dean was not responding, he/she would make a copy of the student's communicate and paste it to an email then send it to the specific person. It was hoped that the addressee would then respond. According to Dr Ross, CATs were computer-generated at the end of each week and thus feedback was immediate. For assignments, the turnaround policy for the lecturer's feedback was two (2) weeks. In relation to this, she also explained that the making of timetables was an interactive process involving all stakeholders including the students. The drafts went back and forth with everyone putting in adjustments until all parties came to a consensus.

Mr M added that the acceptable time for feedback turnaround was within twenty four (24) hours. This was also written in policy. In addition, there was an officer charged

with online monitoring and communication. This officer was up to date with all posts in the compliments and complaints forum and dealt with all incoming issues. He/she was also required to forward any issues to the relevant persons who would address the issues that were beyond his/her jurisdiction. Concerning feedback on examinations and assignments, Mr. M. asserted that lecturers needed more training especially on E learning LMS and MOODLE. Ms. Bok, the LSS, explained that the content of the discussion forums were also used to profile issues raised by students. In this way, they encouraged students to express ideas on how best to improve services.

#### **4.9.1.11 Learner support: Library WU**

At WU, Prof Witt reported that just like for tutorials, students who used the library had not adopted to DE pedagogy. Most of them preferred to travel to regional campuses not only to borrow the books but also to sit on site and read. Additionally, Mr Bob, the e-librarian at WU, observed that because there had been little emphasis on the role of the library during course development and orientation, students tended to overrely only on course materials from lecturers. In his opinion, there needed to be an emphatic relationship in the form of teacher-library-learner-library-teacher. Mr Bob also reported that the WU library had drastically changed from purchasing hard copy books to acquiring electronic resources. They had also subscribed to both paid and open electronic communities to help the students gain faster access to resources.

Mr Vinny, the MOODLE expert at WU explained that there was an online elibrary and a physical e-library sectioned in the physical library. The physical e-library section had Wi-Fi and work stations through which students could access information on Open Educational Resources (OERs). However, this was more practical for on-campus students because for DE students to use the facility, they would have to be physically present on-campus. The online library on the other hand was accessible through the library link on the main university website. The ICT duo explained that they were assisting the library to digitalise its content.

Ms. Diana, the LSS at WU maintained that the library or E-library had not been very supportive of their students' learning thus far. She argued that though the on-campus library had adequate resources for the nursing students, the online one was inadequate. To the extent that sometimes, DE students were compelled to travel on-campus in order to borrow books from the main university library. But the ICT duo

reported that their directorate was assisting the library to digitalise their content with the help of free apps on Google. Mr Wanyee also reported that the ICT was in the process of finding apps that would aid in compiling all the universities research reports into a repository.

#### **4.9.1.12 Learner support: Library NU**

At the main campus of NU, the registrar explained that the regional campuses had functional libraries which all registered students (DE or on-campus) were eligible to use. However, he cautioned that regional campuses offered specific courses and that this had an influence on the type of books available in regional libraries. He also explained that there was an online library available for students to use from wherever location. The university subscribed to e-databases through the Kenya Library Information Consortium. Ms. R, the e-librarian, explained that this was a cost effective way to purchase e-books and databases. The e -was integrated into the LMS. Additionally, there was a link for OERs within the e-library link. Ms. R. explained that in NU as well, there were many students who preferred the physical books to e-resources and the libraries at the regional campuses were very helpful to such students. In her words:

One of the students even told me one day that “you know these e-resources at times.... are intimidating... You may not even be having your own computer to use and you also only feel you like you are reading when you get in touch with the real physical book...

On library support, Ms R, reported that she often assisted both the students and the faculty to access and use e-resources. In the library discussion forums, there was some evidence of students seeking for support and the librarian providing guidance. The content of the discussions indicated the need for information literacy and a functional library guide:

Student: Where may I get the link to access the library?

Feedback from the Librarian: The links to access e-library are those labels written ‘e-library resources’ and ‘open access resources’. When you

click on them, you will get data bases organised alphabetically from which you can search for information.

The student did not enter a follow-up feed. It can be assumed that s/he was able to access the e-library databases. There seemed to be a need to incorporate the e-library tour guide in the orientation programme in ways that could comprehensively educate the new student. There was also a recurrent issue in the discussion forums, of past examination papers which seemed important for students in both universities. It seemed that there was a culture that students needed to access past examination papers from the library for the purpose of revision. Therefore, it seemed a priority to avail the past examination papers online.

#### **4.9.1.13 Learner support: counselling and mentorship**

At WU, Mr Vinny, reported that the lecturers often involved themselves in counselling albeit informally. He gave an example whereby one student did not know how to type for assignments and was almost giving up. He counselled the student and advised her to get extra tuition and practice on computer skills. Ms. Diana, the LSS coordinator also gave an example whereby there were some elderly students who had challenges with technology and manoeuvring the LMS. These students had received counselling to soldier on but unfortunately, they were unable to cope and therefore eventually dropped out of the programme. Mr Vinny reported that due to such gaps, often observed in new students, the School of Nursing had begun a mentorship programme. This was organised such that volunteer students from the final year could assist the new students on a one-to-one basis. This was lauded by Dr Ruud. He explained that counselling went along with communication on individual basis. He gave examples of when a student had to defer her studies due to lack of fees when she lost her job. Another one had gone to Monrovia on an Ebola response and therefore could not attend the face-to-face sessions. Yet another one worked in a refugee camp remote from the learning. In his words:

So she went to Monrovia for this Ebola campaign and then she wrote back to me and told me that she has a problem.... so I could understand ... I can't force them to be here. There is one in the North Eastern part of Kenya, Daadab (refugee camp) and sometimes travelling takes two (2) days from there to here .... So, and when it rains the road is a problem ...

sometimes she has to rely on the flight ... the UN flight. So... such individual cases, we handle as they link up with us....

General forums can also serve for guidance and counselling in certain occasions. In the discussion forums for individual courses, the content and frequency of posts on these forums did not attest to counselling and mentorship. Most posts by teachers were on academic issues and the feedback was infrequent.

At NU, there seemed to be evidence of counselling both from peers and faculty as well as staff. However, there was no official forum or office designated to counselling DE students. Dr Ross, the CDC cited various examples where students required non-academic support and received messages in the discussion forums. These included situations of bereavement or sicknesses. Nevertheless, these forums were public and not all students would necessarily share their issues in public. It is therefore advisable that a counselling and/or mentoring office should be instituted with private chat rooms or private forums. Mid semester sessions were also used as opportunities for counselling and mentorship at NU.

There were also opportunities when staff were able to counsel students on the spot. Mr M. gave an example whereby during online orientation at NU, one of the students was always lagging behind. It came to surface that the student was residing in a remote location where there was no internet connectivity. For the student to access the E-campus, he had to make time, twice a week, to travel to the nearest township in order to use the cyber cafe. Mr M. then counselled him to understand that he had registered for DE which had an online delivery system and that he needed to subscribe privately to an Internet Service Provider (ISP). The student did this and was able to continue with learning.

Ms. Bok, the LSS coordinator at NU, agreed that issues of counselling and mentorship were in her docket but had not been formalised. She also contended that being mature students, the students tended to counsel each other using the forums and that thus far, she had not experienced major issues emanating from students that required counselling. She contended that even when she followed up on students who had been absent from the portal, the common reason was that they had been busy with

work engagements and not necessarily because there were underlying issues which required counselling. She did not comment much on the issue of mentorship.

#### **4.9.1.14 Learner support: Student representation and associations**

At WU, Dr Ruud, Mr Vinny and Ms. Diana explained that every new class of students was given an opportunity during the first face-to-face session to choose two (2) class representatives, a male and a female, either through consensus or elections. This ensured that the administration had no influence on the choice and thereafter worked with the chosen representative to liaise with the students. Mr Vinny gave an example of whenever the school required the students to participate in any given activity, it would contact the class representative who had networks to communicate and negotiate with fellow students. These were issues like timetables, revision of deadline dates or unanticipated changes in the syllabus. The registrar explained that the DE students had not been involved in students associations mainly because ODEL was new and was yet to establish how to integrate its students into non-academic affairs of the university.

At NU, the strategic plan 2005-2010 indicated that the growing numbers of students had put a strain on the directorate of student affairs. The plan indicated a vision to restructure it. There was no mention of DE students but there was indication that they would be incorporated during or after the restructuring of the directorate at the main campus. The student representation process had not been formalised as that of the on-campus counterparts. However, Dr Ross, the CDC, explained that they had formulated their own way of student representation at the E-campus. Like in WU, every student cohort (signifying the year of admission) elected two (2) leaders during the first mid-semester meeting from both gender. During subsequent sessions or even online, the leaders communicated with the administration and held discussions on behalf of the others. Dr Ross stated that the LSS coordinator may tell the cohort:

Give us one of you, with whom you can channel all your issues to, so that the person can represent you....

On involvement from the university administration, it seemed like the Dean of Students was detached from students of DE learning. However, Mr M, the administrator, explained that the E-campus students were equally detached stemming from the

feeling that even though they had paid for extra-curriculum issues like medicare, clubs and societies, they were rarely on-campus and did not appreciate the Dean's services. Ms. B., the ESSS, commented that students of the E-campus did not mostly involve themselves with the on-campus student affairs because most of the activities were not very relevant to E learning. She said:

One of the things I've realized about the E students.... is that they are not too passionate about student politics.... There are just keen on learning... getting their results...and getting done...

#### **4.9.2 Establishing DE programmes**

This was the second facet of the theme; pursuits to maximise DE learning experience. It has four (4) parts presented as Justification for establishing DE programmes, Target Population for DE programmes, Process of DE Establishment at NU and Process of DE Establishment at WU.

##### **4.9.2.1 Justification for establishing DE programmes**

At WU, Ms. Diana, the LSS coordinator and the registrar explained that there was a two-sided justification for establishing DE programmes. One, the nursing council needed to establish degree-conversion programmes to help nurses with diploma qualifications to upgrade to degree without having to take leave from their places of work. Two, WU was strategically placed to attract students from the surrounding and also from far places, who for various reasons like family commitments needed DE to acquire higher education. However, according to Prof Witt, the target population had expanded with the establishment of the new ODEL directorate. Any student with minimum admission requirements who was not able, for any reasons, to study on-campus was eligible to register. He added that there was increased demand for education in the country. That numerous universities had tried to meet the demand by hiring extra physical space but were still unable to cope with the number of applications. Thus DE was established as an alternative to meet the demand.

The strategic plan of NU outlined challenges that the university had continued to experience due to substantial increase in student numbers against the available physical facilities. Furthermore, the projections in the same document indicated an unabated increase in the demand for higher education in years to come. It also quoted

the national statistics which had an annual figure of over thirty thousand (30 000) high school graduates missing university admissions despite having met the minimum admission requirements. At NU, reasons for establishing DE was almost similar to those of WU. However, the main one was to augment participation and access to higher education.

#### **4.9.2.2 Target Population for DE programmes**

At WU, the director as well as all the key informants reported that the target population from the onset, was specified as mature persons who for various reasons were not able to access the mainstream higher education. These included family persons, disadvantaged women, people in employment and people on constant travel. Additionally, there was the special group of adults, over forty (40) years of age, who needed education for self-actualisation. At the School of Nursing, the DE programme targeted mature practicing nurses who wanted to upgrade to degree in nursing and who for various reasons were unable to live on-campus. The DE programme was referred to as BscN, degree conversion programme.

At NU, Ms. B., the ESSS, explained that the programmes on E learning had attracted mature students from all over the country and from some countries abroad. These were mostly students who had social and family commitments and may have otherwise not had access to higher education. Ms. Bok, the LSS Coordinator, added that the student age for those who had been admitted ranged between 20 years and 60 years with an average of 34 years. Ms. Bok further explained that because the target population involved a mature population that had many other competing pressures, there was a proposition in the yet to be ratified policy to allow them take a minimum of two (2) modules per semester translating to a maximum of eight (8) years in an undergraduate programme. She further explained that this would not necessarily translate to eight (8) calendar years because, it was possible to sandwich three (3) semesters into one calendar year reducing eight (8) to five (5) calendar years.

#### **4.9.2.3 Process of DE Establishment at NU**

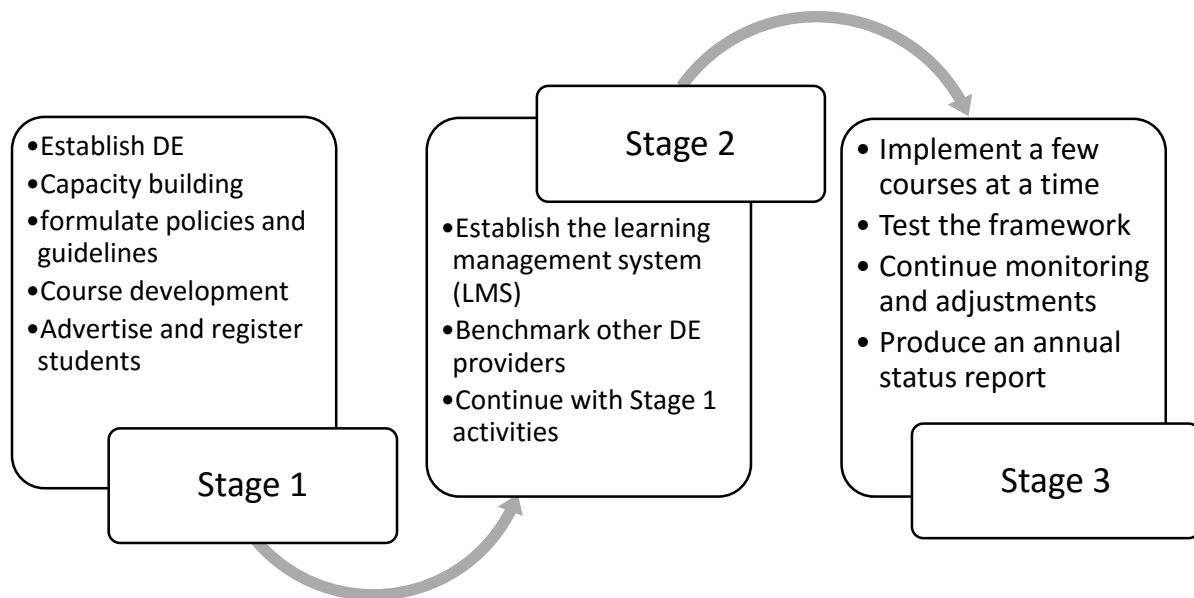
This is illustrated in figure 4.20. The process comprises of three (3) stages.



### Stage 1 The DE idea

Ms. B., explained the historical background of establishment: 1) The decision to go fully online was made in 2010, the new director was hired, 2) In 2010, capacity building began, and twenty three (23) lecturers were trained, who began E learning based content development for five (5) courses, 3) Guidelines were developed simultaneously with course development, 4) The courses were advertised, and 5) Almost three hundred (300) students were admitted across the courses in 2011.

Figure 4. 20: Process of DE Establishment at NU



Course development for new courses was still on-going even at the time of this study in 2014, at which time the number of registered students had reached over eight hundred (800) students. There was also demand for E learning by on-campus programmes and an HIV Determinants and Management course was established as an E learning module for the whole university community. Ms. B. the CDC, contended that the LMS was designed to handle up to twenty thousand (20 000) students concurrently. There was still opportunity for growth and commissioning of new programmes.

### Stage 2 Benchmarking

To help establish a web-based DE delivery system, Dr Rice, the director, initiated collaborations with UK universities which had long standing experiences in running DE programmes in various delivery systems. The collaborations included OUUK and Redding University. Dr Rice indicated that the E-campus framework had been

conceptualised and adapted from those of other universities in the UK. He also noted that the framework continued to evolve with time.

### **Stage 3 Take off**

With the principle of starting small as explained by the director, one certificate course was launched. Dr Rice reported that they started off with few courses in order to: 1) test the framework, 2) reduce start-up costs, and 3) spread the cost of course development for other courses over time. Dr Rice reported that once the guidelines were developed and used to implement programmes, the staff quickly adopted DE and contributed with its smooth running. It seemed that the initial framework for DE programmes was under continuous adjustments even after the first students were admitted. Dr Rice explained that the need to build support structures was realised only after implementation. She stated that:

The E learning was conceptualized around a learning management system. Now we found that .... We needed support structures; we need a learner support structure, we need a system to support the lecturers, we need a cost management system. We now have a human resource. We have an e-library....We have the infrastructure bit...So we felt that this is now good enough for an institution...And to institutionalise the whole framework, a year later we named it the E-campus.

Dr Rice had envisioned a much bigger and better running E learning structure within three (3) years. This would have included a bigger physical space, but she also observed that given the previous experiences of expenditure, the university was cautious with its investments.

#### **4.9.2.4 Process of DE Establishment at WU**

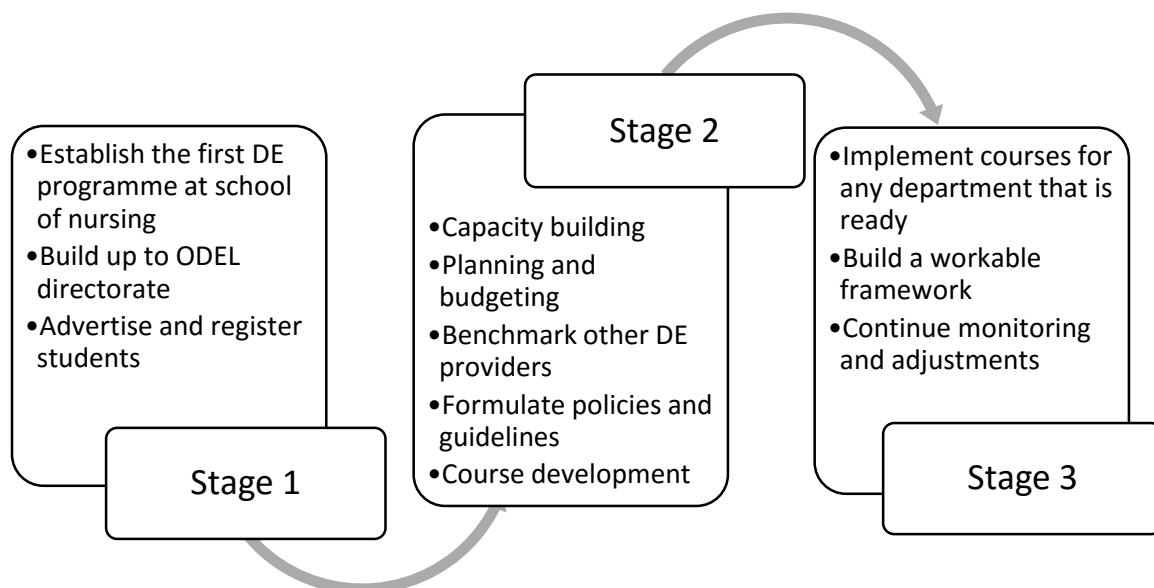
This is illustrated in figure 4.21. The process comprises of three (3) stages.

##### **Stage 1: The DE Idea**

At WU, many informants made claims to having originated the DE establishment. Mr Wanyee and Mr Omware of ICT reported that the idea of establishing DE programmes first originated from the ICT directorate. At the time, the imminent challenge was to sell the vision to the university's administration which lacked good will on the development

of e-programmes. But after a few years of persistence and the coming in of a new Vice Chancellor (VC), the goodwill had improved and an ODEL directorate was established. At the School of Nursing, Mr Vinny, the MOODLE expert, reported that part of the reason why he was hired was because of his extensive knowledge and skills concerning E learning. Upon his appointment and attachment to the school, he reported to have: 1) trained a few of the faculty on matters of DE and 2) sold the vision of starting a DE nursing programme to the faculty. He claimed that the vision was hijacked by the nursing council or the university. This seemed to be contradictory because he later reported that he was hired one (1) year after the DE Bachelor of Nursing programme was commissioned. Within further discussions, he reported that the idea was on paper with the ICT but no one had bothered to initiate it.

**Figure 4. 21: Process of DE Establishment at WU**



Nevertheless, he reported that he was still the key coordinator of the programme and that he had influenced the establishment of DE programmes. His duties included: coordination, trainings, uploading content, designing the LMS and day-to-day running of the e learning platforms. He explained that his professional background had nothing to do with E learning but that he had attended trainings of E learning out of interest and initiative. The first DE programme was established in WU at the School of Nursing in 2011. In 2013, a centralised ODEL directorate was established to host DE programmes for all departments in addition to that of the School of Nursing School of Nursing.

## **Stage 2: Benchmarking**

The new VC at WU came with experience having studied and worked in other universities, especially in South Africa. His past experiences influenced the plan to establish DE programmes through an ODEL directorate. The ICT duo reported that when the idea of establishing DE programmes was first mooted, they visited a newly established DE learning at MidrockMidrockUniversity within the country. There, they learnt how to establish E learning on LMS and the use of MOODLE. Thereafter, they returned to the WU, made a business plan and submitted a budget to the senate. But the senate did not approve of the budget citing exorbitance. Thus they went back to draw a new plan and budget still using Midrock University as their benchmark.

