Managing and delivering learner support for Ugandan in-service teachers: incorporating workplace and university support systems

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ABSTRACT

This study investigates the management and delivery of learner support for in-service teachers engaged in distance education in Uganda. It specifically focused on the nature of learner support, trainees' perceptions of the quality of workplace and university support, the effect of learner support on pedagogical practices, and the challenges faced in managing learner support by the university.

A mixed methods case study strategy using questionnaire responses from 320 teacher trainees in Uganda, discussion with 36 in-service teachers in focus groups, and in-depth interviews with 6 university staff and 7 headteachers were applied.

Factor analysis revealed four main constructs of learner support by the university (academic advising, library and technology, counselling and career, and communication service support). Further analysis revealed security and safety, fees clearance, students' registration and orientation, and provision of child day-care support as major issues. Findings indicate little learner support from the workplaces with 84.2% of the trainees disagreeing that they obtained any financial support from their schools of work (highest ranking on the Likert scale). However, most trainees indicated that the distance learning support had a positive effect on their classroom pedagogical practices especially on the subject content, teaching methods and time management. The learner support challenges faced by the university in the Ugandan context were similar to those reported in studies conducted in other developing countries (such as Ghana, India, Nigeria, South Africa, and Zimbabwe).

The study concludes that incorporating quality workplace support practices for in-service teachers broadens and deepens the scope of understanding learner support. Concerted effort by the students, university and schools in a peaceful socio-political environment nurtures an effective learner support system. It recommends that attention should be given to incorporating the views/voice of the students, workplace support, and investment in affordable technologies to enhance the effectiveness of learner support management and delivery.

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ABBREVIATIONS AND ACRONYMS

AIOU	Allama Iqbal Open University
Approx. Chi-Square	Approximate Chi-Square
BOU	Bangladesh Open University
BSU	Bishop Stewart University
BU	Bugema University
CD	Compact Disc
COUPSTA	Coalition of Uganda Private School Teachers Association
α	Cronbach's Alpha
DE	Distance Education
Df	Degree of freedom
DL	Distance Learning
ERG	Education Research Group
FAQ	Frequently Asked Questions
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
ICT	Information Communication Technology
IGNOU	Indira Gandhi National Open University
IHEP	Institute for Higher Education Policy
IM	Instant Messaging
IGG	Inspector General of Government
IT	Information Technology
KIU	Kampala International University
KMO	Keisier Mayer Olkin
MITEP	Mubende Integrated Teacher Education Project
NITEP	Northern Integrated Teacher Education Project

NCHE	National Council for Higher Education
NGOs	Non-Governmental Organisations
Normal Q-Q Plots	Normal Probability Plots
NTCs	National Teachers' Colleges
NU	Nkumba University
ODL	Open and Distance Learning
OERs	Open Educational Resources
OUC	Open University of China
OUSL	Open University of Sri Lanka
PAC	Public Accounts Committee
PCA	Principal Components Analysis
PES	Professional Education Studies
PTCs	Primary Teachers' Colleges
Quan	Quantitative
Qual	Qualitative
RITEP	Rakai Integrated Teacher Education Project
SFI	School Family Initiative
SMS	Short Message Service
TDMS	Teacher Development Management System
TESSA	Teacher Education in Sub-Saharan Africa
UBOS	Uganda Bureau of Statistics
UCU	Uganda Christian University
ULII	Uganda Legal Information Institute
UK	United Kingdom
UKOU	United Kingdom Open University
UMU	Uganda Martyrs University

UNATU	Uganda National Teachers' Union
UNEB	Uganda National Examinations Board
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
ZOU	Zimbabwe Open University

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To the family of the Oumas (My wife – Jane, and the children - Dianah, Dennis, Daniel and Damalie), I will always be indebted to you for your love and support. Thank you for being there for me. Finally, to the almighty God, I can only glorify your name and say, thank you.

DECLARATION

I hereby declare that this thesis is my own original work and has not been prior submitted for an academic award of this, or any other university. Where reference was made to the work of other authors, all sources are acknowledged as references. However, some parts of the study have been included in the following conference and workshop presentations:

Ouma, R. (2016). *Exploring challenges of learner support for distance education In-service teachers in Uganda: A critical review.* A Conference Paper presented at EAQAN Quality Assurance Conference in Entebbe, Uganda on 16th May 2016.

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DEDICATION

This thesis is dedicated to my Uncle, Mr. Charles Odwori Omuhone for the care and support always given to me since my childhood.

&

My wife (Jane), and children (Dianah, Dennis, Daniel and Damalie)

May God bless you.

Figure 1: Word cloud showing a summary of the study focus

(Extracted from the findings using Nvivo 11)

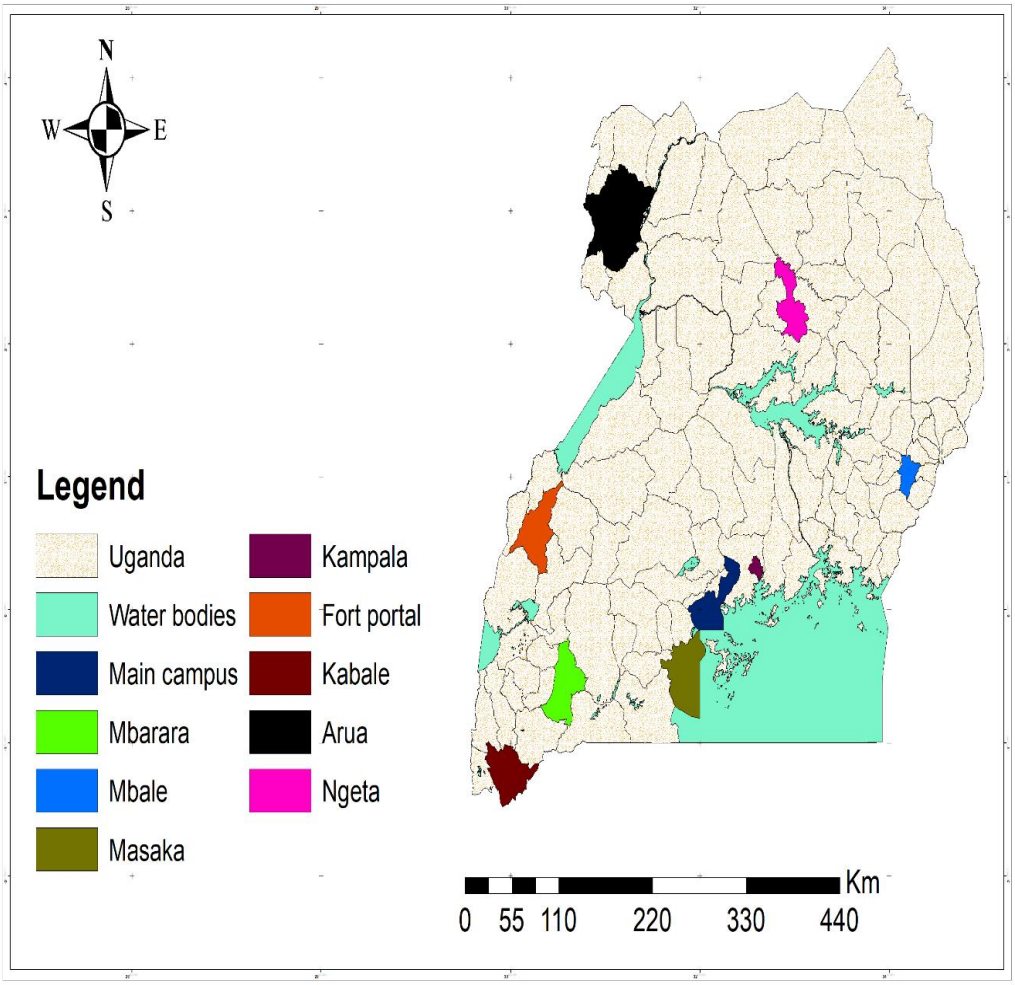


Figure 2: Map of Uganda showing the Case Study (UMU) Centres, 2018

(Located using Arc GIS 10.6)

CHAPTER 1: INTRODUCTION: THE RESEARCH FRAME

A particularly interesting facet of distance learning is the development of a comprehensive and integrated approach to learner support, the term used in open and distance learning (ODL) to describe a full range of activities developed to help students meet their learning objectives and gain the knowledge requisite to course and career success.

(Brindley & Paul, 2004, p.39).

1.1 Background to the research study

The United Nations' Millennium Development Goal 3 for its member states has not been achieved in sub-Saharan Africa (Uganda inclusive) because of the rapid growth of primary school-age population but a less than proportionate increase in the quantity and quality of teachers (United Nations, 2015a). This failing coupled with the notion that 'no education system is greater than the quality of its teachers' (UNESCO, 2012), has led to the launch of Sustainable Development Goal (SDG) 4 that aspires for universal inclusive and quality education (United Nations, 2015b). In Uganda, distance education has been adopted as a suitable measure to raise the quality of trained teachers to achieve that goal (SDG 4). As distance education enrolment increases in Uganda, issues of the quality of learner support management and delivery have become critical. Most universities in the country are offering distance learning academic courses to working adults but the quality of support for those courses specifically for in-service teachers, is largely wanting **(**Basaza, Milman, & Wright, 2010).

Several commentators (Anderson & Simpson, 2012; Evans & Haughey, 2014; Taylor, 2001; Welch, 2003) believe that distance education can provide more opportunities for students' enrolment, create opportunities for those unable to enrol on full-time campus basis and sustain lifelong learning. The overall rationale is to provide meaningful distance education to a wider community, and as such learner support is underscored as important in open and distance education (see the quotation above: Brindley & Paul, 2004, p.39). The current study attempts to contribute to this aim.

Leaner support in distance education continues to evolve but at a cost to both the service provider and user. Educational materials are now provided to the learners using the internet anywhere in the World (Brindley, 2014; Stella & Gnanam, 2004). Though learner support in

distance education evolves, the degree of progression is not consistent across nations and institutions. Many institutions especially in the developed countries are operating virtual universities yet several institutions from the developing countries still offer distance education using the print materials with minimal on-line support **(**Belawati & Zuhairi, 2007, Gulati, 2008**).** In Uganda, limited internet connectivity and unreliable electricity supply especially in the rural areas is a major obstacle to effective learner support **(**Basaza, et al., 2010; Mutonyi & Norton, 2007). The implication is that several universities are constrained in terms of resources and infrastructure to meet the needs of the ever increasing demand for university education.

Several studies indicate a positive development trend in the use of internet as both a teaching and administrative tool to provide learner support in several counties like the USA, Australia, UK, Canada, Netherland and Japan (Hirsch 2001; Jones & Pritchard, 2000; Salmi, 2000; Tait, 2014). Stella and Gnanam (2004) show a similar trend in some developing countries like India, Mexico and Thailand where several courses on distance education are offered globally using on-line support systems. However, the existing body of research has not significantly addressed issues of administrative support affecting quality in distance education (Stella & Gnanam, 2004). Similarly, I have noted that the available literature hardly considers the role played by workplaces, particularly schools in supporting in-service teachers. There is a need to focus not only on the side of the service provider of distance education but also the user's ability to access, learn and benefit from distance education. If developing and developed countries are to simultaneously reap benefits from distance education in this era of educational internationalisation, then, both service providers and users in the two worlds should be able to embrace, adopt and use modern technologies in learner support.

Thakrar, Wolfenden, and Zinn (2009) posit that in Africa with reference to Uganda, Kenya, Rwanda, Tanzania, Sudan, Zambia, Ghana, Nigeria and South Africa; working within budgetary and infrastructure constraints, it is problematic to raise a sufficient well prepared and committed corps of teachers. Although the quality of distance education is still wanting in most African states, research evidence reveals efforts being made to improve on learner support via science and technology applications in teaching and administration (Okeke, 2007; Williams & Gardner, 2012). Referring to Sub-Saharan Africa, Onwe (2013) emphasises the need to address issues of quality in learner support and ethical practices for enhanced management and delivery in distance education. Nonetheless, there is limited empirical evidence which reveals the effect of learner support on pedagogical practices of in-service teachers in Africa. With reference to Uganda, hardly any study has recently explored the challenges faced by

universities in managing and delivering support to distance learners. It is therefore timely for an independent study to fill these gaps and propose measures to improve the quality of learner support in distance education. This study aims to identify informed intervention measures to improve the quality of learner support for in-service teachers on distance education in Uganda and the East African region.

In this chapter, I describe my motivation and the purpose of the study. I then present the relevant research questions, significance and originality of the research, and a synopsis of the literature and theoretical framework. This is followed by the glossary of terms used in this thesis, a synopsis of the research methodology, and a layout of the thesis showing the contents of its eight chapters.

1.2 Personal interest and motivation for the study

This research project was conceived during my time working as quality assurance coordinator and lecturer at UMU. I witnessed efforts by the faculty to improve on distance learning delivery especially in the area of learner support and yet learners continued complaining about the quality of support. I then reflected on my experience as one of the pioneer distance education students of the post-graduate diploma in teaching and learning in higher education at one university in Uganda. We enrolled for a two-year course in 2007 but completed the course in 2010 because we did not get the modules (course materials) in the first two years of enrolment. I could recall some colleagues who left before the actual commencement of the course in 2009. Many of the teaching staff were part-timers and we could access them only during the annual face-to-face period. I developed an impression that there could be similar learner support challenges in several universities in Uganda and the East African region that necessitated an independent study to establish the magnitude of the problem.

Literature about learner support in distance education revealed a range of meanings attached to the concept of 'learner support'. Some authors indicate it as academic support, some as non-academic support and, others to both. In the contextual literature about Uganda, there is very little role of the learner as determining or influencing the support received hence I developed my interest in the study to get an insight about the learners' perception of the support given and the challenges universities face to deliver such support. Furthermore, from my informal discussions with in-service teachers about their work experiences and support obtained from the training university, coupled with scant information on schools' support to in-service

teachers in the literature, I became curious to find out the support they obtained from their workplaces. Therefore, it was my prior personal experience as a distance learner, work experience with distance learners, and unclear meanings and practices of learner support in the literature that motivated me to undertake this study.

1.3 Purpose of the Study

The purpose of this study is to investigate the management and delivery of learner support for in-service teachers engaged in distance education in Uganda. Although several studies have been conducted in developed than developing countries, there is little that explores issues of workplace support. In Uganda, a few studies have been conducted but none has focused on incorporating workplace and university support systems for in-service teachers. This study focuses on how the university and schools can make the learning experience of the in-service teachers conducive, fulfilling, transforming and relevant to their pedagogical practices.

It was imperative to explore the views of the different stakeholders to inform improvement and enhance quality in teacher training. This was achieved by introducing the idea of workplace (school) learner support which is thinly documented in the literature. Overall, the bottom line is to add new insights on learner support to inform decision making by universities, schools, the government and the community.

1.4 Five Research Questions

From my former experience as a distance learner, work experience with distance learners, and continued searching of the literature on learner support in distance education, several gaps appeared that became the basis from which the five research questions for this study were framed.

1. How do students and staff perceive the nature of learner support delivered by the university?
2. How do in-service teachers perceive the nature of learner support delivered by the schools where they work?
3. What perceptions do in-service teachers have about the quality of learner support delivered by the training university?
4. In what ways and to what extent are learner support services perceived to affect pedagogical practices of the in-service teachers?

5. What are the challenges faced by the university in managing and delivering learner support to in-service teachers on distance education?

1.5 Significance and Originality of the Research

The findings of this study make an important contribution to the field of teacher training using distance education specifically to teacher training institutions, teachers, scholars, researchers, government, community and the quality assurance managers in higher institutions of learning.

Firstly, the study is significant in that, it contextualises the meaning and practices of learner support in the Ugandan setting. Clarifying the practice of learner support (considering tangible and intangible support delivered to distance learners from the time of entry until the time of leaving the university) can inform planning for effective learner support provision. Once learner support practices are clear to the service providers, improved policy to support management and delivery becomes possible.

Secondly, this study provides empirical evidence on the nature and quality of learner support delivered to in-service teachers on distance education at the case study university in Uganda. This is based on findings obtained from the different groups of respondents including students, staff and headteachers. Since the selection of the case study was based on the university that has been running distance education for in-service teachers for at least 10 years with established study centres in all the four geographical regions of Uganda (see Figure 1.2 and section 4.3), it therefore reflects the state-of-the-art of learner support in Uganda. Though I do not claim that the results generally reflect the situation in all countries said to be developing, from the literature on Uganda (chapter 2), and my observations as a distance learner and practitioner in Uganda, the study's findings can be generalised to cover learner support in other universities in the country.

Thirdly, the study fills the knowledge gap that exists on the distance learners' perceptions of the quality of learner support from the training university and workplaces. For the learner support providers, this helps to devise means for a progressive learner support system. This is because the study aims at bringing out the views of the end-users (students) concerning their perceived quality of the support (Green, 1994; Owlia & Aspinwall, 1996). The research thus enables the distance education providers and managers in higher institutions of learning to reflect on their practices, underscore the good practices, and improve on areas of insufficient performance as they plan for the future.

Fourthly, the study findings reveal a range of challenges faced by the university in learner support management and delivery in Uganda that need redress. These challenges came from the university staff and students through interactive process during in-depth interviews and focus group discussions respectively. It is hoped that service providers will act on the revealed challenges to improve on their practices and nurture a sound learner support system.

Fifthly, at national level, the research findings are useful in the formulation and improvement on the policy on open and distance education. The national policy guidelines and framework are crucial for nurturing of meaningful distance education to be able to move from the first to the fifth generation of distance education (Taylor, 2002). Given that the national policy on distance education is currently lacking in Uganda, this study enriches policy makers' efforts (see sections 3.6 and 8.3).

To my knowledge based on literature search, no other study has investigated workplace and university support systems in managing learner support for in-service teachers in Uganda. In addition, it is the only study that has used a sequential explanatory mixed methods approach and longitudinal research design in investigating learner support practices in Uganda.

1.6 Synopsis of literature and theoretical framework

Brindley (2004) defines learner support as all interaction between staff of an institution and students aiming at satisfying their learning needs right from admission up to course completion. Building from Brindley's perspective; the concept of learner support in this study incorporates any assistance delivered to in-service teachers on distance education in terms of tangible and intangible resources to aid their learning and is reflected in the Inclusive Student Services Process Model (Floyd & Casey-Powell, 2004) which is the main theoretical framework underlying this study. This model has been analysed in chapter 3, and in the formulation of data collection instruments in chapter 4, its five phases of learner support (learner intake, learner intervention, learner support, learner transition, and measurement of effectiveness) were considered. The Floyd and Casey-Powell model explains the support process for a distance learner right from the time of enrolment on the course up to the time of finishing the course. This model was adopted for this study because of its insights in underpinning the broad perspective of learner support before, during and after completing the course hence capable of bringing out a fair picture of the whole learner support process in Ugandan universities.

1.7 Glossary of terms as used in this thesis

Quality: Quality has been defined as conformance to the requirements or standards that must be met to achieve specified purposes to the satisfaction of the customers (Green, 1994). In this study, quality is considered from the perspective of the learner by examining the learner's perception of quality of the support given by the university and the workplace (see section 3.4).

Students' Support Services: These are services delivered to distance education in-service teachers by the university and workplace to provide a conducive learning environment (see section 3.3).

Distance Education: Refers to the teaching-learning process where the learner and the teacher are greatly separated by time and/or space (Keegan 2000). Learner focus in this study is on in-service teachers who are up-grading from certificate to diploma, or diploma to degree level.

Distance Learners: These are students involved in distance education in the sense that in most cases the teacher and students are not in the same location at the same time (Keegan 2000). In this study, it refers to in-service teachers who are enrolled on diploma and degree courses at the university. The terms distance learner, trainee, student, and in-service teacher have the same meaning in this study.

Pupils: In this study, pupils refer to the children at primary school who are taught and guided by the in-service teachers.

Staff: Refers to the both academic and support emplyees of the university. The terms university staff, staff, lecturer, instructor, facilitator, tutor have the same meaning in the current study.

Ubuntu: Refers to the African world view of being humane with values of compassion, kindness, dignity, generosity, benevolence, care and respect for other people (Letseka, 2016). In this study, it encompasses the attitude of care and service to the students by university staff.

1.8 Synopsis of Research Methodology

I adopted a mixed methods approach to reap the combined benefits of quantitative and qualitative research methods (Creswell et al., 2003; Newby, 2010). The nature of my research questions demanded both quantitative data (questions 2, 3, and 4); and qualitative data (questions 1, 2, 3, 4, and 5). Quantitative data was collected in the first phase from a sample of 320 students during the residential face-to-face workshop held at the case study university. Qualitative data was collected in second and third phase using focus groups (involving

students) and in-depth interviews (involving university staff, and headteachers). Findings from the various methods used to collect the data were triangulated during the discussion phase (see chapter 7).

1.9 Layout of the Thesis

This thesis has eight chapters. Chapter 1 commences with the general introduction to the study giving the background, personal interest and motivation, the study purpose, and research questions. This is followed with significance of the research, synopsis of literature and theoretical framework, meaning of concepts, synopsis of research methodology, and a layout of the thesis.

Chapter 2 gives a synopsis of the context of Uganda which is the focus study area in terms of; the location, history, politics and the economy. This is followed by population and basic demographics, Uganda's education system, teaching in Uganda, In-service teacher training, Uganda Martyrs University (UMU) context, and In-service primary school teachers' programme at UMU. The key focus is on in-service teacher training and management of learner support in distance education.

Chapter 3 presents a review of the literature. The literature reviewed focuses on the following areas; pedagogical problems faced by primary school teachers that justifies the need for proper learner support, development trend in management and delivery of learner support in distance education, concepts of learner support, and quality in learner-support. This is followed with the theoretical and conceptual frameworks, the nature of learner support in distance education: insights from earlier studies, and challenges in managing and delivering learner support for in-service teachers on distance education.

Chapter 4 describes the research methodology used in this study. The key issues addressed include; the study scope and research questions, research approach, strategy and design, population and sampling procedures, instrumentation and data collection, data analysis and ethical issues. It justifies the choice of the research methods, indicates the strengths and weaknesses of methods used and proposes remedies for the weaknesses.

This is followed by chapter 5 with an analysis, presentation and interpretation of questionnaire results (mainly quantitative data). This has an introduction, respondents' distribution by gender, programmes of study, and school ownership; and focuses on three of the five research questions explored. These include findings on; descriptive statistics on learners' perceptions of

the nature of support from their workplaces, and learners' perceived effect of support on their pedagogical practices. This is followed by factor analysis of the learners' perceptions of the quality of support from the training university.

In chapter 6, analysis, presentation and interpretation of qualitative findings is the focus considering all the five research questions. This chapter presents the findings from the qualitative data collection methods used that include; in-depth interviews and FGDs. The presentation focused on all the five research themes ranging from; perceived nature of learner support services, learners' perceptions of the quality of support from the university and schools, the perceived effect of learner support on pedagogical practices, and challenges faced in managing and delivering learner support by the training university.

In chapter 7, an elaborate discussion of the research findings is presented. Triangulation of the quantitative and qualitative findings is presented and relationships with reviewed literature established. The findings are presented in accordance with the main research themes derived from the study questions.

In chapter 8; summary, conclusions and recommendations of the study are presented. A summary of conclusions is followed by the study's contribution to knowledge, framing recommendations to inform policy, practice and further research; a critique of the study and the chapter ends with my final thoughts.

CHAPTER 2: EDUCATIONAL CONTEXT OF UGANDA

Investment in quality educators has a very high multiplier effect: every good teacher benefits an entire class, year after year, and when those better educated pupils become parents they will likely demand a good education for their children, further strengthening the educational system in general.

(Oxfam, 2010 p.1)

2.1. Location, history, politics and the economy

The Republic of Uganda is a land-locked country bordered by Kenya, Tanzania, Rwanda, South Sudan and Democratic Republic of Congo. A substantial part of the Southern part of the country is occupied by Lake Victoria which is shared with Kenya and Tanzania (Appendix 1). Uganda straddles the equator with varying vegetation dominated by savannah with pockets of tropical rain forest in the South and Semi desert vegetation in the North East (Ministry of Education & Sports, 2013; UNESCO, 2013).

Uganda was a British colony from 1894 up to 9th October 1962 when it got independence. It has several administrative units including 112 districts, 181 counties, 1,382 sub-counties, 22 municipalities and 174 town councils. These make up the four geographical regions of the Western, Northern, Central and Eastern Uganda (Uganda Bureau of Statistics, 2015). English has remained the official language since colonial time though Kiswahili is being encouraged in an effort to nurture and promote the East African Community.

The level of economic growth has been fluctuating with an average annual growth rate of 7% in 1990s and early 2000s; 4.5% from 2002 to 2006, 5% in 2017, and projected to be above 6% by the end of 2018 (World Bank, 2016). The same source attributes the period of economic slowdown (2002-2006) to poor political unrest in the neighbouring South Sudan, unfavourable weather conditions and misuse of resources in the public sector. Being a dominantly agriculture dependent economy, poor weather with long drought periods affects production. The political atmosphere in Uganda's neighbouring countries influences the country's production. For example the civil wars in South Sudan had adverse effects on the market of Uganda's products up to 2006. Misuse of public sector resources refers to selfishness among some civil servants who are corrupt and use public resources for personal gains. Such practices necessitate strengthening the performance of government agencies dealing with the monitoring and evaluation of public sector performance such as office of the Inspector General of Government

(IGG) and the Public Accounts Committee of Parliament (PAC) to ensure proper utilisation of resources to benefit the public.

The World Bank (2016b) indicates a substantial decline in the number of persons living below the international poverty line in Uganda evidenced by figures reducing from 31.1% (2006) to 19.7% (2013). Nevertheless, compared to countries like Malaysia and South Korea with 3.3% and 6% of the population below the poverty line respectively (UNESCO, 2013), Uganda's situation remains appalling. Those countries were at the same level of development with Uganda in 1960s.

2.2. Population, basic demographics and Internet penetration

Uganda has a population of about 37.7 million people (52% female and 48% male) (Uganda Bureau of Statistics, 2018). This is a substantial increase in a period of 4 years from 36.6 million people, 85% of whom live in rural areas with population growth rate estimated at 3.3% (Uganda Bureau of Statistics, 2014). The young population ranging from 0-14 years of age dominate with 50% of the total population; followed by 48% adults ranging from 15-64 years, and a small ageing population of 2% with 65 and above years (Uganda Bureau of Statistics, 2018). Such a big young population necessitates increased investment in the education sector if their productive capacity is to be enhanced for socio-economic development of the country's economy. Statistics indicate that in Uganda, life expectancy is 63.3 years, dependency ratio is 56 percent, and average household has 5 persons (Uganda Bureau of Statistics, 2017a). Education if well managed, can be pivotal in nurturing a quality population to transform the development trend of Uganda by reducing the dependency level, fighting the HIV scourge and increasing income levels.

Regarding internet penetration, the use of ICT and the internet in particular is central in the transformation of the country's economy in terms of knowledge acquisition and dissemination. Until 2009, Uganda depended on satellites for international connectivity (Lancaster, 2018a; Uganda Bureau of Statistics, 2017b). The same sources contend that Uganda's connection to optic fibre cables has led to price reduction on international bandwidth. Additionally, the use of mobile technologies and wireless are enabling many Ugandans to access the internet. Lancaster (2018b) argues that increase in internet bandwidth through the use of international cables has led to internet price reductions and to individuals having social benefits like using the internet in banking, paying school fees and m-commerce services.

By 2014, only 26% of the people in Uganda were using the internet out of which 21% were residing in urban, and 5% residing in rural areas (Uganda Bureau of Statistics, 2017). Research indicate that there is a direct relationship between the level of education and internet use in Uganda ranging from 2% among the uneducated people to 50% among the population with post-secondary school education (Uganda Bureau of Statistics, 2017b). According to United Nations Department of Economic and Social Affairs (2017), only 31.3% of the Ugandans have access to the internet which is on a steady increase since 2010 when only 9.6% of the population had access to the internet.

In terms of mobile telephony ownership, by 2014, 84% of the urban population had mobile telephony compared to 58% of their rural counterparts in Uganda. There is an indication that mobile telephony ownership is low among the uneducated (23%), and higher among the educated with post-secondary school education (90%) (Uganda Bureau of Statistics, 2017). With low penetration of fixed-line infrastructure, the mobile infrastructure has attracted many customers to provide voice and broadband services. Although Lancaster (2018c) posits that the licensing regime has reduced internet costs to increase national internet coverage, the recent introduction of daily tax to access social media (ULII, 2018) could reverse the trend. This is because many people do not have daily incomes to meet the new tax levied.

2.3. Uganda's education system

Although Uganda's education system had a high reputation in the East and Central Africa after its independence in 1962, the political conflicts of 1970s and 80s had adverse effects on the political, economic, and social life, and the education system (Altinyelken, 2010). The reputation of the education system could be attributed the fact that the only university in the East African region at that time (Makerere) was located in Uganda. The economy started stabilising both politically and economically in the late 1980s that served to revive development and improvements in the country's education system. Education was thus used as a tool to unite the people and boost growth of the national economy (Higgins & Rwanyange, 2005).

The legacies of colonialism are still important in the education system of Uganda especially with regard to the phases of pre-primary, primary, secondary, and tertiary education. It is structured in four levels starting with the non-compulsory pre-primary phase that enrols children of 3-5 years of age (3 years-baby class, 4 years-middle class, and 5 years-top class). This is followed by 7 years of primary school education (6-12 year olds); 6 years of secondary

school education distributed into 4 years of ordinary secondary (13-16 year-olds) and 2 years of advanced secondary education (17-18 year olds). The last phase is of 2 to 5 years of post-secondary school or tertiary education (Ministry of Education & Sports, 2013; UNESCO, 2014). The implication is that the pattern of education system introduced by the British colonialists and missionaries in the late 19th century still exists in Uganda.

The pre-primary school phase is managed by private school investors (individuals and religious denominations) and mainly found in urban areas where there are middle class parents that can afford to pay for the education of their children. In the rural areas, parents enrol their children directly in primary one at the age of 6 to benefit from free primary school education provided by the government. In addition to the public schools run by the government, there are private schools at both primary and secondary levels in Uganda. However, the later are mainly found in urban areas with parents on regular wage employment that can afford to meet the educational expenses of their children.

Relating to expenditure on education, the Ministry of Finance, Planning and Economic Development (2017) indicates that 11% of the 2017/18 national approved budget (2,414.389 billion shillings) and 11% of the 2018/19 projected budget (2,776.533 billion shillings) were apportioned to the education sector. This indicates the equivalent of about GBP 0.50299 billion in 2017/18 and GBP 0.57844 billion in 2018/19 budgets. Although the figures show a slight increase, percentage allocation of the total budget for education is still low. An annual deficit of 507.5 billion shillings (equivalent to about GBP 0.1194 billion) has been noticed (Uganda Bureau of Statistics, 2015). Within the primary school system, research shows leakage in resources through ghost teachers (non-existent), misuse of funds by district officials and high levels of absenteeism in schools by pupils, teachers and headteachers (Winkler & Sondergaard, 2008). There is indication of misuse of public funds within the entire chain of education service delivery. A similar practice has been termed 'poor execution of public projects' in Uganda by the World Bank (2016b). The implication is that the proper use of resources and effectiveness of education service delivery is severely limited by the selfish motives of some public service workers using public funds for personal gains.

In order to ascertain the quality of education provided at each level of the education system in Uganda, periodic assessment of students is conducted both at school and national levels. Each year, at primary and secondary school levels, a national assessment of progress in education is conducted by the Uganda National Examinations Board (UNEB) (UNSECO, 2014). My

concern relates to the limited action taken on the annual findings. Efforts are taken to assess the learning but an equivalent package of output on actions taken is hardly seen on the ground. In line with the above quotation (Oxfam, 2010 p.1), this necessitates allocating and committing more productive resources by the government to improve on education service delivery for national development in the twenty first century.

2.4. Teaching in Uganda

A grade III certificate is required to gain qualified teacher status at primary school level and at least 6 passes with a credit in Mathematics, English, and one Science subject to enrol at a primary teacher training college (Marphatia, Legault, Edge & Archer, 2010). At certificate level, teacher trainees are taught fulltime at the training college for a period of two years with a break of school practice at the end of each academic year. After a working experience of at least two years, Grade III Certificate holders have the opportunity to up-grade and obtain Grade V Diploma. Since the students are mostly working people, the usual option available in Uganda is to enrol on distance education for diploma and proceed to the degree level at the university. As remarked by Basaza et al. **(**2010), distance education is an alternative for those who are unable to enrol on full-time post-secondary education. For improved learner support in Uganda, Wambugu and Kyalo (2013) suggest a paradigm shift in the ways of understanding and operating teacher training by both the in-service teacher and teacher trainer who are used to on-campus delivery system. This necessitates regular training and sensitisation of both the trainees and trainers to appreciate, adopt and adapt distance learning and related learner support practices.

Teachers in Uganda are so poorly paid that it derails their morale and professional performance (Nalugo, 2014). Similarly, Bunoti (2010) posits that education is among courses chosen by students as a last resort in Uganda due to both poor remuneration and demanding to study and practice. The salary structure for public service for financial year 2018/2019 indicate that the primary school teachers are poorly paid in relation to most other Ugandan jobs (Ministry of Public Service, 2018). Bunoti (2010) further remarks that teachers are burdened with time and energy demanding tasks like preparation of lessons, continuous marking, and disciplining of pupils. To attract quality students to the profession, the Ugandan government need to improve teachers' salaries and schools to provide an enabling environment for the teachers' survival and work.

Teachers decided to unite under Uganda National Teachers Union (UNATU) with the ultimate goal of promoting their socio-economic welfare. Although UNATU membership is open to all teachers, it has only attracted a portion of teachers in public schools that are paid by the government. This could be attributed to the mandatory monthly monetary contributions made by members and deducted at source when salaries are paid to civil servants. It is also common for those in government to accuse vocal union members of being used by opposition political parties to influence other teachers to participate in strikes and discredit the ruling political party which discourages some teachers to actively participate in union activities. The inability to attract all teachers weakens the union's efforts especially in agitating for improved pay due to lack of a common voice. Teachers in private schools have also set up their own association called Coalition of Uganda Private School Teachers Association (COUPSTA) with the goal of bringing together teachers, parents and learners to promote quality education. Unlike UNATU, the operations of COUPSTA are limited with minimal impact on the welfare of the teachers. This is because the private sector employment is on fixed terms in Uganda. The challenge is that there is limited political will to support trade unions in Uganda though the unions exist and are legally registered as Non-governmental Organisations (NGOs).

The social and administrative structure in the Uganda's education system like in several developing countries (Mohammad & Harlech-Jones, 2008) is hierarchical emphasising a top-down approach. The headteachers in the primary schools though expected to devolve their powers and work in consultation with their staff, they tend to be at helm of decision making. The hierarchy is often displayed on office notice-boards so that the chain of command right from the headteacher, deputy headteacher, and director of studies, senior man and senior woman teacher, class teacher, up to the pupils' administration is clearly displayed and known to the school community and general public. This is believed to aid propagation of social harmony and directing accountability chain in the reporting system.

Furthermore, the pupil-teacher ratio is quite high in Uganda's primary school education (Hartwell et al., 2003). Although the recommended class size is 40 pupils, it is common to find classes of 100 plus pupils in several primary schools each handled by a single teacher at a time (Kewaza & Welch, 2013). The teachers working as subject content experts and counsellors are overwhelmed by big class sizes. In addition, Kalinaki (2000) observes that schools with high pupil-teacher ratios performed poorly. The poor performance has been attributed to the use of teacher-centred methods, limited reading materials, pupils distracting each other, and limited space for each pupil. The teacher-centred methods could be linked to the old-fashioned

believe that looks at the teacher as the source of knowledge and the pupils as mere recipients (Freire, 1972).

Concerning teachers' career and professional development, apart from the short irregular refresher workshops organised for teachers in their localities during the holidays to discuss some salient issues to improve on teaching and learning organised by the local government, investment in professional growth like acquiring further qualifications in teaching is entirely borne by the teacher. Most in-service teachers training for professional growth meet their own tuition and other university requirements. What is not yet streamlined is the absence of automatic increase in the pay level upon attaining a higher qualification. As observed by Aguti (2002), teachers who have up-graded have had problems with salary adjustment to match their new achievements. The Ministry of Education does not ensure automatic salary adjustment for teachers who have obtained higher qualifications. This practice does not only demoralise but also demotivates the teachers who would wish to up-grade.

2.5. In-service teacher training in Uganda

In-service teacher training is believed to have started as early as 1957 in Uganda. It was referred to as correspondence study and was used to up-grade Grade III teachers to Grade V (Senkomago, 2004). This programme did not have adequate study materials and support to the learners and hardly survived beyond 1962. Literature indicates (Bbuye & Mango, 2005; Senkomago, 2004) that in the 1960s, Makerere University trained teachers on distance education mode and could use 'the people' newspaper to print and distribute the reading materials. Bbuye & Mango (2005) further claim that in addition to upgrading of Grade III teachers to Grade IV, other correspondence courses included good letter writing and the clerical entrance course. It is not clear on how the learners sent their work for marking and how they obtained feedback from the trainers. The training programme lacked clear direction given that the trainers like their students, had limited knowledge and skills in running correspondence courses.

With external funding, the Ministry of Education through Kyambogo University improved distance education services for teachers in the 1990s. Notable among these teacher training projects (Aguti, 2003; Bbuye & Mango, 2005) included: the Mubende Integrated Teacher Education Project (MITEP), the Northern Integrated Teacher Education Project (NITEP), the Rakai Integrated Teacher Education Project (RITEP), and the Teacher Development

Management System (TDMS). All these short teacher trainings aimed at equipping in-service teachers with relevant skills to improve the quality of primary school education in Uganda.

In the wake of liberalisation of the economy in 1990s, several private universities came on board to provide distance education to in-service teachers at diploma and degree levels. Notable among these private universities include; Uganda Martyrs University (UMU), Busoga University (BU), and the Islamic University in Uganda (IUIU) (Binns & Otto, 2006; Senkomago, 2004). These universities mainly rely on printed course materials in the form of modules, and short face-to-face sessions for learner support. In their studies, in-service teachers undertake activities like; collecting and reading modules, doing coursework assignments, attending field support and regular face-to-face sessions, sourcing information from the library and electronic sources, discussing with peers, consulting tutors, and doing examinations at the end of every semester. The use ICTs is being encouraged such as cell-phones and computers to facilitate research and communication. However, only 8.5% of the 19,718 schools included in the national wide survey have computer laboratories and mainly located in urban areas (Ministry of Education & Sports, 2016). The implication is that about 64.5% of the teachers who are in rural-based schools have limited access to computer facilities in their schools (Ministry of Education & Sports, 2016).

The limited provision of basic tele-communications infrastructure and connectivity both at country and institutional level remains a problem in managing and delivering support to teacher trainees in Uganda. The government set up the National Council of Higher Education (NCHE) to set the minimum standards for universities, assess university courses and facilities in order to ensure that set standards are not only achieved, but also monitored and maintained for provision of quality services. The challenge is that there is limited training of NCHE staff focusing on distance education delivery which limits their work effectiveness.

Research findings seem to contradict the trend in numbers of students enrolled on distance education in Uganda. Whereas Matovu (2012) observed a declining trend in enrolment, several commentators (Aguti, 2006; Basaza et al., 2010) argue to the contrary. The market dynamics in the search for quality education amidst competition where some universities are judged to be better than others in Uganda, could explain the inconsistency in the research findings. These were studies done at different times and sampled different institutions some considered to be better by the public and attracted more students than others. Nevertheless, there has been a general increase in the number of students enrolling on the distance education mode in Uganda.

For example; at UMU, the number has increased from 500 students (Lejeune, 2005) to over 2500 students (UMU, 2015). The increase is attributed to the need for job security, reducing on the high education costs, ensuring family stability, and continuing to serve the community unlike full-time programme that would withdraw one from his/her community (Senkomago, 2004). It could be rightly argued that the practice is strengthened by the strong social ties and extended family culture of the Ugandan society such that the family, especially the children, spouses and elders, are not denied of their continuous services from the adult member studying.

As noted by Binns and Wrightson (2006), in Uganda like most African countries, there is lack of recent research evidence on primary teacher training on the distance education mode produced by nationals. Similarly, Perraton, Creed and Robinson (2002) allude that such limited research efforts in distance education in the developing world are attributed to lack of funding, limited expertise and un-developed research culture. Even though there is lack of recent local research evidence on issues of primary teacher training (Perraton et al. 2002), I do acknowledge local researchers efforts (Aguti, 2006; Basaza, 2006; Bbuye & Mango, 2005; Matovu, 2012; Muyinda, 2012; Ngobi, Otaala & Bakaira, 2011) that have highlighted the salient challenges of distance education teacher training in Uganda. Among the challenges highlighted in their research work include; limited knowledge and skills of lecturers, limited provision and use of modern technologies in classroom delivery, big numbers of students versus limited facilities, lack of computer knowledge by students, and limited non-academic support.

In her paper entitled 'International distance education trends and issues: Open and distance learning teacher education in Uganda, 2008, DeVary observes that in order to improve teacher training at a distance, the course developers should consider the cultural environment, trainers need to adopt learner centred teaching techniques, there should be means of evaluating support systems, and focus should be on problem solving and interpersonal skills development. The implication is that to have substantial impact, the courses developed and means of delivery in distance education should suit the learners in their environment (Ugandan context) in addition to learning the new trends in distance education from elsewhere.

2.6. Uganda Martyrs University (UMU) Context

UMU started in October 1993 with 84 students housed in the Faculty of Business Administration and Management; and Institute of Ethics and Development Studies (Lejeune, 2013). Its main campus is located in the central region of Uganda about 85 kilometres from Kampala capital city with other campuses spread in the four geographical regions of Uganda

(see Figure 1.2). UMU has six faculties, three schools and two institutes, of which four faculties are involved in the provision of distance education. These include; the Faculties of Education, Arts and Social Sciences, Business Administration and Management, and Agriculture.

Distance education at UMU aims at meeting working peoples' educational needs without having them to leave their jobs. As noted by Professor Lejeune, the pioneer Vice Chancellor of UMU; distance education courses started with the students of health service management after realising that some of them who enrolled on full time programme, were replaced at work stations when on their studies (2005). The university then started a banking management course for bank employees, and micro-finance course for employees of micro-finance institutions. This was followed by democracy and development studies, human rights and community development mainly targeting civil servants and the NGO world. Faculties of education and that of agriculture also joined the distance education provision targeting teachers and agriculture practitioners respectively. Currently, UMU has 14 distance education courses housed in the Faculties of Education (4), Business Administration (2), Agriculture (2), and Social Sciences and Arts (6) (see appendix 2). In terms of academic level, 2 courses are at masters, 7 at bachelors, 1 at post-graduate diploma, and 4 at diploma level.

Although the use of ICTs like cell-phones and computers is steadily growing, the delivery of distance education courses has relied mostly on the use of printed modules and residential face-to-face workshops at UMU. While referring to universities in Uganda, Lejeune (2005) posit that nobody can doubt the power of IT in the development of distance education, but care should be taken to manage the little you have in such a way that it remains manageable. The statement suggests the need for proper planning and application of technologies so that distance education systematically develops especially in the young but developing private universities in Africa.

In terms of quality assurance systems, UMU has an institutional quality assurance policy (UMU, 2015) and distance learning policy (UMU, 2010) that provide guidelines for the management, monitoring and operationalisation of distance education. The distance learning policy clearly spells out the role of the different actors and need for concerted efforts among stakeholders in the implementation of distance education. The challenge I have observed is that though the policy exists, putting it into action is still lacking.

2.7. In-service primary school teachers' programme at UMU

There are two programmes for in-service primary school teachers at UMU run on distance education mode. These include a Diploma in education – primary, and Bachelors of education - primary. Students on distance education are given course materials (modules), read and do assignments, and send their work for marking by the staff. Staff mark and make comments on each student's work, and send the marks and marked scripts to the faculty administrators for recording, storing and presentation to the Faculty Board. Whereas the approved results are posted to the students, the written comments are given during the face-to-face period before the students sit for end of semester examinations. The students are encouraged to consult their tutors and get clarifications where they may not be contented. They also have right to appeal for re-marking if not convinced by the tutor's feedback, but at a fee set by the university. However, cases for re-marking are rare. On a positive note, while referring to UMU, Byaruhanga (2008) posits that in-service training has given academic empowerment to the primary school teachers and raised the quality of education especially in the rural schools in Uganda. This because the in-service teachers continue working as they study hence able to maintain family earnings and care (Byaruhanga, 2008). Although working and studying at the same time may not necessarily reflect the quality of education as alluded by Byaruhanga, it is likely to empower and improve on the academic and social life of the trainees.

The Faculty of Education handbook 2015/2016 highlights that the distance education courses cover subjects taught at primary school level plus professional subjects for teachers. These include; teaching English language, mathematics, integrated science, social studies, moral and religious education, performing arts, physical education, music and agriculture. The professional areas include; educational foundations, effective teaching and learning methods, curriculum development, special needs education, and education for national integration and development (UMU, 2015).

Face-to-face residential workshops are organised every semester for the students to physically meet their lecturers and peers in a learning environment. Students also study individually, form discussion groups clustered according to where they live, and get field support from the staff. The students are encouraged to use the regional study centres to collect modules and coursework assignments, hand-in their coursework, and access ICT facilities. The study centres are university establishments, at least one in each of the four regions of the country (eastern, northern, western and central). The study centres are staffed by the university and used as

venues for field support. However, service delivery at the study centres is limited by the challenges of unreliable internet connection and power supply.

The Faculty of Education mainly relies on part-time facilitators and organises annual short refresher workshops to equip them with the necessary information on distance education. Byaruhanga (2008) observes that course facilitators are selected based on their subject specialisations, academic attainment and ability to teach adult learners. Though some of the facilitators have limited prerequisite skills in distance education, I appreciate the practice of having annual refresher training in ethical practices and facilitation skills organised by the university. It is an indication that efforts are being taken to improve quality of learner support by re-skilling the facilitators.

CHAPTER 3: LITERATURE REVIEW: WHAT IS KNOWN

No education system is better than its teachers, often say global leaders and educationalists. The high performance of some education systems corroborates this statement: no short-cut to quality of teaching and learning without the quality of teachers. Given that the world does indeed expect a lot from teachers, do we pay enough credit to our teachers and to the teaching profession? And are we doing enough to attract the best to educate our children, our future leaders and the generations of tomorrow?

(UNESCO, 2012 p.1)

3.0 Introduction

The citation above indicates the central role of the teacher in any education system. It underscores the need for continuous training of teachers to ensure steady progress in the quality of teaching and learning. In order to cater for the training and professional development of teachers, the use of distance education has emerged and evolved in different countries. This study focuses on managing and delivering learner support for in-service teachers on distance education in Uganda. Consequently, it underpins the involvement of the teacher training institutions, the schools, and the in-service teachers in shaping learner support to nurture quality learning. Several studies show that distance education has evolved through a series of generations with varying experiences in several countries (Anderson & Simpson, 2012; Bates, 1990; Nipper, 1989). The variations in experiences is based on the development and level of adoption of modern technologies in enhancing learner support delivery. Bates (1990) further highlights that many universities especially in the developing world have tended to focus on attracting numbers of students, but less attention given to issues of ensuring quality learner support. This has often led to compromising quality with numbers which endangers the country's education system and the international community in this age of educational internationalisation and cross-border education.

Regarding learner support, a review of the literature established some gaps. There is limited research on workplace-based learner support for in-service teachers in the literature on learner support. Likewise, limited studies have critically considered the relationship between the two constructs of learner support and learner pedagogical practices in primary schools. In the case of Uganda, no recent study has investigated the in-service teachers' perceptions of the nature

and quality of learner support to bring out the voice of the end users. It is the ultimate aim of this study to fill the gaps identified in the literature.

The Literature review chapter starts with an introduction and moves to pedagogical problems faced by primary school teachers in Uganda. It then considers the development trends in distance education and learner support, and the meaning of key terminologies in the study specifically the concepts of learner support, and quality in learner support. The literature then explores the theories of learner support in distance education with specific emphasis on Inclusive Student Services Process Model (Floyd & Casey-Powell, 2004). This is followed with an analysis of the nature of learner support in distance education: Insights from earlier studies, and the challenges faced in managing and delivering learner support for in-service teachers on distance education. The chapter ends with a summary of the main contents reviewed.

3.1. Pedagogical problems facing primary school teachers in Uganda

Improving the quality of education was the gist of the discussion for the Forum on Education in Dakar (EFA GMR Team, 2014; World Education Forum, 2000). This implies that providing quality education is a world-wide concern and Uganda's involvement is inevitable if we are to attain the UN's SDG 4. A number of research studies reveal the need to improve pedagogy in primary school education and cater for training needs of the teachers in educational development of East and South African countries (Altinyelken, 2010; EFA GMR Team, 2005; Hardman, Ackers, Abrishamian, & O'Sullivan, 2011). Improving on teacher training is necessary for improved classroom management, control and delivery at the primary school level. The rationale is that pedagogy improvement leads to improved pupils' retention, performance and achievement (Akyeampong, Pryor & Ampiah, 2006; Aslam & Kingdom, 2007; Mulkeen, 2010). Similarly, UNESCO (2010) commends that at national level, the government should enact policies and programmes that cater for an improved learning environment for both advantaged and disadvantaged pupils. Relating to Uganda, several commentators (Alexander, 2001; Avalos, 2011; Heynemann, 2009) advocate for the need to ensure a proper mix of issues specific in Uganda's culture and those from the international world relevant to teacher training for meaningful pedagogical outcomes. This view is supported by Clarke and Otaky (2006) who argue that issues of culture and their integration in pedagogy should be clearly understood and carefully handled to avoid reducing people to cultural dupes. The phrase 'cultural dupe' refers to the perception that the some people blindly and passively

follow the dictates of their cultural norms (Clarke & Otaky, 2006; Cook, 2006; Campbell, 2005).There is need to appreciate that culture is evolving and dynamic but whether it is tied to those who cherish it may not be the main issue, but how it mingles up with the elements of pedagogy to improve classroom teaching and learning. The implication is that the idea of learning best educational practices from elsewhere and integrating them with what you consider your best may breed a hybrid pedagogy leading to improved classroom learning and achievement.

Several studies have revealed that improving teacher pedagogy, education quality and classroom delivery has been a concern of the government of Uganda evidenced from the Teacher Development Management System (TDMS), which aimed at addressing inherent weaknesses in classroom pedagogy (Hartwell, Ong'uti, Aanyu, O'Sullivan, & Ojoo, 2003**;** Mattson, 2006; Ministry of Education & Sports, 2008; Penny, Ward, Read, & Bines, 2008). This is in line with earlier argument of Heyneman and Loxley (1983) who posit that the quality of the school and teachers predominantly influence the pupils' learning and achievement. This acts as a pointer that improved pedagogical practices accelerate progress in teaching and learning whereas limited focus on improving pedagogy demean the quality of classroom delivery.

What is pedagogy in the context of this study? According to Smith (2012), pedagogy is the process of accompanying learners by walking with them in the learning process; caring for them by working with them as they learn; and bringing learning into life by working alongside them to ensure harmony, progress and quality teaching-learning process. Additionally, Alexander (2000) posits that pedagogy involves the teaching act, the modes of teaching, policies, **t**heories and beliefs that inform and shape the teaching and learning. It is important to note that the learner is the central figure in teaching and learning hence should be the key focus of pedagogy. Freire (1972) remarks that pedagogy should not be taken as a mere depositing of knowledge into the pupils as empty vessels but enabling them to learn as co-creators of knowledge. The aim is to improve on the teachers' professional skills and turn them into effective and efficient classroom performers for the benefit of the pupils. This notion would imply that if other things remain unchanged, then the success or failure of the classroom delivery is proportionately determined by the level of the teacher's pedagogical skills. Considering Uganda's education system, the primary school teacher is faced with a number of pedagogical related problems which are discussed below.

Big class size management poses a key problem in primary school pedagogy in Uganda (Hartwell et al., 2003). Broadly, research evidence indicates that the problem of big classes with less than proportionate number of teachers and resources is seen at the global level but more pronounced in developing world (Gove, 2015; Luschei & Chudgar, 2015). The question of whether the class is big or small differ between countries with an acceptable class size of 25–30 pupils in the UK (Smith & Warburton, 1997), 60 pupils in developing countries (Vale´rien, 1991), and an average of 43 pupils per class in African countries (UNESCO, 2001). In Uganda, the recommended class size is 40 pupils but a range of 40-60 is acceptable in principle. However, it is common to find classes of 100 plus pupils in several primary schools in Uganda! Kewaza and Welch (2013) indicate that several stakeholders especially teachers, parents and pupils have complained of the big class sizes that constrain teaching methods and materials, and diminish teacher's morale in Uganda. Conversely, Welch (2009) argues that reading is a silent game in one's mind hence can take place regardless of the class size. Though there could be limited evidence from the developing world, common sense in educational debate seem to accept that the smaller the class size, the more effective the teaching and learning (Blatchford & Mortimore, 1994; O'Sullivan, 2006). In reality, with reference to the Ugandan education system, common sense may not necessarily mean common practice. It remains a serious pedagogical challenge for a rural-based primary school teacher in Uganda, to appropriately package the subject content and deliver it to yield quality learning in the seemingly abnormal class sizes.

A number of studies have found limited development of literacy and numeracy skills like speaking, listening and writing a key pedagogical problem in Uganda and other developing countries (Burgoyne & Hull 2007; Hardman, 2015; Hartwell et al., 2003; Zhang, 2006). Considering the extensiveness of research on literacy, the literature cited in this study relate to Uganda and other developing countries facing similar pedagogical problems. In a study conducted by the Uganda National Examination Board on primary three and primary six pupils, it revealed low competency levels in literacy and numeracy of only 38% and 30% of the set targets respectively (UNEB, 2005). Such poor performance in literacy and numeracy are a global concern and they require concerted and sustained efforts to avert the situation especially in the developing world (EFA GMR Team, 2014). Studies conducted in other developing countries like Egypt, Kenya, Malawi, Nicaragua and Philippines have also revealed that poor development of pupils' numeracy and literacy skills have adverse effect on classroom pedagogy (Gove, 2015). For example; the inability of pupils to recognise syllables and read

words, poor vocabulary and comprehension, limits their engagement in languages (English or native languages) and other areas of the curriculum involving learner participation. The idea is that pupils lacking good literacy skills find it difficult to express their views in the learning environment.

Conversely, in Uganda, Hardman et al. (2011) posit that the Ministry of Education and Sports through Education Sector Strategic Plan (2007–2015) has initiatives on literacy, numeracy and life skills development. This gives hope for improvement in literacy and numeracy as key pedagogical issues but, the challenge remains, the level of government's commitment and attachment of resources to the implementation process. While referring to Sub-Saharan Africa including Uganda, Zhang (2006) puts emphasis to devote more reading attention on pupils from rural areas. Though the problem of reading could be more acute in the rural areas, I think it should be considered at national level, and performance targets set for every school and class regardless of the location for sustained national improvement. Research findings (Kewaza & Welch, 2013; Manana, 1992) could be a fair pointer to the source of the problem; they found a serious shortage of basic instructional materials for social studies in Primary Teachers' Colleges in Uganda. The implication is that if the teachers themselves are ill-trained, how about the products of their work? The need for general re-tooling of teachers to effectively address issues of learner skills development in literacy and numeracy could be ideal for improved pedagogic practices in Uganda. I do find Kaplan's (1986) view that inability to learn to read by the end of Primary one is likely to lead to later academic failure as a suitable concern and pertinent to Uganda in an effort to improve teaching in primary schools.

Munene (1997) found that poor time management by the pupils, teachers and headteachers poses a pedagogical challenge in Uganda's education system. Reducing teacher absenteeism by 20 percent can save 12 billion Uganda Shillings that could have been used to hire 5,000 more teachers (Winkler & Sondergaard, 2008). Although the researchers' finding on the issue of absenteeism was spot-on, their view on monetary estimates may give an impression that many teachers do not want to work yet the reality is that many have to look for other means to supplement the meagre salaries for family survival. This is supported by Nalugo (2014) who reported that even with an increase in the starting salary of the primary school teacher from Uganda shillings 227,240 to 279,145 per month in 2014/15 financial year, the increase remained insignificant in real terms. Even after the proposed increase, the teacher earns a meagre salary equivalent to only about £50 per month. In contrast to Winkler and Sondergaard (2008) observation on absenteeism; Hartwell et al. (2003) posit that during their field study to

several schools in Uganda, they witnessed teachers and learners working as per the set schedules and fully engaged in the teaching and learning. This is an indicator of a good practice in some primary schools but, the magnitude of the practice cannot be ascertained in terms of the percentage of schools visited in relation to the total number of schools in Uganda.

Lack of effective dialogue between teachers and pupils poses a threat to pedagogy improvement in primary schools in Uganda. Barrett (2007) raises the need to go beyond considering pedagogy as being learner or teacher centred if developing countries are to improve on learning in schools. Similarly, Alexander (2008); and Hardman et al. (2009) claim that dialogue and discussion can be instrumental in improving classroom teaching in many African classrooms if considered alongside the traditional classroom drilling and closed questioning. Nevertheless, Hardman et al. (2009) indicate better learning where teachers interacted with the pupils and allowed learners to work in groups in some primary schools in Uganda. Such schools and teachers are commended and ought to be imitated by others. For more significant outcomes, the practice of learner involvement should be inculcated by teacher training institutions and transferred by the trainees to their respective workplaces.

A number of studies found a high drop-out rate in Uganda's primary schools as only a half of all children who enrol in primary one complete the primary school cycle (Ministry of Education & Sports, 2008; O'Sullivan, 2010; UNESCO, 2011). Are the teachers free of blame in relation to the many children who do not complete their primary school cycle? Whereas O'Sullivan (2006) attributes the high dropout rate of pupils to poor deployment of teachers in schools and classes, other commentators (Birdsall, Levine, & Ibrahim, 2005; Davico, 1990; Hanushek, Lavy, & Hitomi, 2008) put the blame on poor quality of the school, poor teachers' qualifications and inadequate support given to the children by their teachers. Unfortunately, Sub-Saharan Africa (Uganda inclusive) accounts for the highest global percentage of children who are out of school (EFA GMR Team, 2007). Worse still, Guarcello, Lyon, and Valdivia (2015) identified a challenge of working children whereby work interferes with the pupils' ability to learn effectively in Sub-Saharan Africa and Uganda being one of the most affected countries. This needs policy intervention to guide and improve the training of teachers to acquire appropriate skills to manage the pupils and parents in a friendly environment for improved pupil retention and learning.

Hartwell (2003) points at inadequate child mentoring knowledge and skills among teachers and experienced teacher educators as a pedagogical problem in Uganda. This is reflected in the

poor mentor-mentee relationship between the teachers and pupils respectively. The teacher's lack of mentoring skills limits the social, psychological and emotional development of the pupils hence reducing their motivation to learn. Mentoring is very challenging in a class environment of children with varying ages which is a common phenomenon is several schools in Uganda. Although the primary one enrolment age is 6 years, some children enrol before and some after the required age and they are all taught in the same class especially in rural areas (Uganda Bureau of Statistics, 2010). The implication is that the teacher in such a situation needs a bonus skill in counselling and guidance to ensure harmony and effective delivery in the classroom.

Furthermore, Hartwell et al. (2003) raises the pedagogic challenge of striking a balance between memorisation and critical thinking among the pupils in the school environment dominated by rote methods. Additionally, Somerset (2011) remarks that primary leaving examinations tend to exert much pressure on teaching-learning process in many sub-Saharan African countries with emphasis on memorising and recalling facts. Uganda is no exception to this unhealthy pedagogical practice which has been embedded in the primary school education culture (Avalos, 2011; Kanjee, Sayed, & Rodriguez, 2010). This is substantiated by Nshemereirwe's (2011) positing that the problem with the examination system in Uganda is its focus on the ability of the child to remember and reproduce what he/she has learnt and make good grades for the self and the school. Schools work hard to emerge on the list of the top performing schools in the country based on the performance in national examinations and teachers continue drilling the pupils to ensure that they reproduce what they are taught. This leads to cram-work and limits critical thinking, analysing and understanding hence impeding the pupils' learning.

Several commentators (Arthur & Martin, 2006; Hornberger & Chick, 2001; Nyaga, 2013) argue that teachers experience a problem of coping with the official policy of teaching the primary school curriculum in English which is foreign to both the teachers and pupils. Though this may pose interaction difficulties at the start, Kyeyune (2003) comments that rural-based schools where the use of native languages is emphasised from primary one to four, tend to perform poorly at national level compared to urban based schools where English language is used in instruction right from the lower classes in Uganda. The implication is that there are other factors influencing such performance beyond the dictates of using English or any local language in Uganda. Kyeyune further argues that classroom teaching can be improved when English remains a medium of instruction by training teachers to develop skills of analytical

understanding of language-related barriers and effective use of questioning in their classroom delivery. This does not leave out the choice of language of instruction as a challenge in teaching and learning (Nyaga, 2013); but, it highlights the positioning of the teacher as a professional working against all odds to ensure that the language used enhances classroom learning.

Focus on the content to be taught rather than how to teach is a key pedagogical problem facing primary school teachers in Uganda (Ministry of Education & Sports, 2013). The non-alignment of the subject content to the methods of teaching affects the quality of learning with adverse effects on learners' achievement. Several studies have shown that this challenge nurtures misplaced confidence leading to teacher driven approaches, cramming, reciting and less active involvement of the pupils **(**Akyeampong, Lussier, Pryor, & Westbrook, 2013; Hardman et al., 2008; Mereku, 2014). To avert the situation and improve on teaching, Alexander (2000) argues that a teacher should look beyond the curriculum content and focus on the use of space, managing time, grouping of pupils, formulation of tasks and control of interactions among pupils, and between the pupils and the teacher. In this case, training and practice fostered by teacher training institutions and schools are needed for teachers to acquire relevant pedagogical knowledge and skills, and have an enabling working environment.

According EFA GMR Team (2005), the teachers' continuous application of rigid teaching styles that reduce pupils to passive learners poses a pedagogical problem in primary school teaching and learning in Uganda. This portrays minimal appreciation and application of learner-centred modes of classroom delivery. It is true that several teaching methods are introduced to the teacher trainees and briefly tested during the training but later application depends on the individual teacher initiative. Nleya (1999) posits that there could be a possibility of lack of interest in the teaching by some teachers. In this case, convenience rather that relevance takes precedence in the choice of teaching methods with adverse implications for classroom delivery and learners' understanding. Such a scenario culminates into dependence on the traditional lecture method without any innovation in teaching methods to save pupils from the bondage of memorisation (Hardman et al., 2008). Hardman (2015) suggests the notion of cross-age peer tutoring in reading. Though this intervention is meant for the neighbouring Kenya, the contextual factors are related to those of Uganda. However, its effectiveness depends on how teachers are prepared and supported in training to embrace and sustain such an innovation in teaching.

Ministry of Education & Sports (2004) and Nleya (1999) identify inappropriate and less critical assessment as a pedagogical challenge to primary school teachers in Uganda. The challenge is on the why of assessment. What is it targeting? Is it all about recalling points and being able to pass examinations? This brings out the challenge of not assessing the learner as whole considering the different domains of learning (cognitive, psycho-motor and affective domains). A number of research studies claim that assessment is a cornerstone in the teaching-learning process and can elicit feedback which is crucial for further modifications in pedagogical practices and core images about teaching (Brown 2004; Clarke 2012; Lyonga 2014; Meier, Rich, & Cady, 2006). Similarly, the World Bank (2010) states; "Assessment goes to the heart of what matters in education: not just enrolment and completion rates, but the ultimate goal of student learning" (p.5). Additionally, assessment remains an unfinished agenda until the learner gets the feedback (Sethusha, 2014). The focus is on the teacher's ability not only to assess pupils, but to also give timely feedback on learning. For Uganda, there is need to understand the peculiar contextual complications (having big class numbers) and equip teachers with relevant skills to teach and assess pupils in that context.

Hartwell et al. (2003) found a pedagogical challenge of inappropriate application of teaching aids that were permanently fixed on the classroom walls in several schools in Uganda. The pupils continue looking at teaching aids that are not related to the lesson in progress but because they are closer to them than the chalkboard. This causes lesson distraction, hinders current learning, and hardens class control. It is worsened by an unconducive learning classroom organisation with desks set in rows and columns (Hardman, 2011; Hardman et al., 2015). Teacher training has not explored alternatives like sitting in circular form or in small groups to encourage learner sharing and effective interaction (Hardman et al., 2009). This signals the static nature of some of the school systems where new teachers join the school and merely copy the existing practices. Puryear, Santibañez and Solano (2011) attribute the problem to little orientation given to novice teachers when they begin teaching. The problem could stretch back to the inadequacy in teacher training for effective classroom preparation and delivery, and limited classroom space per pupil in many Ugandan schools.

Several studies (EFA GMR Team, 2002; Kinsman et al., 1999; UNESCO, 2008) indicate that primary school teachers have inadequate pedagogical skills to successfully deliver on cross-cutting issues in education. Examples of the cross-cutting issues include; special needs, gender, armed conflicts, poverty and HIV/AIDS education. During armed conflicts, UNESCO (2011) found that the drop-out rate of the girl-child is higher than that of the boy-child. In addition,

EFA GMR Team (2015a) remarks that teachers living in war tone areas risk their lives and do not provide adequate education and psychological support to the pupils. Until recently, the effect of the war on learning has been a major problem in the northern and eastern Uganda. Whereas several studies report the teachers' lack of skills to handle gender-based violence in schools that tend to affect the girl-child most (EFA GMR Team, 2006; Parkes, 2015; UNESCO, 2015b); more recent findings call for increased efforts in teacher pedagogical skills development if the girl-child potential is to be fully nurtured and harnessed in accordance with the aim of 2030 agenda (UNESCO, 2015a; UNESCO, 2015d). Concerning children with a disability, several studies have shown that few teachers are pedagogically competent to handle their special needs (Arbeiter & Hartley, 2002; Kalyanpur, 1996; World Health Organization, 2011). In Uganda, children with special needs are mixed up with those considered unimpaired and study under the same conditions in most primary schools. Additionally, in Uganda like other Sub-Saharan African countries, HIV/AIDS has drastically increased the number of orphans among children with adverse impact on classroom instruction (EFA GMR Team, 2007; UNESCO, 2015c). With all those difficulty situations relating to cross-cutting issues, regular topical-based teacher trainings can help to equip teachers with relevant knowledge and skills to contain such challenging pedagogical issues.