Dr Ruud, the Chairman, Department of Nursing, also talked about Midrock University as having a more superior organisation than the WU ODEL. He reported that they modelled ODEL and formulated policies, using it as the benchmark. He did not seem confident that the WU administration would prioritise the growth of ODEL to as high levels as that at Midrock University. He also had previous experiences from two other universities where he had worked but after visiting Midrock University, he believed that that was the best run model. There was a document from the School of Nursing named "BENCHMARKING REPORT FOR WU BSN DISTANCE LEARNING PROGRAMMEME REPORT". This document was compiled after a study by a task force appointed by the WU administration. The Terms of Reference (ToR) for the task force according to the report was to identify the necessary benchmarks for distance learning from other institutions that would facilitate the establishment of DE nursing programme at the WU. The report was to inform future policy formulations regarding the establishment of DE nursing programmes even though the report was concluded when the nursing programme had already taken off. Nonetheless, the task force identified twenty four (24) benchmarks under eight (8) sub categories, that they believed were basic to the delivery of quality DE programmes. The benchmarks included: institutional support, course development, teaching and learning, course structure, student support, faculty support, evaluation and assessments. In addition, there was differentiation between print media DE and E learning DE because the original modules developed by the Nursing Council of Kenya (NCK) were print-based while the WU was ready to deliver DE through e learning.

### **Stage 3: Take off**

The School of Nursing admitted its first cohort of DE students in 2011 while ODEL did so in 2013. The student numbers at the time of this study in 2015 was two hundred (200). For the establishment of ODEL, the following procedure was used:

- A director was appointed.

Members of management went for training in the University of South Africa (UNISA) and made a report for benchmarking.

The director had a press conference and made advertisements in the mass media. Students were admitted immediately the director was appointed.

Prof Witt, the Director, reported that the formal admissions system was tedious, taking up to two (2) months for prospective students to be admitted. Registration was not an easy process, but ODEL had since established a semi online system, which had improved the registration process. For faster payment of registration and tuition fees, he set up an account in the mobile telephone money transfer service.

At the onset, there was little in frameworks, policies or guidelines. For instance, teachers for the students were being recruited as students were being admitted.

The director and his team developed guidelines and policy which were undergoing readings before the senate at the time of this study. Meanwhile, the same were being used as standards for ODEL establishment. Prof Witt explained that while developing their own policy, they recognised the commission of university (CUE) policy and the national ODL policy.

#### **4.9.3 DE Models**

This was the third and last facet under the theme: pursuits to maximise DE learning experience. It discusses the models used in WU and NU.

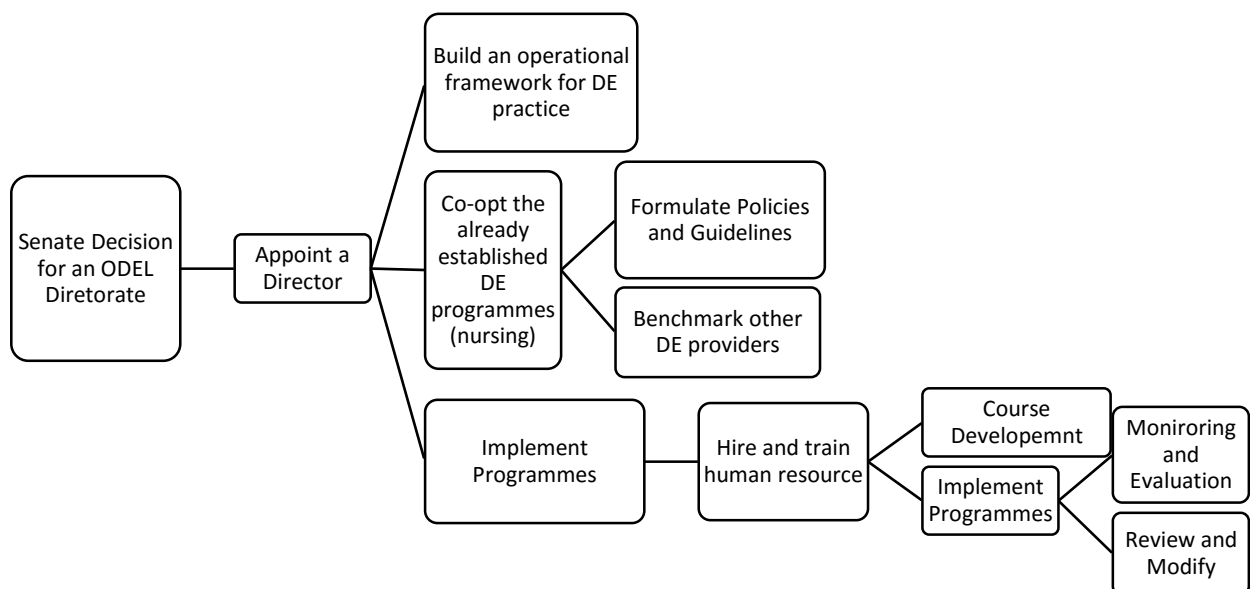
##### **4.9.3.1 DE Model at Western University**

The WU modelled the DE framework and named it “the Directorate of ODEL”. It was to run as one of the directorates of the university (See Figure 4.22). Although the School of Nursing had been running undergraduate DE programmes for the preceding two (2) years, ODEL was now a formal framework that would serve all departments that needed to co-opt the DE mode of teaching and learning. The ODEL directorate co-opted the BScN DE programme into its model but it seemed like, at the

time of this study, the integration was still in progress. received a student list for the administration of questionnaires for this study from ODEL which included the nursing students. However, upon discussions with Mr Vinny in the School of Nursing, it was apparent that ODEL did not have a current list. For example, some of the names were students who had applied but had never joined while some were yet to join the programme.

In the process of establishing the model for DE, two members of the management were appointed by the council to visit UNISA for two weeks of training. By then, the current director had been appointed but was abroad on training. Later, following performance contracting, ODEL committed to train ten (10) members of faculty within the year, but within six (6) months it had already trained over fifteen (15) lecturers. This was prior to its launch in September 2013.

Figure 4. 22 DE Model at WU



ODEL was commissioned and began working without technical staff except for the director and two (2) seconded from the ICT department. Four (4) months later, three (3) additional staff were hired for its administration. The additional staff were employed as interns. The director gave the rationale for this as affordability and efficient distribution of work. He observed that the salaries of four (4) interns was usually equivalent to that of one (1) expert. So it was more cost effective to hire and work with interns. After ODEL was established, the director began the development of guidelines

and policy for ODEL. In six (6) months the document had undergone the required readings and was awaiting ratification by the senate. Meanwhile, implementation and adjustments were made based on the new policy.

The intended model for budgeting was illustrated in the policy. The money made from DE would go into the university pool. Thereafter 6% would return to ODEL for its development. This was over and above the university's allocations and votes which the director did not specify. Unlike the E-campus model at NU, Prof Witt seemed happy with the budgetary arrangement. Except that he indicated that the amount was insufficient and that the percentage should be more than 6%. Prof Witt had observed that some systems worked in the first few months when the students were fewer but would need to be improved and budgeted for again, with growing student populations. For example, orientation for students on how to use MOODLE was done during the first one week of on-campus orientation, but the training had proved inadequate and expensive. So they would need more capital to extend the on-campus orientation or to purchase a superior MOODLE license. They would also require to hire experts to train the students online.

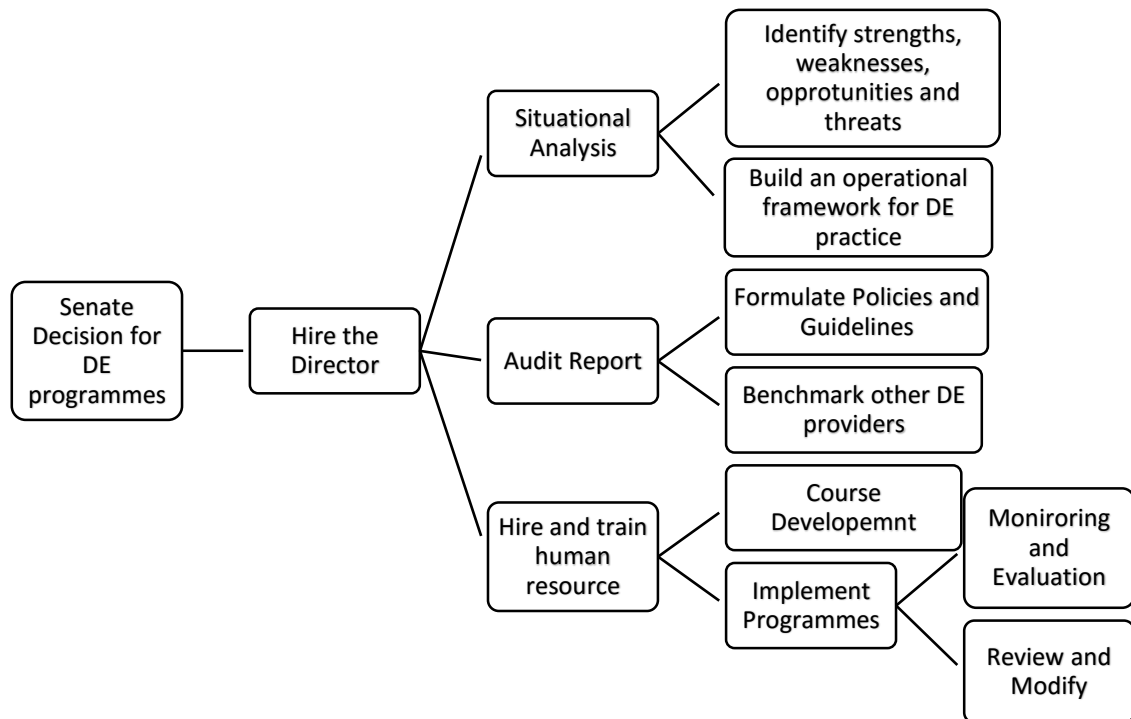
#### **4.9.3.2 DE Model at Northern University**

Dr Rice, the director of E-campus, explained that she and her team studied various other universities' models and built a generic DE model based on the context of NU. She stated "we have what works for us". Upon being hired, Dr Rice reported that the VC challenged her to find out the reason why it had been difficult to start E learning programmes at NU. She reported that she needed to make an audit report that would indicate the status, a projected future and the way forward. She began by interviewing faculty and staff while making an assessment study. But then, one faculty member stopped her and indicated that whatever she was doing had been done previously. This gave her more insight on the faculty's perceptions. Faculty seemed to believe that the main reason why DE had not effectively taken off in the past was due to the absence of a remuneration policy for staff who taught in DE programmes.

Dr Rice reported that she made headway through the audit study. One issue was to try and correlate policies. She reported that policy was lacking in the role of ICT in education in NU programmes. Additionally, ICT as a course in the curricula was not explicit even though it was mandatory for all students. She therefore proposed the

need to create a guidelines document. Dr Rice and her team then developed the first guidelines document for DE establishment which outlined various components of DE. But the one issue she complained not to have captured was the budgeting options. She often expressed throughout the interview that the budgetary allocations to DE were always insufficient.

Figure 4. 23: An Illustration of DE Model at Northern University



It seemed that the director had to build a model based on the prevailing circumstances as depicted in Figure 4.23. First, the university had incurred costs in acquiring video-conferencing equipment prior to her being hired. Establishing the video-conferencing was challenging yet she was expected to set up a functional DE unit in the shortest time possible. Faculty was already attuned to the possibility of setting up print-based DE programmes. Meanwhile, the country's ICT sector had improved the availability and accessibility of internet. She then envisioned a web-based delivery system of DE, but she had to construct her own model, unique to the NU, borrowing from various models of other universities. She began by training lecturers and hiring support staff. Dr Rice envisaged what seemed practical than the video-conferencing at the time. She constructed a web-based E learning delivery system. Her argument was that there were more challenges in putting up the video-conferencing system than there were for a web-based delivery system. For example, a video-conferencing system required the



set-up of specialised equipment not only in the university but in centres around the country from which conferences would take place. This required more capital expenditure against a trim budget. In her needs assessment, she established that there was enough bandwidth from most ISPs, for individuals to use internet even through smart phones. She thus believed that E learning could be actualised.

#### 4.10 FORMULAS AND FRAMEWORKS

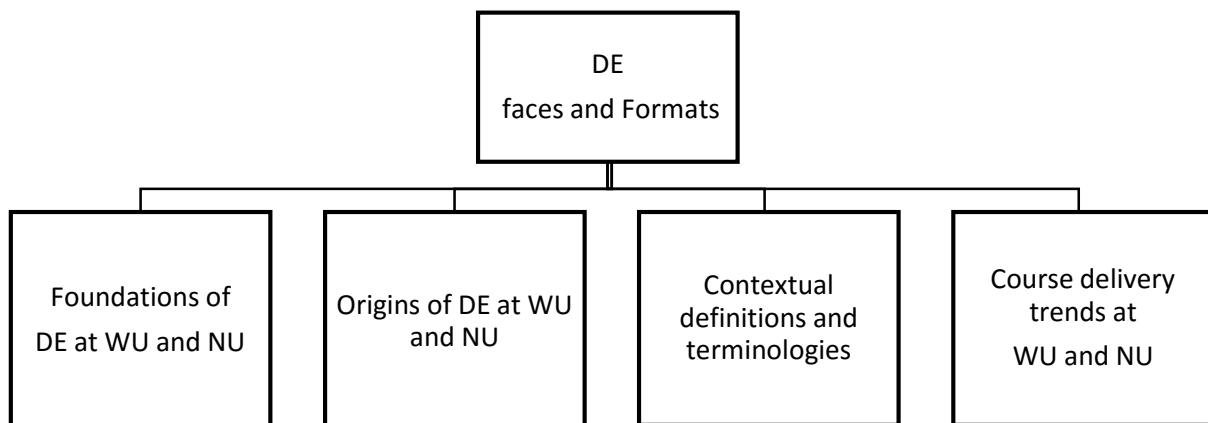
This was the second theme. Under this theme, results were presented from data analysis aimed at answering the first research question.

Research question 1: How have learning formats, course delivery trends and changing faces of distance education contributed to challenges within its practice?

This theme focused on how learner support structures are affected by the universities' definitions of the domains of DE practice, the interactions between technology and DE and the challenges that arise from the environments where DE is practiced. The results are herein presented under two titles: i) DE faces and formats and ii) Challenges of DE.

##### 4.10.1 DE faces and formats

Figure 4. 24: An illustration of the breakdown of DE faces and formats them



There are varied terminologies with equally varied meanings in DE used by education providers and universities. These include: open learning, print based DE, computer-based learning, online education, e learning, off-campus learning and blended learning. These terminologies also define the learning formats for the universities. In WU and NU, following were the findings as illustrated in Figure 4.24.

#### **4.10.2 DE faces and formats**

There are varied terminologies with equally varied meanings in DE used by education providers and universities. These include: open learning, print based DE, computer-based learning, online education, e learning, off-campus learning and blended learning. These terminologies also define the learning formats for the universities. In WU and NU, following were the findings as illustrated in Figure 4.24.

##### **4.10.1.1 Foundations of DE at WU and NU**

In WU, the director for ODEL was appointed from a department from the on-campus programmes. This was based on promotion procedures, the director having served as a member of the faculty for over ten (10) years. This differed from the process at NU. Here, the director was hired externally following an interview from competitive and open applications.

##### **4.10.1.2 The Origins of DE programmes**

At WU, from the directorate, it seemed that, DE was established with prospects for income generation. The director, Professor Witt, explained that the new VC realised that finances for the institution were dwindling with no immediate source of funding to augment the minimal government budgetary support. He consulted widely with the senate, administration and faculty, including Prof Witt, on innovative ways through which finances could be improved while at the same time expand courses and programmes. Thus eventually, ODEL was mooted and born. In his words:

So, there was need for a more innovative way of bringing more and more students on board... who could pay money to the university....

In addition, Mr Wanyee and Mr Omware (the ICT duo) at WU reported that DE programmes at the university were initiated as an answer to stakeholders' needs.

These included the need for a reputable and efficient institution where a student could complete his/her programme in the minimum number of years.

At NU, the university had already planned to begin DE programmes by 2004. According to Dr Rice, the Director, the senate appreciated that DE could be delivered through a variety of models that had worked previously through history. So a plan was mooted for a print-based delivery, training of staff and budgets for the relevant investments. By the time they were ready in 2007, the VC experienced a vision from travels in Asia, to install a video-conferencing delivery systems. Without due feasibility and considerations, the plan for a print-based delivery system was discarded and video-conferencing equipment was purchased for the new model. Unfortunately, the equipment had not been set up three (3) years later, in 2010, when the director for E learning was hired and seven (7) years later at the time of this study. The vision was commendable, but the lack of planning was a problem. This was especially so because technology changes occur very rapidly and the equipment was soon bound to be redundant. Eventually, by 2011 when the DE programmes kicked off, neither the print based nor the video-conferencing had borne any significant contribution to the present web-based delivery system. This also illustrates the rapid changes that impact on the delivery of DE and how this can increase start-up costs. This issue was echoed by Ms. B., at NU. She reported that by the time of its establishment in 2011, the DE delivery format had evolved and ICT sector in the country had greatly improved the internet connectivity. In her words:

Distance learning involves things such as ... video conferencing, print materials and all that.... So NU didn't want to go that way. We wanted to go fully online.... where all the interactions takes place through the learning management system.....

#### **4.10.1.3 Contextual definitions and terminologies of DE**

The director of ODEL described the DE model at WU as an open university, autonomous from the main university. This may have been the projection, but at the time of this study there was little evidence of autonomy from the main university. At the beginning of his interview, the director, Prof Witt, explained that ODEL had been established as one of the directorates of the main university. Later, he explained his vision for the directorate to grow into the first African centre of Massive Open Online

Courses (MOOCs). At the moment, the director described the application, registration and admissions processes and policies as based on the concept of openness. It seemed that ODEL had borrowed its policies from the national Commission for University Education (CUE) policies with little adjustments. His description did not lend much to the concept of “open”. I asked the director to justify why the directorate was referred to as open. He admitted that that was a difficult question to answer. He actually did not seem very clear on the concept of openness. At one time, he said that the programmes were “open to distance”. This added to the confusion of terminologies.

Prof Witt later explained that there was a target group of students to whom the DE programmes were open. He reported that ODEL was open to a limited extent to mature students who wanted to study but not necessarily for employment purposes. He described this population as leaders of high repute or successful business entrepreneurs in various organizations, including parliament. Such a student would not be enrolled into a degree programme for returns on employment but he/she only needed to acquire knowledge and skills in order to serve the citizens better. Such a student would be admitted based on senate approval. This concept was ambiguous and open to confusion and unfair practices.

At NU, the university's strategic plan made reference to DE in different names. These included ODL, E learning and ODEL. Many times, the user was expected to understand these terms to mean the same thing. So I enquired from the director, Dr Rice, whether E learning had projected to have open learning now or in the future. She answered that she had a clear definition of the current system as an E learning system and that the ODL or ODEL may only happen sometime in the future. This was commendable in eliminating ambiguity and keeping focus on the structures that have been implemented at the NU. Dr. Rice further explained that they had developed a guidelines document of establishment which was still a live document three (3) years later. She indicated that the definition of E learning was very clearly stipulated in the document as the main mode of course delivery. In her words:

And we said that all learning that takes place on the learning management system.... that is what we understand as E learning.... Everything else is supportive....

However, a discussion with Dr. Ross, the CDC at NU, yielded that there was still confusion on beliefs and definitions of DE at NU. When asked whether there was a self-evaluation forum for a prospective student on his/her fitness for distance learning, the conversation:

Ms. Bok: What distance?'

Researcher: The E learning at E campus is DE... is it?

Ms. Bok: No... We have not gotten any students who has thought of it as such... we also do not refer to it as distance learning...

#### **4.10.1.4 Course delivery trends**

Both WU and NU used MOODLE as the platform for course delivery on the LMS. However, WU was using a much earlier version than that of NU. The ICT representatives at WU explained that that version was what could be hosted by the university's server. NU on the other hand, had a more superior version which Dr. Rice indicated as having an overseas host. She also explained that the advantage of having a host in another country ensured that the students experienced minimum interruptions and fast internet working speed. This of course made substantial increases to the cost of running the DE programmes.

At WU, the director explained that the provisional policy indicated that ODEL admit students with the assistance of the departments in terms of; admission criteria, learning materials, syllabus and lecturers. But the students belonged to ODEL. This seemed to have brought confusion because there were times when ODEL had admitted students yet the syllabus or learning materials from the departments were not ready. Dr Ruud, the chairman at the School of Nursing, explained that the nursing programme model was defined as a blended delivery system. It involved three (3) days face-to-face sessions each month, print materials, CD-ROMs, emails, text messages and the LMS supported by MOODLE. On the other hand, the course delivery at NU had a web-based LMS combined with face-to-face sessions for tutorials and examinations. Dr Rice reported that there were plans in the future for DE students to travel on-campus to their respective departments to gain a physical feel with their department, faculty, fellow students and their on-campus counterparts.