Basaza et al. (2010) identify inadequate preparation of most children during pre-primary school age as a problem in pedagogical work of the primary school teacher. This is based on the practice that in Uganda, pre-primary education is optional and manned by private schools that only provide their services to those who can pay for them. "Attending a good quality pre-school can lay the foundations for learning and help children make a smooth transition to primary school" (EFA GMR Team, 2012, p.48). Since the majority of the children study in rural areas and have meagre financial base in Uganda, they wait up to the age of 6 and enrol in primary one. This implies that the primary one teacher should also cover what the child should have covered in the Kindergarten. For those who attend kindergarten, the quality of delivery is still low. This is supported by the recent study of Sun, Rao and Pearson (2015) who found that in the developing world, early childhood education is supported by untrained teachers who are typically 'substitute mothers'. This compounds the pedagogy challenge of the primary school teacher who must work hard to ensure that either the completely unschooled or poorly trained kindergarten pupil, is properly taught for positive academic growth and performance.

Previous studies have revealed that inadequate teaching preparation and organisation skills for delivery in terms of comprehensive schemes of work and lesson plans with learner involvement

modes of delivery pose a pedagogical hitch for the teacher (Hardman et al., 2009; Hartwell et al., 2003). Preparing schemes of work and lesson plans are often emphasised and monitored during the teacher training but the follow up mechanisms after training seem to be lacking. These important pedagogical components are at times done as a formality for administrative supervision records without being followed by the classroom teacher. The common question in-service teachers raise during training is; how do you ensure effective daily lesson planning, teaching and marking over 100 pupils in one class? This is challenging but may necessitate regular short training programmes especially during holidays for teachers to share experiences and chat a way forward for effective teaching plans and actual delivery in various learning environments without compromising quality.

Sife et al. (2007) observe that primary school teachers in Uganda have limited skills and facilities to use ICT in interactive teaching and learning, assessment and giving feedback to the pupils. This is attributed to the lack of integration of computer literacy in the curriculum of teacher training institutions. It becomes a challenge for primary school teachers to teach what they were not exposed to in the training. The problem could also be attributed to the current practice of not examining computer studies and the emphasis put on the four examinable subjects (Mathematics, Science, Social Studies and English) at national level, upon which the academic performance of each school is graded. However, the government, charitable organisations, and some private schools have started computer lessons to prepare the children for the future world of work (Allen, 2013). For example, Coughlan (2014) states that 'Maendeloe Foundation' which is an Education charity provides computer outdoor classroom to primary schools in form of; solar panels for power supply, tents, chairs and laptops for the children and teachers to have hands-on practice and improve on their computer knowledge and application skills. It should be noted that such services are still limited to a few schools especially those around towns. In general, the inability of most teachers and pupils to use modern technologies is a critical pedagogical problem in Ugandan schools.

Studies highlight that in their pedagogical practices, many primary school teachers and pupils lack basic teaching and learning materials and depend on skimpy support from school administration and parents (Ministry of Education & Sports, 2004; Nleya, 1999). Though improvisation is emphasised during teacher training, lack of timely support lowers the teacher's morale and makes one de-tooled to perform in the classroom. Support could be in form of funds, time allocation and provision of teaching and writing materials (Ministry of Education & Sports, 2013; Gove, 2015). It can be argued that faced with limited resources, teachers should

be prepared to observe and use the environment around them as a resource in teaching. Similarly, pupils should be encouraged to use the environment by developing some local learning materials (Izizinga, 2000; Kanyike, 1998; Zhang, 2006). Hardman et al. (2011) posit that Uganda has adopted a model where teachers are expected to try out a variety of classroom interactive activities involving out-of-class analysis, discussion, preparation of lessons and instructional techniques. The challenge is on the implementation of such a promising model when teachers are not adequately facilitated. Lack of basic text-books and writing materials like pens, pencils and note books derails the teacher's work in the classroom. The learners' participation especially in reading is limited when the few available textbooks are not given out (Carasco, 1996). During my interaction with in-service teachers and visits to some primary schools, I have noted that some schools develop the fear of losing or the books getting torn and maintain them in the book store for accountability to the outsiders. The pupils are given the books to read only when the teacher is in class and they are collected and taken to the book store when the teacher is leaving the class. This could be a safety measure but poses a pedagogical weakness in the school system.

3.2. Historical evolution of distance education and learner support

The literature indicates that evolution of distance education and learner support has been shaped by generational frameworks (Anderson & Simpson, 2012). It is believed that institutions venturing into distance education pass through a generational framework starting from the first up to the fifth generation (Anderson & Simpson, 2012, Taylor, 2001). Literature credits Nipper to have been at the fore front of stating the discourse of generational framework in distance education and learner support (Bates, 1990; Nipper, 1989).

The first generation of distance education and learner support also termed as the correspondence model is characterised by correspondence teaching involving use of printed materials that are distributed to the students to aid their learning (Nipper 1989, Taylor, 1995). This is considered to be the infancy of distance education. This aimed at supporting the working group and women who did not fit well in the conditions of the main stream education system (Moore & Kearley, 2005). This is relevant to Uganda where distance education is enabling the working groups and many women to enrol for further education which is seemingly difficult through the normal on-campus mode. The wide use of printed materials in learner support (Bbuye, 2006; Basaza et al., 2010) is a justification that distance education is still in the infant stage of development in several universities in Uganda.

The second generation of distance education involved the use of print, audio and video technologies by broadcasting via radio and television to support learners (Nipper, 1989; Evans & Nation, 2007). It was termed as multimedia model of distance education involving use of a variety of resources such as printed study guides, reference materials, audio and videotapes and use of the computers in learning (Taylor 1992). The UK Open University is credited for having pioneered the use of multimedia in distance education. The challenge is that to sustain use of multimedia and use of print materials, the university has to attract big numbers of distance learners to break-even. For the case of developing countries and Uganda in particular, there has been often an element of compromising quality with increased enrolments (Basaza et al. 2010). The gist is that increase in students' enrolment should be coupled with an increase in the learner support in order maintain or improve quality in distance education.

The third generation of distance education also termed as Tele-learning Model considered the introduction and use of electronic information technologies involving the use of tele-communications and computers (Nipper, 1989; Pelton, 1991). The key contribution of the use of technologies such as in audio-teleconferencing and video-conferencing (Taylor 1995) is the aspect of providing a two way communication between the learner and the instructor; and also among learners. In this case, interactivity and social relations between the learners and their instructors, and among learners is enhanced hence better support and quality in service delivery. In support of Nipper (1989) third generation of distance education, Pelton (1990) argues that application of new tele-communications and computer technology reduces distance education problems world over. However, with reference to developing countries, Bates (1990) posits that if interactivity is to be promoted by the new tele-communications and computer technology, it will be limited to only a few programmes that have small numbers. For the case of Uganda, the limited use of tele-communications and computer technology in learner support could be attributed to the insufficient financial resources to develop ICT infrastructure in most educational institutions. Bates further argues that to make economic meaning and maintain quality, print-based courses will remain central. The rationale is that even where print materials are used, they should be made interactive and relevant to the learning needs of the students.

The fourth generation of distance education also termed as the Flexible Learning Model tends to combine the use of interactive multimedia and internet-based teaching-learning resources **(**McKee, 2010; Taylor 1995**)**. The emphasis is on on-line learning through using the internet. The level of interactivity involving the use of internet connected resources is rather extensive hence improving on the quality of learner support. Heavy investment and maintenance of

technological infrastructure, and on-line support systems is key in this generation (lacking in Uganda), hence affordable to a few educational institutions mainly in the developed world.

The fifth generation of distance education also referred to as Intelligent Flexible Learning Model focuses on intensive use of the internet and web resources (Taylor, 2002). In this generation, technology use in teaching, learning and learner support is key in distance education involving even development and implementation of automated courseware production systems and automated pedagogical advice systems. This needs increased investment in technological infrastructure and staff skills and also assumes that potential learners are relatively skilful in using modern technologies. According to Taylor (2002), in the fifth generation, the cost of teaching and learning, and learner support drastically reduces in distance education. I can partially agree with Taylor on the issue of cost reduction but only in the long-run after breaking even. However, for universities that are struggling to leave the second generation phase like in Uganda, it is economically unrealistic to affirm that average costs will be lower. This is because such institutions have to heavily invest in the physical infrastructure and staff development and cost per unit will keep on increasing for a considerable time before reaching the break-even point. The implication is that massive investment in the technological infrastructure will continuously increase cost per unit for a substantial period of time.

Concerning the future of distance education and related learner support, Anderson and Simpson (2012) claim that distance education is still evolving and its future heritage should focus on commitment to social justice equity, being mediated by use of technology, focus on people, building effective teamwork, being systematic and research focusing on the future. Their view brings in the aspect of improving on all aspects of distance education while centrally focusing on the learner. I would like to observe that in all generations of distance education, the focus of the service providers should be on maximising learner support and making the learner (as an end-user) delighted.

3.3. Concept of learner support in this study context

Research has revealed a variety of meanings attached to the concept of learner support (Dirr, 1999; Sewart, 1993; Sweet, 1993; Tait, 2000; Simpson, 2002; Thorpe, 2003; Brindley, 2004). Exploring them helps to discover their relationships, areas of disagreement and gain a basis for developing a working definition of learner support appropriate to the context of distance education in Uganda. Whereas Dirr (1999) considers learner support to mean a variety of non-

academic interactions that a student has with the university; Sewart (1993) looks at learner support as an interaction between the university and the student. While Dirr limits the scope of learner support on non-academic issues, Sewart emphasises the need to look at the student within that particular environment and the needs of the programme. The challenge is that Sewart is not clear on the scope of the concept of learner support though he values the learner as the central figure in the support process.

Sweet (1993) broadens the scope of learner support by considering facilitation of intellectual and personal growth of the student. Sweet emphasises the need to align academic and non-academic support and the lecturer playing the role of tutor and that of counsellor. This perspective assumes that the lecturer is trained and equipped with skills to provide whatever support the learner may need which may be unrealistic especially in developing countries like Uganda. Besides, Tait (2000) argues that learner support has three attributes, namely: supporting learner cognitive growth through effective course materials; affective growth through creating a supportive learning environment, and being systemic by improving on administrative processes and information management systems which are learner user friendly. Tait's view would be more appropriate in a situation having streamlined structures and systems including administrative and information management systems, which is not the case in several institutions in developing countries with limited use of modern ICT systems.

Simpson (2002) considers learner support in terms of assistance given by the institution for the academic and intellectual development of the learner, and administrative and counselling support beyond the academics. Simpson's definition covers both academic and non-academic support but remains silent on when the process of supporting should start and end. Furthermore, Thorpe (2003) defines learner support as an on-line environment which captures all elements capable of responding to the learner's needs before, during and after the learning process. Thorpe's definition is clear on what should be the trend of progressive learner support involving use of technologies to support the learner wherever and whenever without having physical contact. However, her perspective seems not to capture learner support given off-line which is a common practice developing countries with blended learning (distance education having some on-line services with regular face-to-face sessions and field visit leaner support).

Brindley (2004) develops a more embracing definition of learner support. She defines learner support as all interaction between staff of an institution and students aiming at satisfying their learning needs right from admission up to course completion. Her definition is clear on the

time when support is given and does not limit the scope of support. Brindley argues that both the packaged learning materials and the tutor are vital in effective learner support. The tutor as a content expert should be able to answer the learners' questions, guide the learners to access different sources of information, and give feedback on learners' performance. She further posits that as good teachers, tutors should support their learners by listening, encouraging, guiding, and mentoring them to be able to learn independently and in groups. Building from Brindley's (2004) perspective; the concept of learner support in this study considers any assistance given to in-service primary school teachers on distance education in form of tangible and intangible resources to aid their learning. In addition to the role of the tutor and learning materials, this study incorporates the workplace learner support for in-service teachers.

3.4. Concept of quality in learner support

Quality has been defined as conformance to the requirements or standards that must be met to achieve specified purposes to the satisfaction of the customers (Garvin 1987; Green, 1994; Owlia & Aspinwall, 1996). In relation to this study, the focus is on attaining the training purpose of the university and satisfying the in-service teachers through improved management and delivery of learner support. The students are the focal customers of the university and the main target of learner support delivery. While this study considers quality as learner satisfaction with learner support, Juran and Godfrey (1999) consider quality as support being free of deficiencies, errors or failures. Their view is not the focus of the current study because of the possibility of providing learner support without any error as viewed by the service provider (university) and not the end-user (student). The implication is that error free as determined by the service provider may not necessarily mean learner satisfaction.

In a *Road Map to Quality in Higher Education, Volume 1,* The Inter-University Council for East Africa (2010) posits, "Quality is achieving our goals and aims in an efficient and effective way, assuming that the goals and aims reflect the requirements of all our stakeholders in an adequate way" (p2). Though I appreciate the need to achieve institutional goals and aims, assuming that those goals reflect the stakeholders' needs adequately is difficult to ascertain unless it is empirically verified. Similarly, while analysing the concept of quality as indicated in the quality assurance policy of the case study (UMU, 2015), the focus is on quality as "fitness for purpose" adopted from Harvey & Green (1993 p9). This means that academic and non-academic activities conform to the purpose for which they were designed. While this study does not ignore the issue of fitness for purpose, it emphasis on the need to consider quality as

perceived by the end-user and direct beneficiary of the services who is the student. This is in line with Garvin (1987), who considers quality as learner perception of the image of the service provider.

3.5. Theoretical Framework: Inclusive Student Services Process Model

3.5.1. Introduction

This section builds on the previous one (concept of quality in Learner support) by explaining the theoretical framework used (Floyd & Casey-Powell, 2004). I start by unfolding the framework in details including elsewhere it has been applied. Then I present my claims about its role in explaining learner support for students on distance education and how it influenced my viewpoint in the study design and implementation. I finish by highlighting the alternative frameworks that I reviewed before deciding to use Inclusive Student Services Process Model.

Several researchers (Aoki & Pogroszewski, 1998; Compora, 2003, Floyd & Casey-Powell, 2004; Tait, 2000) have advanced learner support interventions that can be used to improve efficiency in managing and delivering quality in distance education (see 3.5.4). Nonetheless, not all interventions can effectively work in different educational systems and settings based on their respective underlying assumptions. There is little empirical evidence published on students' perceptions of learner support in distance education in the developing countries. The Inclusive Student Services Process Model (Floyd & Casey-Powell, 2004) gives a potential theoretical underpinning to explain quality in managing learner support in distance education in different educational environments including universities still in the early stages of distance education. It is a known theory that allows to advance knowledge on matters of managing and delivering learner support by focusing on of the service user (student) and service provider (instructor).

3.5.2. Explanation of Inclusive Student Services Process Model

Inclusive Student Services Process Model provides a framework for developing and implementing learner support services for students on full time and distance education courses (Floyd & Casey-Powell, 2004). The model explains the support process for a distance learner right from the time of enrolment to the time of finishing the course and beyond. Given its broadness in covering academic and non-academic learner support, it is suitable for any university providing distance education.

Inclusive Student Services Process Model of providing learner support has five phases namely; learner intake, learner intervention, learner support, learner transition, and measurement of effectiveness. The first phase is the '*Learner Intake Phase'*. The focus of the learner intake phase is designing clear goals and assessment procedures to establish the learner's readiness to enrol on the distance education programme. In supporting the students, learner support services in this phase include; "… admissions, preenrollment assessment, registration, financial aid, information technology, and orientation" (Floyd & Casey-Powell, 2004, p58). The model postulates that in the first phase, educational institutions should indicate on their websites the services available for distance learners separate from those prepared for fulltime students. This implies that distance education providers should provide effective communication channels for potential and newly admitted students to give adequate information on services they need in the shortest time possible. In addition to using mobile telephony and postal facilities, the use of on-line services should be enhanced to save time and money for the distance learners and to make the learning environment more user friendly. For example, Floyd and Casey-Powell (2004) posit, "Offering virtual or online orientation is an easy and convenient way to build rapport with distance learners, and an essential to ensuring successful enrolment and retention" (p58). This implies that even institutions providing off-line orientation should plan to have such support on-line for enhanced learner support delivery.

The second phase of the inclusive student services process model is *'Learner Intervention Phase'*. This phase involves delivery of the course focusing on developing an independent learner. The arguement is that you cannot expect quality work from the student working at a distance especially on-line if he/she is not prepared to be in-charge of his/her own learning. The main learner support services in the learner intervention phase include; "instruction on student success strategies, student desk help support, technology training, and online faculty advising" (p59). This implies that whether support is provided on-line or on-campus, nurturing human resources with appropriate skills to advice and counsel the learners, and to train them in using the available technologies should be a priority of the training institution.

The third phase of the inclusive student services process model is *'Learner Support Phase'*. The focus of this phase is to help the learner strengthen his/her self-development strategies to take charge of his/her own learning. The model focuses on; "academic advising, instructional support and tutoring, library and bookstore services, disability services, and networking" (p60) as the crucial learner support services in the learner support phase. Training and equipping staff with the necessary support skills is needed especially in areas of relevant pedagogy,

communication and use of library resources. As clearly stated in the model, "Online library orientations, e-mail access to librarians, and online tutorials on how to conduct Web research help distance learners succeed" (p60). It should be the responsibility of the university to ensure that the students are supported to access such ICT facilities for meaningful intervention especially in the developing world with limited ICT infrastructure.

The fourth phase of the inclusive student services process model is *'Learner Transition Phase'*. Support on developing students' careers and counselling services are central in this phase. The concern is that the student is going through the training but will soon leave and fully embark on his/her work hence needs to prepare for life after the course. The model highlights: "Career development and counselling services are key during this phase; helping students to build their professional resumes, develop interviewing strategies, and deal with life issues, are instrumental in retaining students" (p61). The rationale is that students are 'transiting', implying moving towards full working life when they complete their studies. There is need to start preparing the students for employment by equipping them with the necessary skills so as to search for jobs and work with others in harmony.

The fifth and final phase of the inclusive student services process model is *'Measurement Phase'*. The fifth phase focuses on evaluating the course delivery, content, methods and the future of the learner. "In this phase, colleges should assess retention, graduation, and persistence rates, and they should review online course evaluations" (p61). This implies that issues of accountability and feedback on the students' perception of the learner support are considered pertinent in learner support. The information obtained can be used in decision making on service delivery improvement by the faculty.

The five phases of the inclusive student services process model are crucial in explaining the process of learner support in any educational institution. Regardless of the mode of instruction used and location of the institution providing education services, this model if well applied can enhance both online and on-campus service delivery to the students (Floyd & Casey-Powell, 2004). The idea is that learner support systems should demonstrate commitment to help the distance learner to succeed. In analysing the inclusive student services process model, its five phases are summarised and represented in a cyclic form as shown in Figure 3.

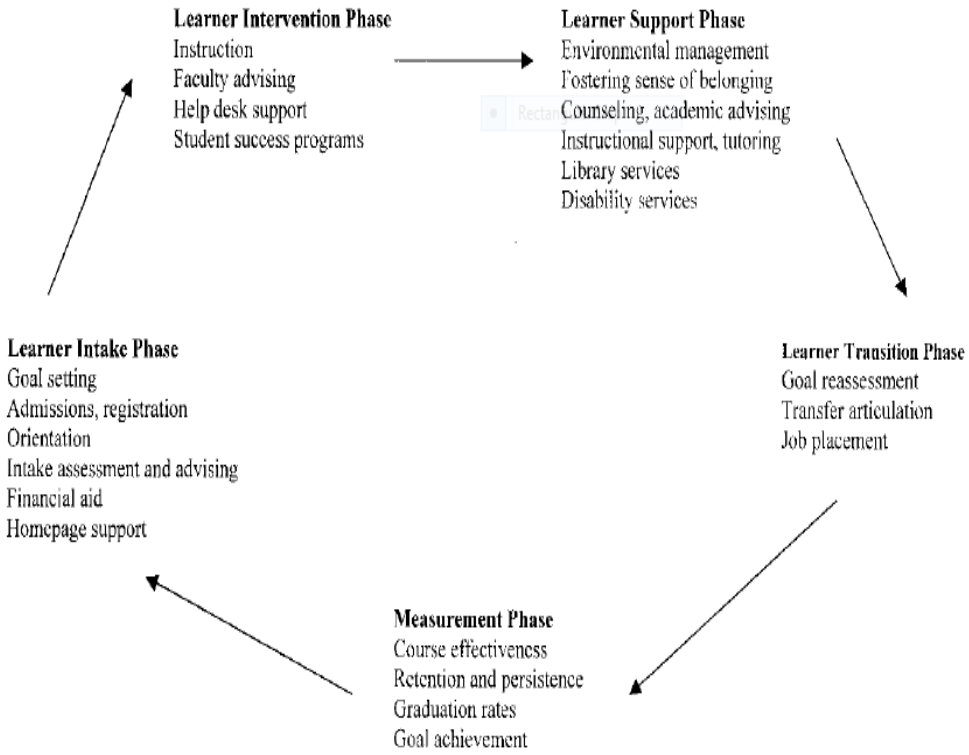


Figure 3: Inclusive Student Services Process Model

(Adopted from Floyd & Casey-Powell, 2004, p59).

3.5.3. Application of Inclusive Student Services Process Model in the present study

As the main theoretical framework adopted for this study, the inclusive student services process model forms the 'lenses' through which I perceive the focus of my study and had influence on the study design and implementation. I considered the five phases of the model (learner intake, learner intervention, learner support, learner transition, and measurement of effectiveness) that influence learner support for distance education students. The study design focused on the components of the inclusive student services process model in influencing learner support management and delivery. I considered learner support as any assistance given to in-service teachers in terms of tangible and intangible resources to aid their learning (see section 3.3 above). My underlying assumption is that distance learning in-service teachers' learner support depends much on the influence of the training institution and their workplaces. This does not rule out the possibility of having other 'influencers' of learner support beyond the training institutions and the schools of work. I represent this conceptual position as indicated in Figure 4.

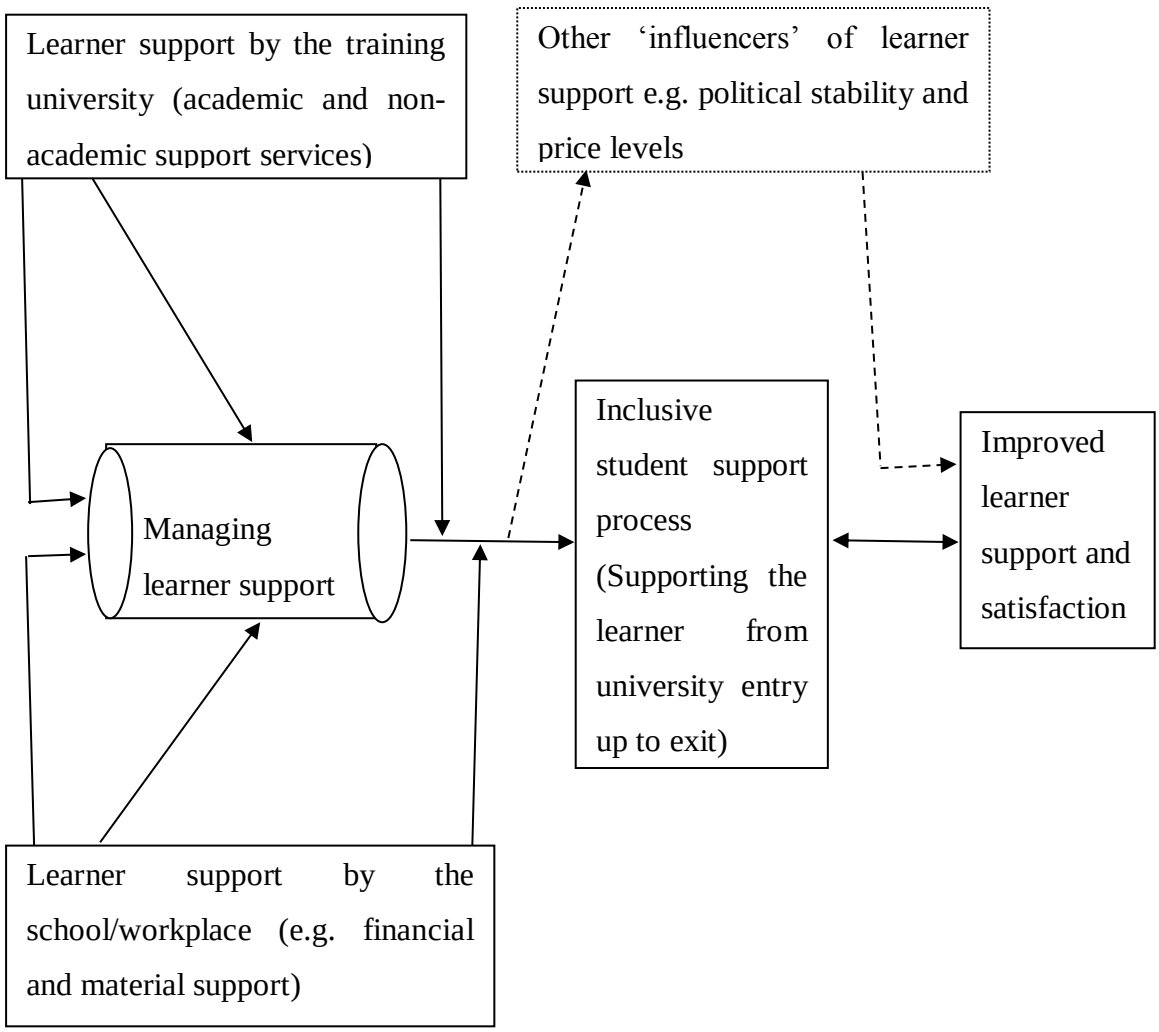


Figure 4: In-service teacher support pipeline: a conceptual model

From the conceptual framework, inclusive student support process correlates with the learner support by the university and workplace. This means that improved learner support from the university and schools implies a better inclusive student services process. Effective application of Inclusive student services process also reveals the ultimate result which is, improved learner support and learners' satisfaction. However, learner support and satisfaction could also be influenced by factors outside (other 'influencers') the Inclusive student services process such as political climate and government policies (indicated by the dotted lines).

The choice of Inclusive student services process model relied on its relevance and strength to embrace learner support services for on-campus and off-campus students, which is a common practice in Ugandan universities. In applying this model, sensitivity to the prevailing institutional culture and the learners' support needs (Fiege, 2010) was contextualised to Uganda. Where necessary, the weaknesses of the model are presented.

The Inclusive student services process model was preferred because it captures the definition of learner support adopted (see section 1.6). Additionally, considering the evolution and different generations of distance education (Anderson & Simpson, 2012, Taylor, 2001), this model can be applied in any generation of distance education (see section 3.2). This makes application of this model relevant to Uganda because of its inclusion of both on-line and off-line learner-support common in Ugandan universities.

Furthermore, the systematic and logical presentation of the learner support in phases, makes the inclusive student services model relevant to the Ugandan context. This is because the scope and quality of learner support can be analysed at each stage as the learner progresses on his/her academic journey. Although modifications were considered to include off-line learner support in the study context, the five main phases of the model were maintained. The model also informed the formulation of data collection instruments especially the questionnaire tool (appendix 3).

With reference to application of the learner intake phase of Floyd and Casey-Powell's (2004) model, I based on studies from other developing institutions with similar distance education practices like South Africa (Makoe, 2012), Ghana (Tagoe & Abakah, 2014), Taiwan (Toa, 2008), and on distance education practices in Uganda (Bbuye, 2006). In the process, key preliminary support given to distance education in-service teachers were identified. The learner support services considered include; provision of information on admissions, registration process, orientation in distance education and frequently asked questions. There is also need for services of functional help desk for distance education, hotline phone number, fees clearance process and options, information on scholarships and financial aid; and accessibility to an up-dated student handbook.

In several universities in Uganda, most of these learner support services are found on the respective university website. Hardcopies of such materials are also provided (Basaza et al., 2010) to support many distance education students especially teachers working in remote areas without ready access to the internet in their work stations. Although Floyd and Casey-Powell (2004) argue for a differentiation between services for on-campus and those of distance education learners, this is not yet a common practice in Uganda. This is because distance education is mainly blended having some activities completed by the students at a distance and others at the main university campus or study centres during face-to-face sessions. Blended

model of distance education apply to in-service teachers in Uganda because they benefit from support intended for on-campus students.

Based on the learner intervention phase of the model (Floyd & Casey-Powell, 2004), and studies from developing countries (Makoe, 2012) on learner support; those relevant to the Ugandan context were identified. The support activities adopted in the study context include; organising beginners' workshop, setting up functional help desk, and providing training in technology use. The other aspects include use of group email to circulate information, library use and information search orientation, ensuring timely communication, giving counselling and guidance services, having accessible study centres, and availing suggestion box for students. Exposing distance learners to modern technology use especially computers helps those who can access computers and the internet to search for study materials and develop a sense of independent learning to complete the course assignments. Likewise, exposure to library use and information search enhances independent learning among distance learners (Floyd & Casey-Powell, 2004). The challenge however, is the lack of computers and long distances that distance learners have to move to access study centres and use the institutional facilities in Uganda hence, limiting their ability to develop and become independent learners.

Relating to the Learner Support Phase of the model (Floyd & Casey-Powell, 2004), the key learner support services identified in the case study context include; academic support and access to instructors, organisation of face-to-face workshops for instructional support, provision of quality modules, timely distribution of modules and coursework, and services to students with special learning needs. Support to enable learners to interact, giving students study guides and test/examinations taking tips, preparing students' survival success course (considering what they need to know and do to remain focused and succeed in their studies), providing computers with internet connection, access to library materials, enriching subject content and teaching methods, providing field support, and effective school practice supervision were included. Though universities are taking initiatives to improve on-line support to the students in Uganda, many support services are still provided off-line. It could be necessary to improve on the quality of the off-line learner support services to enhance chances of providing quality services when such services are put on-line. This is in line with what Duchastel (1997) termed as, "shoeing old models onto the web" (p222). He further advocates for the use Web technologies to enhance collaborative learning, increased use of library facilities and for the betterment of instruction in distance education. The idea is that use of instructional technologies breaks the professor/lecturer-centred university instruction.

Similarly, in their study (Claus & Dooley, 2005), posit that there is need to review traditional off-line teaching methods if they are to remain relevant and cope with the increasing use of technological methods in distance education instruction. However, Moore (2003) raises the notion of the widening gap between students and their tutors where technologies substitute the lecturer. Rather than the physical separation, the use of modern technologies in distance education is believed to empower both teachers and learners due to improved communication and interaction, provides different modes of instruction and transforms the teaching-learning process (Valk, Rashid & Elder, 2010). Floyd and Casey-Powell's (2004) model though relevant to both on-line and off-line distance education, it underscores the role of modern technologies in enhancing quality of distance education; but cautions on the need for proper planning and use of technologies in order not to distract learner support management and delivery.

Following the learner transition phase of the model **(**Floyd & Casey-Powell, 2004), and studies like (Tagoe & Abakah, 2014) in Ghana with similar distance learning practices like Uganda, the following key learner support services were captured; provision of career development and counselling services, instilling tips to write professional resumes, use of social media to enhance interactions, and having special sessions for time management skills enhancement. In Uganda, most of this support services are still provided off-line but need strengthening as more emphasis apparently is put on imparting course content.

In line with the measurement of effectiveness phase (Floyd & Casey-Powell, 2004), the key support services identified in the study context include; conducting course evaluations, finding out whether instructors give comments on coursework, provisions of timely feedback on coursework and exams, provision of information on alumni services and counselling students on further study after graduating. All those attributes of the model guided the content of data collection instruments (appendices 3, 4 and 5).

However, the cyclic nature of the model (Figure 3) would give an impression that learner support is a continuous process, but this is not illuminated in the model. Though a useful theoretical framework for explaining the process of learner support, the inclusive student services process model was based on institutional working environment in the USA. Indeed examples of institutions identified by Floyd and Casey-Powel (2004) where the model had been applied include; Colorado Community College, Pitt Community College, Houston Community College, Rio Salado College, Brevard Community College, Bunker Hill Community College, Portland Community College, Bellevue Community College, Community College of Batimore,

all of which are found in different states of the USA. However, it can be argued that by the time of their writing in 2004, not many studies had applied the model outside the USA. Furthermore, the application of the inclusive student services process model has been extended to several studies in the developed countries (Dare, Zapata, & Thomas, 2005; Russo-Gleicher, 2013; Profeta, 2007; Tuquero, 2011), and in developing countries (Makoe, 2012; Tagoe & Abakah, 2014; Tao, 2007). Those examples of studies from other developing countries gave me the impetus to apply the model in Uganda.

3.5.4. Other theoretical frameworks reviewed

In searching for an appropriate theory, I reviewed the literature about the different theoretical frameworks about learner support in distance education (see Table 1). The inclusive student services process model captured my interest and emerged the strongest option for my study context as explained above.

Table 1: Other theoretical frameworks reviewed

Theoretical model/framework	Author(s)	Description	Reason for not using it
The Virtual University Reference Model	Aoki & Pogroszewski (1998)	Puts the learner at the centre of on-line support. The learner support of The Virtual University Reference Model breaks the virtual university learner support system into four major components namely; administrative services, student services, resource services, and faculty services; and each of these components play a vital role is supporting the learner.	Aoki and Pogroszewski's (1998) model was not adopted because it does not conform to the meaning of learner support applied in this study. This model upholds the perspective of Thorpe (2001) who excludes the course materials produced prior to the course from the scope of learner support. In this study, the scope of learner support based on Brindley (2004) covers all the materials and support provided to the student.

Systems design model	Compora (2003)	This model focuses learner support for on-line distance education on the first nine letters of the alphabet. Though the steps are not packaged in a logical order, the model explains the conduct of learner support in any progressing institution in the field of e-learning. Its elements of learner support include; A-Assessment, B-Budget, C-Coordination, D-Delivery Methods, E-Evaluation, F-Faculty Involvement and Training, G-Generate a Mission Statement, H-Hierarchical Approval System, and I-Implementation of Support Systems.	Focuses learner support on on-line distance education only and could not accommodate the off-line support given in a blended distance education in the case study. However, what is desirable from this model such as assessment, delivery methods, and faculty involvement are captured in the Inclusive student services process model which was adopted.
Community of Inquiry model of online learning	Garrison, Anderson, & Archer (2000)	The community of inquiry model states that to support the learner on on-line learning or computer mediated learning, there are three key features that have to interact: cognitive presence (equated to learners interaction with the subject matter content), social presence (equated to learners interaction with fellow peers), and teaching presence (equated to learners interaction with the facilitator/lecturer).	The model tends to focus the attention of learner support to academic support at the expense of non-academic support and also limits the support to only computer mediated learning hence not considering non-computer mediated support services delivered to the learner.

Managing learner support model	Reid (1995)	Reid's model states that holistic approach to supporting learners in open and distance education should focus on attributes like academic guidance, learning support, career counselling, financial advice, individual tutorial assistance, and support for special needs students and student advocacy.	The learner support services identified in this model are captured in the inclusive student support process model adopted for this study. Nonetheless, it does not specify the time period when identified learner support services should be provided.
Framework for development of planning tool for student services	Tait (2000) .	The framework bases learner support on what it considers to be the 'six core elements'. These elements include; student characteristics, course or programme demands, geography, technology, scale and management systems. The framework puts emphasis on the student as the focus of learner support and argues that even the other five elements should focus on the student as the central figure in the support process.	All the six elements of Tait (2000) framework for student support were analysed and found relevant to this study but were reflected in the comprehensive nature of the Inclusive student services process model (Floyd & Casey-Powell, 2004).

3.6. The nature of learner support in open and distance education: Insights from earlier studies

The review of the literature draws experiences of managing and delivering learner support from different countries and institutions of higher learning. In the USA for instance, the Institute for Higher Education Policy of USA focuses learner support in distance education on issues of institutional support (including electronic security measures like password protection, encryption and back-up systems); course development (involving guidelines used in course development, design, and delivery, and review of instructional materials); teaching and learning (including students' interaction with tutors and peers through a voice-mail, e-mail, feedback on assignments, and methods of effective research); course structure (outlining course objectives, concepts, and learning outcomes); student support (information on admission requirements, tuition, books); faculty support (tutor training and peer mentoring); and assessment (based on enrolment data, costs, innovative uses of technology, intended learning outcomes) (Stella & Gnanam, 2004; The Institute for Higher Education Policy (IHEP), 2000). Though these are considered the main learner support services to improve internet-based distance education, their provision varies between institutions depending on availability of support infrastructure like ICTs and staff skills.

Conversely, Akpoiroro and Okon (2015) indicate that in the case of Federal universities in South Nigeria; learner support services focus on security, medical services, library, and hostel, transport, and ICT services. In this case even socio-political environment influences the nature of learner support especially on issues of political security and transport which reflects the work and living environment in several developing countries especially in sub-Saharan Africa. Research indicate (Alves & Uhomoibhi, 2010; Qureshi et al., 2012) that due to increased use of computers and web applications such as blogs in distance education, security should be extended to such students' facilities to counter virus attacks. This is a challenge faced by students world-over but prominent in developing countries where many students are novices in using computers and web applications. The inference is that studies on learner support from different socio-economic environments explain a variety of practical experiences from which Ugandan institutions can learn and inform their practices.

Embracing the *Ubuntu* approach in distance learning: Based on studies carried out in several African countries (Botswana, Lesotho, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe), Letseka (2016) argues that learner support in distance education can be improved

by applying the philosophy of *Ubuntu.* Letseka states that *Ubuntu* is an African world view that encompasses moral values like compassion, kindness, dignity, generosity, benevolence, care and respect for other people. This is supported by Rampa and Mphahlete (2016) who posit that with its emphasis on the ethics of care to the students, *Ubuntu* philosophy is ideal for ensuring interactive learner support in distance education. Though *Ubuntu* values are a common knowledge especially among the *Bantu* people of Africa (including my own society), putting those values in practice is not definite. But in his episode about enhancing quality in ODL, Mahlangu (2016) contends that *Ubuntu* approach if followed, it enhances quality assurance by striving to serve students and creating enabling environment for the students and staff to be fair, trustworthy, and respectful to others. The implication is that to make *Ubuntu* philosophy practical, the university should nurture an enabling environment by preparing both staff and students to embrace the above values. Several studies indicate that student-staff interactions that are usually maintained in distance learning qualify them to be members of *Ubuntu* (Ngubane-Mokiwa, 2016; Okada, Rabello & Ferreira, 2014). The reasoning is that staff and students are co-learners, have emotional connection especially during research supervision, and in the provision of library services. In Uganda, *Ubuntu* values which are embedded in the African culture are known to communities within and outside educational institutions, but to use them to enhance learner support cannot be merely assumed. There is a need to embed *Ubuntu* value of care and concern for each other in the training of both teacher trainers and trainees to impact on learner support.

One could argue that the *ubuntu* philosophy of distance education relates to the notion of social justice in distance education (Tait & O'Rourke, 2014). Tait and O'Rourke contend that many distance education providers value social justice expressed in their mission to provide education to many including those who are unable to attend full time university courses. The intent of the distance education providers to cater for the learning needs of everybody expressed in the concept of social justice in distance education is in itself a justification of *Ubuntu* value of care for others. To the contrary, Tait & O'Rourke further indicate that the intention to provide education to everyone does not imply actual delivery especially in the digital age where access is at a cost. This means that accessing distance education courses is not free, implying that some people lacking access to the relevant ICTs will not access education resources hence no social justice. My reasoning is that ensuring social justice in distance education is not a one-time pay-off. As technology becomes more available and affordable, so is social justice in learner support. The proponents of *Ubuntu* philosophy would argue that even where access to

technology is limited for some students to access course materials, the feeling of care should be seen in efforts made by the education service providers to support all the students on-line or off-line. The reality is that ensuring social justice in distance education learner support is so desirable to both the service provider and user but like the challenge of *Ubuntu* application, ensuring that all the students are justly treated and supported does not easily happen.

Development of a functional distance education policy or quality guidelines: Distance education quality guidelines is a key learner support in this era of trans-national education (ADEA, 2003). Research indicate that countries like the UK, USA and Australia have been able to progress and strengthen distance education delivery because they have clear guidelines for distance education (Quality Assurance Agency, 2002; Stella & Gnanam, 2004). For example: "The guidelines for distance education of QAA of UK start from the principle that the quality of distance learning needs to be assured in the same way as other form of higher education" (Stella & Gnanam, 2004, p.153). The inference is that to sustain quality in distance education, there is need to develop an effective operational guidelines for stakeholders and system operations to nurture a vibrant leaner support at national and institutional levels. This is supported by several studies (Linardatou & Manousou, 2015; Shimoni et al., 2013) who claim that in absence of a good policy framework, improvements in distance education services will remain inconsistent and omit socially excluded groups of people like prisoners. In Uganda, there is need for a national distance education policy or guidelines so that the few universities that have developed institutional policies and those still developing should be able to align them to the national distance education policy. The implication is that providing the policy guidelines is a learner support as it gives direction to effective service delivery in distance education.

Provision of distance education link on the web-site and frequently asked questions: Research highlights the need for educational institutions to set up web-based student services to improve on learner support management and delivery (LaPadula, 2003; Pirmann, 2009). While referring to several educational institutions in the USA, Krauth and Carbajal (1999) underscore the importance of active web-sites that provide information to advice students on their academic, social, psychological and economic lives. About Frequently Asked Questions (FAQ), Voorths and Falkner (2004) clarify the value of FAQ in highlighting service areas of benefit to the students. FAQ should be strategically placed on the website and have leaflets depending on need and accessibility by the students. In Uganda, many universities show their courses on the web-sites but issues of advice on academic, social and finances for distance learners are mainly

done at the institutions. It could make psychological and social sense to have active university web-sites (Krauth & Carbajal, 1999), and incorporate FAQ in learner support in Uganda.

Admissions and registration services: In his survey of learner support in distance education, Dirr (1999) consider admissions and registration key pre-enrolment support services. Universities should ensure organised and transparent admissions and registration of the students (Brindley, Walti, & Zawacki-Richter, 2004; Shimoni et al., 2013). The implication is that admissions should be timely communicated to the students through known channels. Commentators of learner support in higher education underscore the central role of the registry department of ensuring timely and courteous support to all students during admissions and registration (Quann & Associates, 1979). While referring to Makerere University in Uganda, Muyinda (2012) claims that pre-enrolment learner support is only limited to advertising the courses. The students' registration is mainly done at university campuses and tend to be tedious with long queues that take a lot of students' time during face-to-face period. Students miss some lessons in order to complete the registration process. Staff facilitating the face-to-face lessons are interrupted as students continue joining the class at different times as they complete their registration. It could be prudent for the registry departments to make their presence effectively felt (Quann & Associates, 1979) in Ugandan universities by planning for on-line registration and deploying sufficient staff during physical students' registration.

Distance education orientation programme: Shimoni et al. (2013) argue that orientating new students in distance education is one of the initial learner support services to enhance quality. Several research studies have revealed that the initial experience of students with distance education is frightening, frustrating and intimidating if they are not supported to develop self-confidence (LaPadula, 2003; Workman & Stenard, 1996). The cardinal point is that students need orientation to understand the new learning mode. In their investigation of distance education students' on-campus and on-line orientation study at the University of Manchester in the UK, Forrester, Motteram, Parkinson and Slaouti (2004) looked at orientation as the process of helping distance learners settle and embark on their studies. They further noted that effective orientation programme helps the university attract, ease transition and help students to concentrate and succeed in their studies. Similarly, in their study in two universities in Uganda, Mayende and Obura (2013) highlight that given the adult nature of distance learners, who also live far from the universities with family and career commitments, they need orientation support in lifelong learning skills. The emphasis is the need to prepare students in adult learning skills to be able to manage their own learning. Though many institutions in the

western developed countries have most of their orientation programmes on-line (Workman & Stenard, 1996), their counterparts in the developing world and Uganda in particular organise face-to-face sessions. Re-thinking ways of strengthening on-line orientation in Ugandan institutions should be the focus for improved learner support.

Provision of ICT infrastructure and facilities: While several studies **(**Cohen, 2003; Hampel & De los Arcos, 2013) underscore the role of ICT infrastructure through integration of various media, including ICT to support course delivery and student learning, Shimoni et al. (2003) state that technology support should involve providing the facility and teaching the students how to use it. Additionally, several commentators (Bertin & Narcy-Combes, 2007; Lee, 2003), observe that the use of technologies needs monitoring to elicit pedagogic and psychological support to erase a feeling of isolation especially when learner support is on-line. Research indicate that even in the use of simple technologies like radio, visual and print materials in distance education like the case in most African countries, learner support is needed for efficiency (Potter & Naidoo, 2006). The implication is that regardless of the nature of technology support, learners need guidance to access and effectively use any technology. This is premised on the claim that the students' proficiency in the use of technologies depends on the support received to use the ICT facilities (Bruso (2001). This is supported by the study on 250 distance learners in Australia (Drennan, Kennedy & Pisarksi, 2005), that revealed a positive correlation between learners' satisfaction and technology perception. In Uganda, Matovu (2012) and Ouma (2003), observe that full integration of ICT in distance education will greatly improve learner support delivery. This is possible when the universities commit sufficient resources and ensure that staff and students are exposed to ICT learning for improved learner support.

Timely distribution of quality course materials: Provision of course materials is crucial in any learner support system of distance education. Willis (1993) suggests the use of integrated approach in delivery of course materials depending on the ease of access by the students. This involves use of printed materials, audio and audio-visual materials, computer conferencing, and fax to distribute assignments. Recent studies at the Open University of UK (OU UK) indicate that in order to ensure steady improvement in the quality of modules in distance learning, educational institutions have to build a database of their modules that should be continuously reviewed to improve service delivery and learning (Li, et al., 2017; Slater et al., 2015; Toetenel & Rienties, 2016). Additionally, in their study in Tanzania, Brigley et al. (2009) posit that quality modules should be sensitive to the contextual needs of the students. The

implication is that course materials should be relevant to the socio-cultural context of the students. In the context of Uganda whereby many universities rely on print study materials to support their students (ADEA, 2003; Basaza et al. 2010), efforts to improve on those study resources are needed for enhanced learner support.

Face-to-face workshops: Shimoni et al. (2013) consider face-to-face workshops and group discussions key learner support services in distance education. This is because they provide academic and tutorial support, learning strategies and writing skills. Like in Nepal (Pangani, 2016), Uganda's education culture is dominated by face-to-face tutoring. This could be rooted from the practices of African traditional education that emphasise physical meeting of the teacher and the learner. Distance education in Uganda features learning activities supported by face-to-face sessions and some online learning activities which can be described as 'blended learning' (Laer & Elen, 2016). Although Rekkedal (2004) does not agree with other advocates of learner support on the value of face-to-face workshops on ground that they are not favourable for all learners, he acknowledges that several commentators of distance education value face-to-face interaction in ensuring quality learner support. In his investigative study at the University of South Africa, Olivier (2016) found that students that attended face-to-face contact sessions performed better in written assignment compared to those who only participated in on-line discussion forums. Similarly, in 2 quantitative and 1 qualitative studies by Price, Richardson, & Jelfs (2007) at the Open University, UK, students that received face-to-face tuition reported better experiences than those that received on-line tuition. In his later study, Rekkedal (2011) found that blended learning resulted in higher completion rates and learners' satisfaction compared to pure on-line learning. Conversely, in their comparative study of students views on on-line and face-to-face support in Turkey, Sad, Goktas, & Bayrak (2014) found that students who received on-line support were more positive on key issues like programmes providing lifelong learning and having better opportunities to access and share learning resources than those who received face-to-face support. I would consider face-to-face and on-line support complementary learner support services that require good preparation to have meaningful impact on the students' learning. In Uganda, with many institutions experiencing limited internet connectivity, they should continue investing in on-line learner support as they provide face-to-face sessions to reduce on learner isolation and strengthen academic confidence of the adult learners.

Pedagogic service support: The literature points at the need to devote more time and resources on professional courses that strengthen knowledge and skills on teaching methods (Rumajogee

et al., 2003; Shimoni et al. 2013). Seaman (2001) reasons that distance learners should be aided to develop self-discipline, become confident in applying pedagogies and using different resource materials. This is supported by Hadjinicolaou (2014) who advocates for revamping traditional modes of delivery to suit the technological needs of distance learners. The implication is that to succeed in technology use in learner support, there is need for a committed and high quality teaching and support staff (Duranton & Mason, 2012). In a wider perspective, Tait (2014) argues for integration of student support, curriculum design and delivery by the tutor in the digital age. Tait's view would necessitate extra training of the tutor not only to be able to effectively use the ICTs but also to have a broader understanding of the scope of learner support. Therefore, the staff should be willing and able to train, and the training institution should be willing and able to devote more resources in the staff professional development and ICT infrastructure development. This is an up-hill task in many institutions in developing countries with limited financial and material resources to invest and strengthen distance learning.

Provision of library services: Pirmann (2009) considers library support the most critical of all the learner support services. It is a recommended good practice to support the learner to ease access to library study materials (Tait, 2004). This is because the library is the source of resources for learner research to complete the course assignments. The library provides electronic materials like e-journals, e-books and newspapers that can be accessed anywhere as long as one has access to internet connection. Lee (2003) clarifies that like for on-campus students, distance learners should be entitled to library resources in their fullest for quality learning. While drawing examples from Australia, America and UK, Mears and Clough (2015); and Stephens (1996) posit that from the library, the needs of distance learners go beyond journals and books and include how to support them to conduct individual-driven library research including the disabled students. This is supported by studies conducted at universities in the UK (Needham et al. 2013; Stone, 2012) and Australia (Cox & Jantti, 2012) who found a strong correlation between library resources use and students' academic performance. With reference to Africa, Oladokun (2002, 2014) remarks that for distance education students to effectively use library services, provision of training and adequate support is a must by the university librarians. A similar view is raised in the Ugandan context (Mayende & Obura, 2013), who posit that effective access to library services and use of library catalogue depends on how distance learners are supported by the library staff. It can be concluded that to ensure

effective library use in distance education, students require adequate training from the librarians.

Provision of counselling and guidance services: Several studies show that Provision of counselling and guidance services is a key learner support in distance education (Moore & Kearsley, 2005; Shimoni et al. 2013; Venable, 2007). Research indicate that like any other student, distance learners have academic, personal and career challenges that need services of a trained counsellor (LaPadula, 2003; Verduin & Clark, 1991). However, inadequate counselling and guidance to distance learners has been reported in studies conducted in both high income and low income countries (Gujjar et al., 2010, Kishore, 2014). The indication is that effective counselling is needed to motivate the students to build a sense of self confidence and become independent learners (Murray et al., 2015; Rienties et al., 2014). Whereas Tait (1999) argues for modern ICTs use (like computer aided guidance and counselling) in enhancing learner support, Frieden (1999) adds that uncarefully organised counselling support may create frustration instead of aiding the students to take charge of their learning. For effectiveness, Krauth and Carbajal (1999) posit that even for on-line support, students should be provided with one-on-one access to counsellors. Perhaps the expression of Holmberg (2005) makes the value of counselling as learner support more explicit:

> "Practical and empathetic counselling has been experienced as decisive for course completion, general success and study pleasure. It is important to give students encouragement and help, not only as to the content and handling of what is to be learnt, but also in practical matters and, above all, in promoting motivation and study pleasure" (p.89).

In Uganda, universities tend to provide counselling services to distance learners physically with a few having limited information on the university web-site. The common practice in Uganda involves distance learners being counselled by faculty administrators and lecturers. The emphasis tend to be on academic counselling highlighting the challenges of distance learning, faculty expectations from the learners, learners expectations from the faculty, and coping with study stress. The fact is that counselling services to the students are in most cases not provided by professional counsellors in Ugandan universities.

Creating a sense of university community belonging: Shimoni et al. (2013) claim that creating a sense of institutional belonging for distance learners through support services like student leadership representation, providing medium for networking with colleagues and lecturers,

easy access to course materials, and mobility of the disabled is a key learner support. In their episode, Krauth, and Carbajal (1999) urge universities to guard students against isolation from their university, instructors and fellow peers. This is supported by findings of several studies (Higher Learning Commission, 2007; Romanova & Nevgi, 2006; Zhang, Perris & Yeung, 2005) who have revealed that distance learners' sense of belonging is enhanced through their representation in the students' leadership, having discussions with other students and staff, and inviting them to participate in some workshops or celebrations at campus. An interesting example is the weekend programme organised by the Eastern Oregon State Colleges (LaPadula, 2003), where distance learners visit the campus on weekends and share experiences with peers and their lecturers. Conversely, Lefever and Currant (2010) argue that technology can be used to create a better sense of university community belonging while saving the time a student would use to move to the university to meet peers (for peer mentoring and discussions) and staff (for consultations). They consider social networking sites, SMS, and Instant Messaging (IM) being able to support social interactions leading to a sense of belonging. It can be inferred that with or without technology support, it is the responsibility of any university to create an enabling environment for the students to interact and feel a sense of belonging to the institution.

Information communication support: Trindade, Carmo and Bidarra (2000) believe that reliable communication is the single most support that the institution can use to inform the students of any new development in their learning. Commentators of learner support in distance education (Bates, 2005; Puri, 2006) claim that timely communication to distance learners can counteract a feeling of isolation from the instructor and peers. Additionally, Tait (2004) argues that for effectiveness, there is need for communication mapping and management in learner support so that there is clarity on the chain and levels of communication between the institution and the students. I do appreciate Tait's argument on ground of sorting out the communication mess in distance education support. In Uganda, there are several offices that handle distance education issues in most universities and at times there are lapses in communication leading to giving contradictory information to the students that slams the quality of learner support. As a safeguard against communication lapses, several researchers (Douce, 2018; Voorths & Falkner, 2004) observe the need to use internet facilities such as developing distance education web portal, posting information on the website and use of emails. Similarly, Murray, Hale, and Dozier (2015), posit that effective communication can be via forms like email, asynchronous discussion boards, synchronous chat rooms and skype in distance education. In their study at

the Open University of Hong Kong (OUHK), Chiu, et al., (2008) advocate for the use of alert system in learner support in order to foster timely communication to both learners and staff. In Uganda, several educational institutions rely more on utilising media like mobile telephony, social media, postal services, face-to-face, and limited use of the internet to link with the students **(**Mayende, et al., 2014). In line with Markova, Glazkova and Zaborova (2017); and Murray et al. (2015) who fix communication in the centre of learning and being pivotal in ideas and information sharing, creating enthusiasm and building social ties among students; in the Ugandan context, I would consider communication a lubricant which can soften and foster effective management of learner support without which all interactions are halted.

Provision of administrative support and setting up centres for distance education: Several studies (Dirr, 1999; LaPadula, 2003; Rumajogee et al., 2003) indicate the need for administrative support by having an established distance education support department equipped with facilities and staff. The administrative department should be able to support learners both on-line and off-line. Basics like a helpdesk and hotline must be in place. An innovative example is the 'follow the sun' help desk approach that enables universities in different continents to provide shared learner support to their students 24/7 (Sykes, 2002). It was an arrangement between universities in different time zones (UK, Australia and USA) that handled issues of learner support collaboratively to ensure that students from all the concerned institutions could have their problems sorted out without delay or being told to wait until the next working day. The other approach is that of Kvavik and Handberg (2000) who urge institutions to develop their websites and provide sufficient support on-line. Through this service, students will no longer move to get information at the help desk but serve themselves at a distance. In Uganda, the challenge is that administrative services like helpdesk and hotline services do not operate 24/7 which limits access to learner support.

Fees clearance support: Research reveals that students should be supported during fees payments by showing paying options, checking fees balances and indicating possible sources of financial support (Floyd & Casey-Powell, 2004; Savithri & Murugan, 2006). In online-based distance education, sufficient information is up-loaded on the distance education portal to be accessed by the students. Research indicates that though fees collection is a responsibility of the finance office, the registrar should be involved since fees payment is an integral part of the registration process (Quann & Associates, 1979). It can be argued that in addition to the finance and registry departments, the faculty should also support the fees clearance process as key custodians of learner support. Although it is common knowledge that the fees paid by distance

learners is lower than that paid by fulltime students (Okopi, 2010), many students still find it problematic to pay. In Uganda, some universities have instituted some scholarships to enable distance learners access university education (UMU, 2015b). The challenge is that such scholarships are limited and can only support a few applicants. In terms of providing fees information, it is prudent to have all details concerning tuition and even accessing bank statements accessible to students on-line which is not the case in some Ugandan universities.

Timely feedback on distance learners' course assessments: Assessment and timely feedback on coursework, evaluation of teaching and learning during face-to-face sessions, and accessibility to learning resources through library services and computer facilities is a key learner support service (ADEA, 2003; Shimoni et al. 2013; Thapliyal, 2014). According to Duchastel (1997), assessment in distance education should shift from standard testing to diversity and production by aligning it not with knowledge but with the tasks that use knowledge. The implication is that assessment should be continuous as the student accomplishes each learning task. In addition, Chaudhary and Dey (2013) argue that it is important to link assessment with the student's skills development and problem solving. To broaden it further, Claus and Dooley (2005) posit that for effective quality assessment in distance education, formative and summative techniques should be used. Examples of assessment techniques in distance learning include; objective tests, essay type examinations, field-based practice, practical examinations, observing performance, homework assignments, group discussions, and research project work (Banerjee & Brinckerhoff, 2002). Chaudhary and Dey (2013) cite several assessment systems practiced by different open universities such as the Open University of UK (OU-UK), the Open University of China (OUC), Indira Gandhi National Open University (IGNOU), Bangladesh Open University (BOU), and Allama Iqbal Open University (AIOU). At OU-UK, both formative and summative evaluation are conducted with more weight attached to the later. Specific assessment techniques include end of term examinations, coursework assignments, group discussion, field work, observation records, hands-on activities and dissertation. At IGNOU of India, a three-tier assessment system involving self-assessment exercises, continuous evaluation through coursework assignments and end of term examinations are conducted. At BOU of Bangladesh; and AIOU of Pakistan, two types of assessment involving continuous coursework assignments and end of term final examinations are conducted. In Ugandan universities, assessment in distance education is both formative and summative. UMU (2012) indicate that formative assessment consider continuous coursework assignments and summative assessment depends on end of semester

examinations but they are both weighed equally in the final grading of the student's score (50% each). For enhanced learner support in assessment, I would advocate for the use of mobile telephony for distributing assessment questions and giving feedback on assessments in Uganda because they are affordable to staff and students in Africa (Makoe, 2012).

Regarding students' research supervision, several studies (Andrew 2012, Nasiri & Mafakheri, 2015; Wisker, 2007) indicate that there is a disconnection between the supervisor and the supervisee in distance education due to distance and spatial differences. Mapolisa's (2012) study in Zimbabwe found that distance learners were supported by supervisors who had limited research skills, got little direction and had few supervision meetings that led to low quality research. Sussex (2008) and Willems et al. (2011) add that supervision is worse where the supervisor and supervisee live in different countries with an imbalance in availability of IT support. Even within the same country, there can be variations in IT access by the students depending on whether one lives in a town or rural area as the case in Uganda. This has been termed as 'dancing at a distance' (Evans & Green, 1995). In their studies, (Dennison, 2009; Könings et al., 2016; Wright & Griffiths, 2010), they acknowledge that students' supervision and giving feedback is challenging in distance education and stress the role of the internet through mobile telephony, asynchronous email, skype and videoconferencing to optimise learner research supervision in distance education. It can be observed that as IT use permeates distance education, supervision practices have to change from face-to-face to suit the development trends in learner support in Uganda.

In summary, it is important for universities offering distance education programmes to assess their respective capacity and ability to support their learners. Research has revealed that no one yardstick fits all situations and institutions (Wunderlich, 2006). Just as distance education is evolving, so is learner support. Modern technologies can be manipulated to ensure timely delivery of quality support to the students living far from the university. What I consider critical and also supported by the notion of management becoming an ally in learner support (Voorths & Falkner, 2004), is the joint effort of the different stakeholders. Top management should allocate sufficient resources as a support to the faculty, and the faculty ultimately administer support to the students. The students should reciprocate by appreciating the support and take the lead in their learning.

3.7. Challenges faced by universities in managing and delivering learner support for in-service teachers: Uganda's experience

Rumble (2001) believes that distance education can meet the various professional progression needs of serving teachers so that they study as they work. In Uganda, training of in-service teachers is conducted by both public (owned by the state) and private (owned by religious groups and individuals) universities. Although these educational institutions have their own uniqueness rooted in their philosophies and mission statements, they face related challenges in providing learner support. Ouma (2003) posits that in Uganda like other African countries, universities providing distance education are faced with several problems ranging from infrastructural and financial constraints to human resources and quality enhancement bottlenecks. There is also a challenge of adopting and adapting emerging ICTs for service delivery enhancement. The discussion of the challenges faced by Ugandan universities in providing learner support hinges on those difficulties and the related opportunities for improvement.

Lack of national and institutional policy framework for distance education impedes learner support leading to supply of sub-standard services (Ouma, 2003; Stella & Gnanam, 2004). Butcher (2010) observes that at continental level, the African Union's efforts for tertiary education development and quality rating mechanism does not consider distance education a priority. Nevertheless, Bottomley and Calvert (2003), and Muyinda (2012) claim that with a proper distance learning policy reflecting institutional mission and value commitments, distance education can generate funds for self-sustenance and meet its goals and objectives. Considering the situation in UK, USA and Australia, pro-active policy guidelines valuing distance education just like the traditional classroom mode have been instituted, monitored and reviewed to enhance quality of learner support **(**Belawati & Zuhairi, 2007). In Uganda, absence of the national policy framework for distance education poses a quality improvement dilemma in the provision of learner support.

The poor socio-economic infrastructure at national level poses a challenge to quality learner support for in-service teachers in Uganda (Ministry of Finance, Planning & Economic Development, 1998; Ouma, 2003). The economy's level of electrification and communication network including use of computers, internet and m-learning is still limited. Several commentators (Bbuye & Aguti, 1997; Juma, 2003) argue that the insufficient commitment of funds to distance education programmes by universities makes it difficult to effectively cater

for the learning needs of in-service teachers in Uganda. Insufficient funds limit the teacher training department's capacity to effectively plan, organise and support the learners by providing adequate course materials, qualified staff, infrastructure and facilities, meals and utilities.

Mutonyi and Norton (2007) posit that there is limited use of ICTs such as live broadcasts and videoconferencing to support distance education students in Uganda. While referring to the state of affair on the African continent, Sife et al., (2007) raise the issue of poor and inequitably distributed information infrastructure in several universities. Research indicate that though operating costs may be low, investment and fixed costs on ICTs are high hence the need for a strong financial resource base (Rumble, 1997, 2001). In Uganda, facilities like broadcasts and videoconferencing are used where there is donor funds (Aguti, 2003; Bbuye, 2006). This shows that there is a will to use ICTs but limited by the means. Similarly, Lim, Fadzil, and Mansor (2011) in their research on mobile messaging via SMS at the University of Malaysia recognised that in Africa, efforts to use text messages were significant at some universities in Uganda and South Africa. Contrary, in a later related study in Uganda; Mayende et al. (2014) point out the limited use of simple technologies like mobile telephony for Facebook. They cite the challenge of limited access to internet, low ICT literacy levels and several students' phones not supporting Facebook. This shows that use of modern ICTs is low in Uganda and needs scaling-up for improved learner support.

Basaza et al. (2010); and Mutonyi and Norton (2007) highlight the challenge of poor internet connectivity with a bigger burden on students from rural areas compared to their urban counterparts in Uganda. Similarly, Bbuye (2006) posits that in Uganda, internet facility is available at the universities and in urban public internet cafes hence not easily accessible to many in-service teachers living and working in rural villages. To improve learner support delivery, research indicates the necessity of having reliable communications and good logistics (Trindade, Carmo, & Bidarra, 2000). The limited bandwidth in most Ugandan institutions affects both staff and students' access to the internet for research, teaching, community service, learning and general communication. With that background, universities in Uganda should consider ICT infrastructural development a priority in resource allocation to nurture a quality learner support culture.

Basaza et al. (2010) cites the lack of adequate skills and knowledge in distance education by both academic and support staff in Ugandan Universities. Similarly, several studies in the

neighbouring Kenya and other developing countries like India have alluded the lack of supportive skills by the teacher trainers that has hampered the quality of the trainees and promoted frustrations in delivery and learning (Bwire et al., 2015; Gulati, 2008; Kishore, 2014; Nyerere, Gravenir & Mse, 2012)**.** The limited exposure and staff training in distance learning in Ugandan institutions could need an overhaul of the system to improve effectiveness of learner support and avoid what Tait (1989) describes as 'living in a fool's paradise'. Learning from Rwanda's experience after the 1994 genocide **(**Mukamusoni, 2006), the government of Uganda should have an agenda to train teacher trainers and prepare them to effectively support teacher trainees physically, socially, psychologically and emotionally. **(**Mukamusoni, 2006). The implication is that that impact of effective training for both teacher trainers and trainees will be manifested in effective learning of the children thereby improving on the quality of Uganda's education system.