### **4.10.3 Challenges in DE practices**

This was the second component under the theme of DE formulas and frameworks. Within challenges in DE practices, the following were discussed: attrition of DE students, dual mode and budgetary challenge for DE, challenges in running DE programmes, challenges in human resource, disgruntled staff and faculty in policy formulation, dual mode university: non-integration between departments, challenges in ICT / Internet, challenges teacher attitudes and training, challenges with tutorials and the challenge of monitoring faculty output.

#### **4.10.2.1 Attrition of DE students**

At WU, the first attrition in ODEL was because the student registered for a science programme which had not started off. The department was not ready and kept asking the student to hold on. So the student left due to the university's internal issues. At the School of Nursing, which had been running for three (3) years, Mr Vinny, the MOODLE expert, reported that there had not been any student dropout but that instead, there were two (2) on-campus students who had opted to change their programme to DE and this caused an increase in the number of DE students. On the other hand, Ms. Diana, the course and learner support coordinator at the school, reported that two (2) students had dropped out since the onset of the nursing programme in three (3) years. Through follow up and counselling, she suspected that the dropout had been influenced by two (2) factors: one, the two students were quite elderly and so the technology in the programme was a challenge, and two, because of the technology challenge, they were unable to manoeuvre the LMS and therefore could not hold discussions, upload assignments effectively or engage in MOODLE. The ICT duo, Mr Omware and Mr Wanyee, on the other hand did not seem to be aware of any student dropout. They reported that they could judge the course progression as satisfactory because the nursing students were all expected to graduate.

At NU, Mr M, an administrator, approximated the attrition rate at about 30%. Additionally, there had not been any graduations by the time of this study. Ms. Bok, the LSS coordinator, concurred that there had been an average modular completion rate of 70%. She also explained that they did not have students whom they considered as completely having dropped out. This was because policy was yet to be consented with a proposal to allow students to engage into the programmes for up to a maximum

of eight (8) years. Mr M. at NU also explained that some students had practical reasons in the case of non-completion of orientation. For instance, some had not received their admission letters on time while E-campus had assumed that they were ready to take the orientation programme. Some had delayed in fee payment such that by the time they got online, the orientation period had almost lapsed. Such students had in many cases opted to defer to the next semester and would not be considered as dropouts.

Further to this, there were fears of attrition, but no open cases reported. The status report of NU, 2010 indicated factors that may cause attrition::

- i) Poor response to student enquiries and the general turnaround time for communications and feedback on all issues.
- ii) Teacher workload and shared responsibilities being a dual mode university.
- iii) Poor internet connectivity in other offices out of E learning.
- iv) Lack of policy and guidelines on how to reimburse lecturers when they purchase their own internet bundles.
- v) Absence of a 24hr-7 days helpdesk.

#### **4.10.2.2 Dual mode and budgetary challenge for DE**

At WU, Mr Wanyee, one of the ICT experts, explained that dual mode universities like WU need to understand that start-up for DE programmes was expensive and capital intensive. He believed that the university was yet to understand this fact. Therefore there were frequent shortfalls in budgetary allocations especially for ICT. He gave examples of shortfalls that had trickled down to poor MOODLE support and underdeveloped ICT networks and infrastructure.

At NU, Dr Ross, the CDC reported that the E campus was often allocated minimal funds and sometimes it did not even appear in the strategic plan. Because it was still at the startup phase, developing new programmes and courses, the management failed to understand why its expenditure had superseded income. It was therefore proving impossible to make DE learning a priority in dual mode systems.

She further reported that many suggestions on how to improve the framework and policy for staff remuneration had been shot down by management. In dual mode universities, lecturers doubled for both on-campus and DE programmes. Ms. B., an

ESSS and Ms. Bok, the LSS at NU, reported that the lecturers considered the E-campus duties as part time and were hesitant to commit themselves to teach especially because a remuneration policy was missing. This challenge was constantly reported by all the informants. Most lecturers seemed unhappy with the payments that they were receiving.

#### **4.10.2.3 Challenges in running DE programmes**

Dr. Rice, the director at NU, reported that she had continued to have various challenges in running the establishment. One of the challenges was inadequate staffing. She did not have a direct assistant who could run the department in her absence. She had coordinators for various components for whom she would have to assign duties in her absence. Secondly, the course coordinators were seconded from the mother departments on-campus; they doubled duties from their host departments. While the structure was to provide a platform for the departments at the main campus, the director felt that the course coordinators were not loyal to E-campus. In her own words, "This is killing us." Dr. Ross, the CDC, concurred that she had a contract for one (1) year on a fixed pay, but that she had had to make many adjustments sometimes having to step in for lecturers "who would receive the pay for the work I do." Although NU had an online monitoring system, there was the argument that lecturers were still involved in DE work even when they were not online. These same issues were observed by Dr. Ruud at WU. For the nursing programme, he reported that the lecturers had not been paid their dues by the university for the preceding two (2) years. But he was confident that with the establishment of the new ODEL, the new policies would sort out the issues of remuneration and reimbursements.

#### **4.10.2.4 Challenges in Human Resource**

At WU, the director reported that DE programmes often found themselves in awkward positions when students were admitted and there were no lecturers to take up tutorials, especially when it had been assumed that being a dual mode, the on-campus lecturers would take up DE tutorials. This assumption had often lead to tutorial crises. The ICT duo (at WU) added that their directorate was functioning with very few staff for the whole university and its five (5) campuses. They were stationed at the main campus but had to make frequent journeys to service and interconnect the regional campuses. Mr Bob, the e-librarian also decried the information literacy skills that the library was



supposed to teach students on individual hands-on basis but which had not taken place due to the minimal number of staff. Dr. Ruud also contended that due to lack of adequate staff and insufficient infrastructure, he often had to handle all the small concerns of students and still run the department as the chairman.

#### **4.10.2.5 Disgruntled staff and faculty in policy formulation**

At WU, Mr Vinny seemed disgruntled with the modalities of how ODEL was established. He believed that the School of Nursing and particularly himself ought to have been consulted and involved in the process but this was not done. In his words:

I was not consulted...we were actually running our programme.... we don't depend on them... they were doing their own things.... they make announcements... which are irrational.... I'm a mere lecturer and they are the bosses.... so I have actually tried to talk to them... to tell them "why don't we join forces and get something out... let's try a pilot"...

Mr Vinny further reported that from his end, he had tried to get involved and provide ideas for ODEL Directorate but he had been ignored. He was also unhappy with the design of the E learning website. He expressed that it had too much information that crowds the student's mind. Subsequently, the student was likely to miss out on important information. In his words:

I always call on.... the person who is managing the website.... when it's so crowded with many meaningless things, the students do not understand.... It becomes difficult learning..... Unless....

#### **4.10.2.6 Dual Mode University: non-integration between departments**

At NU, there seemed to be little integration between the E-campus and the main campus. Dr. Rice explained that after they set up support structures and a human resource section, they perceived the campus as autonomous enough to set up the framework as an independent campus. Dr. Rice explained that the lack of integration may be a matter of perception but at the same time voiced that this was the model that worked for them. She explained that the perception that there was non-integration had stemmed from the attitude of staff at the main campus. She gave an example of the dean whom the researcher had earlier interviewed as relegating most of his duties to

her. Many times, when the students required the services of the dean, he would refer them to the director.

The dean of students, on his part, explained that he was aware of E learning but the E-campus had not involved his office in much of their issues. He was not sure if the DE students had an orientation. He had never attended an E-campus orientation unlike those of the face-to-face students. The director of E-campus countered that there can only be one dean of students in the university. The dean of students reported that the first time he got involved with the students was when a group of E-campus students were seeking support to attend a funeral of one of them. In such cases, the university offered support by providing a bus to ferry the classmates. The university may also send a representative from the administration as recognition that the deceased was part of the university family. This meant that the dean was rarely in contact with DE students and thereby gave the perception that there was lack of integration between the main campus and the E-campus

#### **4.10.2.7 Challenges in ICT / Internet**

At WU, the School of Nursing did not have internet connectivity due to many reasons. Mr Vinny, the MOODLE specialist, reported that the internet service provider (ISP) had disconnected the internet for two (2) years in the past for non-payment of bills. He explained that he had purchased a personal mobile Wi-Fi router billed at USD 100 per month. He was philanthropic enough to let other faculty members use it whenever he was in the building. Both Ms Diana and Dr Ruud explained that many times they had to use their personal modems on their own budget which had thus far not been reimbursed. The ICT duo also concurred that the issue of reimbursing lecturers to purchase internet bundles continued to be a challenge. Prof Witt, the director, indicated that ODEL was working on new policies to meet these challenges.

Even without internet connectivity, Mr Vinny was optimistic about successful E learning programmes. He gave comparison of internet connectivity in a privately-owned university where he had previously worked. He reported that comparatively, systems seemed to work better in the private university due to adequate funding and priorities. When he worked at the private university, there was 24-7 internet connectivity as long as it depended on the university grid, not on the national grid. But at WU, on many occasions, students were not able to access the lecturer throughout the day due to

access, electricity or connectivity problems. Ms. Diana, the LSS coordinator, also explained that the issue of internet connectivity as a problem for students was twofold: 1) The MOODLE platform was inaccessible when the university server was down either due to frequent power surges or due to non-payment of the internet service and 2) Accessing internet connection from the student's locality was often a problem due to cost or unavailability. She added that lecturers were particularly discouraged by the lack of internet connection in the schools. The challenge of internet connectivity was not a preserve of the School of Nursing. Prof Witt, with offices housed at the main campus, also complained that even though the directorate had internet access, the internet connection was erratic. He reported that the ICT was working to make the situation better.

#### **4.10.2.8 Challenges: Teacher attitudes and training**

At WU, the ICT duo explained that negative teacher attitude had been a problem at the onset and continued to be a challenge. Some lecturers had compared the programmes with UNISA's and complained that they did not visualise themselves as ever having such capacity. But the ICT staff believed that it was possible and continued to counsel and convince the lecturers to support the small steps being made. Mr. Bob, the e-librarian, had also observed that lecturers usually had a bad attitude with the belief that they were all-knowing. He reported that the professors did not want to be assisted in information literacy, especially those who had been in the university for long. He had observed two issues one of which was that the professors got stuck with old book editions. In his words:

They often would still refer you to another book that was done in 1973 when there is a revised edition of 2012 and we have a hard and soft copy... so it is interestingly that you would never tell them anything...

Secondly, they rarely contacted the library and had shifted to the internet. This was not a bad practice, but the librarian warned that searching the internet without information literacy skills was counterproductive. He had observed that many lecturers seemed to search on Google and were unaware of the more refined Google-Scholar engine.

At NU, Ms. B, the ESSS, explained that teacher attitude was a real challenge during the initial stages of the E-campus establishment. She reported that at the time, many of the lecturers believed that DE programmes attracted a special breed of students and did not acknowledge them too much. They tended to treat E learning as second class or part time. Administering and processing of exams, time tables and student issues always created big crises. In fact, the first set of examinations in 2011 had many papers missing because the lecturers had not yet set the examinations. Additionally, Ms. Bok, the LSS coordinator, also explained that lecturers sometimes felt that DE students were patronising and many times unreasonable. They made many excuses for not submitting assignments on time.

#### **4.10.2.9 Challenges with tutorials**

At WU, the director, Prof Witt, explained that for some programmes, there were very few experts and lecturers such that even with external advertisements it was not easy to recruit lecturers. He had been compelled to request the on-campus departments for lecturers. In such circumstances, these were lecturers who did not come to ODEL for part time engagement, but were lecturers who were seconded from the mother departments. The director explained that such lecturers took too long to start teaching and he often had to seek the intervention of university management. He observed this as unfortunate, because the DE programmes suffered when students did not receive timely and adequate tutorial support. Using the MOODLE was also new and had caused challenges in the smooth progress of teaching and learning.

Mr M., the administrator at NU observed that lecturers were often at different skills level on issues of E learning. This affected support issues like communication and feedback especially for examinations and assignments. There was need for continuous training. Ms. B, the ESSS, also observed that at the time of the establishment, there were various challenges. One challenge was that the teachers doubling from on-campus programmes did not know what was expected of them. The transition from teaching to facilitation was a challenge both for the teachers and for the new establishment. Secondly, the policies for the establishment had not been ratified and it was not clear how the lecturer was supposed to facilitate once the student received learning materials. Facilitation at the startup phase was therefore very poorly done.

#### **4.10.2.10 Challenge of monitoring faculty output**

At NU, the online monitoring system did not quantify the number of students under each lecturer and was bound to record more hits for lecturers who had big classroom membership. Dr Rice explained that it was not meant for any punitive measures but as a wake-up call for lecturers who would otherwise not frequently interact with students. The deterrent was based on staff and faculty knowledge that there is a monitoring system.

At WU, the director explained that he sometimes had to report to the university management lecturers who were taking too long to start teaching. But he added that even with this action, there was little change due to lack of disciplinary action from the management. This was especially in circumstances where lecturers were assigned DE duties from their mother departments rather than if they volunteered to teach part-time. An online monitoring system at WU was missing.

### **4.11 STRATEGIES FOR POLICY FORMULATION IN DE**

This was the third and last theme. Under this theme, results were presented from data analysis aimed at answering the third and fourth research questions. It is discussed under two (2) subtitles: Skills for DE learner and Guidelines and policies.

#### **4.11.1 Skills for DE Student**

This sub theme presents results that attempted to answer the following research question:

Research Question 3: What skills should be developed by the student through learner support systems for effective participation in distance learning activities?

Towards this, the results in this sub theme are discussed under the following titles: Lack of independent learning skills, lack of skills for DE technology, lack of time management skills and lack of knowledge on rights and responsibilities.

##### **4.11.1.1 Lack of independent learning skills**

At WU, Ms. Diana, the LSS coordinator, reported that when assignments and CATs were given online, a number of students would call her asking for help with the

technology. According to university policy, late assignments were supposed to attract penalties. But Ms. Diana explained that the faculty had experienced that penalties for late assignments with DE students tended to exacerbate the situation. Students would complain over passwords, internet, technology or many other issues which only introduced chaos into the running of the programme. However, she also quipped that this would have to change once the systems stabilised because “no programme can run efficiently without a timeframe benchmarked by deadlines.” These were signs of students lacking independent learning skills.

At NU, Dr Rice, the director, observed that students often contributed to the challenges of running effective DE programmes. She reported that some did not submit assignments or log into the LMS. This made it difficult to monitor their progress. Ms. B., concurred that their biggest challenge with students at the onset was none or late submission of assignments. She however, identified that some students were struggling with DE pedagogy. That even though they really wanted online or E learning, they had not internalised how to get along.

#### **4.11.1.2 Lack of skills for DE technology**

At WU, Ms. Diana, the LSS coordinator reported that the current student population was not technologically savvy and that this had caused a problem especially in the use of LMS and MOODLE. She also noted that the students were slow to realise that this was the only way to actualise the flexibility of anytime, anywhere education. Another challenge was when students lacked self-regulatory skills. Since the modules were self-paced, some students with poor time management skills were unable to submit assignments on time. This was compounded by issues like lack of internet connectivity, but as Ms. Diana explained, when a student overshot the deadlines by more than four (4) weeks then the lecturers would register concern. At NU, Ms. Bok, the LSS, felt that although internet connectivity was a challenge for many students, it was sometimes misused as an excuse for lack of progress.

#### **4.11.1.3 Lack of time management skills**

At WU, Ms. Diana explained that some skills like time management were silently taught within the modules. She explained that the units in the module were self-paced in ways that compelled the student to have a weekly plan in order to move on course. There

were weekly assignments and monthly face-to-face meetings during which time the student was expected to have satisfactorily finished his/her work. However, this also introduced the challenge of students moving at different paces and the programme was forced to be flexible.

According to Ms. Bok, the LSS, some students under-rated the amount of time they required for studies and registered for too many modules to complete. She also observed that some students were patronising just because they were mature students and bosses at their work place. They expected things to bend over to their favour, this often destabilised the lecturer especially if it affected examinations timetables. In her words:

Somebody tells you “excuse me, I need to travel out of the country for work. So I won’t be able to sit for the exam”... meanwhile all logistics have been made for the exams... we have set the exams, we’ve printed, we have packaged..... We were about to transport and they gladly tell you that there busy. So those things we do not experience in the face-to-face programmes...

#### **4.11.1.4 Lack of knowledge on rights and responsibilities**

At NU, Dr. Rice, The director mentioned that on-campus students seemed to have better knowledge about their rights and responsibilities in contrast to their DE counterparts. This emanated from the discussion that lecturers seemed to give more attention to the on-campus students because they are more likely to demand for the lecturer’s attention or report him/her.

#### **4.11.2 Guidelines and Policies**

This sub theme presents results that attempted to answer the following research question:

Research Question 4: What support elements can constitute to the formulation of guidelines for learner support systems for new students of distance education?

Towards this, the results in this sub theme are discussed under the following titles: The commission for university education (CUE) standards and guidelines, DE policies, admissions policy and quality assurance policies.

#### **4.11.2.1 The Commission for University Education (CUE) standards and guidelines**

Both NU and WU made reference to the Commission for University Education (CUE) standards and guidelines as the guide to the formulation of ODEL guidelines and policies in the individual universities. The CUE document was one of the documents analysed in this study. It described and outlined numerous schedules concerning the practice of higher education in Kenya. ODEL was extensively discussed under the fourth schedule. The schedule had two parts. Part one was the preliminary discussing the scope, citation, interpretation, principles, scenarios and assumptions of ODEL. Part two described the standards and guidelines for the education provider. There were almost forty (40) standards with outlined guidelines. These included: a needs assessment, vision and mission statements, accreditation of the institution and programmes, institutional budget policies, provider's objectives and strategies, governance and administration. Also included were guidelines for regional learning centres and collaborations, modes of delivery, learning management systems, technical and ICT support infrastructure, organisational structures and procedures, technical framework, curriculum, course development and learning materials, institutional policies on staffing, staff support, orientations and trainings, student services, residential sessions, communications to students prior to admission, duration and structures of academic programmes, examination regulations and assessment procedures, course monitoring and evaluation procedures, learner support services, staff appraisals and marketing of programmes.

The guidelines were relatively detailed in a manner that should be assistive to any education provider to formulate practical frameworks for individual policies. Although learner support was not outlined in details, indicators of good learner support services could be identified within the scheduled standards. For example, the issues of orientation for students, faculty and staff to DE was outlined as important. This was especially so for dual mode universities which may have a different work culture from that of newly established DE systems. Another example was that of regional



campuses and learning centres. Although the E learning formats of DE may consider this as redundant, the CUE document outlined it as a point of inter-institutional collaboration and as a tenet for good practice of DE to effectively reach its students.

#### **4.11.2.2 DE Policies**

At WU, Prof Witt explained that some of the framework used for establishing ODEL were guided by the national policy on ODL and the CUE policy document. This included the 6% budgetary allocations from the main university and the need to have a tele-conferencing facility. Mr Vinny on the other hand seemed disgruntled with the establishment of ODEL on many fronts. One issue (others already explained) was that he did not feel like the ODEL task force had taken into consideration the requirements of CUE policy. He believed that ODEL policy had assumed that if a programme was running on face-to-face formats, then it would automatically be approved and transformed to run on a DE delivery format.

At NU, Dr Rice reported that there was a new national policy on DE in Kenya and that the NU is using this policy. The researcher received a copy. The guidelines document at NU was also tied to the main university's policies. It made several references to the main university. For example, admission requirements, assessments policy and course progression procedures. The policies were non-specific to learner support or student's academic journey. Following the implementation of DE programmes using the guidelines, E learning was able to position itself in NU. Dr Rice, the director reported that the University policies on ICT, on content development, on capacity building, on research and many others had adapted to provide E learning and recognised the goals for E learning in all these sectors.

#### **4.11.2.3 Admissions Policy**

WU ODEL made reference to CUE standards on admission requirements. The assumption was that the prospective student needed to meet the minimum university entry requirements as laid out for on-campus students even though ODEL was supposed to be open to all. Additionally, the proposed policy had a clause that allowed mature non-qualifying students to apply with preconditions. The document serving as the guidelines and policy document for DE programmes at NU was silent on the actual entry requirements into DE programmes. It indicated that conventional admission

requirements would apply unless otherwise specified. So this left some ambiguity as to whether the DE programmes were open or not. However, it stated that DE programmes would be equivalent to those of the face-to-face programmes. The minimum and maximum completion time acceptable for each programme was also not explicit. It however, stated that individual modules would have a maximum validity period within which it must be completed. Also that all modules stipulated for each level of study must be completed before progression into the next level.

#### **4.11.2.4 Quality Assurance Policies**

The service charters were some of the documents for this study. A service charter is a mark of excellence as displayed by the possessor. It is a promissory statement to the commitment of quality service that the university would provide to its clientele and the society at large. It is intended for the university accountable and friendly to citizens as well as global users. The service charter for the universities were available as a document that can be downloaded from the main universities' websites.