Inadequate preparation by the training staff to effectively manage and support the ever increasing number of students is a challenge to effective learner support in Uganda (Basaza et al., 2010; Bbuye, 2006). This is worsened by seasonal overcrowding in most universities where face-to-face sessions coincide with the traditional classroom programmes at campus creating a management support problem (Matovu, 2012). This implies a double-fold problem of big numbers during in-service teachers training, and many pupils they handle in class at the workplaces. It could be observed that universities should plan and strike a meaningful balance between theory and practice, and produce teachers relevant to the Uganda's workplace needs.

A number of studies (Aguti, 2003; Bbuye, 2006; Binns & Otto, 2006) found much reliance on print course materials that were poorly developed and distributed to the students late in several universities in Uganda. According to Binns and Otto (2006), even in the basic course materials (modules), most of the references are derived from western developed countries. This poses a challenge of how to localise what is international on part of the lecturer, and how to internalise what has been derived from other environments and use it in the Ugandan school context on part of the in-service teacher. The influence of the colonial education system (see section 2.3) still features in Uganda's education system. It is the responsibility of the teacher training institutions to filter what can be borrowed from other countries' education systems to inform improvement and benefit Uganda's education system.

Muyinda, Lubega, and Lynch (2009) found the use of traditional methods of teaching and limited exposure to learner-centred methods which limited the effectiveness of the tutoring

support for in-service teachers in Uganda. The challenge is that traditional methods such as lecture method put the teacher in the centre of teaching-learning process instead of the student who is the intended learning beneficiary. Based on experiences of countries like Namibia, Ethiopia, South Africa and Botswana that have put emphasis on the student rather than the teacher as the key focus in instructional practices (EFA GMR, 2015c), they provide lessons for Uganda. The implication is that teaching support should focus on the student, and the teacher playing a facilitation role. This is difficult to adopt by both the teacher and student in a teacher-centred learning environment like in Uganda. Teacher training should aim at influencing change by imparting the necessary skills and knowledge intended to guide and empower the pupils to participate in their learning. Teacher training should as well impart specialised skills to manage pupils with special needs (Croft, 2010). Supporting teacher trainees to acquire specialised skills to support special needs children is crucial in Uganda where such pupils are combined with those considered normal and study in the same classroom setting.

Research has revealed lack of a two-way communication system due the limited use of ICT in learner support in Uganda (Ouma, 2003; Bbuye, 2006). The in-service teachers living and working in the rural areas usually get information when it is late either through their colleagues or travelling to the universities which is time demanding. While referring to the research study on use of mobile short messaging service to improve communication at Makerere University, Kajumbula (2009) observed that the implementation was not effective because learners from remote areas preferred traditional communication modes. It may not be a matter of preference for traditional communication methods as alluded by Kajumbula, but limited by the limited ICT infrastructure, unreliable communication network and power supply which are common experiences in rural places in Uganda. On the contrary, Makoe (2012), and Motlik (2008) argue that out of the variety of technologies used to enhance communication in distance education, mobile telephony is so readily available, affordable, and suitable for even the less privileged students in Africa and Asia. This supported by Tagoe and Abakah' (2014) study at the University of Ghana, who found that m-learning using cell phones eased students' access to course materials and course work, and promoted interaction among peers. The results of the factor analysis of m-learning readiness indicated substantial factor loadings >.4 on students' readiness, attitude and perceived usefulness of using cell phones for communication and in their learning. Comparably, in another study of m-learning and communication using mobile phones in Asia (India, Mongolia, Bangladesh, Thailand, and Philippines), it was revealed that mobile phones enhanced communication and improved access to education (Valk, Rashid, &

Elder, 2010). The common feature that cuts across the different studies is that the use of simple and affordable technologies like cell phones should be explored in different distance education environments (specifically in Uganda) as a means to improve on communication and support learning.

Munene (1997) found the challenge of poor time management by the lecturers and students in Ugandan universities. The challenge with lecturers is that most of them teach in more than one institution. In Uganda, moon-lighting is a common term used to refer to academics that teach in several institutions. This makes timely coordination of coursework and examinations setting, writing and reviewing of modules, and giving feedback on assignments difficult hence affecting quality of learner support. Majority of the in-service teachers live far from the universities making it difficult to monitor what they are doing on assignments (Bbuye, 2006). Bbuye further observes that several distance learners report for face-to-face sessions late, fail to hand in coursework on time and yet the lecturer is duty-bound to prepare and complete the course in the specified time. Remember, much as they have to study, most students are working adults who must keep sufficient time for their work that pays the fees, and also give ample time to their families; all competing for the same time. The implication is that the trainers should adequately prepare in-service teachers on issues of time management to be able to study as they work.

Previous studies have reported that universities in Uganda find it challenging to adequately support students who live and work in different villages during field support and school practice (Aguti, 2003; Aguti, & Fraser, 2006). The training university must identify and send school practice supervisors to all the concerned students who must be supervised at least two times in each of the two teaching subjects. There is also need to send a group of monitors who are followed by a group of moderators in the field to ensure that the work of supervision is going on smoothly with all related time and financial costs. Likewise, Perraton (2000) remarks that in sub-Saharan Africa, the challenge of effective supervision of classroom practice of student teachers still lacks effective arrangement. In Uganda, the magnitude of this problem varies between institutions and is controlled as universities build their respective human capacities to manage institutional practices.

Poor reading culture limits the effectiveness of learner support in many African countries and Uganda in particular. Kaberia (2012) posits that the poor reading culture among Africans is rooted from the African culture where there is much preference for talking as opposed to

reading which is solitary and seems to demean the social attribute of the African culture. In Uganda, Mlay, et al. (2015) attribute the poor reading culture to the forceful means used by some parents to initiate their children in reading. However, the same study agrees with Baryamureeba (2007) who found that ICT use helps to promote reading by enabling the students to have access to different reading sources. Baryamureeba (2007) further contends that he has embarked on ICT development to facilitate internet-based access to reading materials in Uganda. However, the effect of such initiatives is limited by inadequate ICT infrastructure in the country (Basaza et al., 2010; Mutonyi & Norton, 2007). The above literature reflect that research underscores the influence of technology in creating and distributing course materials and inculcating the reading culture in Uganda. The slow development of the reading culture could be in-line with the low level of ICT use in distance education in Uganda.

3.8. Chapter summary

The chapter has addressed a critical review and presentation of the relevant literature. The gaps in the literature were identified, examined the pedagogic problems facing primary school teachers in Uganda before tackling the development trends in distance education and learner support. The literature addressed the theoretical framework for the study, then narrowed down to the concept and nature of learner support, and challenges faced by universities in the provision of learner support. The key themes in the literature reflect the study objectives and questions that had to be understood in relation to the existing knowledge based on the literature. These paved the way to my development of the relevant methodology in the next chapter, and enriched the discussion of results in chapter 7.

CHAPTER 4: METHODOLOGY: STEERING THE RESEARCH

> *In practice, good social research is a matter of 'horses for courses', where approaches are selected because they are appropriate for specific aspects of investigation and specific kinds of problems.*
>
> (Denscombe, 2003, p.3)

4.0 Introduction

In the previous chapter, I demonstrated that researchers have underscored the role of learner support in enhancing teaching and learning for in-service teachers. In developing countries like Uganda, teachers face social and material deficiencies that create adverse effects on their pedagogical practices. Research studies conducted from both the developed and developing countries have underscored the role of ICTs in improving learner support for distance learners. Studies from developing countries, especially on the African continent, show that institutions training distance learners rely more on face-to-face workshops and print study materials for learner support. This has left several students isolated most times with limited interactions with their lecturers and fellow peers. The literature reviewed indicate that investing in technologies and communication infrastructure is necessary for nurturing effective learner support. In line with the above quotation, for effective investigation of learner support management and delivery by the university and workplaces, there is need for appropriate research approach and methods.

The methodology chapter captures the study's scope and research questions, research approach, strategy and design, population and sampling procedures, instrumentation and data collection. An elaboration on the different data collection methods including, questionnaires, interviews, and focus group discussions is made. This is followed by the process of developing, piloting and applying the data collection methods. The chapter ends with a description of data analysis and ethical issues.

4.1 Scope of the research

In absence of empirical evidence on managing and delivering learner support for in-service teachers in Uganda, this study focused to investigate incorporating workplace and university learner support systems in their training. It aimed at highlighting how the university and schools

make the learning experience of the in-service teachers conducive, fulfilling, transforming and relevant to their pedagogical practices in primary schools.

This study addresses five research questions that include:

1. How do students and staff perceive the nature of learner support delivered by the university?
2. How do in-service teachers perceive the nature of learner support delivered by the schools where they work?
3. What perceptions do in-service teachers have about the quality of learner support delivered by the training university?
4. In what ways and to what extent are learner support services perceived to affect pedagogical practices of the in-service teachers?
5. What are the challenges faced by the university in managing and delivering learner support to in-service teachers on distance education?

The nature of learner support focused on the composition of learner support, while quality of learner support targeted the participants' perceived image and satisfaction with learner support in the current study. As per the methodological scope, this study used mixed methods combining quantitative and qualitative methods. The rationale was to harness the benefits arising from both quantitative and qualitative methods through triangulation. Whereas the use of questionnaire was deemed effective to answer research questions 2, 3 and 4; qualitative methods (In-depth interviews and focus group discussions) were used to answer all the five questions hence enabled triangulation between methods, and data collected using the various methods.

4.2 Research approach

In view of the five research questions and in line with the literature (Creswell, 2015; Johnson, Onwuegbuzie, & Turner, 2007; Newby, 2010), I deemed mixed-methods that integrate quantitative and qualitative methods appropriate for this study. This specifically considered, sequential explanatory approach involving collection and analysis of quantitative (Quan) data, followed by collection and analysis of qualitative (Qual) data; and integrating them in the interpretation and discussion (Creswell, 2003; Creswell, 2014; Creswell, Plano Clark, Gutmann, & Hanson, 2003).

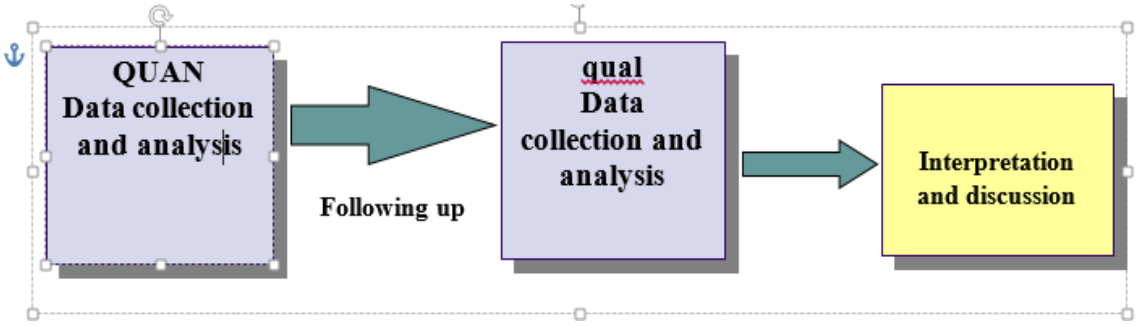


Figure 5: Illustration of sequential explanatory mixed methods process

Source: Adapted from Creswell et al. (2003).

Mixed methods is an established paradigm in educational research and its application is visible in a number of studies on learner support for distance learners (Barker & Crawley, 2005; Rumajogee et al., 2003). The rationale is that the use of both quantitative and qualitative methods provides a wider potential for triangulating evidence, and allows the two methods to reinforce each other hence being able to compare results in a complementary manner (Denscombe, 2014; Newby, 2010). This study used questionnaires to collect quantitative data that were quantitatively tested; but given that some elements within the study were not easily quantifiable and some quantifiable elements needed more clarification, qualitative data using in-depth interviews and FGDs were collected following quantitative data collection. Though the quantitative method brought out the initial picture of the findings, the specific details were unveiled through interactions with the participants using qualitative methods. Qualitative methods thus enriched the study (Creswell, 2015; Creswell et al., 2003) because they were intensively used to examine findings from the quantitative method.

Whereas Brannen (2005); and Hantrais (2005) claim that researchers who are pro-quantitative and those who are pro-qualitative would view combining the two approaches as an equivalent of sharing with the devil, several commentators (Creswell, 2009, 2014, 2015; Creswell & Plano Clark, 2010; Newby, 2010) argue that using mixed methods can give a rich picture and value to the study. Mixed methods can thus reduce the extreme tension between the positivist and interpretivist epistemological strands. It is against that background that several commentators have branded the use of mixed methods as; quiet revolution (Tashakkori & Teddlie, 2003, 2010), ceasefire of the paradigm of wars (Mingers, 2003); ashes of the paradigm wars (Cameron & Miller (2007), and the paradigm of soup (Buchanan & Bryman, 2007). The implication is that mixed methods reduces the tension and nurtures a seemingly acceptable working relationship between the positivists and interpretivists. Additionally**,** in his recent

edition of *Social Research Methods*, Bryman (2016) credit mixed methods for being flexible and having a high degree of reliability. This is because one is able to use a number of research methods in a single study that reinforce each other. Similarly, Teddlie and Tashakkori (2009) argue that because of triangulation, the various instruments used in data collection in mixed methods can be cross-examined leading to improved validity of the research findings. The choice of mixed methods in this study therefore, hinged on the need to harness the benefits of using quantitative and qualitative methods basing on the multiple angles argument and the intuitive argument that mirrors the real life.

In line with the principles of mixed methods (Creswell et al., 2011; Teddlie & Tashakkori, 2009), I mixed questions of quantitative and qualitative nature, used samples involving probability and purposive, mixed data collection methods involving surveys, interviews and FGDs; and analysed both numerical and textual data. The value of mixed methods was harnessed by allowing triangulation of quantitative findings from questionnaires with qualitative findings from interviews and FGDs which gave a richer picture of managing and delivering learner support in the study. In line with the findings of Gorard and Taylor (2004); and Newby (2010), quantitative findings from questionnaires were complemented by qualitative findings from the interviews and FGDs. Qualitative methods reinforced the statistical findings by exposing more information on issues of perceptions and challenges faced by the university in managing and delivering learner support.

4.3 Research strategy and design

The research involved the use of a case study strategy. This is commended by Denscombe (2014) who observes that the case study illuminates the general picture by investigating a particular phenomenon in-depth. This particular case of UMU gave a general picture of learner support practices for in-service teachers in Uganda as evidenced in the findings (see chapters 5 and 6).

In line with the literature (Denscombe, 2014; Yin, 2014), the case study strategy was chosen and used because of its feasibility and ability to give insights as it concentrates on a particular case but with wider implications. It thus provides in-depth investigation, highlights relationships, allows application of a variety of methods and is deemed suitable for small research projects. In this study, the selection of the case study was not random but based on specific attributes. It was based on the university that has been running distance education for in-service teachers for at least 10 years with established study centres in all the four regions of

Uganda. The aim was to give a full picture of the situation of distance education for in-service teachers in Uganda. With its study centres in different regions of the country, UMU represents both urban and rural based institutions, has both diploma and degree programmes for in-service teachers, and is representative enough to yield results upon which others can learn and plan for improvement. The choice of the Faculty of Education for the study is because it is the only one that enrols in-service teachers for professional development.

For effective use of case study strategy, one of the leading authorities in case study research (Yin, 1993, 2014) observes that case study should not be linked with particular type of data collection. Within the case study, one can collect both qualitative and quantitative data. In addition, Gillham (2000a) posits that one of the key attributes of case study strategy is the use of multiple methods in data collection showing their respective strengths and weaknesses. The implication is that a single data collection method may not be enough to provide sufficient evidence. It is against that background that the case study strategy involving mixed methods was used in this study.

This study adopted a longitudinal research design involving data collection for a period of time to study unfolding of specific events (Cohen et al., 2007; Walsh, 2001). The study considered managing and delivering learner support for a specific group of students (Bachelors of Education- Primary (BED 1) and Diploma in Education – Primary (DEP 1). It considered a period of two and half years (February 2015 – July 2017). This is in line with Walsh (2001) who posits that in order to obtain factual information and study a pattern of change for a period of time, then it is ideal to use longitudinal study design. Data were collected in three episodes though with variations in the time span for each episode. The different data collection episodes included; February 2015 – May 2016 (first episode), June 2016 – December 2016 (second episode), and January 2017 – July 2017 (third episode). The study involved collection of quantitative and qualitative data hence fulfilled the research concern that longitudinal studies should have that combination of data and conducted over a period of time based on months or years (Cohen et al., 2007, 2011). The choice of the longitudinal design fitted in the time available for the study, matched with the case study strategy and mixed methods approach.

4.4 Population and Sampling

The study population was 560 participants (N=560). It considered all the in-service primary school teachers enrolled at the case study university. In line with Creswell (2003, 2015), the nature and size of the study population were specified to give a clear picture of the scope of the

investigation. In order to operate within my means and collect manageable data (Newby, 2010), a representative sample 320 respondents was targeted (n=320). Based on the programmes strata in the faculty of education of the case study, distance education programmes for in-service teachers were purposively selected (Walsh, 2001).The sample size was determined by the number of all first year students on the two programmes (the sum of BED 1 students (210) and DEP 1 students (110) gave a total of 320 students.

The selection of first year students was influenced by the longitudinal design that aimed at studying the same respondents for a period of two years and six months. In line with Cohen et al., (2007, 2011), though a sample is a subset of the population, the findings derived were representative of the total population. The choice of respondents for the survey gave equal chances for both male and female students from each stratum to participate since all students in the selected programmes were considered. The considered sample size is neither too small not to reveal some aspects about the population nor too big not consider details of each case in the sample hence not a captive of extremes (Walsh, 2001).

The choice of the respondents for interview method was purposive to elicit responses from the right respondents. The respondents for interview method included 6 faculty staff whose identity was concealed for ethical reasons. The interview method also considered 7 headteachers representing 7 schools where the in-service teachers work. Neither the headteachers nor their schools were named to ensure confidentiality. Owing to ethical consideration and need to ensure confidentiality of participants, it was envisaged that some students would not like their headteachers to know about their study programme; therefore, the headteachers were conveniently selected in consultation with the students.

About the focus groups, there were 4 groups of 8 students in each drawn from the different strata. In accordance with the principles of a good informant (Spradley, 1979), a sample of students in qualitative data collection was derived from the quantitative data respondents. These involved forming of four Focus Group Discussions (FGDs) of 8 respondents in each group. Two groups were selected from the BED stratum and two groups from DEP stratum after clustering the students in 2 sub-groups of those doing Arts and those doing Sciences. It was important to have subject balance among the respondents because it was envisaged that there could be subject-specific learner support needs for those doing Arts and those doing Sciences. The final selection of participants from each stratum for FGDs was voluntary. In line

with Greene et al. (1989); to enrich the quality of this study, the findings from quantitative and qualitative methods were triangulated, complemented and expanded (see chapter 7).

4.5 Instrumentation and Data Collection

In this section, I explain methods and instruments of data collection used in this study. It involved the use of questionnaires, in-depth interviews, and focus group discussions. A summary of the different data collection methods used in this study is shown in Table 2.

Table 2: Showing a summary of data collection methods

Method	Instrument	Purpose	Participants	Timing
Questionnaire	Questionnaire form	-Identify learner perceived quality of workplace support services. -Examine students' perceived quality of university learner support. -Analyse effect of learner support on pedagogical practices.	Students 304 Questionnaires Distributed: 320 Returned: 304 Not returned: 16 Return rate: 95%	February 2015 to May 2016
Interview	Interview guides	-Investigate the service providers' perspective of nature and quality of learner support. -Obtain and reflect on staff and headteachers' perspectives of effect of learner support on pedagogical practices. -Examine challenges by faced the university in managing and delivering learner support	- University staff (6 respondents) - Headteachers (7 respondents) 6 + 7 = 13 13 interviews	June 2016 to December 2016. January 2017 to July 2017.
Focus group discussion	Focus group guide	-Engage learners to identify their perception of the nature and quality of learner support. -Promote learner's critical reflection on the effect of learner support on pedagogical practices.	Students 36 students (8 students per focus group) 4 focus groups	June 2016 to December 2016. January 2017 to July 2017.

The following section presents the different methods of data collection in the sequence of their application in the study. It considers the questionnaire first, then followed with qualitative methods (interviews and FGDs).

4.6 The Questionnaire Method

4.6.1 Introduction

According to Creswell (2003, 2015), a questionnaire method is used to collect numeric data on the trend of the population or topic being studied by considering a sample from the population. In this study, the questionnaire method was used to collect data relating to three of the five research questions from the in-service teachers. These were questions relating to how in-service teachers perceive the quality of support by university and their workplaces, and the effect of learner support on their pedagogical practices.

Self-administered questionnaire was chosen because it is able to access a big sample (Newby, 2010; Xerri, 2017). In this study, 320 respondents were targeted using survey method which may not have been easy if I depended on qualitative methods only. In addition, Howell (2013), and Tymms (2012) observes that the questionnaire method is less expensive in relation to the number of respondents used and distances to their various geographical locations. In this case, data were collected during face-to-face residential workshop for in-service teachers at the training university. The questionnaire method was also chosen for its ability to allow data to be collected in a specific standardised form (Newby, 2010). The implication is that data collected targeted specific research questions and was kept within the intended scope of the study. In order not to limit the potential response scope of the respondents, one open-ended question asking respondents on what may have not been captured in the closed questions was included at the end of the questionnaire.

I took caution from the literature about the possible challenges of using the questionnaire method that would affect the data collection process and prepared accordingly. Newby (2010) notes the possibility of non-responses as the respondents complete the questionnaires at their own pace and time. In this study, questionnaires were distributed with the help of the programme coordinators for diploma and degree when students reported at the university for face-to-face residential workshop in May 2016. This did not completely eliminate the non-responses but it significantly increased the response rate (see section 5.1) as the filled questionnaires were collected before the students left the university. Furthermore, Tymms (2012) claims that the survey method is prone to question misinterpretation without any

physical guidance given. In this study, clear explanation was made of what was expected of the participants before filling the questionnaires. All the participants were literate and able to read and answer questions; as they were teachers who use English as a medium of communication in their schools.

4.6.2 Development of the questionnaire

The questionnaire tool contained close-ended questions with one open-ended question at the end (appendix 3). The 45 questionnaire closed questions were measured on a five-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The choice of the questions was based on the learner support needs of the in-service teachers on distance education right from the time of application to join the university, when they are at the university, and what they expect after leaving the university (Brindley, 2004; Floyd & Casey-Powel, 2004). It mainly targeted quantitative data that were triangulated with the qualitative data from interviews and FGDs. Simplicity and clarity were guiding principles in questionnaire development (Johnson & Turner, 2003; Xerri, 2017).

The research questions were the foci in developing the survey tool. These considered learner perception of the quality of support from the workplace and training university, and the effect of learner support on pedagogical practices. Ample space to complete both closed questions and one open ended question was provided to enable the respondents give their responses. The questions were kept short, clear and easy to answer to avoid what Tymms (2012) described as "response set" if the tool is so long that the respondents lose interest and pick a specific position per page and keep ticking without thinking about the questions.

In adherence to the guidance given by Cohen et al. (2007), a brief letter explaining the value of the research and anonymity of the respondents was prepared as part of the survey tool package. The covering letter also formally introduced the investigator. In addition to showing that it is an academic research, the letter implored respondents to answer all the questions without giving their names. A word of thanks was given in advance to motivate participation (appendix 3).

4.6.3 Piloting and administration of the questionnaires

The draft questionnaire was pre-piloted on two colleagues at the University of York who gave comments on the nature of questions that informed further improvement. Some of the questions had to be reworded such as the use of the term undecided in questions 1, 2 and 3 which was changed to neutral (appendix 3). The term pedagogy was clarified to mean classroom teaching-

learning practices and questions were made precise and simple. The revised questionnaire was then administered during the pilot study on an independent group of 30 participants who were not part of the actual study. There was further improvement on the questionnaire based on the input from the pilot study specifically providing clear choices for respondents on a five-point Likert scale and adding one general open-ended question.

The final survey tool was used for field data collection in May 2016. This was during the face-to-face residential workshop for in-service teachers to maximise the response rate. The Dean of the Faculty of education was contacted and she notified the programme coordinators for diploma and degree of my intended study and data collection process. The programme coordinators helped to identify the class representatives specifically during the professional courses that are compulsory to ensure participation of all the students. Together with the class representatives, we distributed the questionnaires. The filled questionnaires were returned to the class representative within a period of four days during face-to-face residential workshop.

4.7 Interview Method

4.7.1 Introduction

In-depth interviews were used to collect data from the staff involved in managing and delivering distance education courses in the faculty of education. They were also conducted in some selected schools to collect the views of the headteachers about the support they give to in-service teachers, and the effect of the in-service training support on pedagogical practices. These involved intensive interactions with the interviewees about a particular situation or area of study in which they were knowledgeable (Boyce & Neale, 2006). Staff and headteachers (interviewees) were knowledgeable about learner support in distance learning in the sense that they supported the students in training, and practice in schools.

In-depth interviews were chosen because they permit probing (Creswell, 2003; Morgan, 1997). According to Gillham (2005), probing is eliciting further response from the respondent as you sense that more information can still be obtained. The interviews involved respondents who are knowledgeable about the context of the research relating to what Gillham (2005) termed as elite interview. This was useful as I was able to probe from the respondents about the nature and quality of learner support, the link between learner support and the trainees' pedagogical practices, challenges they face in managing and delivering learner support, and where they place the voice of trainees in the context of learner support.

In addition, research has shown that the interview method reduces on misunderstandings by the respondent as clarification can be given on spot (Creswell, 2003, 2014; Gillham, 2005; Morgan, 1997). Indeed, this accounted for choice of the interview method as it allowed interaction in conversational manner with each respondent giving clarification where necessary. Furthermore, Gillham (2005) credits the interview method for its ability to build rapport between the researcher and the interviewee. In this study, we had cordial discussions given that in-depth interview method allowed a one-to-one session with each interviewee.

Further still, Cohen et al. (2007) argue that the interview method can be arranged at a time conveniently agreeable to the respondent and the researcher. In this study, the use of the interview was strategically chosen for the busy working staff at the university and schools. They were consulted to give their convenient time for interviews and I accordingly adjusted my programmes to fit within each respondent's preferred time for the interview.

In order to I abate possible challenges of using the interview method that would adversely affect the data collection, I derived lessons from the related literature. Gomm's (2008) research indicates that in-depth interview method increases the researcher's influence on the respondent's response. In the same vein, Creswell (2003, 2015) echoes the likelihood of the biased responses caused by the presence of the researcher during the interview process. To avert such an occurrence, I cordially discussed the interview process with each respondent and gave appropriate time for responses without undue interference except when clarification was needed.

Furthermore, Gillham (2005) raises the hardship concerning immediate recording during the interview. Though challenging to keep on recording during the interview, I jotted down key issues but also audio recorded the process and was able to listen to the recording and internalised the discussion after the interview. The audio recording was done with full knowledge and permission of the respondents for ethical reasons. Gillham (2005) further blames the interview method for allowing a limited number of questions owing to time constraint and availability of the interviewee. Though the interview questions were limited (eight in number), they focused on the key study themes hence were adequate to elicit the desired responses.

4.7.2 Development of Interview guides

Two interview guides were developed; one for staff involved in managing and delivering learner support (appendix 4), and the other for headteachers where in-service teachers work

(appendix 5). Based on the observations of Gillham (2005); the interview guides were prepared with a series of steps. These included: compiling a list of questions relating to the main study questions, brain storming the questions and reviewing them, grouping related questions on a particular study theme, and checking the clarity of questions. I also shared the draft tool with the supervisor for comments, pre-piloted it on two colleagues while seeking their comments, and then refined the tools.

As a component of the interview tool development, a brief letter seeking permission to access the respondents was prepared. It introduced the investigator and encouraged respondents to freely respond to the questions without giving their identities (such as names, qualifications, and schools) (appendices 4 and 5). Permission was sought through the office of the Faculty Dean at UMU and appointments made with the selected staff. For the case of headteachers, permission was sought through their respective in-service teachers. Still, before conducting the interviews, the consent of the interviewees was sought.

4.7.3 Piloting and administration of interviews

In agreement with Silverman's (2010) recommendation to pilot the interview tools for reliability, I used the draft interview guides in the pilot study on one university staff and one headteacher outside the main study, refined the tools and produced the final interview guides. The development of the interview guide for the university staff focused on all the five research questions while that for the headteachers targeted two research questions of the study (how they support in-service teachers, and the effect of learner support on classroom practices). Based on the pilot study, the questions were refined and sequenced logically in accordance with the main study questions. The questions were reduced to eight from ten to avoid repetition, and to allow ample time to sustain effective probing in the final study (appendix 4).

In line with Patton (2002), the interview guides were used to give direction during the interview process but there was room for further probing based on the responses from the respondents. Additionally, in agreement with Thomas (2009), in-depth interviews were used in such a way that the schedule provided a framework of issues that were in a logical manner and raised more questions for follow up and probing during the interview process. The logical aspect involved arranging the interview guide questions targeting each of the main study questions in their sequence. The interviews for staff were conducted at 2 university campuses but on different days in adherence to the respondents' preferences. I took advantage of their choices and we used their respective offices as interview venues. The interview periods varied ranging from

40 to 90 minutes. It depended on the explanation given by each interviewee and probing based on their respective responses.

The same interview guide was used for all the staff. That helped to compare and triangulate findings of the same research method and then related it to findings from the other methods. The second interview guide targeted the headteachers of selected schools and focused on the support they gave to their teachers on training, and how the training support affected the trainees' classroom pedagogy. With due permission from the interviewees, I took notes, audio recorded the interview process, and transcribed the data afterwards.

4.8 Focus Group Discussions (FGDs)

4.8.1 Introduction

As 'collective conversations or group interviews' (Danzin & Lincoln, 2008), focus group discussions were used to collect data from the selected students' groups sampled from those that responded to the survey. In line with Morgan (1996, 2014), FGD used group interaction to obtain data from the students on learner support delivery. It was thought-provoking to find out how qualitative method can be used to complement and compare with findings from the quantitative method (see chapter 7).

The choice of the FGD method hinged on its appropriateness and merits with respect to this study. FGD gives an opportunity for probing by the researcher as he/she plays a moderator's role (Frey & Fortana, 1982; Khan & Manderson, 1992). In this study, I found out from the students about the nature of learner support, how they perceived the quality of the support, and the effect of learner support on their classroom practices. Morgan (1997, 2014) argues that FGDs reduce on misunderstanding of the questions by the respondents as clarification can be given by the interviewer on-spot. Additionally, Wellington (2000) alludes that this method of data collection creates a feeling of security and safety among respondents as they are together with fellow peers. In this study, the motive of the group discussion was clarified and participants were encouraged to freely voice their concerns before fellow peers. I also encouraged participants seek for clarification at any time during our discussion.

Several researchers (Gaskell, 2000; Khan & Manderson, 1992; Morgan, 1996) have credited FGD for its ability to create synergies by stimulating interactions among the respondents, and between the respondents and the investigator. In this study, there was opportunity for participants to interact and freely give their views about the nature and quality of support

obtained from the university and workplace. As noted by Morgan (1997, 2014), unlike the interview method that breeds the investigator's effect, the FGD method dilutes the effect to allow open discussions. My investigative role was mainly to moderate the discussion and take note of outcomes without interfering or cutting short the respondents. Triangulation by way of cross checking the respondent's responses with the responses from other respondents, and data collection methods merited the use of the focus groups.

In view of the literature on FGDs, anticipated challenges of using this method were identified and carefully handled for effective data collection process. Morgan (1997, 2013), and Wellington (2000) claim that FGD method is prone to peer contamination because the weak discussants are overshadowed or have their ideas rubbished by the vocal respondents. This is supported by Creswell (2003, 2014) who reveals that reality shows individual differences as the level of articulation varies among respondents. To avert such an occurrence, I encouraged participants to speak in turns without interference. This encouraged even the less vocal participants to contribute in our discussions that enriched the findings.

Merton (1990) points out that focus groups are prone to having false consensus. To counteract this, with full knowledge of participants, I took field notes, audio recorded the discussion, and reflected on the findings afterwards not to succumb to group consensus (List, 2001; Morgan, 2013). Concerning what Gillham (2005) termed as the infeasibility of the tape recording due to unclear speaking of some respondents, the recording was tested and participants encouraged to be loud enough and clear so that their rich and valuable contributions are not missed. The audio recording was complemented by the investigator's notes taken during the discussions that enriched the transcription and presentation of the findings.

Furthermore, Newby (2010) posits that the FGD method puts the ethical issue of confidentiality at stake as individuals openly listen to the views of each other. Additionally, Morgan (2010); Morgan and Krueger (1993) raise a danger of group dynamics slowing the process and limiting the research control. In contrast, Denscombe (1985, 2010) argues that such open discussions encourage telling the truth rather than falsifying. In this study, group discussions promoted team building, provided different perspectives and ideas from participants that were triangulated to enrich the findings. I guided and controlled the discussions within the study scope, and participants retained their freedom to decide when to contribute.