In both WU and NU, the charter had polite and respectful language towards its audience. This was evidence that the universities valued their audience. Example statements were:

- We encourage our clients to give us feedback, genuine complaints, suggestions and compliments.
- The above statement also shows that the universities had an open approach with open doors to its audience. They strived to appreciate the needs of the audience and promised to act on the audience's feedback.

The charters relayed the promise that was typical of all charters. As a quality assurance document, at NU, it promised to offer excellent service to its clients and the public. Every statement was designed to relay the message that the university is client-centred and customer-oriented. One example was:

- We will set standards based on feedback, measure how well we meet them and publish the results.

Distance learning or any of its formats like E learning were not addressed in the charters, but neither were any other programmes. It can be assumed that distance

learning students and their issues were included in the audience. Therefore, whatever the charter committed to do would also apply to distance students and their programmes, including learner support.

#### **4.12 SUMMARY**

This chapter is a presentation of study findings from data generated and analysed from two (2) universities in Kenya: the Western University (WU) and the Northern University (NU). This study had four (4) research questions. As discussed in chapter 3, these questions were tested through the use of quantitative and qualitative methods within nine (9) indices. This chapter was sectioned by the same methodologies. Within each section, the findings for each of the nine (9) test indices have each been presented. The questionnaire used for the online student survey was quantitatively analysed and results presented through descriptive and inferential statistics. For the qualitative methods, content and thematic analysis were applied to the university documents and interview transcripts. Three (3) themes developed from the analysis, which, as the basis for findings, have been extensively discussed and presented in the second part of the chapter.

## CHAPTER 5

### DISCUSSION, RECOMMENDATIONS, SUMMARY AND CONCLUSIONS

#### 5.1 INTRODUCTION

This chapter presents discussions based on research findings backed by relevant literature. The discussion involves a synthesis of information from quantitative and qualitative findings that corroborate as well as those with contradictions. This chapter also comprises of recommendations, summary and conclusions. The discussions are based on the objectives, research questions and findings. This study had four (4) objectives, namely:

1. Assess the learning formats, course delivery trends and challenges that define distance education.
2. Investigate the learning support services available to registered undergraduate students of distance learning in two universities in Kenya.
3. Determine skills distance students need to develop through learner support systems for effective participation in learning activities.
4. Recommend and formulate, from study results, guidelines for a practical support system for new students in distance education programmes.

The objectives were based on the assumption that DE universities provide learner support to their students and that learner support is a structural component in any DE framework. According to Stevens and Kelly (2012:141); Boyle, Kwon, Ross and Simpson (2010:115), UNISA Task Team 4 report (2010:5) and Kelly and Stevens (2009:2) learner support should be an ever present component of learning which the student experiences throughout his/her academic journey. Guri-Rosenblit (2009:107) concurs that often times, the education provider focuses on learning materials, timetables, deadlines and completion of studies without due consideration for the student's needs. This may not cause overt problems in face-to-face formats but for the DE student, lack of support in the face of competing needs may be a source of stress. This study showed that there were variations in the availability of learner support components in two universities: Western University (WU) and Northern University

(NU). Some components of learner support had been designed, some were unplanned while others were missing. There were variations and differences in ratings on accessibility and/or effectiveness indicated by quantitative findings. The qualitative findings provided further details on the practice of learner support in the universities. The discussions are herein presented based on the objectives.

## **5.2 OBJECTIVE 1: LEARNING FORMATS, COURSE DELIVERY TRENDS AND CHALLENGES THAT DEFINE DE**

Related to this objective, the qualitative data yielded the related theme referred to as 'formulas and frameworks'. This theme focused on answering the following research question.

Research Question 1: How have learning formats, course delivery trends and changing faces of distance education contributed to challenges within its practice?

It was important to gain an understanding on the background of DE programmes. This is because the model of DE most often determines the provision or lack of Learner Support Systems (LSS). Additionally, the origin and course delivery trends within DE determine the cadre of students that get attracted to the programmes, their characteristics, their needs and prerequisite skills which in turn also influence the need and design of learner support systems.

### **5.2.1 Justification for Establishing DE Programmes**

There were varied reasons that justified the two single mode universities to venture into DE programmes. The commonalities were: First, increased demand for higher education beyond the available physical infrastructure. DE was able to accommodate more student numbers without the immediate expansion of the physical university. This concurs with Nyerere, Gravenir and Mse (2012:195) and Boit and Kipkoech (2012:32) findings, which explain that the growth and expansion of DE in Kenya can be ascribed to the unquenched demand for and increased awareness of the benefits of education. Secondly, being government-funded institutions, there were recent slumps in funding with massive budgetary cuts. This necessitated the universities to find ways of raising funds to meet their shortfall and DE provided a viable option. This was exemplified by the director of ODEL at WU who reported that the VC fronted the

idea of DE as alternative source of income generation. Lastly, world trends for university establishments were moving towards dual mode and it was prudent to follow suit. In this connection, the director of ODEL at WU had a vision to transform ODEL into the first African MOOCs centre. These are common justifications. According to Kucukan (2011:140-142), concepts that have contributed to the proliferation of DE include, unquenched demand for both formal and informal education, lifelong learning with the constant need for information coupled with restricted physical infrastructure that are unable to accommodate high student populations. Lentell (2012:24), concurs that DE has become an attractive solution for both unforeseen and unavoidable challenges experienced by government planners. In their view, DE is perceived to widen education access and participation at greater scales and at lower budgets than would happen in traditional face-to-face programmes.

### **5.2.2 Characteristics and Needs of the Distance Learning Student**

Characteristics of DE students are important to the provision of learner support services as they determine support design and type. For instance, DE has evolved from predominantly female students, mostly unemployed, to the present gender mix and working population. Support services like tutorials now have to exercise flexibility with the work demands and time tables of the students. The use of ICT is another characteristic that has driven changes in provision of learner support. Because of E learning and online learning formats, most support is now mounted on LMS via the internet. According to Marshall, Greenberg and Machun (2012:250-252), the rapid growth of ICT in all sectors including education has impacted on choices for students. Students are often excited by the convenience of technology and its capability to deliver education anytime, anywhere, everywhere. This also introduces the cost and accessibility of technology gadgets and may explain why there were now more male students registering for DE.

According to Renes and Strange (2011:204); Ludwig-Hardman and Dunlap (2003:2) and McLoughlin (2002:149), it is important that a DE provider identifies and understands its students in terms of their needs and characteristics for planning and strategizing learner support services. Any learning institution that is customer service-oriented needs to understand the culture and characteristics of its students for both its success and those of the students (Tait 2000:290-291). The past generations of

distance students had easily identifiable needs, their characteristics were well understood and they could easily be differentiated from students in face-to-face formats (McAndrew 2010:4-7 and Ramakrishna 1995:78). But presently, according to Jacklin and La Riche (2009:738), due to the revolutionary changes in ICT and the changing roles of both students and teachers student characteristics have so diversified that they can no longer be lumped together. Therefore, outlining roles, responsibilities and rights in policy may prevent any unnecessary hiccups in the running of programmes.

At NU, one faculty observed that the average age for students was around thirty five (35) years. This was confirmed by data from the surveys which indicated the average age of students at both universities was approximately the same. Almost three quarters of the students in the survey were in marriages. There was over 70% male student population in both universities. According to Baggaley (2008:39), Ramakrishna (1995:78-80) and Kasworm (2003:91), DE was intended for students who for various reasons were unable to register into conventional classrooms. These included: age, socio-economic factors, social disadvantaged persons like women and those with physical challenges, migrants and school dropouts. It also attracted those with competing needs like family, culture, work, religion, time and resources. This study corroborated the concept of age and competing needs. The average age of students was mid-thirties which is higher than the age group of undergraduates admitted straight from high school. The majority of students were also in marriages, had children and were working in gainful employment. These are indications of competing priorities. It differed from literature on the basis of gender and social disadvantaged persons. The study showed that the majority of students were male who were in gainful employment.

Thus this study showed that both WU and NU programmes :

- The average age for DE students was in the mid-thirties.
- There were more male students than female students.
- A high percentage of students did not own computers.
- There was a higher percentage of students who accessed the internet than those who owned computers.

- The majority of students indicated that access to internet though available was costly from Internet service providers (ISPs).
- Over half of the students were in employment, were in marriages and had children. This was indicative of competing needs.
- The majority of students showed that their greatest challenge with DE format was time management.

### **5.2.3 DE Models**

The overall functional unit of DE at both universities were well explained in policy and guidelines but one common shortfall, was articulating the exact nature of the DE programmes on offer. At both universities, there seemed to have been confusion on DE practiced and modes of delivery. The students showed that they had a variety of names for the course delivery models. At WU, there was an almost even distribution of students who recorded the following as a description of how they viewed their programmes: online learning, E learning and DE learning materials offline, blended learning, holiday programme, and learning by correspondence. At WU, the director referred to the programmes as open and distance E learning (ODEL). However, he was unable to explicitly explain the concept of “open” as it applied to the programmes. At WU, even though there were recordings for each of the choices, over 80% recorded that their programme was referred to as online learning. At NU, the director explained with certainty that the programmes were referred to as E learning which entailed, web-based learning combined with learning materials on CDs and some face-to-face sessions, but it seemed that some of the staff could not link E learning as a form of DE. This is a problem, because as Koc and Bakir (2010:13) contend, DE entails all environments where the student works alone or in a group guided by study materials arranged by an instructor from a distant location. Faculty should internalise the concepts of distance in order to empathise with students and subsequently provide support. When all stakeholders gain consensus on this as a foundation, then learner support systems can easily be constructed.

The problem of uniform terminology has been discussed variously with emphasis on the role of definitions in model building. Moore, Dickson-Deane and Galyen (2011:129) and Koc and Bakir (2010:13) explain that because of changing technologies, numerous alternative names to DE have arisen including online learning, E learning,



computer based learning, computer assisted learning, computer mediated learning, virtual campus, internet mediated learning, mobile learning and video/teleconferences, blended learning, flexible/distributed learning, dual-mode or mixed mode learning and distance learning. It may be argued that the nomenclature does not matter. But names often cause confusion to both implementers and students and may affect teaching and learning when nobody is sure of the technology or modes of delivery. In addition, Moore, Dickson-Deane and Galyen (2011:129) and King, Young, Drivere-Richmond and Schrader (2001:4) warn that the basic objectives of DE may be lost due to the interchangeable names. Stake holders need to understand the pedagogy of DE, the modes of delivery, teaching and learning methodologies and associated technologies as hedged on each model's name. Nomenclature have the potential to influence DE practice which in turn influence the provision of learner support. Each technology and/or the mode of course delivery correlate with support specific to its attributes.

Uniform terminologies was also intertwined with course delivery trends. At both universities, video-conferencing equipment had been purchased and partly installed but not in use. The prevailing models of DE did not seem to plan for their immediate use except for the mention by DE directors that the equipment was available. In addition, the implementation of DE model seemed to be making a lot of adjustments, probably due to ongoing policy formulation and other unforeseen factors. At NU, one faculty explained that course development was ongoing as new programmes were advertised while at the same time changing the attitude of teachers was work in progress. The DE programmes adopted faculty which was already working in face-to-face programmes. The learning materials were also constantly under revision in line with changing technologies. These are common practices in dual mode universities. In a metanalytical study by Jopling (2012:311), it is recommended that when developing DE models, it is important to conceptualise pedagogical differences and similarities between face-to-face and DE especially when technologies are involved. The study also indicated the importance of training faculty on online and distance learning methodologies and course delivery systems. Issues like use of MOODLE may be new and complicated to lecturers who are tuned to teacher-centred methods. One faculty at NU explained that at the onset, there was a challenge for teachers to transition from face-to-face pedagogies to those of online learning. Some of the questions the lecturers asked included: How do I access my students? How do I know

they are learning? How do I generate interactive activities? These are basic questions for tutorial support. But, with concerted training and support the staff reported that there had been improvements in the three (3) years of implementation. The lecturers' experiences also informed later decisions and adjustments to the framework.

Therefore training of faculty is an important facet in model building especially as it pertains to learner support. In relation to this, Flores, Ari, Inan and Arslan-Ari (2012:252) contend that distance learning courses should be developed by specific teams which can be outsourced and not necessarily from the existing on-campus faculty. This would bypass issues of teacher attitude and trainings. Such teams should include: course developers, instructional designers, subject experts, editors, graphic designers and DE experts. An additional issue that was not articulated in any of the policies were the rights and responsibilities of stakeholders. Policy should outline these issues both for students and faculty. DE students should be taught their roles, responsibilities and rights concerning all aspects of their academic journey. For example, they should know their rights and responsibilities concerning teaching and learning as well as those of the teacher. This means that either party may make demands for expectations on teaching and learning according to his/her rights. Faculty reported instances when student demands distorted the overall running of the programmes in terms of time tables, examinations and deadlines.

King (2012:12), observes that the problem with most models in dual mode universities is that universities which venture into dual mode never had a mission for DE in the first place. Both WU and NU needed to develop practical frameworks and models that can be accessible both on paper and in practice. There was need to develop a refined model of DE so as to make a functional learner support model. At WU, the DE model was well articulated in the proposed policy paper but was not easily recognisable on the ground. There seemed to be many on-going adjustments to accommodate students as they registered. A learner support model was completely missing. NU on the other hand, had a well-structured model for DE. The learner support model had a strong presence, described by the key informants and on the LMS, but not on paper. It was not easy to locate it in any of the university documents. When a model is well-defined, implementation becomes a much easier process as well as monitoring,

evaluation and revision. According to King (2012:10), universities can also successfully construct models by benchmarking other universities.

#### **5.2.4 Challenges in DE practices**

There were observed challenges that could contribute to lack of, insufficient or inefficient provision of LSS to students. In turn, the challenges in learner support were likely to result in dissatisfaction with course progression and eventual attrition of students. Such challenges included the influence of dual mode university policies on budget, day-to-day running of programmes, non-integration of departments, human resource and change management, ICT budgets and internet challenges and general monitoring and evaluation.

Policies on budget and disbursement of funds was a challenge whose background was appreciable within the already strapped budgets at main campus. Nirmalani and Mclsaac (2006:355), Schlosser, Michael and Terry (2009:4) and Sherry (1996:337) observe that DE has been touted by several policymakers as cost effective such that many dual mode universities venture into it for the purposes of generating income without deep considerations. One faculty at NU explained that the administration did not seem to understand why the DE establishment expenses had superseded the income despite the directorate being only four (4) years of age at the time of this study.

According to Lei and Gupta (2010:618), the notion that DE is cheaper than the traditional face-to-face formats is simplistic. DE may be cheaper or more expensive than conventional education depending on the framework for cost analysis. Rumble (2001:78-82) concurs that once all cost determinants have been considered, the outlook of what may have seemed cost-effective changes drastically. This often causes conflicts with the management especially when DE expenditures overshoot income. The directors at both NU and WU repeatedly reported budgetary conflicts with the university administration. Incidentally, DE start-ups are capital intensive (Rumble 2001:75-79), and the returns on investment take time, sometimes years. At WU, the ICT personnel complained that the senate did not seem to appreciate the cost of start-ups. At NU, the director explained that the limited funds had contributed to non-payment of staff, reimbursements, shortfalls on internet and technology as well as the general expansion of E-campus.

Internet connectivity was a problem connected to among other issues, budgetary constraints. Sometimes, faculty had to use personal internet access points at costs which were yet to be reimbursed. Lack of internet at the main university server due to non-payment also meant that at such times, the DE student was completely cut off from the university with no access to the MOODLE and the LMS. The MOODLE itself had its own challenges. At WU, the ICT had installed a free version with inferior qualities due to budgetary constraints. At NU, there was a superior and user friendly version of MOODLE but they had outsourced an external host in Europe which substantially increased the cost of its usage. Lei and Gupta (2010:618) argue that in the present generation of DE, technology is the main driver and determinant for both cost and quality of education. They further explain that most LMS are mounted on media which often need sophisticated and expensive technology support.

Budget deficits subsequently led to shortfalls in many components of DE within learner support services. Of special mention was tutorial support. Challenges in tutorial support were evident and comprised of three (3) factors. One, was the lack of sufficient and/or relevant teachers. The second was managing change of practice and attitude for the existing faculty to transform into facilitators according to DE pedagogy. Lastly, was the policies and practices with regard to faculty and staff remuneration. The director at WU, explained that even though they made open advertisements for faculty, they still had to rely on on-campus faculty. Issues of teacher attitude were reported in both universities. At WU the director explained his frustration with faculty who either started tutorials late into the semester or did not show up at all. At NU, there were frequent reports from the administration on teacher attitude and the slow speed of adopting to DE formats. There was common perception that DE was second class and a general *laissez-faire* attitude where faculty believed that teaching DE was a part-time job. According to Power and Gould-Morven (2011:21), the challenge of teacher attitude is often observed when dual mode universities establish DE programmes. They explain that the uptake of distance learning in such institutions takes time because of the challenge of transforming the attitude of faculty. The reasons for resistance include: increased workload, intellectual property, feelings of alienation from students, technology phobia, compromised quality, and professional discomfort. However, the greatest issue at both WU and NU was the unclear policy on remunerations. In WU for example, the chairman, School of Nursing reported that the

staff had not been paid their dues for the preceding two (2) years. Such issues compromise tutorial support.

Attrition was not reported as an immediate concern. However, there were many students who had discontinued but the universities had not recognised them as such due to missing policy on mechanisms of programme discontinuation. According to Subotzky and Prinsloo (2011:177), attrition is a very serious issue for education providers because it impacts on university matriculation, social contracts, student satisfaction and stature. Efforts should be made to reduce dropout rates through a multifaceted approach. However, because WU and NU, DE programmes were yet to hold their first graduations, attrition was not an immediate concern. Policy should also state circumstances that determine discontinuation from programmes.

### **5.3 OBJECTIVE 2: LEARNING SUPPORT SERVICES AVAILABLE TO DE STUDENTS**

Related to this objective was the theme of “pursuits to maximise DE learning experience”. This theme focused on answering the following question:

Research Question 2: To what extent are support services available to undergraduate students of distance learning upon registration into the programme?

Quantitative results showed that the support services were available for both universities, but there were certain challenges with facilitation and use in some of them. There were differences on the perceptions of each of the individual support indices as well as between universities. The differences that distinguished the two universities were registration processes, technology and learning materials, counselling and mentorship and regional centres and library. The differences were statistically significant not in one being better than the other but mostly in the scale of dissatisfaction by respondents. This however, does not exempt, orientation and skills training, interactions and communications, student association and representation, feedback and course progression and satisfaction. All the support indices had internal strengths and weaknesses which are herein discussed.

### **5.3.1 Learner Support during Registration**

Recruitment differs from registration even though they are intertwined. From the university's perspective, the recruitment process commences when the faculty and course developers envision from a needs assessment the market demand for a given course. The university senate then sanctions the programme and approves the development and marketing of the course. Once the course is developed, it is advertised so that prospective students/target population can research on it, seek more information and register for it (Shillington, Brown, MacKay, Paewai, Suddaby and White 2012:70). From the student's perspective, recruitment begins the moment s/he considers the possibility of study and digitally or physically seeks course information from the institution. Therefore, support during this phase should begin when the student is thinking about studying and making a course choice.

The life of any university depends on the robust progression of annual student recruitment, registration, retention, promotions and graduation. If students do not register, then the other related processes have no function. Therefore, registration and registration procedures hold the key to annual progression of academic programmes. Registration support should be available during enrolment and the first weeks of college life. It takes into account, all the activities within which the student engages in connection to a course of interest, making course choice, paying fees, enrolment into the university and experiences of the first weeks. According to Shillington, Brown, MacKay, Paewai, Suddaby and White (2012:70), Task Team 4 report on Learner support at UNISA (2010:3-10) and Hughes (2008:369-372) support during recruitment and registration should focus on:

- Engaging the prospective student's interest in the course and institution in ways that will lead to successful enrolment.
- Provide career guidance and counselling to the student towards a 'best fit' for chosen course options and informed career choice.
- Provide interactive and proactive communication and feedback on any queries and Frequently Asked Questions (FAQs). This also includes positive automated responses that encourages the learner and affirms that he/she is being attended to.

- Avail a smooth registration and enrolment process with well-trained administrative staff that are supportive and empathetic to new students.
- Profile students with the goal of identifying 'at-risk' through self-evaluation assessments/quizzes. Examples of self-assessment questions include, Is DE for me? Do I believe that quality learning can take place without having face-to-face interaction? How much time can I allocate for studying? Am I a self-motivated and self-disciplined person? Do I prefer to finish my work as it comes or do I prefer doing it when the deadline is almost due? How much do I like to communicate in writing? Do I enjoy reading?