4.8.2 Development of FGD guide

FGDs involved designing focus group guide to collect data from the students (appendix 6). Basing on the views of Krueger (1998), and Krueger and Casey (2015) on focus group kit, I developed concise, clear and reasonable questions; refined and revised the questions, shared with the supervisor, and two colleagues for comments. Although Krueger (1998) identifies topic guide, and questioning route as two different approaches from which to choose when developing and using focus group discussions, I mixed the two in order to harness the benefits of both and enrich the study findings. I identified themes based on each research question, and then developed questions to use under each of the study themes.

4.8.3 Piloting and Administration of FGDs

The FGD guide was piloted on a group of six students outside the main study that informed further revision and production of the final FGD guide. The sole pilot group took about two and half hours which is beyond the ideal. According to Krueger (1998), and Krueger and Casey (2015), the rule of the thumb holds that a focus group discussion should not last for more than 2 hours. I took note of areas that needed more time and what could be avoided in producing the final draft. The draft tool was refined and used in the main study.

Although I had already got permission from the university to conduct the research, there was a need to get volunteers from the questionnaire respondents to participate in focus groups. With the support of students' course representatives, I requested for at least 24 volunteers targeting to have 4 focus groups of at least 6 participants in each. I finally got 36 volunteers to participate in group discussions. Individual participants consented prior to the start of the focus group discussions.

In order to keep within the rule of the thumb (Morgan, 1997, 2013) that a focus group discussion should have 6-10 participants and the groups should range from 3-5; this study had 4 focus groups of 8 participants in each group. These were selected in such a way that two groups were from BED and two from DEP students. In line with (Krueger, 1998; Krueger & Casey, 2015), each discussion took about one and half hours and used 8 open ended questions with some level of probing to elicit the responses.

To ensure depth discussion of topics and allow individual expressions focusing on the study (Howell, 2013; Meron, 1990); FGDs were organised on four different days in the evening when the selected participants had finished their classes. A classroom was arranged in workshop manner so that participants could feel relaxed and encouraged to openly give their views on

key learner support services. Students also discussed the effect of learner support on their classroom delivery. With due permission from the participants, the discussions were audio recorded and transcribed.

The investigator attended all the four group discussions and moderated the process giving room for participants to give their views without deviating from the study focus. The cultural aspect of respecting adults and their varied views was observed (Krueger, 1998). English was used as a medium of our discussion to unite all the participants that speak different tribal-based languages. In addition, English is the official language used as a medium of instruction in Ugandan school system hence spoken by all in-service teachers.

4.9 Data Analysis

Data was analysed using quantitative and qualitative data analysis techniques to sustain mixed methods.

4.9.1 Analysis of Quantitative Data

In line with Punch's (2005) recommendation to prepare and clean data before entry in the computer for electronic processing, I did proofreading of the questionnaire responses, checked for unclear responses and missing data, and organised the data for electronic entry and analysis. After tidying up the quantitative data (data cleaning), I coded and recorded the questionnaires for identification and clarity in data entry.

The data was entered into SPSS computer software for analysis involving descriptive statistics and factor analysis. Descriptive statistics targeted research question 2 relating to learner support from workplaces/schools, and research question 4 concerning the effect of learner support on pedagogical practices of the in-service teachers. For the 7 variables on learner support from schools (research question 2) and the 10 variables on influence of learner support on classroom pedagogy (research question 4), SPSS was used to run descriptive statistics showing relationships between variables based on frequencies and percentages. Owing to its flexibility in editing and adjusting on the chart and text, excel software was used to create relevant graphical representations (stacked bar charts) using the frequencies and percentages imported from SPSS.

Factor analysis targeted research question 3 involving students' perception of quality of learner support. According to Howitt and Cramer (1997); "Factor analysis is a mathematical procedure which reduces a correlation matrix containing many variables into a smaller number of factors or supervariables" (p.287). Similarly, Cohen et al. (2007, 2011) consider factor analysis as a

latent factor that is indicated by two or more variables hence a way of grouping variables with common attributes. The use of factor analysis aimed at identifying related variables and devise mechanisms of addressing them together for better management and delivery of learner support.

R factor analysis focusing on the variables rather than the cases (Pallant, 2007, 2016) was run for the 45 variables on learner support with a total of 304 respondents. This helped to discover the correlations between the variables and hidden underlying factors ranked according to the level of influence on the rating of quality of learner support. This reflected the case to variable ratio of 6.8:1 (304 cases against 45 variables). This ratio is above the commended rule of the thumb ratio of at least 5:1 to suffice running a factor analysis (Hair et al., 2013). It is a reasonable sample compared to other studies that used factor analysis such as Tao (2008) with the case to variable ratio of 4.8:1 (145 cases versus 30 variables); Kyriacou and Roe (1988) with the case to variable ratio of 2.8:1 (64 cases versus 23 variables).

In line with (Howitt & Cramer, 2011; Tagoe & Abakah, 2014), factor analysis helped to unveil patterns in the correlation between the 45 variables on learner support. In addition, to conform to the rule of the thumb (Hair et al., 2013), only variables with a loading of .3 and those with -.3 plus on a specific factor were considered when naming the factor. In order to establish the appropriateness of the sample, Kaiser-Mayer-Olkin (KMO) measure was taken to ensure that it is not less than .6 (Cohen et al., 2007, 2011), and Bartlett's test for Sphericity had to be significant when $p < .05$ (Pallant, 2007, 2016).

4.9.2 Analysis of Qualitative Data

This involved the analysis of qualitative data from interviews and FGDs. The analysis was guided by the thematic analytic model (Miles & Huberman, 1994) considering data reduction, data display, data verification and drawing conclusions. I also used Nvivo qualitative data organisation computer software.

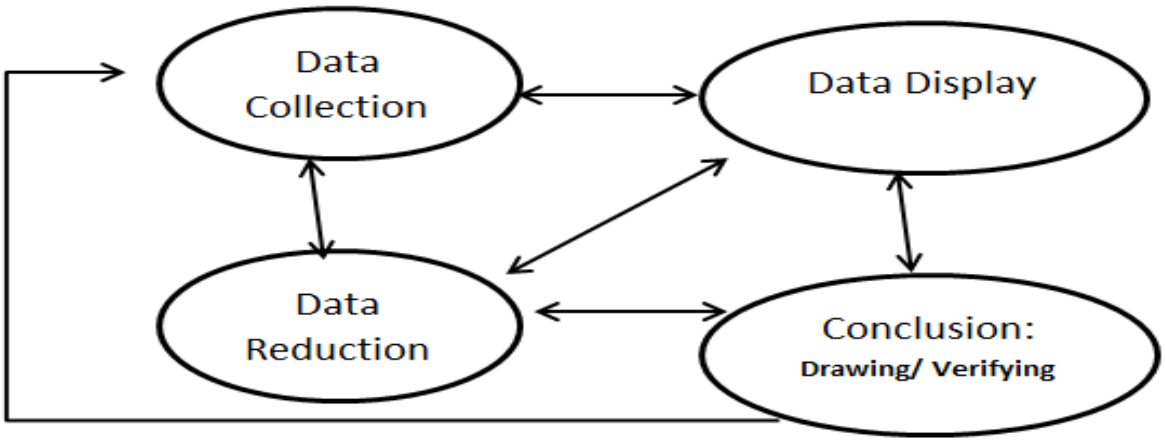


Figure 6: Components of data analysis: Interactive model

Source: Adapted from Miles and Huberman (1994, p.12)

In line with Miles and Huberman (1994), and Miles, Huberman and Saldana (2014), the analysis was guided by the interactive nature of the model involving data reduction, data display, data verification and drawing conclusions. In data reduction, data recorded during interviews and FGDs were transcribed and verified by checking and cleaning the audio, the field notes and transcript. According to Gillham (2005), transcribing is the process of developing a valid and reliable written account of the interview discourse. Review of the transcripts was done to improve on the logical flow of ideas, identify grammatical errors, punctuations and general quality of the transcripts.

Editing of transcripts was a continuous process to improve on the quality of results and presentation. To give meaning and interpretation to the research data, I started the coding process as a component of data reduction. This is because as a transition from data collection to analysis, there was need for a word or group of words to symbolise big text narrative or visual data (Saldana, 2008). Coding thus provided a form of summarising while maintaining content of my findings.

The interview respondents (staff and headteachers) were coded using alphabets and numbers for identification instead of the respondents' real names. The six university staff were coded Uni staff 1, Uni staff 2, Uni staff 3, Uni staff 4, Uni staff 5 and Uni staff 6. The numbers were given randomly and do not indicate staff position or seniority in the faculty. For the seven headteachers who were interviewed, letters of the alphabet were used to identify their names and schools instead of their real names. These include; Headteacher, School A; Headteacher, School B; Headteacher, School C; Headteacher, School D; Headteacher, School E;

Headteacher, School F; and Headteacher, School G . Whereas B, C, D and E were headteachers of public/government owned schools; A, F, and G were headteachers of private owned schools.

Similarly, the four focus groups of students were identified by numbers and each of the group participants was allocated a different number from those of other group members. These include; FGD 1, FGD 2, FGD 3, and FGD 4. In each FGD, participants were identified by numbers from 1 to 8. For example, Student 1, FGD 1; up to 8 since they were 8 participants in each FGD.

From the word processor, the data was exported to Nvivo computer software for improved data organisation and preparation for analysis and interpretation. Data were coded and categorised using Nvivo 11 software. Coding involved attaching labels (Arthur et al., 2012) and grouping the related findings under the major study themes derived from the study questions. These categories/study themes coded were indicated as nodes in Nvivo software. Related nodes were placed in the same parent node based on each of the themes derived from the research questions. The Nvivo nodes were preferred over creating manual codes because they could be easily organised, traced and merged (Wong, 2008). There was flexibility in data manipulation using the Nvivo software in data organisation and storage and retrieval. After coding, organised data were exported to word for further interpretation and display.

Like data reduction, data display continued throughout the analysis. This enabled data organisation and summarisation (Punch, 2005). Data display took the form of text and tables (see chapter 6). The idea is that I continued displaying data to internalise the output during the analysis period.

The rationale for data reduction and display is to be able to make meaningful conclusions (Punch, 2005). This informed my focus in data analysis. Nvivo software cannot make interpretive judgement (Gillham, 2005, Wong, 2008), as such it was my role as an investigator to ensure meaningful analysis and interpretation of the results. Interpretation of findings and drawing of conclusions were based on the themes derived from the research questions. Overall, five main themes that emerged in analysis include; student and staff perceptions of the nature of learner support, learner perceived support from workplace/schools, students' perceptions of the quality of learner support from the university, perceived effects of learner support on learners' pedagogical practices, and challenges faced by the university in managing and delivering learner support.

Although Fielding and Lee (1998) claim that using the software distances the researcher from the data collected unlike the use of paper-based analysis, Nvivo software only aided the organisation of the data. I did the content analysis and interpretation of the findings. Nevertheless, the advice to limit the number of codes and saving the work regularly (Arthur et al. 2005) was upheld to avoid disorganisation and loss of any information respectively. Results from both quantitative and qualitative methods were triangulated during the discussion phase (see chapter 7). Table 3 shows the structure of data analysis guide used in this study.

Table 3: Five research questions data analysis guide

Research Question	**Data type**	**Data Analysis Software**	**Data Analysis test**	**Assumption**
1. How do students and staff perceive the nature of learner support delivered by the university?				
	Qualitative	Nvivo	Identify the nature of learner support services – Interpretation	Descriptive
2. How do in-service teachers perceive the nature of learner support given by the schools where they work?	Quantitative	SPSS and Excel	Relationship based on frequencies and percentages	Descriptive statistics
	Qualitative	Nvivo	Identify learner support process – interpretation	Descriptive
3. What perceptions do in-service teachers have about the quality of learner support delivered by the training university?	Quantitative	SPSS	-Factor analysis – correlation between variables -Relationships based on frequencies and percentages	-Data reduction -Descriptive statistics
	Qualitative	Nvivo	Perceptions of quality of learner support – interpretation	Descriptive
4. In what ways and to what extent are learner support services perceived to affect pedagogical practices of the in-service teachers?	Quantitative	SPSS and Excel	Relationship based on frequencies and percentages	Descriptive statistics
	Qualitative	Nvivo	Effect of learner support on pedagogy – interpretation	Descriptive
5. What are the challenges faced by the university in managing and delivering learner support to in-service teachers on distance education?	Qualitative	Nvivo	Identify quality challenges in learner support - interpretation	Descriptive

4.10 Reliability and Validity

Whereas reliability refers to the consistency of a measurement procedure to give the same results whenever used; validity is the extent to which a measurement procedure is able to yield a correct answer or do what is expected of it (Bryman, 1988; 2016; Fraenkel, Wallen & Hyun, 2012; Kirk & Miller, 1986). In this study, the use of mixed methods and triangulation of the findings from the different methods increased the reliability of the findings. As noted by several researchers (Bryman, 2016; Denscombe, 2014; Newby, 2010), mixed methods are flexible and have a high degree of reliability. This is because a number of research methods are used in a single study that reinforce each other. In addition, it was possible to cross-examine the various data collection methods that improved on the research validity.

The pre-piloting and piloting of data collection instruments such as questionnaires, interview guides, and FGD guide made the tools more credible and valid as they were improved upon based on the pilot findings. To ensure consistency, each specific tool was used on each group of selected respondents. For example, same interview guide for all selected staff, same interview guide for all selected headteachers, same FGD guide for all selected groups of students, and same survey tool for all the students.

4.11 Ethical Issues

This research study adhered to the procedures and ethical requirements of the British Educational Research Association (2011), policy of research degrees of the University of York as the training institution, and UMU, the field study site. Bearing in mind that the research study was to involve several participants (Howe & Moses, 1999); including students, staff and headteachers, special attention was accorded to ethical issues (appendix 9).

Permission and approval of the research and data collection tools was obtained from the Ethics Committee of the University of York before conducting the field study. A letter of introduction from the department of education at the University of York was used to seek audience and permission to undertake the study at UMU in Uganda (appendix 10**).** In line with Cohen et al. (2011) research ethical concern, consent was obtained from the participants before undertaking this study (appendix 11). The rationale was to reduce on the possibilities of any painful situation that may arise out of lack of notification and also to act ethically in respect of the respondents (Howe & Moses, 1999; Frankfort-Nachmias, Nachmias, & DeWaard, 2014). In order to have trust and meaningful rapport with respondents (Crow et al., 2006), all participants were notified of the purpose of the study in advance before the actual study commenced.

Participants were assured that data collected was to be used for academic research purpose, influence positive change at university level, and to inform policy of distance education at national level.

In line with the literature (Bell, 1991; Creswell, 2014; Festinger & Katz, 1966; Fraenkel et al., 2012), permission was obtained from the respondents to have access to the university and schools detailing the values of this kind of research to the individuals and the community as a whole. This provided a valuable entry point before data collection. Notifying the respondents about the value of the research to their institution and the country reduced tension and avoided what Lather (1986) termed as "rape research", where you collect the data and take off from the community with no regard to their efforts. I also plan to present the study findings during the annual research conference organised at the case study university. This could be a form of feedback and a reward to the respondents for their participation showing the relevance of the study.

Based on the literature on research ethics (Cohen et al., 2011; Fraenkel et al., 2012; Frankfort-Nachmias et al., 2014), the respondents were assured that data collected and presentation of the research findings will not be personalised. Similarly, Fraenkel and Wallen (1996) states, "whenever possible, the names of subjects should be removed from all data collection forms" (p.39). This was observed in all data collection methods. In order not to become a captive of what Kimmel (1998) termed as weak confidentiality assurance, I continuously reminded the respondents of my responsibility to protect their interests and their right to privacy. Additionally, though alien to Uganda, the respondents signed commitment forms hence secured informed consent and promised confidentiality.

CHAPTER 5: REPORTING QUESTIONNAIRE RESULTS

We believe that the role played by teachers is vital to the future of society. Teachers can make learning exciting and productive for students if their own learning is exciting and productive.

(Fullan, 1993 p.115)

5.0. Introduction

In investigating how learner support is managed and delivered to in-service teachers, the survey collected mostly quantitative data from 320 students. It focused on three of the five research questions in the study. It explored the learners' perceptions of quality of support from their workplaces, and the university, and trainees' perceived effect of the learner support on their pedagogical practices. This exploration is insightful as it indicates how the students perceive quality of support by the university and schools, what they consider missing and what should be maintained or improved upon. Additionally, the one open-ended question at the end of the questionnaire sought the students' views on learner support management and delivery that may not have been captured by the close-ended questions. The excerpts from the responses are presented in this chapter and a detailed report shown in appendix 12.

5.1. Respondents' distribution by gender, programmes of study, and school ownership (Public or Private)

Table 4 presents the breakdown of the survey respondents in terms of gender, programmes of study, and school ownership.

Table 4: Respondents' distribution by gender, programmes of study, and school ownership

Items	Responses	Frequency	Percentage
Gender	Not Answered	3	1.0
	Female	144	47.4
	Male	157	51.6
Programme of Study	Not Answered	4	1.3
	Bachelor of Education	197	64.8
	Diploma in Education	103	33.9
Ownership of School	Not Answered	2	0.7
	Public	218	71.7
	Private	84	27.6
Total for each Item		304	100

5.1.1 Respondents' distribution by gender and programmes of study

The total number of the survey respondents was 304 students. From the 320 expected responses, this accounted for a response rate of 95%. Out of the 304 valid responses, 47.4% of the respondents were females, 51.6% were males, and 1% of the respondents preferred not to indicate their gender identity. The slight difference between the male and female participants is an indication of the increasing number of females in the teaching profession in Uganda and their efforts to use distance education to foster professional and career growth. Current literature indicates that 59.5% of the registered primary school teachers are males and 40.5% are females in Uganda (Ministry of Education and Sports, 2009). It is this pool of registered teachers most of whom (82%) have grade III Certificates or grade IV diploma that are searching for opportunities for further professional development. This gender distribution of teachers in Uganda contrasts the common experience in many countries where primary school teaching is a heavily female-dominated profession. For example, in Europe, female teachers account for over 85% of the teachers in primary schools (Eurostat, 2016).

Regarding 5% of the respondents who did not return their filled questionnaires, one of the students' course leaders involved in distributing and collecting the filled questionnaires commented: "Students who did not return the questionnaires said that it was optional and not compulsory to participate". This follows the communication we made before the questionnaire forms were distributed that respondents were free to participate but can withdraw their participation at any time if they so wish. This indicates the effect of an ethical requirement of the study. The study proceeded on assumption that since the majority of the students returned their filled questionnaires, the few non-responses did not have a significant effect on the findings.

In relation to the study programmes, 64.8% of the 304 respondents were doing a Bachelor of education, 33.9% were on the Diploma in education programme, and 1.3% of the respondents did not indicate their programmes of study. The results indicate a bigger enrolment of students on the bachelors compared to the diploma programme. This is partially attributed to the government's effort to encourage all primary schools' headteachers who already have diplomas to up-grade and obtain at least a bachelors degree by 2018. In addition, experienced teachers who have a bachelors degree in education have better chances of being appointed deputy headteachers if opportunities for career promotion arise compared to those with lower academic qualifications.

5.1.2 School Ownership (Public or Private)

Concerning ownership of the schools, 71.7% of the 304 respondents were teaching in public schools, 27.6% were teaching in private schools, and 0.7% of the respondents did not indicate ownership of the schools where they work. The results indicate that the majority of trainees in the case study are employed by the government (71.7%) compared to those employed by private owned schools (27.6%). This is because most primary schools unlike secondary schools in Uganda are owned and funded by the government, and the government's ultimatum for all headteachers in public schools to have a minimum of a bachelors degree by 2018 (Ministry of Education & Sports, 2011). It could also be attributed to the tendency of most private schools to employ already highly trained and qualified teachers in order to maintain and sustain higher academic performance standards to compete favourably at national level and be able to attract more pupils.

Statistical data in Table 4 are insightful on the nature of the respondents' attributes and influence on the findings. Results indicate that the in-service teachers' perceptions of quality of workplace support (research question 2) highlights some specific variations in learner support between public and private schools (see section 5.2). The influence of those respondents' attributes were cross-examined by other data collection methods (interviews and FGDs) in chapter 6 and informed the discussion of the findings in chapter 7.

5.2 Descriptive statistics

In the analysis of quantitative data, descriptive statistics specifically using frequencies and percentages were run is SPSS to demonstrate learners' perceived quality of support from their schools (research question 2); and learners' perceived effect of support on their pedagogical practices (research question 4).

5.2.1 Students' rating of perceived quality of support got from their schools

The students' opinion was sought on how they perceived the quality of learner support obtained from their schools of work (research question 2). The survey tool had 7 questions asking in-service teachers to reflect on the support they individually obtained from their schools and rate the perceived effect on the individual's study programme. All questions were based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The quantitative findings are presented in Table 5 and graphically shown in Figure 7.

Table 5: Students' grading of the quality of their school support

Support	Respondents	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Total number	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Financial support	304	217	71.4	39	12.8	21	6.9	19	6.3	8	2.6
Study leave	304	170	55.9	42	13.8	24	7.9	37	12.2	31	10.2
Library facilities	304	94	30.9	60	19.7	39	12.8	72	23.7	39	12.8
ICT facilities	304	180	59.2	46	15.1	27	8.9	29	9.5	22	7.2
Reduced workload	304	173	56.9	61	20.1	38	12.5	23	7.6	9	3
Given Promotion	304	141	46.4	52	17.1	44	14.5	44	14.5	23	7.6
Promised Promotion	304	107	35.2	60	19.7	51	16.8	57	18.8	29	9.5

Figure 7: Students' grading of the quality of their school support expressed in percentages

The findings reveal that, in general, students' perceive limited support obtained from their schools (the highest being absence of financial support). 84.2% of the students disagreed or strongly disagreed that they obtained any financial support from their workplaces. This was followed by reduced workload with 77%, ICT facilities with 74.3%, given study leave with 69.7%, given promotion with 63.5%, promised promotion with 54.9%, and obtained library services with 50.6% of the respondents disagreeing or strongly disagreeing to have obtained support from their schools. The findings reflect that trainees were less supported and motivated by their workplaces especially with regard to financial and ICT support. Indeed, lack of adequate finances to pay tuition and other course requirements create stressful moments for many in-service teachers in Uganda leading to drop-out in extreme cases. The trainees feel and express that it should be a moral and social responsibility of their workplaces and the government to finance their training and professional development for the common good of the community. To the contrary, findings reflect absence of formal financial support for teacher professional development by the employers in the study.

It is work-based library support that registered the highest rating of learner perceived support with 36.5% of the respondents agreeing or strongly agreeing that they obtained such support. With regard to all the remaining support items from schools, all the ratings of those who agreed or strongly agreed were below 30%. For instance, those promised promotions were 28.3%, study leave were 22.4%, promoted as they started the programme were 22.1%, had access to ICT facilities were 16.7%, given reduced workload were 10.6%, and those supported financially were 8.9% of the total respondents. Basing on the findings (Table 5), it can be claimed that apart from using workplace-based library resources, the trainees obtained insignificant support from their workplaces.

All the 27 respondents who either agreed or strongly agreed that they obtained financial support from their schools of work were among the 51 respondents who agreed or strongly agreed that they used ICT facilities at their schools. It is worthy to note that 25 out of the 27 trainees who obtained financial support and also among the 51 who obtained ICT support from their workplaces were teaching in private schools. This finding suggests that private schools have better facilities like ICTs and can afford to support their teachers materially and financially compared to public (government) owned schools in the study. However, given that private schools are fewer (only 27.6%) of the total number of schools sampled, it is indicative that most in-service teachers (71.7%) were from public schools with limited access to ICT facilities.

This finding agrees with the literature (Naikumi, 2013; Sife et al., 2007), which found limited ICT skills among teachers and lack of ICT facilities in many Ugandan schools.

Furthermore, 15 out of the 27 respondents who obtained both financial and ICT support from their schools (private schools) also got a reduced workload. Similarly, 15 out of the 32 respondents who agreed or strongly agreed that they obtained reduced workload from their schools were from private schools. This was a peculiar finding because it is widely believed that private schools in Uganda do not give their teachers any time for personal and family development. The common saying goes, 'private schools do not give their teachers time to even drink water' (literally meaning that they do not give their teachers time off-duty even during holidays). The findings indicate that some private schools allocated reduced workload to their teachers on training. However, trainees who claimed to have been given reduced workload only account for 17.9% of the respondents from private schools; hence it would be unrealistic to generalise that there was reduced workload given to the trainees from private schools.

5.2.2. Students' rating of perceived effect of learner support on pedagogical practices

The opinion of the students was sought on how learner support by the university affects their pedagogical practices (research question 4). The survey tool had 10 questions asking in-service teachers to reflect on the support they individually obtained from the university and rate the effect on their pedagogical practices. All questions were based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The quantitative findings are presented in Table 6 and graphically shown in Figure 8.

Table 6: Students' grading of the effect of learner support on their pedagogical practices

Support effect on	Respondents Total number	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Critical thinking	304	4	1.3	5	1.6	23	7.6	183	60.2	89	29.3
Subject matter	304	1	0.3	2	0.7	20	6.6	176	57.9	105	34.5
Pupil-centred teaching	304	1	0.3	2	0.7	21	6.9	162	53.3	118	38.8
Use of teaching aids	304	3	1.0	13	4.3	38	12.5	158	52.0	92	30.3
Scheming and planning	304	4	1.3	8	2.6	25	8.2	168	55.3	99	32.6
Lesson delivery	304	2	0.7	4	1.3	23	7.6	154	50.7	121	39.8
Managing big classes	304	3	1.0	10	3.3	47	15.5	137	45.1	107	35.2
Mentoring & counselling	304	3	1.0	16	5.3	33	10.9	159	52.3	93	30.6
Use of ICT	304	58	19.1	59	19.4	76	25.0	73	24.0	38	12.5
Time management	304	3	1.0	4	1.3	21	6.9	153	50.3	123	40.5

Figure 8: Students' grading of the effect of learner support on their pedagogical practices expressed in percentages

The findings revealed a perceived positive effect of learner support on classroom teaching practices with over 80% of the respondents expressing satisfaction with each of the ten specified pedagogical practices except one (improved on use of ICT in research and teaching). The highest rating was accorded to improved subject matter content with 92.4% of the respondents agreeing or strongly agreeing. This was followed by adopted more pupil-centred teaching methods with 92.1%, improved on time management with 90.8%, improved on lesson delivery (actual teaching) with 90.5%, improved on critical thinking and assessment with 89.5%, improved on lesson planning with 87.9%, improved on child mentoring and counselling with 82.9%, effective use of teaching aid with 82.3%, improved on managing and controlling big classes with 80.3%, and improved on use of ICT in research and teaching with 36.5% of the respondents agreeing or strongly agreeing that university support has had a positive effect on their classroom pedagogical practices. The findings above suggest that learner support by the university improved on trainees' pedagogical practices claimed by over 80% of the respondents on each pedagogic practice, except use of ICT in research and teaching. The exception of ICT use in research and teaching reflects the lack of ICT resources in most Ugandan schools (Basaza et al., 2010).

Contrary to Munene (1997) who found poor time keeping among teachers, and Hardman et al. (2008) who found continuous use of teacher-centred classroom methods in Uganda; 90.8% and 92.1%, of the students in the current study claimed to have improved on time management and adopted more pupil-centred teaching methods respectively. The consciousness of the trainees with regard to improved time keeping and involving pupils in their own learning could be an indication of improved training trend for the in-service teachers, which is influencing trainee motivation to ensure effective classroom time management, and pupils participation. If the acquired skills in time management and child-centred teaching are enhanced and practiced by the teachers, the quality of classroom delivery can continuously improve leading to better pupils' performance in Uganda.

5.3 Factor analysis

The students' perceptions of the quality of learner support from the university (research question 3) was sought. Factor analysis statistical technique reduced the number of variables studied to a manageable number of factors for effective analysis, interpretation and decision making. A 45-item questionnaire that was used to find out the students' perspective of learner support is shown in Table 7 on the next page.

Table 7: Questionnaire Items

Question Number	Description of the Question
1	Adequate information on Admissions is provided
2	Registration process is clear and simple
3	Orientation/induction in distance education is provided
4	Frequently asked questions and responses are given
5	Functional help desk after normal school work time is in place
6	Hotline phone number is provided
7	Fees clearance process is clear and simple
8	Information on scholarships/financial aid is given
9	Faculty/Student handbook is provided
10	The university web-site is user friendly
11	Successful start learner workshop is organised
12	There is Functional help desk on weekends
13	Technology training (computer, phone etc.) is provided
14	There is use of group email to circulate information
15	Library use and information search orientation is given
16	There is timely communication/information delivery
17	Counselling and guidance services are given
18	Accessible study centres up-country are in place
19	Suggestion box is provided for students
20	Easy to receive regular communications
21	Academic support/ It is easy to access my instructors
22	Instructional support/face-to-face workshops are organised
23	There is provision of quality modules
24	Modules and coursework are given in time
25	Special support is given to students with disabilities
26	Networking/easy to interact with fellow learners
27	Students are given study tips/guides
28	Students are given test/examinations taking tips
29	Students' survival success course is in place
30	Computers with internet access are in place
31	Accessing library materials is easy
32	Introduced to new subject content
33	Taught variety of teaching methods/ pedagogy support
34	Field support is given by staff
35	There is effective school practice supervision
36	Career development programme is in place
37	Easy to access counselling services
38	Tips to write professional resumes are given
39	Social media is used in instruction (WhatsApp, Facebook)
40	There is time management skills enhancement session
41	Course evaluations are conducted
42	Instructors give comments on coursework
43	Timely feedback on coursework and exams
44	Information on alumni services is given
45	Counselling on further study after graduating is given

The purpose of using factor analysis technique in this investigation was to explore the possibility of reducing a large set of 45 variables on learner support to fewer manageable factors that are able to represent and explain the total number of variables. As noted by Field (2009), the factor analysis discovers latent factors from a variety of related variables. Whereas Hair et al. (2013) holds that a surrogate variable (one with the highest factor loading) can be used to name the factor; Field (2009, 2013) states that if fewer factors are obtained from the analysis, then meaningful names should be given based on the variables that loaded on each factor. In this study, though the surrogate variables were a key focus, all factor loadings were considered in naming respective factors.

A 45 item questionnaire of the students' perceived quality of support was subjected to the principal components analysis (PCA) with oblique rotation (direct oblimin) using SPSS Version 23. The choice of an oblique rotation (direct oblimin) was based on Field (2009, 2013) observation on making a choice to use either orthogonal or oblique rotations:

> "If however, there are theoretical grounds for supposing that your factors might correlate, then direct oblimin should be selected. In practice, there are strong grounds to believe that orthogonal rotations are a complete nonsense for naturalistic data, and certainly for any data involving humans (can you think of any psychological construct that is not in any way correlated with some other psychological construct?) As such, some argue that orthogonal rotations should never be used" (Field 2009, p 644).

The study involved humans (in-service teachers) whose psychological constructs are in any way related hence the decision to use an oblique rotation (direct oblimin) as opposed to orthogonal rotations that assume no correlation between factors.

Before the PCA, the suitability of the data for factor analysis was examined. Looking at the correlation matrix (appendix 13), many coefficients of .3 and above were revealed. Normality was tested using normality plots with tests and histogram and the scores showed reasonably normal distribution. Likewise the normal probability plots (Normal Q-Q Plots) showing the relationship between observed value and the normal distribution expected value (Pallant, 2007, 2010), indicated fairly straight line; an indication of normal distribution (appendix 14). The SPSS statistical output revealed straight-line relationships between the variables (linear relationships). Multicollinearity was not detected among the variables with the determinant of the *R*-matrix of .0008676 which is greater than .00001, hence, conforming to the rule of the thumb (Allen, et al., 2014; Field, 2009, 2013). This implies that the variables did not correlate highly. Additionally,

no outliers were detected among the cases. Detection of reasonably normal distribution, linearity and lack of outliers and multicollinearity in the data; showed the suitability of using factor analysis and the appropriateness of the results for interpretation.

In order to verify the adequacy of the sample used in the analysis, the Kaiser-Meyer-Oklin (KMO) value was considered (Table 8).

Table 8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett's Test of Sphericity	Approx. Chi-Square	4669.377
	Df	990
	Sig.	.000

The KMO value was .865 (great as per Field, 2009), and it is greater than the recommended minimum value of .6 (Allen et al., 2014; Kaiser 1970, 1974). Bartlett's Test of Sphericity was statistically significant with $p = .000$ hence conforming to the rule of the thumb that p should be less than .05 (Bartlett, 1954). This is supported by the content of the factor correlation matrix with many high factor loadings above .3 (appendix 13).

Using Kaiser's criterion considering components of eigenvalues >1 (Kaiser, 1974; Pallant, 2007, 2010), principal component analysis revealed the presence of 13 components with eigenvalues greater than 1. The distribution of the variance for factors 1 to 13 were; 22.4%, 5.9%, 5.1%, 4.2%, 3.4%, 3.2%, 3.1%, 2.9%, 2.6%, 2.4%, 2.4%, 2.3%, and 2.2% respectively. The 13 factors explained a total of 62.02% of the variance (Table 9).