Except for the FAQs in NU, these processes were not well pronounced in the two universities. The FAQs link on NU website was commendable for presence and content. It could also serve as a self-evaluation tool for prospective students to make decision on best-fit. On the flipside, career guidance and counselling to complement the FAQs was not available. One faculty at NU argued that self-evaluation exercises were not necessary because they were dealing with mature students who knew what they were getting into. Such views are unfortunate, especially for the current generation of DE where the student is expected to possess so many other skills in addition to learning skills (Torenbeek, Jansen and Hofman 2011:658). According to Hannafin and Hannafin (2010:15) students are constantly confronted with new and difficult technologies and materials and are sometimes confused with priorities on what to focus on or on what is vital in the competing learning tasks. Therefore, the prospective student needs a self-evaluation support in order to assess his/her strengths and weaknesses before making the decision to register for DE programme.

In this support index, students from both universities seemed pleased with the services although there were differences in absolute percentages. In contrast, the university websites, documents and key informants indicated that the registration processes were not satisfactory and needed improvement. Both universities showed that the shortfalls in providing support services during registration were continuously identified and improvements being made. At WU, the director admitted that the registration processes had not been user-friendly because it was not fully online as had been advertised. This was the same situation at NU. Students were expected to download forms, complete them, scan them and then courier or email them back upon physically making payments at the bank. On the other hand, application procedures and

prerequisites for registration were well outlined for both universities on the websites. This was a good support for each student to evaluate his/her own fitness for the programme prior to application. There were numerous links from which prospective students could access information for applications and registration. At both universities, there was the assumption that students should be computer-literate in order to access the information. However, the staff at both universities indicated that there were open help lines as additional support for students who required assistance.

### **5.3.2 Orientation and Study Skills Training Support for Learning**

University websites have a range of online and/or face-to-face programs designed as orientation and support for newly registered students in their first weeks to embrace new learning formats and adapt into higher education (O'Donnell, Sloan and Mulholland 2012:3). As a general framework, Kelly and Stevens (2009:2) explain that orientation programmes should consist of introduction and information on the institution, information on the course/program, welcome, careers advice, study skills, disability information, self-motivation tips, assessment formats and planning skills. The Open University of United Kingdom (OUUK) refers to its online orientation program as "E-support forum for induction" which is intended as a welcome and getting started forum (Kelly and Stevens 2009:5). The University of Ulster, on the other hand, has a two-pronged induction support program referred to as the "primer" and the "survival guide" (O'Donnell, Sloan and Mulholland 2012:2-5). Within the framework of learner support, the goals of the orientation and study skills programme include:

- Initiate a smooth transition for students into university life by starting to build relationships with the institution, academia, fellow students and the learning environment. This supports the student to achieve a clearer sense of the study and the learning management system, increase his/her confidence and be prepared to delve into his/her course.
- Provide students with a forum to ask questions or seek clarifications about all issues and in turn receive feedback, information and advice from relevant empathetic staff.
- Motivate the student towards a sense of belonging and identity so that issues of isolation are minimised.



- Train students on effective study strategies including how to access, use, store and communicate information and appreciate lifelong learning (Johnson 2008:118).

It is important that students receive timely and necessary information during orientation. Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:68) and Kelly and Stevens (2009:3) explain that students are often unhappy when they are overloaded with too much untimely and sometimes unnecessary information. Therefore, it is important to have clear goal oriented support information and activities that are relevant to orientation and study skills.

The study skills component is a valuable program to incorporate during orientation of new students even though it is controversial (Simpson 2008:160). Universities vary on the stand and approach on how to support new students into a new learning environment. The general goal of the study skills training is to equip students with good organisational, time management and learning skills that will enable them have a successful learning experience. Again, only relevant tips should be provided to students. Information overload will give students the perception that learning is extremely difficult and subsequently discourage them. This notwithstanding, study skills training is beneficial on two fronts. First, many students registering for undergraduate distance programmes are transiting from school systems where learning is teacher-centred on face-to-face formats (Torenbeek, Jansen and Hofman 2011:655 and Hannafin and Hannafin 2010:11-13). Therefore, they need training that will enlighten them on distance learning as a different format, which needs them to develop different skills of managing their studies. Secondly, distance students are often adults with competing demands on their time (Chaney, Chaney and Eddy 2010:2). Study skills training will help such students to develop self-regulatory and time management skills.

Concerning orientation and skills training support, there was no significant difference between the two universities. Most of the students from both sides of the divide indicated that orientation support was available. However, the universities differed in the modalities of providing this support. In WU, the student was expected to travel on campus for orientation and skills training while in NU, the student was expected to take it online. In WU, orientation was not stated as mandatory and the student could

proceed to the learning phase even without it. In NU, on the other hand, orientation was mandatory and gradable. The student had to attain an acceptable pass grade before proceeding to the learning phase. Skills training was lacking for both universities with students showing no definitive answer as to whether or not they received training of skills. This may have been because, some of the skills, though unspecified, were silent and the student was able to gain helpful skills even without being aware of them. For instance, the online orientation at NU was self-paced with a deadline. This meant that for successful completion, the student had to learn self-discipline, time management and organisational skills.

There was lack of uniformity as to the necessary skills for the DE student. At WU, for example, the librarian believed that information literacy was a key skill but he was very disheartened that faculty did not seem to take this seriously. According to Oladokun and Aina (2011:174) and Nwezeh (2010:113), lack of information literacy skills creates an information divide even in circumstances where digital divide has been minimised. The library thus should position itself within course development teams as a contributor to the design of each course (Zabel, Shank and Bell 2011:106). Nwezeh (2010:113) further recommends that a library course should have practical experience where students develop and improve additional ICT skills as they access digital libraries. The ICT staff also observed that ICT skills were prerequisite to DE programmes but they seemed to believe that students should have acquired these skills elsewhere before registering for a DE programme. According to Purnell, McCarthy and McLeod (2010:79) and Power and Gould-Morven (2011:21), in distance learning, where technology is an integral part of learning, students at risk may include those who are new to technology.

Even those who are not new to technology referred to as the “net generation” (Jones 2010:365) or “digital natives” (Renes and Strange 2011:205) may have issues. Such students experience challenges with web 2.0 applications like MOODLE or the university’s online LMS. It is therefore, the university’s responsibility, within a supportive framework, to assist new students towards acquiring the requisite technology skills. This should include continuous computer literacy and Information communications technology (ICT) applications, variations and programmes. All newly registered students should be trained in the use of technology for the programme and

especially the university's learning management system. According to Simpson (2008:160), universities vary in the approaches to providing orientation support, but it is important to have a well-structured and well-articulated orientation framework that is inclusive of skills training. At NU, the staff explained that the following were achieved during orientation: student profiling, introduction to each other by staff and fellow students, communication skills, use the discussion forums, how to download course materials and upload assignments, when to use the various discussion boards and generally get comfortable with the MOODLE interface and the LMS.

### **5.3.3 Technology and Learning Materials Support**

Ertmer and Ottenbreit-Leftwich (2010:255) contend that technology is a modern tool of trade for education. Kelly and Stevens (2009:6) add that the use of computers and the internet in the fifth generation remains a challenge for many students. There is significant impact of technology in DE to the extent that students must have access to computers and other relevant technology (Power and Gould-Morven 2011:20-23). Computer skills and practical experience is therefore an important student characteristic for any current DE programme. Mandating that all potential applicants should have computer skills is one solution. However, understanding student characteristics and needs is crucial in meeting the goals and objectives of any DE programme.

Just like instructional techniques, technology that work well for simple tasks may not work for complex tasks (Kulasekara, Jayatilleke and Coomaraswamy 2011:113). In addition, the frequency of change and innovation in ICTs has often brought confusion for universities that want to have an image of technology compliance. For example, is "the latest the best" or "stick with the past" if its attributes are useful (Deb 2012:42). In these circumstances, the needs of the student rarely feature. Ideally, the needs of the student should be the driving force for the choice of technology and applications. The key factors of consideration for media selection should include needs arising from learner autonomy, types of interaction required, accessibility and cost (Chaney, Chaney and Eddy 2010:5 and Chaney, Eddy, Dorman, Glesnor, Green and Lara-Alecio 2009:224).

Students of DE using technology need support not only on the use of technology or on learning with technology, but also to experience the feeling that they are being

supported through the technology (Msweli 2012:97-99; Hong and Jung 2011:22 and Selwyn 2011:86). McAndrew and Scanlon (2013:1450) and Kaveie (2011:51) note that DE technologies convey assessments, feedback, the media of delivery for administrative and learning materials, online enrolment of students, media of engaging in learning activities, digital libraries and other resources and media of access to learner support, interactions and collaborations. It is also important to transient issues of perception through technology in ways that will enable the student to feel that he/she is being supported.

In a melee of technologies, the DE student needs definite and intentional support as an enabler to achieving the learning outcomes. Majority of students may own laptops/PCs but lack good internet connectivity. In this case, computer based learning (CBL) by use of CD-ROMs/DVDs may be a better choice for media of course delivery than exclusive online learning management systems. Such a decision, though outdated, is supportive to most students. Another consideration is the cost of technology and by extension, cost of access to education. According to Kelly and Stevens (2009:5), mounting learner support systems online has significant advantages compared to other communication media. They are emphatic that the cost of interactions and support for students online is modest compared to printing support information, posting letters and telephoning students. Lastly, is the consideration based on the attributes of the technology and its ability to deliver support. According to Lorenzi, Mackeough and Fox (2004:2), the use of ICT in learning is beneficial. It has the potential to aid students in developing high-order cognitive skills including problem solving, critical thinking, analytic skills, collaborative and teamwork skills. According to Graber and Bolt (2011:81), some of the challenges in delivering DE in Africa include lack of technology, internet, electricity supply and general infrastructure.

In the technology support, there were differences between universities in individual indices. For instance, students at WU gave low ratings for the support received from ICT personnel while those at NU seemed generally happy with the ICT staff. This support showed mixed patterns both for the students and also as observed on the ground. Most students did not own computers even though the education providers had assumed that they did. The faculty at WU reported that some students were struggling with the use of technology even though both WU and NU had assumed that

the students had technology skills. Harrell and Bower (2011:179-190) conducted a study to test student characteristics. They reported mixed results for computer experience and skills. Students with high computer skills often tended to wander into computer programmes that were not directly associated with their studies and thereby underestimate the time required for actual study. Secondly, students had a tendency to overestimate their computer skills and thereby give a false perception of their actual experience when answering questionnaires (Harrell and Bower 2011:187). In this study, most students reported that they did not own computers. The reasons for non-computer ownership are open to speculation since it was out of the jurisdiction of this study, However, it was bound to negatively affect their access to the internet and the LMS.

The course delivery mostly required students to have internet access points. Most students reported that they had to incur substantial costs in order to access internet services. These form the wide variations in issues where the ICT department needs to design support. Baggaley (2008:47) concurs that Web 2.0 technologies are often hampered by issues like slow internet connections and small bandwidths. However, in this study, internet access seemed to have been hampered more by cost rather than by bandwidth. In addition, Tait (2013:186) and Baggaley (2011:136-139) observe that the internet (a modern driver of DE) is posing serious challenges to the policies and practice of DE in ways that are yet to be understood. According to Nyerere, Gravenir and Mse (2012:195), in Kenya, the challenges seem to emanate from socio-economic constraints including cost, access, electric power supply, internet connectivity and prerequisite skills of new students. Due to such issues, Tait (2013:185) advises that DE providers need to re-strategize a fresh approach to the provision of learner support services.

Therefore, even though each university was trying to deal with ICT, technology and the internet in their own ways, it is acknowledged that the challenges that face all aspects of technology in DE are multifaceted. First, the study showed that over ninety percent of students from both sides of the divide did not own personal computers. Yet, faculty and staff always observed the students using laptops whenever they were on campus. It was not clear whether these laptops were for the students' employers or they were borrowed. This is in contrast to Hashim, Ahmad and Abdullah (2010:29)

who report that ownership or access to a computer and the internet are almost a non-issue even in the developing world. It would then be expected that internet access would be a challenge in the absence of computer ownership. But again, the results of this study showed that a significant number of students from both university had 24-hour internet access. It was not clear whether the students accessed internet through smart phones, the office LAN or through cyber cafes.

The use of computers and the internet in the current generation of DE cannot be wished away although it remains a challenge for many students (Kelly and Stevens 2009:6). Therefore support systems fashioned for technology should focus on helping students to acquire skills necessary for its navigation and use, skills for understanding the equipment and skills needed for access and use of the internet. From a student's standpoint, Lorenzi, Mackeough and Fox (2004:6) conclude from their study on blended learning stating that a majority of students favour the use of ICT only as enrichment to the learning experience and show a significant resistance to the complete removal of face-to-face tutorial experiences in favour of the use of ICT. Power and Gould-Morven (2011:21) concur that there has been varied resistance surprisingly coming from students when complete face-to-face learning is removed. Therefore, dual mode universities have demonstrated numerous ways of blending technology and face-to-face modes of delivery. As a support to students, a mix of technology and physical presence continues to be the media of course delivery in DE.

#### **5.3.4 Counselling and Mentorship Support**

For this index, both WU and NU did not have a defined framework for supporting DE students. However, there was presence of these services in the student's day to day interaction with staff and peers online. The discussion forums also indicated peer counselling activities. At both WU and NU, faculty and discussion forums revealed that there were many on-going counselling activities, even though they were mostly informal. Faculty from both sides of the divide gave various examples. The majority of students acknowledged that they received counsel from lecturers even though they did not know how to seek it or would not consider seeking the services from university staff. They also acknowledged that counselling and mentorship were important to their studies. There was general indication that the students from both universities were dissatisfied with the availability of this support service. A substantive space for

counselling and mentorship was missing in the DE models and in the university documents.

According to Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:67), counselling activities should transcend all domains of learning. It should be present throughout the student walk. At WU, in the discussion forums, for individual courses, the content and frequency of posts did not attest to counselling and mentorship. Most posts by teachers were on academic issues with infrequent feedback. This was neither proactive nor reactive. There were no mechanism of knowing if and when any student needed this support unless the student him/herself made the initiative. At NU, one could sense the elements of counselling and mentorship through various support forums within the LMS through the link designated as Learner Support Services (LSS). Via this link were four (4) other discussion forums, namely: the news forum, the administrative forum, the discussion forum and the compliments and complaints forum. Through these forums, students were able to open up to express both their positive and negative experiences.

Subsequently, the students were able to receive counsel from colleagues, the E-Programme Coordinator (EPC), the LSS coordinator, the administration or whoever else was able to give input. Although this is proactive since it is available with the noble intention of student interaction, it may only seek out extrovert students. It may not serve the ones who are not willing to share out their concerns on public forums. Simpson (2008:168) observes that students who require counselling are rarely in a position to seek it. Therefore, in addition to these forums, there should be a counselling, guidance and mentorship forum or chat-room where students can chat with the counsellor and mentor privately and synchronously. This should be in sync with a profiling system and a monitoring system which can identify the students who are significantly absent from discussion forums. Therefore, the university ought to plan for and implement counselling and mentorship programmes that are easily available and accessible. Granted that counselling through digital formats may be a challenge, Walsh (2010:5) contends that it is possible to reach students through Web 2.0 platforms including emails, fliers, phone calls or Skype, discussion forums and private chat rooms.

### **5.3.4.1 Counselling Support**

Prinsloo (2009:2) classifies Learner support into four aspects: cognitive, reflective, systemic and affective support. Within the four aspects, students experience both academic and non-academic challenges. Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:69-71), Subotzky and Prinsloo (2011:180), Boyle, Kwon, Ross and Simpson (2010:120-122), Task Team 4 report on student support at UNISA (2010:3) and Purnell, McCarthy and McLeod (2010:81) illustrate that non-academic challenges have as great an impact and sometimes even more than academic ones on student retention, attrition, progression and success rates. These non-academic issues are often addressed through counselling, guidance and mentorship.

Counselling and guidance are mostly underpinned in affective support (Prinsloo 2009:2). Students need affective support not to provide answers to their issues but to receive insight on how to deal with the issues. Even though guidance and counselling is inclined toward the affective domain, guidance and counselling support is also required in all the other domains. Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:67) note that best practice recommends a holistic and supportive approach that appreciates all aspects of student experience. This includes psycho-social, spiritual, intellectual, physical, health and well-being, academic, occupational, leadership and culture. These require the counsellor to have continuous trainings on skills that express care, concern, listening, empathy and understanding of the student and his/her issues. Guidance and counselling support should be proactively available throughout the student journey (Shillington, Brown, Mackay, Paewai, Suddaby and White 2012:67 and Task Team 4 report on student support at UNISA 2010:2).

Reference to counselling almost always includes the concept of guidance. It is difficult to draw a boundary between the two. Perry (2011:62) and Maree and Maree (2009:436) explain that the counselling community is yet to agree on one universal definition that encompasses all the different aspects of counselling. College counselling includes all professionals concerned with support for students in general, academic guidance, advising and career counselling. Collectively, in education, both guidance and counselling are processes through which students are able to understand how to develop their psychosocial potentials, future professional and life goals as well as academic and training goals. The goal of guidance and counselling is



to enable the student to function at an optimal level of mental and physical health, personal happiness and general well-being (Perry 2011:62).

Guidance is a more open process in terms of the number of people who can engage in it at any given time. While counselling requires a cultivated ongoing relationship between the student and the counsellor (Williams and Justice 2010:159), guidance also has the luxury of a one-off meeting of question and answer and/or a lengthened relationship for advisory purpose. In college and academic circles, the term of choice equivalent to guidance is advising (Filson and Whittington 2014:10; Bloom, Tripp and Shaffer 2011:55; Shaffer, Zalewski and Leveille 2010:67 and Levisman 2010:24).

Walsh (2010:5) contends that college counselling and advising should be accessible not only to students but to all stakeholders (parents, community, potential students and registered students) at all times. The counsellor should reach out through emails, fliers, phone calls or Skype (Walsh 2010:5). All professionals concerned with the student should be in a network of understanding so that the inputs intended to support the learner compliment rather than contradict each other. Additionally, Saginak (2010:54) argues that in the past century, students meeting the counsellor had a definable range of issues mainly involving emotional or relationship difficulties. However, within the last two decades, due to the diversity of student backgrounds and culture, issues requiring counselling have equally evolved. Students now need counselling for issues of family stress, financial difficulties, addiction, sexuality, disability and unique life experiences as well as race and ethnicity (Saginak 2010:54). For these reasons, guidance and counselling support are a requisite.

#### **5.3.4.2 Mentorship Support**

Mentorship is the support which an apprentice receives from the master of the subject or profession (Boyle, Kwon, Ross and Simpson 2010:116). Even though mentorship is not a common practice in education, developing mentorship programs in college is a recommended support for new students. Thorngren, Nelson, Baker, Zuck and Koltz (2013:7), Sugimoto (2012:2-4) and Boyle, Kwon, Ross and Simpson (2010:116) recognise that mentoring is a support process that positively impacts on the student's general skills as well as student retention. Mentorship has not extensively been applied or researched in academic settings because universities have widely associated mentorship with the work place rather than in learning environments.

Indeed, mentorship has its origins in organisations where a novice or apprentice learns practically from one who has mastered the skill, especially in organisations (Sugimoto 2012:3).

Boyle, Kwon, Ross and Simpson (2010:117) observe that despite the advent and use of sophisticated education technology, age-old support procedures of counselling, guidance and mentorship are still practiced because technology is yet to present a major breakthrough as an answer to most challenges faced by students. Unlike in guidance and counselling where students are identified through profiling and tracking systems or self-diagnoses, mentorship operates on a voluntary basis. Its recruitment process encourages the students to volunteer. College mentorship is based on procedures which match the mentor and the mentee according to course/program, location, social factors, interests, gender, age and any other 'best fit' consideration (Boyle, Kwon, Ross and Simpson 2010:117). The mentors and mentees are then guided through measurable indicators, processes, topics, contacts and boundaries within which to operate.

Mentorship may also be acknowledged without a formal process. In the learning process, however, mentorship is an intentional and formal process whose outcomes are measurable. There are many types of mentorship available to new students. One is referred to as student-to-student or peer-student mentorship (Boyle, Kwon, Ross and Simpson 2010:116 and Sugimoto 2012:11). In this process, the new student receives mentorship and support from his/her fellow student who is at a higher level of study or from a recently graduated colleague whose study interests are similar to those of the new student. Another type of formal mentorship is that which the student receives mentorship and support from the teacher, referred to as teacher-student mentorship.

### **5.3.5 Communication and Interaction requirements for Learner Support**

According to Dabaj, Akter, Ozad and Arsoy (2011:6), communication is a major component of distance learning to the extent that once the instructional designers works out how effective communication will take place, then half of the course development is complete. Blackmun and Thibodeau (2004:145) also argue that communication is the lifeline of distance learning programmes. They further explain that all campus-based services that were previously available even to on-campus

students have now been digitalised and that universities are using ICT for most communications. ICT is both a platform for communication and an integrated learning platform. Students from both sides of the divide seemed pleased with this support. Even though, there was some disparity with NU seemingly better than WU, both were rated highly. At both universities, the MOODLE interface provided discussion forums where interactions, communications and discussions could be held. On average, these forums were underutilised with WU falling far short than NU. In addition, all parties could make phone calls, use social media and write emails. At WU, the director observed that students preferred to make phone calls than write emails and that this was sometimes overwhelming. This was habitual and was one of the skills that should be inculcated in both staff and students.

At WU, through the university charter, there was commitment to communication and feedback turnarounds for each specific services including, correspondence, photocopies, applications and examinations. At NU, the channels of communication also seemed well instituted. The discussion forums seemed more user-friendly with more frequent posts from the administration and faculty than at WU. Communication is a two-way process. This means that the system should be proactive so that it seeks out students to contribute to discussions. According to Blackmun and Thibodeau (2004:147), some of distance learning activities, which require good communication systems, are learning materials and learning communities. These are found in learning management systems (LMS), university websites, online resources, classrooms, conferences, seminars/webinars, libraries, email communications, blogs, discussion forums/groups, tutorials, lectures, mentoring and blended facilitation.

In learner support, there are two indications for communication. First, communication is the channel for the provision of learner support and secondly, communication is a component of learner support. According to Blackmun and Thibodeau (2004:147), some of distance learning activities, which require good communication systems, are learning materials and learning communities. A community is often built on shared goals, interest and locality. Learning communities are found in learning management systems, university websites, online resources, classrooms, conferences, seminars / webinars, libraries, e mail communications, blogs, discussion forums/groups, tutorials, lectures, mentoring and blended facilitation. These communities are all supportive of

the student in one way or another. The basic tenet is that they all require communication, interaction and feedback.

It is important to contextualise and conceptualise communication in distance learning and how its use is both a component of and a requirement for student support. Every learning situation involves the process of communication. For distance learning, the process is more profound because unlike in the face-to-face learning, distance learning always relies on communication technology as the channel through which learning material (message) is sent to the student (receiver). In face-to-face learning, the student (receiver) has the luxury of immediate clarifications, feedback and understanding of the information from the teacher (sender). In distance learning, this is absent. Yet, the goal of communication is for the receiver to decode/decipher the information and use it as was intended by the sender. This goal of communication is most often achieved. However, on equal measure, it also fails for reasons referred to as communication barriers (Robbins, Judge, Millett and Boyle 2011:315-317 and Galusha 1997:1-3). When the goal is achieved, it is believed that effective communication has occurred. Effective communication also means that all foreseeable barriers that may cause misinterpretation of the message are minimised at every stage of the communication process.

Galusha (1997:4-9) explains that communication barriers in DE exist for both students and faculty. For the former, communication barriers occur during learning, student support, general services, general communication and feedback. Additionally, distance students lack experience, work in isolation, experience transactional costs, and sometimes lack knowledge on how to form study/discussion groups or seek help. All these are potential areas for communication breakdowns and barriers. For faculty, barriers may be caused by lack of training in communication, how to design learning materials that communicate the subject, use of technology for communication and lack of institutional support. In developing courses for distance learning, instructional designers aim at eliminating barriers that may deter learning by developing learning materials that can easily be understood, are appropriate and usable. This is not easy and the institution and course developers are constantly challenged on making choices of technology, which can effectively relay learning materials, communicate effectively with students as well as faculty and still be cost effective.

The extent to which all communication challenges are overcome defines most of the university's capability not only to provide learner support but also to provide distance learning. In order to enhance communication as well as to overcome the challenges of communication, course developers use ICT to incorporate some form of social/human presence. For instance, video technologies using satellite / conferencing / webinars / MP3&4 / DVDs and VCDs involve the student more than print alone does. DE providers also aim at integrating social learning through digital learning communities. In this way, the student is able to interact, converse, connect and convey messages whenever he/she requires.

### **5.3.6 Feedback as Learner Support**

Communication, interaction and feedback ensure that the student understands the processes of the DE programme, becomes competent in communication skills, achieves competency skills for using technology and acquires proactive problem-solving skills especially for simple barriers (Chetwynd and Dobbyn 2011:67). The mechanism through which the sender establishes that the intended message has been deciphered by the receiver is referred to as feedback. Feedback is also a negative or positive reaction by the receiver (who becomes the sender) to the original sender (who becomes the receiver). Feedback can be verbal, non-verbal or written. With feedback, communication becomes a cyclic and interactive process. When the communication channel is incomplete because of the absence of feedback, the message becomes distorted (Robbins, Judge, Millett and Boyle 2011:315-317) and defeats the purpose for which it was structured. If the sender does not receive feedback from the receiver, it becomes difficult to establish whether the message was received correctly or at all. Therefore, effective communication involves interactive rather than linear processes because interaction is a two-way process with continuous front-feed and feedback.

Face-to-face communication is considered the most fulfilling channel of communication because the sender is able to pick immediate feedback, especially the non-verbal cues from the receiver. It is however not considered the most effective channel because barriers are dependent on numerous factors which affect all communication processes on equal footing. Because in distance learning, face-to-face contact is very minimal or absent, the student finds him/herself in a community where social and physical presence has been reconfigured (Hammond 2000:256). This

compels both the institution, teacher and the student to engage in intentional communication if the DE programme is to succeed. Kerr (2011:30) describes effective feedback as one of the core principles of best practice in DE. The university is required to provide timely mechanisms for feedback and the faculty/administration to keep their word on the turn-around time for feedback. For enquiries, most universities strive to have a 24-hour turnaround while for feedback on assessments and tests, the average turnaround is two weeks.

Blackmun and Thibodeau (2004:148) explain that digital communities in distance learning exist due to the inherent need to have communication and feedback from members of such communities. A community, founded on the shared goal of achieving learning outcomes, is glued together by sharing of information through channels that are usable and cyclic to all members. In DE learning communities, feedback enhances learning through discussions, collaborations and unity of purpose. Group members are able to gauge each other, compete with each other and support one another through communication and feedback. Best practice also requires that the teacher, the institution and the student all receive constant feedback with or without the use of assessments.

Students' scores had no clear pattern on the availability of this index. However, they rated highly for issues of examination feedback and faculty availability. Interviews with faculty and analysis of discussion forums on the LMS revealed a different picture. In both universities, the faculty admitted that there were problems especially in examination feedback. They indicated that being dual mode universities, there were clashes in policy between on-campus programmes which were semester-based and those of DE which were modular-based. For the semester-based, examination feedback were routinely provided at the end of the year as a determinant for course progression. Yet for modular programmes, feedback ought to be provided not only as a determinant for progression into the next module but as learning support. Chetwynd and Dobbyn (2011:67) explain that feedback for students of DE is a motivator which positively impacts on student persistence and retention.

Kerr (2011:29) concurs that effective feedback represents a social presence and a learning support for the student. It may possess written or oral communication as well as non-verbal communication which underwrites to the student that the university and

the teacher believe, care and are interested in his/her success. At NU, for example, there were frequent complaints on examination results and feedback. Faculty could be commended for engaging with the students on the issue. The responses from faculty indicated acceptance of shortfalls and made apologies even though students continued to post and vent their frustrations.

Kerr (2011:30) describes effective feedback as one of the core principles of best practice in DE. The university is required to provide timely mechanisms for feedback and the faculty/administration to keep their word on the turn-around time for feedback. At WU, there was information on the website and charter which specified a turnaround time as seventy two (72) hours and a letter of acknowledgement within seven (7) working days. This, however, was for normal communication. The feedback turnaround for examinations and continuous assessment tests (CATs) was indicated as two (2) weeks but one faculty expressed that this was rarely observed. Therefore, the students needed to learn additional skills of accessing feedback. Chetwynd and Dobbyn (2011:67) argue that communication, interaction and feedback ensure that the student understands the processes of the DE programme, becomes competent in communication skills, achieves competency skills for using technology and acquires proactive problem-solving skills especially for simple barriers.

### **5.3.7 Regional Centres and Library Support**

At WU, ODEL was the virtual campus of the university, physically hosted in the main campus. The main university had five (5) regional campuses as at the year 2014 although this information was not explicitly available on the main website. At NU, the E-campus was also the virtual campus of the university, physically hosted by one of the regional campuses. The main university had two (2) regional campuses as at the year 2014. The regional centres would have been beneficial to DE students in many ways especially because the universities had not fully established the DE framework. For example, both WU and NU had not established a complete online application and registration process; the regional centres would have assisted as registration centres. This however, was not observed. Other services useful at the regional centres are a physical library and examination centres. These too were not observed. But not all is lost. It all depends on the model of the DE and how it needs to associate with the regional campuses. Tait (2013:187), believes that once programmes are delivered

online, all services should equally operate on a virtual platform. The argument is that administrative, tutorial and other support services should be accessible online so as to remove travelling and opportunity costs of having to leave home and work. On the other hand, proponents of learning support based on social presence (Baggaley 2008:39-45; Tait 2008:87 and Moore 2003:200) argue that pure online programmes have repercussions. One, it may slowly drive introvert students into deeper isolation and eventual dropout, and two, students who have no previous experience in distance learning pedagogies and who lack independent learning skills are unlikely to cope with the complete and sudden change to online platforms. Therefore, the DE model should specify its relations with regional campuses. There is no advantage or disadvantage; it just depends on the model.

Students from both WU and NU indicated that they rarely visited regional campuses or utilised the facilities. Noteworthy, the majority of the students indicated that they rarely used the library, technology or other resources at the regional centres. This could mean either the support at the centres were insufficient or the students were receiving this support through other sources including the main campus. But the faculty and staff seemed to have a different view. The director at WU and the librarian at NU observed that some students had not internalised DE pedagogy and still preferred to borrow and read physical books as well as travel on campus to study. The librarian at WU seemed to believe that this was because the role of the library had not been emphasised in course development and faculty had not internalised the need for information literacy skills in the information age.

Both universities had subscribed and belonged to digital libraries. They had plans to purchase more digital books and data bases but were limited by resources. They had membership in library consortiums and electronic communities. However, there were numerous blockages for individual student access with some of the data bases requiring individual registration. This may compound problems for the student who is unfamiliar with digital resources and is required to open accounts for every database host. At WU, the ICT explained that they were working with free Google applications to assist the library to digitalise the physical content. At NU, the discussion forums revealed that even though there was an electronic library, some students were struggling especially in the absence of a functional library guide. The link to such a



guide was mostly dead and the content of discussions indicated that the students needed help to manoeuvre the digital library. Nwezeh (2010:106-108) concurs that although most libraries in Africa are still physical facilities, they must digitalise in order to allow for online access. Hughes (2008:376) also observes that in many parts of the world, libraries have transformed from physical libraries holding information to digital libraries, which function as both holdings and highways of access to information. Therefore, to function effectively as a learner support component, the library must transform itself from a physical location of repositories, books and shelves to a virtual service where students can access all the literary support they require (Zabel, Shank and Bell 2011:107 and Gruca 2010:16). There should be easy access to the data bases. One suggestion would be for the university to register to the data bases and provide students with a common password.

#### **5.3.7.1 Regional Centres Support**

Regional centres were historically developed from the need to reduce the transactional distance between the main university and its students (Mpofu, Samukange, Kusure, Zinyandu, Denhere, Huggins, Wiseman, Ndlovu, Chiveya, Matavire, Mukavhi, Gwizangwe, Magombe, Magomelo, and Sithole 2012:208). They are physical facilities distributed as satellites of the main university campus with the objective of decentralising administrative and support services closer to students (Tait 2013:187). Regional centres may be located in the same country within a proximity radius of the mother university or abroad in neighbouring or far off countries. An example is the University of South Africa (UNISA), which has regional centres distributed in different provinces of South Africa, or New York University (NYU), which has campuses in United Arab Emirates and China. As generations of DE changed from correspondence to those that demanded more interaction, DE providers instituted regional centres that would be geographically closer to their students in comparison to the distance of accessing the main campus. This was a viable facet in the planning of any DE program. However, in the current generation of DE, ICT and education technologies have influenced the practice of DE to the extent that students are able to make contact with the main campus through their personal computers from the comfort of their homes.

Because of differing practices of DE, an argument has ensued as to the relevance of regional centres in the current generation of DE (Tait 2013:187). Universities which have pure online programs no longer need regional centres even though the cost comparison of having support structures like face-to-face tutorials and video-conferencing tutorials are yet to be conclusively analysed (Tait 2013:187). Developing countries on the other hand, where there is a mixed breed in practice with no clear cut indicators as to which generation of DE is in practice, regional centres are still relevant. In Kenya, Nyerere, Gravenir and Mse (2012:195) explain that regional/satellite campuses were instituted to ease administrative services, provide library and learning resources, provide venues for tutorials and general student support services. This is still a necessity for DE campuses in Kenya.

The importance of these centres cannot be underemphasised and at the same time, these centres are yet to be fully utilised. Sometimes, the underutilisation stems from the administration processes at the main campus. Often, there is skeleton staffing that is unable to effectively provide answers to the students' concerns. While regional centres offer support to nearby students, Nyerere, Gravenir and Mse (2012:198-201) explain that students who are closest to the main university campus (urban students) are usually at an advantage. They are able to visit the campus frequently to access learning materials which are either unavailable in the regional campuses or arrive too late for their counterparts (rural students). Inevitably, the ripple effects manifest in the form of added operational and opportunity costs for the rural students. For example, they have to travel more frequently to the regional campuses for unscheduled services or to keep checking if learning materials have arrived. This means that for developing countries like Kenya, there is need to audit the functionality of regional centres. The objective of such audit should be to improve the centres before they can be annihilated.

ICT has also impacted the functionality of regional centres. In a study of the impact of digital divide on ODL, Oladokun and Aina (2011:162) make a distinction of distance students as regional (those within the country of the DE provider) and cross-border (those registered in the university but living and studying from another country). They believe that the digital divide, complicated by factors like cost, choice, availability, accessibility, technical skills, broadband and government policies for ICT, has a great

impact to university's decision to institute or collaborate with a regional centre (Oladokun and Aina 2011:160). The study concludes that because there is a profound impact of the digital divide on ODL pedagogy, universities in developing countries should, for equity purposes establish strategic centres where students can access information resources especially those that are ICT-based. This is an argument in support for universities in developing countries to continue utilising regional centres, at least for now.

An alternative model to regional centres is also developing. Some universities in Kenya for instance, have revised the model of regional campuses into fully-fledged schools so that all services available at the main campus are replicated in the centres. Within this model, a good threshold of registered students regulate the number of residential staff and faculty employed or outsourced by the university to provide tutorials, administrative and general support as need be. In this model students have a choice to transact online or physically and are able to develop a social identity with the university because of its accessibility (Nyerere, Gravenir and Mse 2012:195).

A third model is that of forming consortiums with a group of universities or having agreements with each other to reciprocate each other's services to regional students (Contact North Press 2011:1). The Open Universities of Australia, for example, has memoranda of understanding with numerous universities for their students to access quality learning opportunities and services within reach. The services include libraries, support services and tutorials. Another example is the American Distance Education Consortium (ADEC) which has agreements and partnerships with universities and members in China, Costa Rica and countries in Europe (ADEC 2014:N.P.).

#### **5.3.7.2 Library Support**

Because of ICT, the mode of access to and generation of information has transformed the practice of education and, by extension, all educational processes including teaching, learning, student behaviour, administration, library resources and expectations of stakeholders (Ertmer and Ottenbreit-Leftwich 2010:255 and Gruca 2010:17). According to Zabel, Shank and Bell (2011:106), digital forums including the web, television, conferences, hangouts, blogs, chat rooms and all networks presently churn information at a rate that has outstripped both the demand and the human capacity to absorb and utilise it. Subsequently, for the library to effectively function as

learner support, it must transform itself from a physical location of repositories, books and shelves to a virtual service where students can access all the literary support they require (Zabel, Shank and Bell 2011: 107 and Gruca 2010:16).

Similar to other support components, the library's set up should be informed by the characteristics and needs of the users. Universities house libraries in their main campus as well as in regional centres. Students may also use libraries in consortiums, which have agreements with the mother university. Even though most libraries in Africa are still physical facilities, Nwezeh (2010:106-108) contends that as the practice of education progresses, especially for ODL, libraries must digitalise in order to allow for online access. UNISA, for example, is commended both for focusing the library as a prominent learning support and digitalising the library service/resources to the extent of equalising quality for national, regional and international students (Nwezeh 2010:106).

In many parts of the world, libraries have transformed from physical libraries holding information to digital libraries, which function as both holdings and highways of access to information (Hughes 2008:376). The original model of physical libraries housing physical amenities and repositories, which necessitated student travel in order to access information, is one of the factors limiting access and participation in higher education. Digital libraries on the other hand are known as highways and gateways to information. They have positively transformed the model of libraries to virtual facilities where students do not need to travel but can access the information online, anytime and anywhere (McAndrew and Scanlon 2013:1451 and Hughes 2008:376).

With the current innovative ICTs, information is available everywhere, all the time. While this is good for improving access, it also creates certain forms of chaos. Students are unable to decode what (authenticity), when (course requirements) and the how (access) of all the available information. Support in this case should help students to channel the acquisition of knowledge within the prescribed course objectives. They also need support in fitting the newly acquired information/knowledge into their prevailing educational goals. The digital library is a forum that provides such support. Traditionally, the library has been the main facility where information is stored and retrieved in an orderly fashion (Gruca 2010:17). So that, in the midst of disorder and information chaos, the digital library is one of the sites where information is

organised into a user-friendly, accessible fashion. In transforming itself, the library has not only adapted into formats within which information is easily accessed, but has also claimed its significance as a gradable course subject which every student needs to undertake as part of his/her program (Zabel, Shank and Bell 2011:107).

One of the basic tenets that underpin the need for every student to undergo the library course is referred to as information literacy. The Association of College and Research Libraries (ACRL 2014:1) describes information literacy as a competency required by all students to recognise the information they need and be able to locate, evaluate and use it effectively. ACRL (2014:1-3) further emphasises that information literacy is an indispensable competency because of the rapid changes in technology and the proliferation of all kinds of information resources within these technologies. Information literacy involves face-to-face tutorials, web-based tutorials and study and tour guides on how to navigate information sources. Faculty education is also included in information literacy courses so that students are mentored by a knowledgeable faculty. Marketing the importance and use of library to faculty has been shown to support and impact student learning with improved retention and success rates (Zabel, Shank and Bell 2011:106; Gruca 2010:16 and George and Frank 2004:139).

According to Oladokun and Aina (2011:174) and Nwezeh (2010:113), lack of information literacy skills creates an information divide even in circumstances where digital divide has been minimised. Thus, the library should position itself within course development teams as a contributor to the design of each course (Zabel, Shank and Bell 2011:106). Nwezeh (2010:113) further recommends that a library course should have practical experience where students develop and improve additional ICT skills as they access digital libraries. Nwezeh (2010:113) conducted a study assessing the utilisation of library resources by ODL students. The study indicated that ODL programs, especially in Africa, have not incorporated library resource as one of the important components of teaching and learning. A common practice, especially rampant in universities in Africa and which is detrimental to the attainment of quality learning in higher education, is the provision of pre-packaged learning materials which exclude the need for students to search for extra information or use the library (Nyerere, Gravenir and Mse 2012:198-201 and Nwezeh 2010:104-105). The need to acquire knowledge through self-researched information in the current practice of

education cannot be underestimated (Nwezeh 2010:105). Libraries partner with students' learning as a resource where students can make self-directed inquiries, study independently, discover and use information to support their arguments in assignments, projects, write-ups and examinations.

### **5.3.8 Student Association and Representation Support**

This is a resource for all students who seek peer support for one reason or another. It also provides individual support for the growth of students who choose to participate in leadership positions. As an Act of establishment in every university, student participation is a statutory obligation, which should be recognised and stipulated within its charter (Rosch and Kusel 2010:31). The students' representative body should be funded by the university which should be involved in its daily running. According to Squires (2010:61) an ideal representative council should have: not more than thirty registered students in various stages of study, council members democratically elected if possible (so that both the students and the administration can identify with them), guidelines/constitution for its operations and focus on highlighting the needs of the students without getting into college politics.

The approach by which each university chooses to institutionalise student participation and leadership is as varied as the names used to identify the student body (McClellan 2013:207 and Rosch and Kusel 2010:30). The umbrella term is the student representative council (SRC) while other terms in use include students association, student senate, guild of students, student union, student government, student administrative council, student society and student welfare. Whatever the name, the aim of the student body is to form a bridge with the university administration, senate or academic council. The SRC represents fellow students by presenting their prevailing needs to the university administration while also make reports of progressive administrative inputs to the students. Many representative councils focus on how the university can best provide facilities and support services in both academic and non-academic issues.

According to Dundar (2013:867) and Haber (2011:70), the SRC is a forum where the university can encourage students to participate in decision-making processes for both the university administration and the running of student affairs. Haber (2011:70-72) further contends that the university can support student participation by instituting

leadership programs. Such programs should be designed for students as an intentional opportunity to develop leadership skills. The opportunities include student enrolment into societies and organisations of which SRC is but one. Within these organisations, students are able to improve their time management and communication skills through peer interaction and contributions during meetings, they learn mentoring and counselling skills through supporting the younger and less experienced colleagues and develop ownership, responsibility and social commitment to the positions for which they sign up. Menn (2011:124) concurs that involving students early in organisations develops experiential lifelong skills and knowledge, which they will continuously employ throughout their professional lives.