Table 9: Total Variance Explained of Extracted Factors

	Initial Eigenvalues		
Factor	Total	% of variance	Cumulative %
1	10.081	22.401	22.401
2	2.650	5.889	28.291
3	2.289	5.087	33.378
4	1.886	4.191	37.569
5	1.505	3.345	40.915
6	1.451	3.225	44.139
7	1.386	3.081	47.220
8	1.287	2.861	50.081
9	1.177	2.616	52.696
10	1.093	2.430	55.126
11	1.062	2.360	57.486
12	1.035	2.300	59.786
13	1.004	2.231	62.017

Kaiser's criterion reduced the initial 45 variables to 13 factors. However, the Scree plot criterion (Catell, 1966; Ledesma, Valero-Mora, & Macbeth, 2015) reduced the 45 variables to 4 factors. While Pallant (2007, 2010) notes that where the Kaiser's criterion extracts many components, then you should consider the Catell's Scree plot output; Field (2009, 2013) advises to use a Scree plot when you have a sample exceeding 200 cases. With a sample of 304 cases in this study, Catell's Scree plot criterion was used to extract 4 factors (Figure 9).

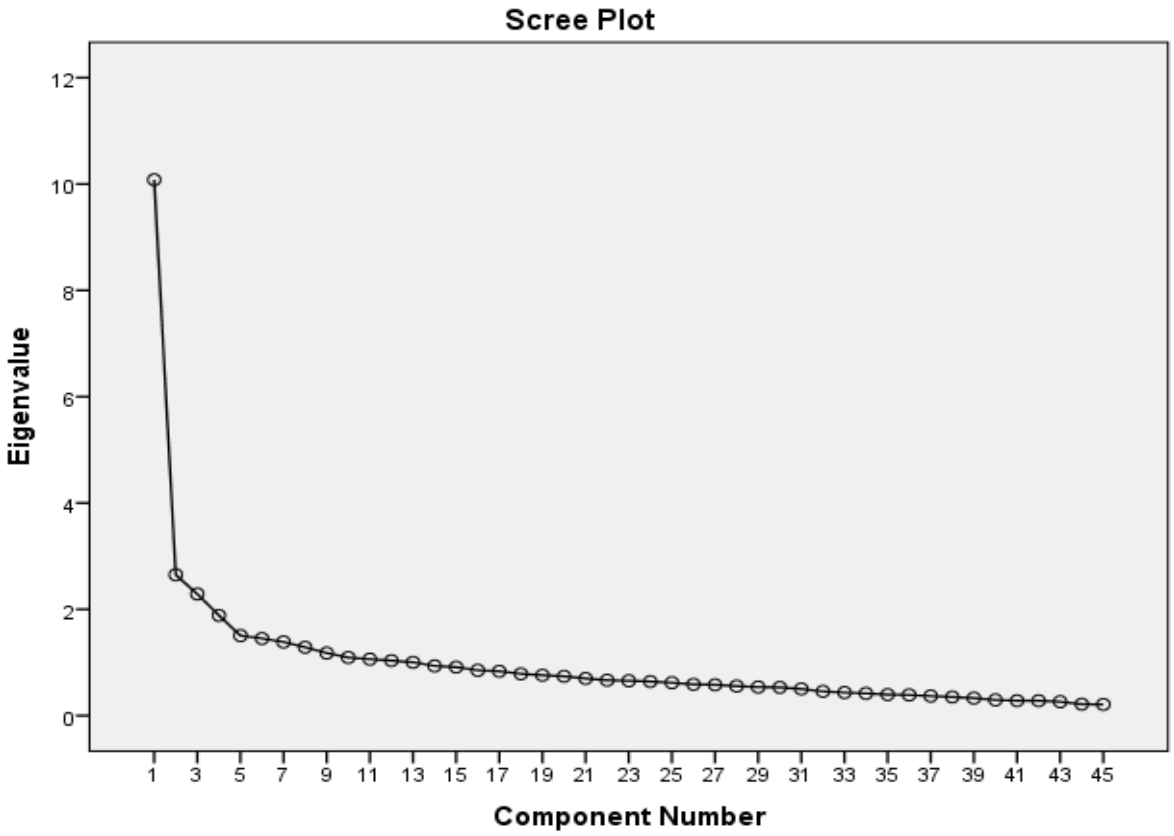


Figure 9: Catell's Scree Plot showing 4 Factor extract

Therefore, for further investigation using the Scree Plot criterion, only four factors above the elbow or point of inflexion in the plot were considered. A four-factor solution was run in accordance with the Scree Plot criterion (Table 10).

Table 10: Total Variance Explained of Four Extracted Factors

	Initial Eigenvalues		
Factor	Total	% of variance	Cumulative %
1	10.081	22.401	22.401
2	2.650	5.889	28.291
3	2.289	5.087	33.378
4	1.886	4.191	37.569

From Table 10 above, the four-component solution explained a total of 37.57% of the variance with the distribution of 22.4% for factor 1, 5.89% for factor 2, 5.09% for factor 3, and 4.19% for factor 4. Given that these four factors explain over a third of the variance (37.569%), they were fairly adequate to be used in further analysis and interpretation of the students' perceived rating of the quality of learner support.

In order to interpret the four components, Oblimin rotation was conducted. The rotation solution revealed more loading on factor 1 compared to all the other 3 factors. The distribution of the loadings on each of the four factors is shown in the combined pattern and structure matrix for PCA (Table 11). Several commentators (Field, 2009, 2013; Pallant, 2007, 2010; Pett, Lackey, & Sullivan, 2003) commend to report both the pattern and structure matrix for oblique rotation like oblimin. These are useful in order to establish factor loadings after rotation (pattern matrix), and correlation between variables and factors after rotation (structure matrix). The major loadings >.3 for each item are bolded in both the pattern and structure matrix.

Table 11: Pattern and Structure Matrix for PCA with Oblimin Rotation of Four Factor Solution of Learner Support Items

Item	Pattern coefficients				Structure coefficients			
	Factors				Factors			
	1	2	3	4	1	2	3	4
There is provision of Quality Modules	**.699**	.107	.061	-.154	**.652**	-.256	.322	.079
Timely feedback on coursework and exams	**.621**	-.067	.170	-.125	**.645**	-.071	.183	.008
Course Evaluations are conducted	**.543**	.020	.135	-.073	**.555**	-.332	.287	-.057
Instructors give comments on Coursework	**.525**	-.209	.149	-.267	**.553**	-.151	.254	.083
Academic support/It is easy to access my instructions	**.524**	.066	.018	.111	**.539**	-.274	.346	.189
Orientation/Induction in distance education is provided	**.491**	-.030	-.124	.205	**.538**	-.115	.154	.231
Instructional Support/Face to face workshops organised	**.473**	.139	.085	.275	**.533**	-.320	.303	.194
Adequate information on Admissions is provided	**.469**	-.066	-.115	.101	**.525**	-.084	.220	.376
Students are given test /examination taking tips	**.459**	-.088	.205	.015	**.520**	-.189	.046	.314
Introduced to new subject content	**.458**	-.138	.174	-.098	**.517**	-.289	.307	.083
Faculty/Student Handbook is provided	**.456**	-.003	-.194	.142	**.513**	-.212	.281	.276
Field support is given by Staff	**.448**	-.150	.148	.018	**.512**	-.226	.353	.323
Students are given study tips / guides	**.437**	-.019	.140	.135	**.499**	-.319	.195	.179
Modules and Coursework are given in time	**.433**	-.182	.036	.019	**.485**	-.195	.039	.215
Taught variety of teaching methods / Pedagogy support	**.409**	-.012	.214	.178	**.453**	-.288	.318	.159
There is effective School Practice supervision – Diploma	**.366**	-.135	.191	-.001	**.444**	-.119	-.051	.223

Item	Pattern coefficients				Structure coefficients			
	Factors				Factors			
	1	2	3	4	1	2	3	4
"Successful Start Learner" Workshop is organised	**.359**	-.152	-.107	.196	**.437**	-.267	.231	.222
Networking / Easy to interact with fellow learners	**.357**	-.121	.094	.085	**.425**	-.275	.058	.304
Library use and information search orientation is given	.102	**-.773**	-.092	-.022	.293	**-.774**	.125	.175
Accessing Library Materials is easy	.248	**-.720**	-.061	-.143	.365	**-.744**	.208	.103
Computers with Internet are availed	.191	**-.719**	.000	-.119	.402	**-.740**	.158	.083
Technology Training (Computer, Phones etc.) is provided	-.217	**-.672**	.005	.129	.008	**-.642**	.143	.238
The University Website is user-friendly	.090	**-.574**	-.031	.132	.279	**-.624**	.160	.288
There is timely communication/information delivery	.199	**-.496**	.035	.125	.381	**-.592**	.233	.302
Easy to receive regular communications	.226	**-.486**	-.006	.033	.371	**-.557**	.180	.207
There is use of group email to circulate information	-.153	**-.469**	.184	.265	.094	**-.536**	.312	.374
Information on Scholarships/Financial aid is given	-.198	**-.397**	.246	.228	.194	**-.484**	.441	.436
Suggestion Box is provided for Students	-.063	**-.347**	.313	.311	.036	**-.459**	.338	.319
Counselling Services are in place	.025	.134	**.802**	.073	.208	-.093	**.787**	.191
Tips to write Professional Resumes are given	.161	.018	**.619**	-.033	.312	-.308	**.676**	.194
Career Development Programme is in place	.118	-.113	**.612**	.026	.304	-.176	**.649**	.115
There is Time Management Skills enhancement session	.353	.174	**.484**	-.019	.197	-.433	**.568**	.247
Special support is given to students with disabilities	-.034	-.297	**.484**	.096	.302	-.203	**.532**	.173
Information on Alumni services is given	.164	-.027	**.476**	.039	.421	-.044	**.526**	.115
Social Media is used in instruction (What sup, Facebook)	-.013	-.359	**.427**	-.173	.276	-.386	**.511**	.424
Counselling and Guidance Services are given	.044	-.203	**.396**	.292	.311	-.337	**.487**	.228
Students' Survival Success Course is in place	.141	-.179	**.392**	.078	.154	-.421	**.483**	-.012
Functional Help desk after normal work time is in place	.051	.008	.062	**.593**	.196	-.244	.214	**.619**
There is a Functional Helpdesk on weekends	.004	-.079	.088	**.582**	.215	-.166	.180	**.616**
Hotline Phone Number is provided	-.023	-.114	.158	**.534**	.184	-.277	.278	**.585**
Fees clearance process is clear and simple	.125	-.117	-.160	**.473**	.237	-.227	-.013	**.504**
Counselling on further study after graduating is given	-.035	.244	.393	**.408**	.475	-.296	.127	**.491**
Frequently asked questions and responses are given	.361	-.116	-.063	**.383**	.417	-.152	.029	**.437**
Registration process is clear and simple	.358	.009	-.127	**.372**	.098	.056	.396	**.411**
Accessible study centres up-country are in place	.103	-.079	.061	**.329**	.225	-.204	.167	**.386**

Since pattern matrix reports factor loading for oblique rotation (Allen et al., 2014) and it highlights the unique contribution of each variable to a factor (Field, 2009, 2013), it was used to interpret the analysis and revealed the four constructs whose major loadings were extracted (Table 12).

Table 12: Pattern Matrix Revealing Four Constructs (Factor loadings < .3 have been suppressed)

Item	Loadings			
	Factor 1	Factor 2	Factor 3	Factor 4
23. There is provision of Quality Modules	.699			
43. Timely feedback on coursework and exams	.621			
41. Course Evaluations are conducted	.543			
42. Instructors give comments on Coursework	.525			
21. Academic support/It is easy to access my instructions	.524			
3. Orientation/Induction in distance education is provided	.491			
22. Instructional Support/Face to face workshops organised	.473			
1. Adequate information on Admissions is provided	.469			
28. Students are given test /examination taking tips	.459			
32. Introduced to new subject content	.458			
9. Faculty/Student Handbook is provided	.456			
34. Field support is given by Staff	.448			
27. Students are given study tips / guides	.437			
24. Modules and Coursework are given in time	.433			
33. Taught variety of teaching methods / Pedagogy support	.409			
35. There is effective School Practice supervision – Diploma	.366			
11. "Successful Start Learner" Workshop is organised	.359			
26. Networking / Easy to interact with fellow learners	.357			
15. Library use and information search orientation is given		-.773		
31. Accessing Library Materials is easy		-.720		
30. Computers with Internet are availed		-.719		
13. Technology Training (Computer, Phones etc.) is provided		-.672		
10. The University Website is user-friendly		-.574		
16. There is timely communication/information delivery		-.496		
20. Easy to receive regular communications		-.486		
14. There is use of group email to circulate information		-.469		
8. Information on Scholarships/Financial aid is given		-.397		
37. Counselling Services are in place			.802	
38. Tips to write Professional Resumes are given			.619	
36. Career Development Programme is in place			.612	
40. There is Time Management Skills enhancement session			.484	
25. Special support is given to students with disabilities			.484	
44. Information on Alumni services is given			.476	
39. Social Media is used in instruction (What sup, Facebook)			.427	
17. Counselling and Guidance Services are given			.396	
29. Students' Survival Success Course is in place			.392	
5. Functional Help desk after normal work time is in place				.593
12. There is Functional help desk on weekends				.582
6. Hotline Phone Number is provided				.534
7. Fees clearance process is clear and simple				.473
45. Counselling on further study after graduating is given				.408
4. Frequently asked questions and responses are given				.383
2. Registration process is clear and simple				.372
19. Suggestion Box is provided for Students				.311
Percentage of Variance:	22.401	5.889	5.087	4.191

Even though the surrogate variables were not directly used for factor identification, their significance to factor loading in conjunction with the loading of the other variables aided the identification and naming of the four factors. Basing on the components of each factor, the four factors were named:

1. Academic advising support

2. Library and technology support

3. Counselling and career support

4. Communication service support.

The implication is that these four factors reflect the initial 45 variables on learner support that were rated by the students on a five-point Likert scale. Results indicate that the students obtained higher quality academic advising support compared to all the other three support services. As you move from factor 1 to factor 4, the learner perceived quality of support decreases. Based on the results, it can be claimed that communication service support is perceived by the students to be the least adequately provided compared to the other learner support services in the case study.

In order to ascertain whether the factor loadings measure what they are intended to measure (internal consistency), reliability computation using Cronbach's Alpha (Cronbach, 1988; Tavakol & Dennick, 2011) was run in SPSS. The results are shown in Table 13 below.

Table 13: Reliability Analysis of Constructs - Scale (Alpha)

	Factor	Question number	Cronbach's Alpha (α)
1	Academic advising support	23,43,41,42,21,3,22,1,28,32,9, 34,27,24,33,35,11,26	.854
2	Library and technology support	15,31,30,13,10,16,20,14,8	.831
3	Counselling and career support	37,38,36,40,25,44,39,17,29,	.803
4	Communication service support	5,12,6,7,45,4,2,18, 19	.704

All constructs produced a significant reliability with Cronbach's alpha greater than .7, which should be the minimum for a factor to be retained for further analysis and decision making based on the rule of the thumb (Field, 2009, 2013). The four constructs include; academic advising support (.854), library and technology support (.831), counselling and career support (.802), and

communication service support (.704). Several responses to the open-ended question relate to the identified constructs and are integrated in the analysis and presentation of the four factors. The responses from the open-ended question that were not captured in the statistical data are also presented in this chapter and later triangulated with the findings from other data collection methods (see chapter 7).

5.3.1 Academic advising support

From the findings on factor loadings in factor analysis, Factor 1 (Academic advising support) loaded in descending order of the students' perceived quality; provision of modules, giving timely feedback on coursework and exams, conducting course evaluations, instructors giving comments on coursework, easy to meet the instructors, provision of induction and face-to-face workshops; provision of adequate information on admissions, giving examinations taking tips, introduction of new subject content, provision of faculty/student handbook, giving field support and study guides; giving modules and coursework in time; pedagogy support and effective school practice provision; and easy to interact with fellow learners. In this case, the surrogate variable on academic advising support is provision of modules with a factor loading of .699; and easy to interact with fellow learners had lowest factor loading of .357. The dominance in the use of printed modules as the main learning materials matches with (ADEA, 2003; Basaza et al., 2010) that denote print materials as the predominant medium of teaching both in Anglophone and Francophone countries in sub-Saharan Africa. On the other hand, easy to interact with fellow learners was ranked lowest, which seem to match with Mutonyi and Norton (2007) and Mayende et al. (2014) who point out the limited use ICTs in learner support in Uganda. The implication is that limited interaction among learners could be a result of limited use of modern technologies in enhancing communication and interaction.

In their description of elements of academic advising support based on the excerpts of the open-ended question findings, the students expressed both their positive and negative feelings about the quality of academic support. The positive attributes included:

> "The training helped me to understand that children differ in personality and learn differently depending on the environment they live. It also helped me to relate with peers due to exposure to people from different parts of the country" (Learner, 55).

And:

> "The lecturers handling face-to-face programme are very friendly and parental in their mentoring us into transformed and effective teachers. I have improved on vocabulary mainly on parts of speech. However, the threat is on tuition and the continuous talk of zero balance" (Learner, 60).

The concept of zero balance refers to the University's requirement of every student to complete payment of tuition fee before the examinations time or else, one is not allowed to sit for university examinations. Learner, 60 seem to infer that continuous reminders about the need to pay tuition in time before examinations by the university authorities could destabilise one's study concentration during the face-to-face period. Nevertheless, the above quotes indicate that several students appreciated the nature of academic support extended to them by the university during their training. Notable areas include the friendly nature of the course facilitators, mentoring skills exhibited, and ability to work with other people, and handle learners' individual needs.

On the other hand, several learners expressed their negative feelings about the quality of academic support from the university during their training:

> "There is need to revise and improve on the content in the modules because some of them are shallow in content, some are difficult to understand, and some are not well organised" (Learner, 142).

And:

> "You need to improve on giving out coursework assignments because some of us got them late when it was only 3 days remaining to reach deadline which made it difficult to cope with others" (Learner, 156).

The above claims depict a feeling of discontent by the students with the way the course materials especially modules are developed, and coursework assignments distributed by the faculty. Several students expressed their perspectives of the nature, management, and delivery of the course materials:

> "Always let the modules be interpreted first then course work follows. It is difficult to do coursework before going through the module. Organise the briefing on modules before issuing modules for easy understanding and interpretation of unfamiliar words" (Learner, 210).

> "Module quality needs improvement. Modules at centres are put late after we have done coursework. Improve on the quality of the modules as they are the main point of reference to many of us working in rural areas" (Learner, 126).

And:

> "The way of distributing modules is really unfair. I missed receiving a module in my last semester and not helped at all. This made me not to complete my coursework in time" (Learner, 260).

The findings suggest that there is inconsistency in the provision of reading materials and coursework assignments to the extent that at times assignments are given before the course materials are distributed to the students. The students' expressions indicate that their trainers were in a way failing to provide quality course materials for improved learner support. Delivering the available course materials late (near or after handing in coursework) was of little help to the students who needed them for referencing in their coursework assignments. As a critical academic learner support service, sufficient and relevant reading materials ought to be distributed to the students in time to facilitate coursework assignment completion. It could also necessitate the faculty to engage the right personnel to develop relevant and adequate course materials for effective learner support management and delivery.

The other key concerns on academic support expressed by students include: the limited time allocated for residential face-to-face period, the inability of science students to access laboratories outside the face-to-face period, and the purported unfair grading system similar to that used to grade full time students. One student commented:

> "The time allocated for face-to-face sessions per subject of two days is not enough. We should be given more time during the face-to-face period in order to interact more with our facilitators before sitting for final exams" (Learner, 239).

The student's opinion indicates that the two days allocated for each subject area on the teaching timetable during face-to-face period for the students to interact among themselves and their facilitators is so short. Some other respondents noted that this could be true but increasing on the number of days for face-to-face would mean more money in form of increased tuition fee to cater for the extra days. The students seem to agree that the time allocated per subject during residential workshops is so short for exploring challenges in their course materials with peers and their instructors. The challenge is that any extension in the time for residential workshops was likely to attract an increase in fees which would worsen the already existing financial constraint experienced by several students. This is because primary teachers' salaries are so low in Uganda (Bunoti, 2010; Nalugo, 2014), and yet all the training needs are wholly borne by the students.

Findings indicate that the students had subject specific needs for those doing Arts, and those doing Sciences. For example, enabling science students to access the laboratory facilities:

> "Science students should be allowed to access the science laboratory on various occasions as a way of enhancing practical teaching. Accessing the laboratory only during face-to-face period is not enough" (Learner, 229).

There is an indication that students doing sciences are only allowed to use the university laboratories during face-to-face period which is so short to enhance their practical work. The implication is that several students lack science laboratory facilities near their workplaces and would wish to continue accessing the university facilities throughout their course period. However, who meets the extra costs incurred to acquire and provide the science laboratory facilities outside the university planned residential workshops? This could be food for thought for both the training university and students in their efforts to deliver and quest for improved learner support respectively.

Findings indicate that some students expressed their need for an academic grading system different from that used in grading students on full time even for similar courses. The premise is that most distance learners are working people and pre-occupied by work demands hence should have a grading system which is slightly lower compared to that of full time students:

> "As a student of long distance, I need to be given consideration when awarding grades in the course performance that is, let it be different and not as high as that used in grading of full time students" (Learner, 1).

The student suggests that it is unfair to grade them based on the grading system of other programmes. However, in contemporary dynamic distance education environment where there is convergence of conventional and distance learning whereby learners are switching between the two (Mills & Tait, 2002), it becomes problematic to grade one course differently on the two programmes. Additionally, Chaudhary and Dey (2013) posit that just like assessment and grading of students in full time programmes, Open and distance education uses essay type examinations, field-based practice assessment, oral assessment, practical examinations, observation of performance, projects and dissertations, and grades students accordingly. It can be argued that while the mode of delivery for different programmes may differ, if it is the same course, it is essential to have uniformity in grading to build confidence of the public and labour market concerning the quality of products of both programmes. It could also necessitate the faculty to continuously sensitise and familiarise all the students on the nature of the grading system used to measure their academic performance for confidence building.

5.3.2. Library and technology support

Basing on the output of factor analysis (Table 12), Factor 2 (Library and technology support) loaded in descending order of the students' perceived quality; library use and information search; provision of both on-line and off-line library materials, technology training, user-friendly university website, use of group email, and provision of information on scholarships. The surrogate variable is library use and information search with a factor loading of -.773, while provision of information on scholarships was ranked lowest with a factor loading of -.397. The students' ranking of library use and information search highest could signify the central role of the library in information search and research in higher institutions of learning. It supports the findings of earlier studies (Pirmann, 2009; Tait, 2004) who claim that the library is the most critical of all the learner support services in distance education.

From the extracts of the open-ended question responses, several learners acknowledged the provision of library reading materials by the university:

> "Whereas there are physical books and e-books provided by the library, some of us do not get time to use them. I am always busy with school work and local community leadership that I do not get time to visit the library" (Learner, 76).

The finding indicates that the training institution has taken the initiative to provide several library learning resources but some students were unable to make use of them due to the busy work schedules. One would argue that this finding echo lack of proper preparation and induction of the students in distance learning by the training institution to be able to balance their time for work and studies. It could also allude that some of the students enrolled on a distance learning programme when not prepared and ready to face the challenges ahead. It could be advisable for the training university not only to provide the library resources, but also prepare, and train the students on how to access and use of them.

Concerning ICT use, some students expressed their lack of computer training opportunities as the faculty does not include computer lessons on the teaching timetable:

> "There is lack of guidelines about the use of computers in teaching and learning different subjects. I expected to learn how to use computers as part of my training which has not been the case" (Learner, 198)

And:

> "Accessing ICT is still a problem yet students from far expect to learn and be able to use computers. I would suggest, that there should be computer literacy classes so as to sharpen the students on computer knowledge. Thank you!" (Learner, 222).

The views of these students allude that there is either inadequate provision of computer facilities by the training institution, or the faculty hardly includes computer lessons on the timetable. As per the findings, the students perceive training and use of ICTs as a vital aspect of change and an integral part of effective learner support. The common knowledge that effective use of the library and its resources in the contemporary world necessitates knowledge of ICT and effective use of computers is necessary but not sufficient for improved learner support delivery. The common knowledge should be transformed into a common practice by exposing the students to computer training for effective information search and research work in the case study.

5.3.3. Counselling and career support

Concerning Factor 3 (counselling and career support) in factor analysis (Table 12); it loaded the following variables in a descending order of the students' perceived quality; provision of timely counselling services, tips to write professional resumes, career development programme, time management skills enhancement, giving special support to the disabled, providing information on alumni services, use of social media, and students survival success course. In this case the surrogate variable is provision of timely counselling services with a factor loading of .802, and the lowest ranked variable is provision of students' survival course with a factor loading of .392. The findings suggest that counselling and career guidance for the students is not well supported by the faculty evidenced in its low ranking below academic advising support, and library and technology support. In addition, within counselling and career support, the paucity of students' survival course is indicated by being ranked least with the lowest factor loading of .392. This demonstrates that there is no special course organised by the faculty to prepare and counsel the students on what they should do in order to survive and avoid dropping off the programme.

Similarly, several students, while responding to the open-ended question, revealed a number of challenges on issues of counselling and career support. The students expressed their feeling of distress due to lack of organised counselling when faced with academic difficulties such as failing examinations:

> "There is little time given to us to do coursework. There is psychological torture in terms of retakes and coursework during the time of study. It would be better when there was no under-marking of students" (Learner, 85).

Retakes are examinations carried forward to the next year after failing in the first sitting. The students feeling of psychological torture after failing examination and attributing it to little time and busy work schedules could imply provision of inadequate counselling support by faculty to prepare the students to effectively face the challenges of their new academic life. The

questionnaire findings did not reveal whether the students access the marking rubric but rumours cases of under-marking. The phrase 'under-marking' was used by the students to mean that some lecturers awarded them less scores/grades than what they expected to obtain in their coursework and examinations. Complaints of under-marking could be controlled by the faculty ensuring that the students get access to the marking rubric and examiners comment and give written feed-back to the students.

Additionally, some students expressed their feeling of psychological stress caused by actions of their lecturers not managing their expectations effectively, such as losing their coursework scripts. This demonstrates a feeling of laxity in the way students' coursework are handled by faculty staff. The finding reflect lack of proper coursework handling and storage procedures by faculty staff who misplace students' work and subjects them to a new coursework. It could be argued that for effective learner support management and delivery; preparation, training and counselling programmes are ideal for both the students and staff in the current study.

5.3.4. Communication service support

Concerning Factor 4 (Communication service support), which was rated least in the factor analysis results (Table 12), its factor loadings included; provision functional help-desk and hotline numbers, clear fees clearance process, provision of counselling on further studies, availability of responses to frequently asked questions, simple registration process, and provision of suggestion box for the students. In this case, the surrogate variable is provision of functional help desk with a factor loading of .593. Conversely, provision of suggestion box for the students had the lowest factor loading of .311. Overall, the findings suggest that communication service support was perceived to be very weak by the students compared to the provision of other learner support services. In addition, its factor loadings were lower compared to the loadings on other factors in factor analysis. This suggests that communication between the faculty and the students, and among the students is limited and could be an impediment to effective learner support in the study.

In response to the open-ended question, several respondents expressed their unhappiness on issues of communication between the university and the students:

> "The university should improve on communication especially when giving out modules and coursework so that we can meet the deadline. We also need to be informed not to continue dealing with transferred or terminated staff" (Learner, 8).

And:

> "Communication from the faculty has not been good. Sometimes we get information through rumours (hearsay). For example, when it is time to collect the coursework, we fail to pick them in time because of lack of proper communication" (Learner, 139).

The students' expressions reflect that there is a communication gap between the faculty and the students. For instance, because of inadequate communication by the faculty, several students have ended up failing to meet the deadlines for handing in their completed coursework; while others got information through rumours (unofficial sources). The faculty ought to employ a variety of media in communication to access the students living in both urban and rural settings (such as radios, TVs, emails, postal messages, face-to-face, print media, and cell-phones).

Findings further indicate that students continued communicating with some staff on official university maters when such staff were no-longer employees of the university simply because they were not informed. Though it is illegal practice for people to assume what they are not (using their past employment status) in Uganda, some individuals exploit the loopholes in the implementation of the laws for their own selfish interests. The weaknesses in the institutional communication systems could allowed the students to continue communicating with former faculty employees, hence wrongly informed. The findings reveal the need for the faculty to strengthen its communication channels to improve on communication service support:

> "Let there be passing of information on radio Maria or any other station before they can use the phone because we have been missing a lot of information. Distance Education is good but the information from the University takes long to reach us" (Learner, 86).

The students acknowledge the usefulness of distance education but lament on the sluggishness of the university communication system. It can be inferred that the learners' views on communication support showed a substantial perceived discomfort that impedes on their academic progress. As the central support mechanism in managing and delivering learner support, the faculty ought to ensure that communication channels and systems are clear and user friendly to its customers (students).

5.4 Other Responses from the Questionnaire Open-ended question

The opinion of the students was sought on any other item on learner support by the university that may not have been captured in their responses to the close-ended questions. Their responses focused on issues of security and safety, fees clearance, students' leadership, and provision of

child day care for the mothers that come with their babies at the university during residential workshops.

5.4.1. Security and Safety Support

Several students expressed their concern that they were insecure in some of the hostels in which they lived during residential face-to-face period. The environment surrounding some of the hostels outside the university campus seem not to have reliable security lights and were not protected from unauthorised users:

> "Some hostels outside the university campus have serious security problem as some people take advantage of the darkness due to limited security lights on the way. It makes us fear to move at night to the library and reading rooms during the face-to-face period" (Learner, 194).

And:

> "One of my friends lost her cell phone, bank slips and a bag with other essential items when she went to the bathroom which scared many of us posing a security threat for our property and lives. It seems there are bad people in our hostels yet we are told security is in place" (Learner, 235).

The findings indicate that the university environment (especially the outside hostels) lack sufficient security to protect the students and their property during residential face-to-face period. This is manifested in lack of sufficient security lights, cases of loss of property, and fear expressed by the students. Bunoti (2010) attributes the poor security lights in several universities in Uganda to load-shading due to insufficient supply of electricity and yet some institutions lack standby generators. Bunoti could be right on the poor lighting as a security concern in universities, but the issue of insufficient electricity supply remains un resolved in Uganda. This is because it is common knowledge that Uganda exports electricity to the neighbouring countries like Kenya and Rwanda. Students raised the need to improve on the physical security by deploying sufficient security personnel and security lights especially on the way from the main university campus to the outside private hostels. The students' views indicate the need for the university administration in conjunction with the owners of the private hostels to provide, monitor and strengthen security to address the insecurity concerns of the students during face-to-face residential workshops.

5.4.2 Fees Clearance Support

In their response to the open-ended question, two thirds of the students sounded critical of the high tuition fees charged by the university. However, they recognised the need to pay reasonable

fees to enable the university to effectively operate and serve the society. The high costs for accommodation and meals were noted by many students:

> "Accommodation/welfare during the face-to-face has to be fully tackled because it is inconveniencing to calculate and pay for accommodation and then buy food independently. The university should put into consideration the provision of accommodation and meals during the face to face sessions" (Learner, 3).

And:

> "Administration should be humane enough to reduce the cost of accommodation in this university otherwise the issue is stressing me and yet renting outside the university is a risk on my life and my documents" (Learner, 7).

The findings propose that payments for accommodation, meals and tuition by the students to the university are separated making the total to be so high. Students suggest that there is need for the university to combine rather than separate those charges. It is not clear whether the students' problem is that of separating the different payments or being charged so highly by the university. The students' view that the university administration should be humane when deciding on their fees is in-line with the '*Ubuntu* philosophy' of distance learning whose emphasis is the African notion of being humane (Letseka, 2016), and the notion of social justice in distance education (Tait & O'Rourke, 2014). Much as the university ought to be considerate of the students' fees concern, its charges should reflect per unit cost of training a student if quality service delivery is not to be compromised.

Students expressed their view that not combining the different charges by the university posed a security threat to some students who were forced to search for meals outside the university:

> "Feeding (meals) and accommodation are not well organised and calculated together when we are paying. This causes insecurity to some of us, as we look for meals elsewhere outside the university" (Learner, 141).

The above expression indicate that students are not comfortable with the university charging them for meals, accommodation and tuition separately. Additionally, several students raised the need for free meals to be provided by the university on assumption that the tuition fee charged is reasonably high. Whereas arguing for combining all the charges that the university expects from each student could be assessed by the training institution, it may be difficult to justify that the tuition fee is already high since distance learners pay less compared to their full time counterparts in the Ugandan education system.

5.4.3 Child Care Support

A unique finding emerged from some students presumably mothers that report to the university for face-to-face with babies that raised the need for child day care:

> "Provide a day care for the mothers who come with their babies in order to enable us concentrate and attend all our lessons. The baby-sitters keep bringing the children to class when they cry that affects our lesson attendance" (Learner, 219).