Unlike for on-campus students, the mechanisms by which distance learning students can actively involve themselves with on-campus activities is not easy to create. Most student councils operate within a physical and social presence, which includes the ability of students to identify with the office, the office bearers and a physical facility where they can walk in and out of at any time. The minimised face-to-face tutorials in distance learning may be a problem. However, it is possible for student councils for distance students to find mechanisms of operating within learning technologies. Harrison and Hughes (2011:31) explain that this is possible especially because students are well versed with social media technologies.

Students from both universities seemed dissatisfied with this support. They seemed unaware of how to join the associations. Most of them stood a middle ground as whether or not the support was accessible on many fronts. However, faculty indicated that there were two levels of representation. First, there was class representation for every annual cohort of students and two, the university's student representation. The class representation was running well for both universities with a male and female representative for every cohort of students. However, the processes of joining university's associations and representations were not well articulated. This was missing in the documents and even faculty did not seem to have clear channels of how this could be implemented. At NU, one of the staff did not believe that the DE students needed to engage themselves with such activities. Furthermore, there was disharmony between schools, with the dean of students at NU delineating himself from

the affairs of the DE students. These inconsistencies may weigh negatively on the overall involvement of DE students in associations and representative councils.

In the web pages for both universities, there was indication that student organisations were well structured and supported by the university. However, it seemed that these were mostly intended for on-campus students. Granted, it is not easy to fabricate mechanisms of involving off-campus students in on-campus activities. However, according to Harrison and Hughes (2011:31), this is possible especially because students are well versed with social media technologies. They may be able to hold discussions in hangouts, webinars, online conferences and newsletters. Through such channels, students are able to discuss problems and share solutions and tips on how to proceed. This was evident in the discussion forums especially for NU. Although a discussion forum for student council was missing, the content of discussions on other forums showed possibilities of establishing such forums. In addition distance students should be aware of their rights and responsibilities in participating in student representative councils so as to use the facility as a support service.

### **5.3.9 Course Progression and Satisfaction**

According to Boyle, Kwon, Ross and Simpson (2010:155), the one fundamental weakness that ODL continues to suffer despite its exponential growth is that of high attrition in comparison to face-to-face learning formats. Although attrition was not an immediate concern in both universities, adequate monitoring systems for course progression and satisfaction were absent. In general students from both universities seemed happy with this support. However, this may be because this index was an indirect evaluation. Students expressed satisfaction with the way their courses were being administered even they were rarely provided with forums or opportunities of evaluating the courses and programmes. Both universities, although purposed, had not implemented course evaluation and monitoring systems in ways that could provide feedback on student and customer satisfaction. The opportunity for stake holders to evaluate the programmes was mostly on the compliments and complaints forum. This was more easily found in NU than in WU websites.

A compliments and complaints forum is suited for all stakeholders but from a student's position, the researcher believes the name of the forum may be intimidating. For this reason, most posts from students were complimentary rather than complaints. Many



introvert students would be hesitant to open this forum especially when he/she has a complaint. This notwithstanding, the presence of this forum is also an opportunity to gauge student satisfaction and progression. In the year 2014, at NU, there were about twenty parent posts both from faculty and students as well as administration. Of these, only two posts were complaints. In WU, there were no posts. There should be a forum that specifically addresses, tracks and evaluates the students' experiences and perceptions in more specific ways than the compliments and complaints forum. These are forms which both universities had developed but were not in constant use. Course progression and satisfaction may assist in tracking student patterns especially concerning retention and attrition. According to Tinto (2006:6) reasons why students leave or persist may not be interrelated. However, course evaluations may enlighten the providers on factors which influence students' decision to persist or to leave. An evaluation form which includes all components of learner support structures which directly impacts on the student's satisfaction and motivation can be used to assess satisfaction. For example, tutorials provided online through the LMS as well during mid-semester meetings and during examinations can be followed by completing evaluation forms. When a student travels on-campus to meet with faculty, ask questions, hold discussions and receive general support he/she could also be required to fill an evaluation form.

#### **5.4 OBJECTIVE 3: REQUISITE SKILLS FOR LEARNING IN DE ENVIRONMENTS**

Related to this objective, the qualitative data yielded the theme of "strategies for policy formulation in DE". This theme focused on answering the following research question.

Research Question 3: What skills should be developed by the student through learner support systems for effective participation in distance learning activities?

This theme developed from assessing DE students' skills or lack of in coping with his/her learning in DE environments in the two universities. King (2012:14) explains that most dual mode universities do not equalise their commitment to student's needs. Often the off-campus student experiences less support than his/her on-campus colleagues. Therefore, the DE student may require additional learning skills. One

faculty member at WU observed that there was a clash of pedagogy especially when DE programmes were instituted in dual mode universities. That most often, there were tendencies to transform the existing on-campus curricula and programmes into DE with undue consideration to the needs and characteristics of DE students. According to Emerson and MacKay (2011:728), McFarlane (2011:90-92) and Jopling (2012:310) there is sufficient recognition that DE and conventional education are essentially different. Providers ought to recognise this so as to design courses as well as support for students. Anderson and Dron (2011:82) concur that DE students need to be prepared for teaching and learning methodologies of distance learning. They also explain that DE students need to internalise the demands of distance learning, the responsibility and discipline required for learner-centred formats so as to be able to solve issues as they arise and not follow the easy option of dropping out.

It is important for DE providers to identify and understand the needs and characteristic of their students in order to construct useful support systems (Renes and Strange 2011:204; Ludwig-Hardman and Dunlap 2003:2 and McLoughlin 2002:149). Often times, student needs and deficiency of skills are interrelated. Faculty and staff from both WU and NU reported on various challenges involving students' skills in coping with learning within DE environments. There were students who preferred to travel on-campus often to meet lecturers or for library services. Students also preferred to make numerous phone calls for assistance at the slightest excuse instead of engaging in independent study or group discussions. Issues of technology, internet and passwords were frequent complaints and excuses by students for non-progression. These issues meant that the students were unable to keep deadlines and timetables with resultant chaos into the running of programmes. These were also indications that students needed training and adoption of skills necessary for DE learning during orientation and throughout the student walk.

Related to skills are characteristics and categories of DE students. Because of demographics and competing needs, students lack the necessary skills associated with independent learning. Age may influence the speed of adopting to technology and course delivery modes. Gender may be an issue with competing needs like caring for children and family. Due to competing financial priorities, the DE student may postpone the purchase of educational technologies like a personal computer or laptop.

According to Harrell and Bower (2011:180) and Subotzky and Prinsloo (2011:179), studies show that student demographics is a characteristic factor for success in DE. Gender, age, employment and disposable income are some of the demographics with considerable influence on student persistence and completion. Due to obligations and family responsibilities for example, there are more women who enrol into DE programmes than men. Yet the same socioeconomic contexts lead to a higher dropout rates among females than males. Increase in age has also been shown to impact negatively on course completion. At the same time obtaining the optimal balance between work, family and study is an ongoing challenge to many DE students (Harrell and Bower 2011:179-184). Poor time management skills and procrastination contribute to increased student dropout (Michinov, Brunot, Le Bohec, Juhel and Delaval 2011:250).

O'Donnell, Sloan and Mulholland (2012:2), Schlosser, Michael and Terry (2009:11), Moore (1990:10-15) and Moore (1989:1-5) report that independent learning skills are necessary for DE learning environments. West (2011:136-137) also emphasises that DE relies totally on independent and self-directed learning. Therefore, there was need to include skills training not only during orientation but throughout the student walk. In addition to independent learning, are other skills including time management, organisational and self-regulation, information literacy, research and library, technology, internet and use of the LMS, communication and feedback, group work and teamwork. At both universities, there was a wide variation of ratings on questions of skills in the orientation index. There was lack of a clear pattern to indicate student satisfaction with the statements. At WU, the staff reported that even though most of the skills were not specified as skills training, the student was expected to somehow acquire them within orientation and in the process of study. For example, the ICT duo explained that anyone entering into DE formats in the information age must acknowledge that the involvement of ICT and computers. Therefore, he/she should make sufficient provision for such skills if he/she expects to succeed in DE formats. Power and Gould-Morven (2011:20-23) concur that there is a significant impact of technology on DE to the extent that students must have access to computers and other relevant technology. Nyerere, Gravenir and Mse (2012:198-201) argue that most DE providers in Kenya have moved from solely printed materials to ICT formats in providing course content even though some universities present a mix of the two.

Computer skills and practical experience is an important student characteristic for any current DE programme and expecting that all potential applicants should have computer skills is one solution. However, it should also be acknowledged that students entering DE programmes (even those with computer skills) may face other technology challenges. These include: one, navigating the university's online learning management system (LMS) and website which is often quite new and sometimes complicated, two, adapting to the use of technology used in the programme some of which are a new experience e.g. video conferencing, and lastly, finding adequate time among many new challenges to engage with the learning content which will most probably be accessed through technology (Tyler-Smith 2006:79-80). This is a further indication for host universities to provide orientation programmes that include technology, time management, study skills and learning strategies.

At NU, one of the administrators and the LSS coordinator reported that the online orientation was self-paced and time bound with deadlines. They argued that within such a structure, the student would silently learn skills including independent study, time management and self-regulation. This may be, but a serious support system should identify and provide training of these skills by design especially because ICT and learning contexts are in a continuous flux of change. Hannafin and Hannafin (2010:15) explain that students who are constantly confronted with new and difficult technologies and materials typically are not organised enough in their thought processes. They get confused with priorities on what to focus on or on what is vital in the competing learning tasks. They are therefore unable to independently proceed with their studies. It is therefore good practice for the DE provider to provide support mechanisms if the student is to succeed in his/her studies.

## **5.5 OBJECTIVE 4: GUIDELINES AND POLICIES**

Related to this objective, was the third (3<sup>rd</sup>) theme referred to as “strategies for policy formulation” which also assisted in answering the fourth (4<sup>th</sup>) research question. This theme focused on answering the following research question:

Research Question 4: What support elements can constitute the formulation of guidelines for learner support systems for new students of distance education?

At both universities, policies for DE practice were work in progress. At WU, the director reported that the proposed policies were yet to be ratified even though it was already being used for implementation. This was the same situation at NU. Additionally, the director reported that she had developed guidelines for standards and practice document of E learning, which, was still a current document at the time of this study. The overarching policy document for both universities was that from the Commission of University Education (CUE) which had a detailed section on guidelines for practice of DE. However, this was a general policy document out of which universities were supposed to adopt and contextualise their DE practices. An example of contentious items was the admissions policy. The national policy on admission requirements was not necessarily applicable to the concept of open access to education. It outlined strict, closed requirements based on previous academic learning while the DE programmes envisioned open access.

Additionally, both the university and the student needed to have open discussions and comprehension on the rights and responsibilities of each party. These ought to have been articulated in comprehensive policies and guidelines. There is a cyclic relationship between policies and stakeholders especially the student. Policies evolve to guide practice which originates from societal and environmental demands. In the case of learner support, it is acknowledged that the DE student has needs arising from varied forms of distances. Therefore rights and responsibilities should guide the relationships created by distance between the student, university, faculty, learning materials and fellow students. According to Shillington, Brown, Mackay, Paewai, Suddaby and White (2012:68), Stevens and Kelly (2012:141), Zawacki-Richter (2012:170), Boyle, Kwon, Ross and Simpson (2010:115), Task Team 4 report on student support at UNISA (2010:5), Kelly and Stevens (2009:2) and Rekkedal (2008:78), learner support is a necessity, a partner, service and component required by the student as s/he navigates through the student journey. Education providers, universities, policy makers and governments now invest enormous attention and resources on determining student characteristics, their needs and possible ways of meeting the needs within learner support structures (Stevens and Kelly 2012:141; Boyle, Kwon, Ross and Simpson 2010:115). Yet, there are very few DE policies and guidelines that have specifics on learner support. The Task Team 4 report on student support at UNISA (2010:5) has a working document that guides the establishment of

support systems. The document outlines support frameworks through three phases which are: entering ODL, teaching and learning in ODL and exiting ODL. In WU and NU, support was present in some of the phases while missing in others. In some cases, support which should have been in the first phase was delayed to later phases. This was mainly because, the policies and guidelines had not made specifications for support systems and their timings during the student walk.

## **5.6 A PRACTICAL FRAMEWORK FOR DEVELOPING LEARNER SUPPORT SERVICES IN DE**

This section is also answers the fourth (4<sup>th</sup>) research question. Based on the literature review and the results of this study, elements were identified that should constitute guidelines for a Learner Support Systems (LSS) framework. This research was an assessment study of systems that exist in addition to those that should exist in LSS in two (2) universities. Following is a recommended guidelines for constructing an LSS framework. To construct a practical framework, the recommendations are in two (2) phases. Phase one involves the planning processes, especially in dual mode universities where there is need to differentiate policies and practices between on-campus and DE programmes. Phase two is an outline of guidelines for the framework of a DE campus with focus on LSS.

### **Phase one**

1. Conduct a needs assessment and market research on DE programmes. Visit and/or collaborate with superior universities and benchmark conventional practices. For example, the director's experiences as well as those of team members could be taken into consideration when planning for the University's DE framework but with caution that the ideas should be feasible for the framework.
2. Contextualise a home-grown system implementable within the available resources. There should be an audit on all fronts in order to establish what is feasible for a DE framework.
3. In dual mode universities, it is important to bargain with the senate on the motives for establishing DE systems based on expectations, realistic budgets especially for start-up, expected social, temporal, institutional and monetary

returns on investment. For example, budgetary constraints and cuts were constant issues at both WU and NU. This affected all operations and support systems.

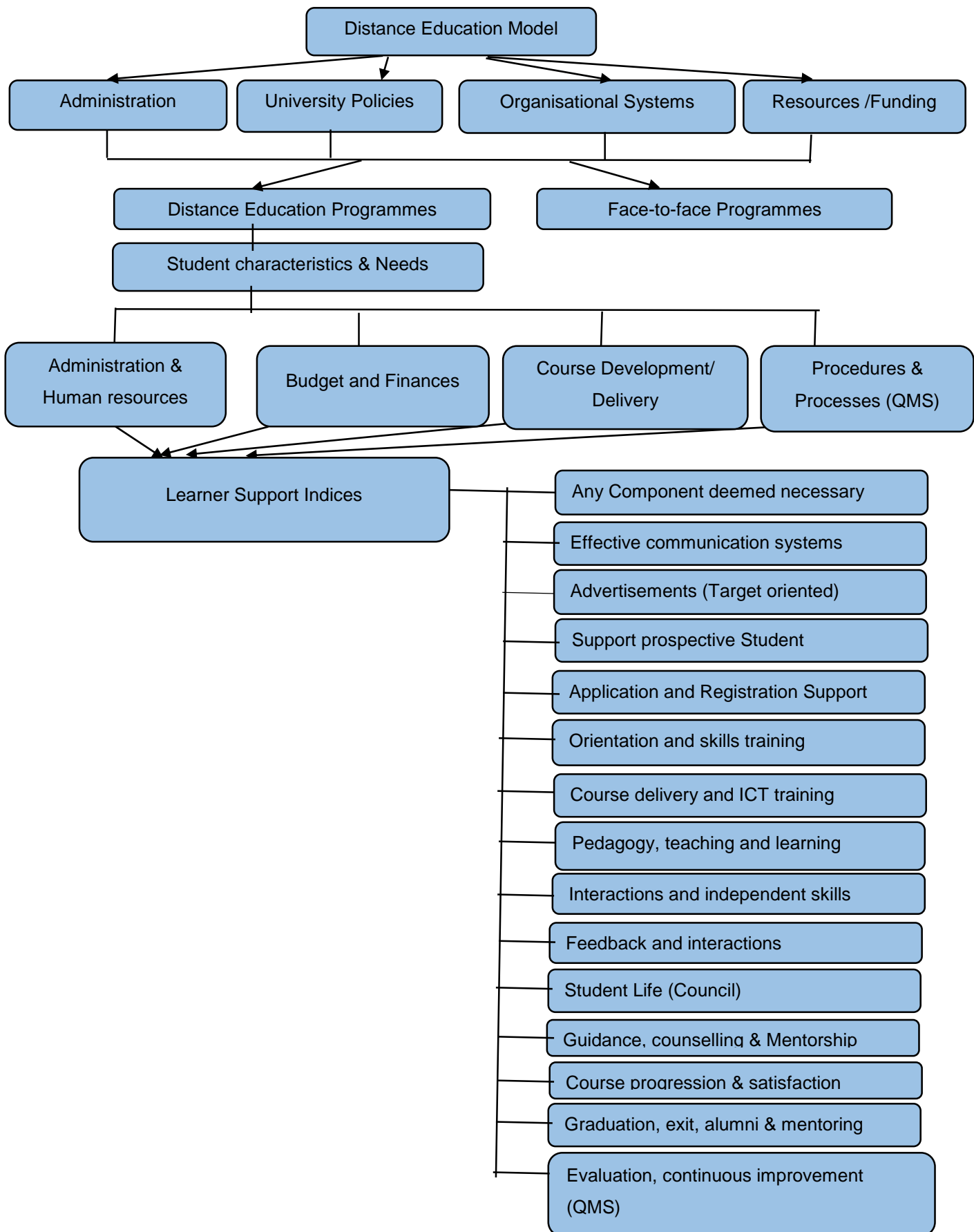
4. There should be a blueprint, visual model and conceptual framework, easy to follow, to explain and to implement. For example, NU had a visual model even though it was not easy to integrate with that of the main campus.
5. There should be a vision, mission and specific, measurable, achievable, results-focused and time-bound (SMART) objectives for DE campus based on its model. For example, at WU, the director had a vision of establishing the first African MOOCs centre while at NU, the director of E-campus projected it to be completely autonomous from the university, yet remain as an E learning platform for main campus departments. These goals could not but ought to be easily identified in the frameworks.
6. Make an operational definition of concepts and their applicability. Embrace all stakeholders and educate them on the vision. Involve all departments from the onset and separate pedagogies of DE from those of on-campus learning. For example, in NU, the evaluation report, 2010 described the pedagogical model as based on constructivism theories and principles of learning. It articulated that the lecturers were empowered through capacity building to transform into facilitators of learning. The outlined principles should ascribe to learner-centred education, independent learning and constructivist models.

## **Phase Two**

This phase focuses on the proposed guidelines for constructing a practical learner support framework. The guidelines are diagrammatically illustrated in Figure 5.1.

1. The intended model should articulate its relationship with the main campus especially if it is an outshoot within a dual mode university. Its model should relate to the main universities administration, policies, organisational systems, resources and funding.

Figure 5. 1: A recommended practical framework for developing learner support services in DE





2. Based on the aforementioned, the DE framework should then articulate its own administrative systems, policies, organisational systems, resources and funding (See Figure 5.1). The policies should be developed prior to implementation of DE programmes. These can then be revised or adjusted as the system is implemented. For both universities, policies and guidelines were formulated after the system was implemented. In the planning phase, the university should make an inventory of all necessary resources and their local availability. Resources which must be outsourced internationally should be weighed against necessity, improvisation, adaptability and cost. For instance, when MOODLE is the best option for running the LMS, considerations should be made on the cost of licenses and the cost of local ISP against that of an overseas host. Sometimes, the overseas host may be more reliable and cost effective.
3. These should be followed by a separation as well as integration between DE and face-to-face programmes. The framework ought to have a clear role in its relationship with the main campus. That is, whether it is fully autonomous or it is a platform for on-campus departments to run e learning programmes.
4. Focus then moves to the intended DE programmes (See Figure 5.1). The framework should be constructed based on needs assessment, market research, benchmarks and universal policies and practices of DE.
5. The centre of focus remains the student. The framework should be based on the student's characteristics and needs (See Figure 5.1). These include the student demographics, their preferences to course delivery, marketable programmes and contexts. The cost and connectivity maybe a challenge to the target population especially for those who live in remote parts of the country. This is an example of considerations before decision-making for sole web-based delivery systems.
6. The establishment policies should clearly state its admission requirements and criteria. The student should be informed of technology requirements. For example, if the DE programme is web based, the policy should be explicit on computer ownership, ICT literacy and the need for reliable internet connectivity.
7. Next (See Figure 5.1), the framework identifies administrative and human resources, financial resources and budgets, relevant programmes, curricula

and course development, course delivery, communications and technologies and all necessary components.

8. All components interrelate and integrate into the whole framework. However, Figure 5.1 turns focus on how the components relate to Learner Support Systems (LSS).
9. When planning and constructing an LSS framework, consideration should be made of all the combinations of course delivery formats for DE. For example, the NU's model was structured around a web-based system but blended with face-to-face sessions.
10. Train staff and faculty on roles, pedagogy, technology, vision, attitude and general DE organisations. For example, at NU, there was observable division of labour for the staff at DE campus so that all interviewed personnel were able to explain their role in the running of programmes. Mr M of NU observed that lecturers are usually at different skills level on issues of E learning. This affected support issues including tutorials, communication and feedback especially for examinations and assignments. Giving effective feedback for example, requires training, unlike in on-campus programmes where examination results were given after the semester, DE pedagogies require that students receive feedback on their progress, the soonest possible. Ms. R., the E-librarian at the NU, also reported that there was substantial multi-tasking at E-campus in an effort to keep it running. She gave an example of herself being involved in enrolment of students and instituting modules access for students. She executed many other duties, despite being employed as an E-librarian.
11. With focus on LSS, the framework should outline and detail all the LSS indices as appropriate to its programmes. The details should include analyse, design, development, implementation and evaluation. Figure 5.1 identifies the indices to include but not limited to:
  - Any Component deemed necessary
  - Any Component deemed necessary
  - Effective communication systems
  - Advertisements (Target oriented)
  - Support prospective Student
  - Application and Registration Support
  - Orientation and skills training

- Course delivery and ICT training
- Pedagogy, teaching and learning
- Interactions and independent skills
- Feedback and interactions
- Student Life (Council)
- Guidance, counselling & Mentorship
- Course progression & satisfaction
- Graduation, exit, alumni & mentoring
- Evaluation, continuous improvement, quality management systems (QMS)

## **5.6 RECOMMENDATIONS**

The literature review for this study shed light on DE models in single mode and dual mode universities. The study focused on provision of LSS in two dual mode universities. The results showed the available LSS components and the challenges of DE that influence their smooth implementation. The study also showed the need for further studies related to the aforementioned. These include:

1. Based on empirical support, providers of DE should have a model of establishing programs that outline policies on: -
  - Staff and faculty including training, remuneration, work recognition, fair monitoring mechanisms and positive attitudes.
  - Smooth progression of courses addressing factors that may result in student attrition.
  - Clear budgetary allocations especially in dual mode universities.
  - Team work and integration between departments in dual mode universities.
  - Integration between national sectors of education and ICT and minimise internet costs and interruptions.
2. Separate studies should be conducted using the design of this study to include other LSS indices that were not tested.
3. The same LSS indices could be tested in other universities in Kenya so as to gain generalisation of results as a base for policy developers.

4. Conduct more studies on the similarities and differences of characteristics and needs of DE students in comparison to those of face-to-face learning formats.
5. Conduct more studies on DE pedagogies should be conducted. The few that are accessible have not correlated DE pedagogies with LSS.
6. Developing and implementing some support systems like counselling and mentorship experience various challenges. Universities and stake holders should establish systems of developing and implementing such support indices using education technology and LMS platforms.

## **5.6 SUMMARY AND CONCLUSIONS**

According to Jacklin and Le Riche (2009:736-737), there is debate as to whether universities need to provide blanket learner support because students probably don't need all of it. However, this study, has shown that learner support is a component of DE programmes that universities provide. It is a component of learning which students recognise and acknowledge as being important to their studies. The purpose of this study was to assess the availability of learner support systems for DE undergraduate students. The availability was tested in terms of presence, accessibility and effectiveness. The findings showed that the provision of DE programmes especially in dual mode universities was faced with numerous challenges. This study made linkages between the challenges and their influence in establishing LSS. This was evident in the goals of establishing DE, the vision, DE frameworks, pedagogies, student characteristics and needs, finances and human resources.

Data was drawn from three (3) perspectives: the DE student, the university's key implementers of DE and the documents of establishment. The findings were triangulated through the chapter on discussion which showed that some LSS indices were available while others were missing. Of those that were available, some had been planned for while others just happened in the process of implementation. The study showed that despite DE moving into the information age and the fifth generation of education technology, the demographics, characteristics and needs of DE students have not undergone drastic changes. Therefore, support services need to be contextualised within the prevailing education technologies against the background of student needs. It is hoped that this study will contribute empirical evidence for policy developers of DE and especially as concerns LSS. It is also hoped that the findings

and recommendations of this study will stimulate more studies in the field of LSS and DE as individual entities and as a unified practice.

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## Appendix A: Time frame

Gantt chart for the time frame scheduled between Jan 2013 to Dec 2015

Order	Task name	Start Date	Duration	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	Concept paper, Literature review and draft Proposal	1 January 2013	3MON												
2	University select supervisor	15 March 2013	1MON												
3	Write and submit research proposal	Jan 2013 to Sept 2013	8MON												
4	In-depth theoretical framework		6MON												
5	Identify data sources and gain access	1 June 2013	8MON												
	Apply to research approval Board		1MON												
	Apply to target institution		1MON												
	Ethics and research board		3MON												
	Make appointments with contact persons		3MON												
6	Write Literature chapters		3MON												
7	Develop data collection tools	November 2013 to January 2014	6MON												
8	Run Pilot / Revise tools	March 2014	3MON												
	Preparation for sampling	June 2014	2MON												
	Sampling	September 2014	2MON												
9	Collect Data	September to December 2014	3MON												
	Conduct interviews	October to December 2014													

	Send emails/ Questionnaires	October to December 2014													
	Documentary analysis	March /May 2015													
10	Transcribe interviews/ Data	June 2015	1MON												
11	Reconcile Edit field notes	June 2015	2MON												
12	Data capturing and editing	June 2015	4MON												
13	Data analysis and synthesis	April to June 2015	4MON												
14	Reflection and writing of thesis	June to December 2015	3MON												
15	Rewriting/Final Editing / Proof reading of thesis	June to December 2015	6MON												
16	Submit Thesis	January 2016	1MON												
17	Compress for publication	February 2016	2MON												

## Appendix B: Financial Budget

<b>Code</b>	<b>Main Activity</b>	<b>USD</b>
1.	Stationery (pens, pencils, paper)	500
2.	Training and hiring of 2 research assistants	1,000
3.	General photocopying and printing	1,000
4.	Purchase of software licenses	500
5.	Travel and accommodation	5,000
6.	Training and hiring of 2 data management assistants	1,000
7.	Statisticians and editors	2,000
8.	Typing and Binding	500
9.	Final Report	1,000
10.	Hiring / purchase of equipment	5,000
	<b>Total</b>	<b>17,500</b>

## Appendix C: Student Questionnaire

### Questionnaire on Learner support for e learning / distance education students

#### Consent Form

Dear Participant,

Thank you for showing an interest in participating in this study. My name is Tabitha Rangara. I am a doctoral candidate at the University of South Africa. As research for my thesis, I am carrying out a study, entitled:

#### **Assessment of Learner Support Services for Distance Learning Students**

The aim of the study is to assess the learning support structures available in your University. This is aimed at improving support to help you towards a successful graduation. Please fill in the attached questionnaire and make your voice count.

#### A Brief Overview:

I greatly appreciate your time. The questionnaire has 88 multiple choice questions mostly on "Agree - Disagree" scales. It will take about 20 minutes to complete this questionnaire. Please remember to submit the questionnaire by pressing on 'DONE' button which appears at the bottom of the last page.

#### What are the benefits?

By participating in this study, you will have the opportunity to contribute to a more informed and improved university service. The results of this study will assist the University to identify some of the help you need in supporting you towards a successful completion of your programme. In this way, continuous changes can be made and services improved.

#### What risks are there in participating in this study?

There are no known risks that may occur by participating in the study. Only you and the researcher(s) will be privy to the data that is collected. All the raw data will be kept in confidence and you will not be identified for any other purpose.

By participating, I agree that:

1. I have read and understood the conditions under which I will participate in this study and give my consent to be a participant.
2. The study has been explained to me. Any questions that I have asked have been answered to my satisfaction.

3. The possible harms and discomforts and the possible benefits (if any) of this study have been explained to me.

4. I understand that it is my choice to participate and that I have the right to stop at any time.

I am free now, and in the future, to ask answer any questions about the study on

ODEL@mmust.ac.ke or dorangara@gmail.com/ +254 726232640/ +251 920111159.

Thank you for participating. Sincerely,

Tabitha A. Rangara.

\* 1. Please Sign or write your initials

Signature or Initials

Date

## I. Registration Procedures

---

***This section seeks your evaluation on the process of registration. Please indicate how much you agree or disagree or as appropriate with the following statements concerning learning support from your university. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

2. It is easy for me to access registration information from the university / website

Strongly agree  Agree  Neither  Disagree  Strongly Disagree

3. Registration process was presented in a clear and logical manner

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

4. It was easy for me to understand the registration procedure

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

5. I easily Accessed information on the programme/courses of my interest

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

6. I received guidance on registering for my programme/course

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

7. I received adequate information on distance education to appreciate the difference between distance learning and physical classroom

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree



## II. Orientation and Skills Training

---

**Please indicate how much you agree or disagree or as appropriate with the following statements concerning Orientation and skills training support from your University. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5**

8. I had a better understanding of my programme/course during orientation

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

9. I was introduced to human resources that can support my learning

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

10. I received adequate information on the structure of my programme/course

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

11. I was equipped with knowledge and skills on independent study

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

12. I was equipped with knowledge and skills on time management

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

13. I was equipped with knowledge on how to use support from my social life

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

14. I was equipped with knowledge and skills on how to organise my workload

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

15. I was equipped with knowledge and skills on study groups

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

16. I was equipped with knowledge and skills on matters regarding assessments/assignments

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

17. I learnt about the support services available throughout my study

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

18. I learnt how to access help whenever I require it

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

### III. Technology

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning Technology support from your university. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

19. I have been informed about all the Information and Communications (ICT) to be used in this programme/course

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

20. I was equipped with knowledge and skills on how to use technology for my course

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

21. I have the skills required to use ICT in this programme/course

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

22. I can easily access internet whenever necessary

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

23. I borrow computers from the office/ friends/university for my schoolwork

- Always     Often     Sometimes     Rarely     Never

24. I use computers at the university library/regional centres for my schoolwork

- Always     Often     Sometimes     Rarely     Never

25. I use the office internet for my school work

- Always     Often     Sometimes     Rarely     Never

26. I pay for internet connection on my mobile phone/internet modem

- Always     Often     Sometimes     Rarely     Never

27. I access the internet through cyber cafes

- Always     Often     Sometimes     Rarely     Never

28. My learning materials are delivered through hardcopies/CDs/DVDs

- Always       Often       Sometimes       Rarely       Never

29. I can easily access the ICT personnel/department whenever I need help

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

30. The ICT personnel/department are helpful

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

#### IV. Counselling and Mentorship

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning counselling and guidance support. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

31. I know the difference between lecturer, counsellor and mentor

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

32. I get counsel from the lecturer

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

33. I know how to reach my counsellor

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

34. Counsellors are important for supporting my learning

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

35. My counsellor is available when I have a problem

- Always       Often       Sometimes       Rarely       Never

36. Mentors are important for supporting my learning

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

37. I have a mentor

- Strongly Agree       Agree       Neither       Disagree       Strongly Disagree

38. Lecturers are responsive to my needs and interests

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

39. Any of my lecturers are available when I contact them

- Always     Often     Sometimes     Rarely     Never

40. I ask for help from the counsellor regarding Social life issues

- Always     Often     Sometimes     Rarely     Never

## V. Interactions and communication

---

***This section evaluates communication process from your University. Please indicate how much you agree or disagree or as appropriate with the following statements. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5 or Always-1, Often-2, Sometimes-3, Rarely-4, Never-5***

41. I frequently receive information from lecturers, administration, fellow students and the website

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

42. My lecturer communicates all information coherently

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

43. There is good communication between students and lecturers

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

44. The university administration communicates all information coherently

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

45. There are sufficient ways provided for me to interact with peers

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

46. I interact with my fellow students

- Always     Often     Sometimes     Rarely     Never

47. I frequently contribute to collaborative/study groups

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

48. Interaction with lecturers is important to me

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

49. Interaction with fellow students is important to me

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

50. The university offices respond to my emails and requests effectively

Always  Often  Sometimes  Rarely  Never

## VI. Regional Centres and Library

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning regional centres and the library. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5 or Always-1, Often-2, Sometimes-3, Rarely-4, Never-5***

51. I visit the university regional office closest to me

Always  Often  Sometimes  Rarely  Never

52. I can access University facilities through the regional centre

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

53. I am well trained on how to utilise the university/digital library

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

54. I use the university library at the regional office

Always  Often  Sometimes  Rarely  Never

55. The library has adequate resources

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

56. I can comfortably access and use the university online library

Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

57. I use the university online library

- Always  Often  Sometimes  Rarely  Never

58. The librarians respond to my queries and needs in a timely manner

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

## VII. Student Feedback

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning Feedback processes in your University. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

59. I am well advised on feedback channels and the time limit by which the lecturer should give me feedback

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

60. Feedback from lecturers concerning tests/assignment reaches me satisfactorily

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

61. Feedback from lecturers concerning tests/assignment is constructive to my learning

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

62. The lecturer is available to discuss my feedback

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

63. There is timely feedback from offices of finance, registrar, dean, faculty and university administration

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

## VIII. Student Association and representation

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning student associations in your University. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

64. I know how to join student associations / organisations /clubs

- Strongly Agree  Agree  Neither  Disagree  Strongly Disagree

65. Student associations are important for my learning

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

66. The university supports student associations

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

67. The student representative council effectively represents my needs

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

68. Overall, the number and variety of student activities are sufficient

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

## IX. Course progression and satisfaction

---

***Please indicate how much you agree or disagree or as appropriate with the following statements concerning learning support from your university. Key: Strongly Agree-1, Agree-2, Neither-3, Disagree-4, Strongly Disagree-5***

69. I receive adequate information on when assessments are due

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

70. I have knowledge on the assessment grading system

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

71. I know the scores/grades required for me to move to the next module/stage

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

72. The support services are generally available

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

73. The support services are generally accessible

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

74. The support services are useful to me

- Strongly Agree    Agree    Neither    Disagree    Strongly Disagree

75. I am satisfied with the university in the way it runs this course/programme

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

76. This course/programme has met my expectations

- Strongly Agree     Agree     Neither     Disagree     Strongly Disagree

## X. General Information

---

*Please answer the following questions as appropriate to you*

77. I am currently studying at \_\_\_\_\_ University

78. The name of my programme/course is \_\_\_\_\_

79. My programme/course is delivered through

- Online learning only  
 Online and Distance learning materials offline  
 Both online and on campus learning  
 Holiday programme only  
 Distance learning materials by courier only

80. My gender is

- Male     Female

81. My marital status is

- Single  
 Married

82. My Age is \_\_\_\_\_ years

83. I have a child/children

- Yes     No

84. I am working and studying

- Yes     No



85. I am a full time student

Yes

No

86. I own a computer/laptop

Yes

No

87. I have 24-hour internet connectivity

Yes

No

\* 88. My greatest challenge with learning at a distance is

## Appendix D: Document Analysis Tool

### Document Analysis (Instrument)

University \_\_\_\_\_ Date \_\_\_\_\_

#### TYPE OF DOCUMENT (Check one):

Mission and vision statement	
University prospectus	
University charter	
Distance education policy document	
University website	
Other	

DATE(S) OF DOCUMENT: \_\_\_\_\_

Discuss the evidence of the date

**The following questions should be answered through the analysis of documents consulted:**

1. What does the document tell about the University at the time it was written?
2. For what audience was the document written?
3. Does the document provide any clues about the relationship between the University and the audience?
4. Characteristics of the document (Description of the document).
5. What is the message the author wants to get across to the audience?
6. How did the university decide to provide distance/e learning programmes?
7. When were the first distance learning/ E learning programme commissioned?
8. What is the status report of the university on running distance/E learning programmes?
9. Is there evidence that the provision of learner support services provided to students of distance/E learning is important to the university from how it is addressed in the document?
10. What information, regarding learner support, is provided in the document concerning the following services:
  - I. Registration
  - II. Orientation or induction
  - III. Study skills and distance learning skills

- IV. Technology
- V. Counselling / Mentorship
- VI. Tutorials/ Course progression and satisfaction.
- VII. Communication and feedback
- VIII. Interactions
- IX. Regional centres
- X. Library
- XI. Student associations and representation

## Appendix E: Interview Schedule

### Interview Schedule Consent Form

Tabitha A Rangara,

Phone: +254 726 232 640 / +251 920 111 159

Email; dorangara@gmail.com

Date \_\_\_\_\_

Dear Sir/ Madam/ Professor/ Dr \_\_\_\_\_

#### **Re: Request for your participation in an assessment of university's student support services**

---

My name is Tabitha Rangara. I am a doctoral candidate at the University of South Africa. Thank you very much for taking the time to meet me and to participate in this interview.

As research for my thesis, I'm carrying out an assessment of learner support services for undergraduate students at your university. This study seeks to contribute towards evidence based implementation of learner support services and to inform policies and practices of distance education of learner support areas that are lacking or could be improved. The benefits are twofold; one is the increase in successful student completion rates and two, the positive contribution to the university's excellence as a learning education provider.

As a policy implementer and stakeholder you have unmatched information on this subject. I will therefore ask you a few questions and feel free to ask me as well. **This interview will take about an hour.** I will be recording the session on video and/or voice recorder. Because I do not want to miss any information, I kindly request you to speak loudly at all times.

As indication for your consent, please sign against your name at the bottom of this page. All your responses will be kept confidential and will only be shared with the research team. I will ensure that any information included in the report does not identify you in any way. Your participation poses no known risks to you whatsoever. It will not affect your person, work, relationships with your colleagues and students or the administration or the university in any way.

By signing this form, I have read and understood the conditions under which I will participate in this study and give consent to be a participant. I agree that:

1. The study has been explained. Any questions have been answered to my satisfaction.
2. I understand that it is my choice to participate and that I have the right not to or the right to stop at any time. I am also free now, and in the future, to ask any questions about the study.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Interview Schedule

University \_\_\_\_\_ Name of Department \_\_\_\_\_

Professional title of Respondent \_\_\_\_\_

1. When were the first distance learning/ e learning programme commissioned?
2. What guided the university towards commissioning distance / e learning programmes?
3. How has the university benefitted from running distance / e learning programmes?
4. What are some of the positive experiences in running these programmes?
5. What are some of the challenges you have experienced in of distance/e learning?
6. What is the role of your department in the provision of learner support services provided to students of distance / e learning?
7. Comment on the support services provided to students in the provision of the following services.
  - i. Registration
  - ii. Orientation or induction
  - iii. Study skills and distance learning skills
  - iv. Technology used in the programme
  - v. Counselling
  - vi. Mentorship
  - vii. Tutorials
  - viii. Communication and feedback
  - ix. Interaction
  - x. Regional centres
  - xi. Library
  - xii. Student associations and representation
  - xiii. Course progression and satisfaction.
8. Is there anything you would like to add?

I am very grateful for your participation. Should you need to discuss the results or have any questions in the future please do not hesitate to call or mail me @ [dorangara@gmail.com](mailto:dorangara@gmail.com).

**This is the end of our session. Thank you for your time.**

## Appendix F: UNISA Ethics Clearance Certificate



### Research Ethics Clearance Certificate

This is to certify that the application for ethical clearance submitted by

**RT Akelo [53314069]**

for a D Ed study entitled

**Assessment of learner support services for distance learning undergraduate students in Kenya**

has met the ethical requirements as specified by the University of South Africa College of Education Research Ethics Committee. This certificate is valid for two years from the date of issue.

  
Prof KP Dzvimbho  
Executive Dean : CEDU

  
Dr M Claassens  
CEDU REC (Chairperson)  
[mcdtc@netactive.co.za](mailto:mcdtc@netactive.co.za)

Reference number: 2014 SEPTEMBER /53314069/MC

12 SEPTEMBER 2014

## Appendix G: Kenya Ethical Clearance



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No. -

Date:

**3<sup>rd</sup> September, 2014**

**NACOSTI/P/14/9508/2988**

Tabitha Akelo Rangara  
University of South Africa  
P.O. Box 392  
**SOUTH AFRICA.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Assessment of learner support services for distance learning undergraduate students in Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for a period ending **31<sup>st</sup> December, 2017**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
**DR. S. K LANGAT, OGW**  
**FOR: SECRETARY/CEO**

Copy to:

The County Commissioner  
The County Director of Education  
Nairobi County.

## Appendix H: Editing Declaration Certificate

Lucy Wakiaga, Ed. D.  
Educational Administration & Policy, School of Education, Howard University  
<http://awuorlynthia.wix.com/wakiagaconsulting>

---

Lucy Wakiaga  
Editing/Data Analysis

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+251941197750  
lucy.gombe9@gmail.com

---

Monday, 23 November, 2015

**Declaration**  
To whom it may concern  
This is to certify that I proofread the dissertation

**ASSESSING LEARNER SUPPORT RENDERED TO UNDERGRADUATE STUDENTS AT SELECTED DISTANCE  
LEARNING INSTITUTIONS**

By  
Tabitha Akelo Rangara



---

L. A. Wakiaga

Dr. Lucy Wakiaga 2015