The current practice in Uganda allows breast-feeding mothers to report for residential workshops with their children and baby-sitters since universities does not provide child day care services. It was a unique observation because it affects a very small percentage of the students (breast-feeding mothers) directly, and the entire community indirectly in case of noise from the crying babies. However, though this service is desirable, it would imply more expenses on the side of the students and the magnitude of the need could not be ascertained since it was raised by less than 1% of the respondents (only 2 out of the 304 students).

5.4.4 Students' leadership

Several students voiced their concern that like their colleagues on full-time study programmes, distance learners should be supported to have an organised leadership forum to cater for their academic, social, economic and political interests as full-fledged university students:

> "Distance learners should also be organised to manage their affairs politically; by electing leaders like the Guild President for distance learners, and ministers of different responsibilities for the distance education programme" (Learner, 65).

The finding indicates that the in-service teachers lack representation on the students' leadership body and their interests are not well presented to the university leadership. Having their elected students' leaders would improve on the distance learners' recognition and foster their interests as university students. Although having a students' leadership body was clearly expressed by the students, how it would workout was not revealed in the findings. These are mainly off-campus students who rarely meet during their studies and only converge at the university for a period of two weeks at the end of every semester. However, the university could think of a leadership framework that provides for representation of all students on the different study programmes.

5.5. Chapter Summary

In this chapter, the results of the survey pertaining the distribution of respondents, nature of learner support, the perspective of the trainees on the quality of learner support, and the effect of learner support on the students' pedagogical practices have been presented. It was found that

academic advising, library and technology, counselling and career, and communication are the main learner perceived support services for in-service teachers on distance education in the case study. The students indicated a general perceived discomfort with the support obtained from schools during their training especially on financial support. This implies that the training costs are majorly borne by the teacher on training with limited or no financial support from the employer. Concerning pedagogy, the results showed a general perceived satisfaction with the effect of learner support on classroom teaching practices by the students, the highest being improved subject matter content. For effective and efficient provision of learner support, it could be prudent to have a tripartite support mechanism involving the training institution, the employer, and the student. Concerted efforts of these three key stakeholders could have a positive effect on the quality of learner support leading to improved classroom delivery and pupils' performance in primary schools. To investigate quality in learner support management and delivery at depth, the following chapter probes and cross-examines these and other findings, and presents qualitative results from the students, staff and selected headteachers in the study.

CHAPTER 6: REPORTING INTERVIEWS AND FGDS RESULTS

There is a problem of communication from the faculty. Many of us get information on collecting modules and attending face-to-face sessions late. Sometimes I make telephone calls to the university which are not received.

(Student 8, FGD 3).

We call them on phone or send SMS to communicate vital information and new developments in the faculty that needs the attention of our students. We also receive calls and emails from our students and clarify or give feedback on their concerns.

(Uni staff, 2).

6.0. Introduction

In the previous chapter, findings from the questionnaire method focusing on three of the five research questions of this study were presented. In the present chapter, qualitative findings from interview and FGD methods focusing on all the five research questions are analysed and presented. Section 6.1 presents the findings on analysis of the staff and students' perceptions of the nature of learner support by the training university. In Section 6.2, information on perceived learner support by the workplace/schools (the perspectives of the students and school headteachers) is presented. Then the students' perceptions of the quality of learner support by the training university are presented in Section 6.3. In Section 6.4, perceived effects of learner support by the university on learners' pedagogical practices are presented. This is followed by Section 6.5 with a presentation of staff perceived challenges faced in managing and delivering learner support, and Section 6.6 with the chapter summary.

6.1. Analysis of the staff and students perceptions of the nature of learner support

In line with Bryman (2012) and Guion (2002) that acknowledge increased use of a variety of methods to validate the findings in social science research, I used interviews, and FGDs data collection methods and triangulated their findings. I hereby present qualitative data on the perceived nature of learner support by the training university expressed by the staff and students.

6.1.1 Academic advisory support

In response to the question concerning academic advisory support given to the students, the 6 staff interviewed applauded the distribution and use of modules by the faculty and students respectively:

> "We provide modules which are a form of learning materials to guide our distance learning students. Our mode of delivery is mainly by correspondence. The modules contain units of the syllabi the students are taking and we also include other reference materials in the module to be used by our students" (Uni staff 4).

And:

> "We give modules to distance learning students. The modules are our basic teaching materials but do not have everything we expect the students to study during their courses. We include a list of other reading materials for the students to research" (Uni staff 2).

The findings indicate that in addition to the modules, students are expected to find other research materials to enrich their reading and use in the learning process. Apart from the library textbooks, the use of CDs and computers in research has been identified as another academic learner support:

> "For the students on our faculty programmes, we support them by serving them with study materials in form of print modules and CDs to those with access to computers. The regional university study centre libraries and the main library at the main campus provide more study materials" (Uni staff 1).

The provision of print materials and CDs would suggest that distance education at the case study is still in the second phase of distance learning (Evans & Nation, 2007; Nipper, 1989). The distribution of modules has been described as an exciting support among the distance learners with the claim that it is a rare practice in other academic institutions in Uganda:

> "Our distance learning students consider the issue of distributing and receiving modules great. This is because other universities in the country merely conduct holiday teaching without giving the modules as key course materials" (Uni staff 3).

This finding reveals that distance education for in-service teachers has different attributes in the Ugandan context. Whereas some universities provide course materials in form of modules to the students, others do not provide such course materials but organise teaching when primary schools are closed for holidays.

Similarly, most students in FGDs revealed that they are given modules by the university as the basic course materials in addition to other reference materials. However, some students indicated that both the modules and coursework are not distributed in time to be used to complete the assignment and meet the deadlines for handing in completed work:

> "The modules are provided to us at different study centres. The modules for the first semester were provided in time. The modules for the second semester were distributed very late" (Student 2, FGD 1).

And:

> "We are given modules as essential reference materials but delivered late which affects our ability to read through properly. We are also given coursework but very late towards the deadline for handing in the completed work. This affects our quality of work negatively" (Student 8, FGD 2).

The findings indicate that though students are given modules by the training university, they are at times not given in time for the students to utilise them in completing their coursework assignments. This anomaly was not expressed by the staff in the interview findings. Conversely, one student noted that she received modules in a soft copy form unlike her classmates. This is an indication that students that have access to internet connection may not necessarily have to move to the university to pick hardcopies of the modules but can be sent soft copies. It can be observed that this is a positive trend in the use of ICT facilities to support distance learners, except that for this particular case, the student was set soft copies because she had missed the hardcopies of the modules.

Field visit support was another academic support component explored in this study. The usefulness of field support in open and distance learning has been underscored both in the high and low income countries (Bbuye, 2006; Brindley & Paul, 2004). In this study, both the staff and students revealed that field support is a key learner support that is benefiting the students. From the staff perspective, field support to their students is described:

> "We invite the students to meet us during field support at the different university centres and guide them on research and coursework completion. They are usually fewer in number in each centre and able to express their study challenges, share their concerns with fellow peers and the visiting staff" (Uni staff 2).

And:

> "We give them field support by going out to places accessible to the majority and help them with research and study procedures. There are close interactions among the students, and between the students and the facilitators during field support as the groups are smaller compared to the time of face-to-face residential workshops" (Uni staff 3).

The findings indicate that field support involved staff moving to places closer to where the students live. During field support, pertinent distance learning issues like coursework challenges, learner-learner interaction, and learner-staff interactions are indicated to have been addressed:

> "A team of our staff move to different parts of the country to meet and share experiences with smaller groups of students. During the field support, students raise their study challenges and seek guidance. The challenge is that the number of field visit support is only one per region in a year at the moment" (Uni staff 4).

There is an indication that field visits by staff enable the students to meet and discuss in small groups and save the students time and money to move long distances to get such support from the main university campus. However, having only one field support in an area in a year could imply that field support given to the students is still inadequate. It is also not certain from the study to tell the composition of the team from the university and their individual specific roles during the field support. This ought to be streamlined to ensure that the students access both academic and non-academic support services.

The views of the students on their perceived nature of field support by the staff were sought through FGDs. Students expressed their view that field support visits were organised by the university:

> "The lecturers came near our places of work and briefed us on question approach and how to conduct research and search for information. They also reminded us about deadlines for handing in coursework and paying fees, and encouraged us to work together but not to copy the work done by others" (Student 5, FGD 4).

And:

> "Field support was organised whereby lecturers moved to our nearby centres and guided us on how to approach questions and cope up with challenges of distance education. But the university should separate the field support for new and continuing students because we have different needs" (Student 5, FGD 1).

Although the findings show that field support has been appreciated by the students as it enriches their study skills, there is an indication that both groups of continuing and new students are combined during the field support. This suggests a likelihood of limited focus on the needs of different groups of students as some especially the new ones may not freely present their problems and seek advice from the staff. An interesting expression is that the students had received a bit of support on academic integrity specifically on the challenge of academic plagiarism (UMU, 2012); evidenced from the student's assertion that the staff underscored the need for the students to interact in their studies but must avoid copying from others when completing coursework assignments.

Furthermore, students expressed their view that field support is not organised every semester yet they would wish to have it on semester basis:

> "We benefited from field visit support from a group of staff from the university who came to our study centre. The field support improved my skills on how to handle my course. The field visit support was good but was only organised in the first semester and nobody came in the second semester" (Student 7, FGD 3).

There is consistency in the views of the students and staff on the organisation of field support visits by the university. The views expressed by both the staff and students on field support suggest that such support is off-line involving physical movements by staff to different parts of the country. This could be explained by the limited use of modern technologies like on-line computer services alluded in earlier studies in Uganda (Basaza et al, 2010; Bbuye, 2006).

Staff expressed their view that organising face-to-face residential workshops for students is another academic advising support. All the 6 staff interviewed voiced their views that as a precursor to end of semester examinations, face-to-face lessons are conducted. The staff claimed that during face-to-face period, the students meet their lecturers physically to help them clarify some concepts that were not clear in the modules. They also meet fellow students, share knowledge based on their course materials, and finally, do examinations for end of semester. Findings indicate that face-to-face are compulsory and any student who misses is not allowed to sit for end of that semester examinations. Such a student has to wait for another semester when the same courses are next offered, attend face-to-face and be able to sit for the examinations. This finding is in-line with Shimoni et al.'s (2013) claim that students are provided with academic and tutorial support during face-to-face workshops. In Uganda, with limited ICT use (Basaza et al. 2010; Bbuye, 2006; Mutonyi & Norton, 2007), universities expect their students to attend face-to-face period in order to obtain tutorial support from their instructors and share learning

experiences with peers.

During FGDs, the students expressed their view that face-to-face meetings with the lecturers were useful as they obtained guidance on the difficult areas in their course modules, and interacted with the lecturers, and fellow students to improve on their learning:

> "During face-to-face sessions, the lecturers exposed us to new subject content and teaching methods. The time was limited but face-to-face sessions were good for my studies. I interacted with our lecturers and other students" (Student 2, FGD 1).

And:

> "During face-to-face time, we were helped by our lecturers even after classes. They guided us on problem areas in our modules. They also counselled and encouraged us to work harder and complete the course" (Student 1, FGD 1).

The students' expressions specify that face-to-face period widened their subjects' content and classroom pedagogies as they interacted among themselves and with their lecturers, and got extra support from the lecturers even after class time. The students however, indicated that in comparison to other universities in the country, their training institution has got a shorter face-to-face period. They observed that a period of ten days for face-face at the end of every semester is too short. However, there was a counter argument from other students that the time period should not be increased. Their reasoning was that increasing the face-to-face period would imply more money to be spent on accommodation and meals. It could be argued that the university should explore further the appropriateness of the time allocated for face-to-face lessons or think of alternatives (like on-line support) to supplement on face-to-face learner support.

Still on the nature of academic advising support, staff identified action research support as their responsibility to all the distance learning students:

> "We provide action research support. Every student is allocated a supervisor for research support and guidance. Since our research focuses on the teacher and his/her class in teaching and learning, most of the work is expected to be done by the student in consultation with the allocated supervisor" (Uni staff 3).

And:

> "We have action research through which we support our students. The research areas are developed depending on the problems students face in their schools of work. Each student is assigned a research supervisor who guides him/her during the research period" (Uni staff 5).

The findings from staff imply that the research done by the students is aimed at improving on their classroom teaching as research areas are derived from the challenges faced and identified by the students' in their classroom environment. There was however no indication that research supervisors make any follow-up on the students to establish the effectiveness of the action research intervention after research completion. This could provide evaluative feedback to inform supervision of other students.

When asked about the nature of action research support, the students acknowledged receipt of support from their allocated supervisors. They were guided from proposal writing to the time they submit their final research reports. Research supervision entails physical meetings, use of postal services, mobile telephony and SMS, and exchange of emails (for those with access to internet facility) between the supervisor and the supervisee:

> "We were allocated supervisors for action research who guided us when writing proposals, developing action plans and implementing them in our schools. They are also guiding us in the report writing after collecting data on the intervention, but some delay to respond when we send our work" (Student 1, FGD 4).

Students observed that some of their supervisors take long to give feedback on their research work after submission. This an indication that either the staff are allocated much work or are not conscious of meeting the deadlines set by the university for students to finish their work. It can be argued that the medium of communication used to give feedback also influences the response period. For instance, whereas use of emails quicken the feedback response, use of the postal services or where the students had to move to collect the feedback physically from the supervisors could have delayed the response.

6.1.2 Library and technology support

Staff indicated that students were introduced to the different library resources that they needed to use in their courses of study. These include both physical reading materials that can be accessed in the library and other e-learning resources that the students can access from whenever and wherever by having internet access:

> "We advise our students to search for more materials for reference purposes in addition to the modules we give them. They are encouraged to visit our university library or access e-library materials. The problem is that many seem not to have time to visit the libraries and lack access to e-library resources" (Uni staff 2).

And:

> "The university library provides study materials for borrowing and use. There is a problem of time for distance learners to devote on library use. Individual students are encouraged to spare sometime, visit and make use of the library" (Uni staff 3).

The findings indicate that though reading resources were provided by the university, the students lacked ample time to visit the library and/or lacked internet to access e-library resources. These point at the need to strengthen learner preparation support for distance learning highlighted in the learner in-take phase (Floyd &Casey-Powel, 2004).

Nonetheless, the findings revealed that most primary and secondary public schools in Uganda have been equipped with a lot of reading materials by the government which are relevant to the in-service teachers' study programmes:

> "We have noted that for the case of public primary and secondary schools, the government has equipped their libraries with a variety of reading materials some of which are relevant to our courses. We therefore encourage our students to make use of such resources in their studies" (Uni staff 3).

Findings indicate that the students can access some of the relevant course materials from their workplaces/schools. Though workplace libraries can lessen the challenge of access to reference materials by the students, they cannot be a solution to the problem since most of the reading materials stocked in the primary school libraries mainly suit the intended level of the pupils.

FGD findings on access to library facilities revealed that a variety of reading resources are provided by the university library and there was desire for the library staff to support the students:

> "I did not know how to use the library. By visiting the university library and consulting the staff, I can now search for books in the library and obtain other library reading materials on-line in my town" (Student 3, FGD 3).

This student's view supposes that training students on how to access library facilities is provided by the university library staff based on the student's need and personal request. There is also an indication that some students are now able to search for reading materials on-line at or near their workplaces after getting guidance from the university library staff. This practice seem not to adhere to the literature (Mayende & Obura, 2013; Oladokun, 2002; 2014; Tait, 2004) who argue that provision of training and adequate library support is a must by the university librarians and ought not to wait for the students to seek their services. For effective learner support delivery in the study, it should be a responsibility of the faculty in conjunction with the library to support students to be able to access library resources even at a distance.

The students further expressed their concern that the library is often opened for a limited time even during the face-to-face period which limits their access to the necessary course materials when at the university for residential workshops. While the students allege that the library is not kept open throughout the day during residential workshops, the staff claim that the problem is lack of sufficient time to use the library resources due to the tight face-to-face activity schedule. Regardless of the students' busy work schedules or tight timetable during residential workshops, all students should be able to use library resources for information search to enrich their research. The limited use of e-learning materials by the students in the current study could be attributed to the lack of internet access in their work places as alluded in the literature (Mutonyi & Norton, 2007; Ouma, 2003).

When asked about the nature of technology support for their students, several staff noted that arrangements are in place to train the students in computer use to enhance their research skills for doing coursework and action research:

> "Of recent, the faculty has started giving computer lessons to distance learners. We have realised that many of our students lack prior training and find it difficult to research when given coursework. It is our hope that the new programme will improve on their skills and quality of research output" (Uni staff 4).

This comment reveals that the faculty has started computer training for the students. This indicates that the faculty values the role of computer skills for the students to enhance the quality of their research. The finding is in-line with (Bruso, 2001; Floyd & Casey-Powell, 2004; Matovu, 2012) who postulate the central role of modern communication technology in enhancing students' research.

However, findings from the students were inconsistent with the views of the staff on the nature of technology learner support. One student commented:

> "Computers are seen in the computer laboratories but switched off hence we do not use them. We do not have any computer lesson and yet they want us to be computer literate" (Student 4, FGD 2).

This indicates that some students have not been exposed to any learning of computer use by the university. Nevertheless, several students expressed their view that the course has indirectly contributed to their acquisition of skills in computer use in order to complete the coursework assignments and do research:

> "At diploma level, I did not get any skill of using computers. At bachelors degree level, our first assignment in PES needed us to use google scholar to search for information. I started learning how to use the computer. The problem is that I spent more money to acquire such skills outside the university" (Student 8, FGD 3).

PES refers to Professional Education Studies which is a compulsory course done by all in-service teachers for professional development. The student claims that he had to spend more money above the fees paid to the university in order to get computer training purportedly from other service providers. This could be an indication that the computer training was recently incorporated in the faculty's study programmes (specifically for new students) as claimed by the staff. Extending such training to all students could enhance their level of computer literacy and save the students from incurring extra costs to seek for training from elsewhere.

6.1.3 Counselling and career support

Interview findings revealed that counselling and career support is provided to the students by the teaching staff and the faculty administrators in absence of specialised counsellors:

> "We do not have specialised counsellors but our Faculty administrators and lecturers counsel and guide the students. A part from academic counselling, other personal problems are sorted based on individual initiatives" (Uni staff 3).

One staff member noted that they had a university counsellor for both the students and staff but was not sure whether she was still around because he had taken several months without seeing her. It was thus not clear whether the university has a functional counselling and career department to support the students. Nonetheless, there is an indication that counselling and career guidance were provided to the students by staff who are not specialised counsellors. This finding reflects the limited investment and efforts made by the university to develop and strengthen counselling to support both students and staff. In Uganda, it is common for university management to task faculties/departments to indicate what revenue they are likely to generate to support their annual budget estimates. This leaves support departments like counselling with limited budget allocations as they do not directly generate funds for the university like academic departments.

When asked about their perceived nature of counselling and career support by the university, most students expressed their concern that there is lack of an organised programme to counsel and provide career support at the university. However, a few students acknowledged having received counselling and career support from their lecturers and faculty administrators. Asked about the kind of support they obtained; most students mentioned; on sickness, stress, lack of

tuition, fear of examinations, missing results, unfriendly lecturers, failed coursework, and what one can study after completing the current course. Findings from staff and students suggest the lack of an established counselling and career department at the university. The limited counselling support was mainly provided during face-to-face period by the lecturers and faculty administrators who are not trained counsellors.

6.1.4 Communication service support

Staff interviewed revealed that communication using different media such as cell-phones, internet, and postal service, printed materials, and face-to-face has helped the faculty to deliver information and support to students. The university study centres were also indicated as avenues for delivering information to students in the different parts of the country:

> "We provide faculty telephone numbers for the students to consult and give feedback on our services; we also provide telephone contacts of the facilitators for the different subjects on each coursework assignment to enable interaction between the students and their respective subject facilitators" (Uni staff 1).

And:

> "We give some information to our current students in form of circulars or flyers when they come for face-to-face to go and share with prospective students. When our staff go for school practice supervision, they also carry faculty brochures and prospectus for circulation to the potential applicants" (Uni staff 6).

Such views underscore the value of communication in distance education (Mayende et al., 2014; Murray et al., 2015), detailing the use on-line (internet) and off-line (face-to-face, use of faculty brochures, flyers) communication to the current and potential students. Staff expressed their view that providing telephone contacts of the facilitators enabled students to call and obtain support on some difficult areas in their course materials. Additionally, the university website and public print media were used to communicate to the potential and current students:

> "We encourage our students to regularly check on the university website and the public print media to know what is happening at the university. Prospective students can download application forms from the university web-site or get hardcopies at the university campuses" (Uni staff 3).

And:

> "We call our students on phone or send SMS to communicate vital information from the faculty that needs their attention. We also receive phone calls and emails from our students and clarify or give feedback to their concerns" (Uni staff 2).

Whereas it was clear from the findings that the faculty used phones, media adverts, and university website to communicate to the students; the degree of usage of email facility could not be ascertained. This is because it was reported and many students had no access to internet facilities in their workplaces especially those teaching in schools found in rural and hard-to-reach places.

Students partially agreed with the views of the staff on effectiveness of faculty communication to the students. Whereas some students expressed their view to have gotten timely communication from the university, several showed to have missed some important information such as collecting modules, reporting for face-to-face sessions, and time for staff field support visits. Students who indicated to have received timely communication from the university claimed:

> "The university has been sending SMS to inform us about the modules and coursework assignment collection, deadlines for submitting coursework, period of face-to-face residential workshops, planned field support period, time for special and supplementary examinations" (Student 5, FGD 4).

Whereas special examinations are organised for students who miss the semester examinations for genuine reasons such as sickness or failure to raise tuition on time; supplementary examinations are organised for the students who do and fail semester examinations (they are given a second chance) (UMU, 2012). The student who fails special examinations is thus given another chance to do supplementary examinations; but failing supplementary examinations would imply repeating the whole semester and doing a new set of examinations.

Students expressed their view that they were given telephone numbers of the lecturers of their respective study courses to use for academic consultation. A few students indicated that they have used the telephone contacts to seek clarification on some difficult issues in the modules and coursework assignments. Conversely, some students were discouraged to consult when they could telephony their lecturers and found their numbers busy or off on several occasions. Those students expressed feelings of discomfort with the nature of communication from the faculty.

Further still, several students claimed to have got information from the university late through friends:

> "For me, I have been unlucky unlike my colleagues. Whenever I raised the university on phone, I was not received. I could only get information about my study programme from my friends and yet I have been providing my telephony contacts every semester during the registration process" (Student 4, FGD 4).

This student's claim is augmented by the chapter opening quotation that spells out a communication problem whereby some students received information from the university late or missed out completely. These findings reflect poor communication between the university and the students. It is surprising to note that this particular student (quoted above) claims not to have received any communication from the university after providing her telephone contacts several times! In such a circumstance, the problem could be with the source of the information (university), the medium used to communicate, or the reliability of the student's access to a telephone communication network depending on where she lived. Whereas there were divergent responses from the students (some being happy and others unhappy) with the perceived nature of communication from the university, responses from the staff indicate improved communication service by the university to the students. The diverging views of students and staff could be a pointer to the limited incorporation of the 'voice' of the learner by the faculty in planning for learner support. The need to harmonise the staff and students' perspectives through regular comparative evaluations of learner support could be a positive step, by the university, to enhance learner support management and delivery.

6.1.5 Administrative services support

Concerning students' fees clearance, staff expressed their view that the finance department in conjunction with the registry department communicates to the students the relevant information on tuition. Staff also indicated that fees clearance is done at the main university and study centres but students were free to pay in the different banks provided by the finance department. However, the students' responses indicated that the tuition charged by the university is so high and the clearance process is tiresome:

> "Tuition charged by this university is high. In addition, fees clearance process is tiring with long queues. At times it is only one staff clearing us yet the number is big" (Student 7, FGD 2).

The findings indicate that the fees payment process is clear and made known to the students but the clearing process is cumbersome to the students as they have to spend some time queuing. This indicates that there is limited use of on-line support for students' fees clearance at the case

study that would have saved the students' valuable time used to obtain clearance from the finance department.

Findings from staff threw some light on the registration and orientation support for the students. They explained that the faculty of education in consultation with the registry department admitted, registered and orientated the students in distance education:

> "The faculty in conjunction with the registry department support our students by registering them at the beginning of every semester. New students are then orientated in distance education" (Uni staff 4).

Findings indicate that the faculty liaises with the registry and finance departments of the university to ensure that the students are registered, guided on payments and distance learning. The involvement of the registry department in registering and orientating the new students in the study underscores the central role of the registry department (Quann & Associates, 1979). Findings revealed that the faculty invited some current and former students to participate in the orientation of new students by sharing their experiences. This practice suggests that the faculty promotes interaction among learners by providing a platform for knowledge and experience sharing during orientation of new students in distance learning. The effectiveness of this practice could not be ascertained from the findings (lacked empirical evidence).

Findings from the students were consistent with those of the staff concerning the nature of students' orientation. The students revealed that at the beginning of their courses, they had an orientation by the faculty staff and they were guided on how to study and complete coursework. Most students acknowledged that the university organised orientation for them though they did not mention having presentations from continuing and former students as claimed by staff. Orientation of students was mainly done off-line which means that the system forces the students to physically move to the registration and orientation centres, a practice noted in the study of open and distance learning in dual mode in Uganda (Muyinda, 2012).

6.2. Information on learner perceived support from the workplace/schools

This study underscored the role of the school support to in-service teachers and presents the magnitude of the perceived support based on the field findings from interviews and FGDs.

6.2.1 Financial support

Financial support is a crucial learner support service because for students to benefit from university training, they have to pay tuition. Creating an enabling environment for distance learners to have access to possible sources of funds for their education has been echoed in the

literature (Floyd & Casey-Powell, 2004; Savithri & Murugan, 2006), but the literature limited this learner support to the training institutions. This study extended the notion of financial support to the in-service teachers' workplaces/schools and presents the views of the headteachers and those of the students.

When asked about the nature of financial support given to the teachers on training, the majority of the headteachers (5 out of 7) expressed their view that there is absence of a formal arrangement to financially support up-grading teachers in their schools:

> "Financial support! There is no such support because we are not in a good financial position as a school to support up-grading teachers. They meet their own costs" (Headteacher, School D).

And:

> "No. we do not give financial support. However, since all our teachers have salary accounts in commercial banks, we support them to get loans in banks" (Headteacher, School E).

The findings indicate that though it may be difficult for the students to get financial support from their workplaces, they can solicit such support from commercial banks. It could be interesting to note that out of the 5 headteachers that expressed lack of financial support, 4 of them were from public schools that get financial support from the government. This is an indication that there is no official financial allocation from the government for the schools to support their up-grading teachers. The in-service teachers had to pay for their training with limited support from their workplaces.

However, 2 headteachers indicated a possibility of supporting their trainees financially:

> "We do not have a special fund but teachers on training are free to apply for loans and are given as long as they show commitment to pay back in the next school term. We keep deducting from their monthly salaries" (Headteacher, School F).

This headteacher reveals that financial support for up-grading teachers in his school is provided but on request by the concerned teacher but the money is refundable within a period not exceeding one school term (which is 3 months). The implication is that financial support in this case is given in form of a loan facility.

Still on workplace financial support, another headteacher voiced his view:

> "One teacher got support on her project work when undertaking a bachelors degree. The project was to beautify our school compound. She was supported with money to buy sand, cement and paint" (Headteacher, School G).

The impression from the above quote is that the in-service teacher was given money because her study project helped to beautify the school compound not that she could use the money to pay university tuition. Findings from the headteachers portray lack of financial support for staff professional development in most schools; and where it is provided, it is in form of a loan. In public schools in Uganda, financial resources are allocated to schools by the central government specifying how they should be spent. This top-down approach in resources allocation limits the headteachers' powers to decide on their school development priorities including financial support to up-grading teachers. In private schools, payments are contractual and fixed hence difficult for teachers to demand anything outside the employment contract for professional development.

Findings from the students are partially consistent with the findings from the headteachers on the limited provision of financial support specifically on students acquiring loans. Whereas the 16 students of FGD 1 and 3 indicated that they did not receive any financial support from their respective schools of work, a few students from FGD 2 and 4 indicated to have got financial support in form of loans from their headteachers:

> "I received a loan from our headteacher to complete my tuition at the university. I have to pay the money back in not more than four months, but there is no interest charged" (Student 7, FGD 4).

And:

> "The school gave me salary advance. I also get writing materials like papers and pens from my school. The headteacher told the school secretary to type my coursework so that I continue with my classwork at school" (Student 2, FGD 2).

Notably, 3 students from FGD 2 said that they received financial and material support from their headteachers. 2 of them who were teaching in private schools obtained both financial and material support, while 1 from a public school got only material support in form of papers and pens. Based on the findings, it can be claimed that there is no official financial support system for in-service teachers' professional development in most schools in Uganda. It is at the discretion of the school authorities to decide whether to support or not to support up-grading teachers financially. Though the in-service teachers felt that their workplaces should get involved since the skills acquired in training directly benefit the schools in form of improved service

delivery (teaching and guiding pupils), most headteachers observed that they had moral support for in-service teachers but lacked financial resources specifically allocated for staff development.

6.2.2 Reduced work-load

In response to whether they reduced the workload of in-service teachers to have ample time for their studies, the headteachers expressed their diverging reactions. 5 out of 7 headteachers indicated that they reduced on the workload of the in-service teachers to give them some time for studies:

> "The workload for teachers studying is reduced to enable them have time for their studies. We give them time to do their coursework and attend any support service provided by training university" (Headteacher, School D).

And:

> "We allocate slightly less load to the teachers on study programmes. This is to enable them have more time for their studies, finish on time, and enable others also to up-grade when they have completed" (Headteacher, School F).

These expressions indicate that some schools supported in-service teachers by reducing on their workload on assumption that it creates more time for their studies and be able to finish as planned. The headteachers tended to equate workload to the number of lessons allocated for the teacher on the timetable without considering other activities outside the class (such as involvement in pupils' discipline, sports and games, counselling and guidance) which equally take a substantial time of the in-service teachers.

Additionally, there was an impression that even when an in-service teacher is not allocated overtime work outside the normal school time (8.00am-5.00pm), several headteachers regarded it as reduced workload:

> "We reduce on their workload such that they do not teach timetabled extra lessons in the morning and evening usually 7.30 – 8.30 am, and 4.30 – 5.30 pm unlike other teachers not on training" (Headteacher, School E).

And:

> "We reduce on their extra-time load so that instead of reporting at 7.30am, they report at 8.30am and do not teach the 4.30pm remedial lessons so that they have some time to use for their studies" (Headteacher, School C).

It was surprising to find that 4 out of the 7 headteachers interviewed considered reducing on overtime work as reduced workload. My arguement is that overtime work is normally expected not to be a must for everyone but done out of one's choice. This scenario suggests that extra-time lessons are put on official school timetable and are mandatory for all teachers in several schools in Uganda.

Some headteachers expressed their view that they do not have a written policy on allocation of workload for teachers on training but one is free to apply and wait for the decision of the school academic committee. Only one respondent clarified the impossibility of allocating a reduced workload to in-service teachers in her school because she had a staff of 9 teachers in the whole school of 7 classes (Headteacher, School B). This finding implies that the number of teachers in the school influenced the decision on reducing or not reducing workload of in-service teachers. In this case, in-service teachers could not be supported with reduced workload because of the limited number of teachers in the school.

Unlike headteachers, most students indicated the lack of reduced workload at their respective places of work. They noted that they have continued with the same workload they had before enrolling at the university. Shockingly, one student noted that his workload was increased when he enrolled for a bachelors degree:

> "For my case, the workload was increased when I started this bachelors degree course. The administrators assume that I can do better than others in teaching and managing pupils. The headteacher seems to have more trust in me than before" (Student 6, FGD 3).

For this particular student, the finding signposts that the course improved on his work competencies and made the headteacher to increase on his workload. There is an indication that enrolling for a higher qualification (bachelors degree) improved on the student's social and professional status and was able to gain the headteachers trust at work. It also indicates a direct relationship between the level of the teacher's professional growth and competencies at work.

On the contrary, a few students expressed their opinion that they have benefitted from reduced workload at their workplaces to do their academic work:

> "The only support I have got from my school administration is some limited time I was given to do my coursework. However even when my lessons were reduced, the headteacher gave me more work in administration" (Student 3, FGD 3).

And:

> "Since the time I enrolled for this study programme, the headmaster reduced on my workload specifically the teaching load. I have used the time to do the coursework but it is not enough to go to the library for research" (Student 5, FGD 3).

Reducing one's teaching workload but increasing the administrative workload thwarts the aim to create a reduced workload. The finding suggests that the headteacher viewed the teacher's workload only in terms of teaching which is unrealistic for effective workplace support. The inconsistency between the views of most students and those of the headteachers on workload support indicate their misconception of the scope of learner support in distance learning which they ought to exploit for effective workplace learner support system.

6.2.3 Given study leave

All the 7 headteachers interviewed indicated absence of study leave to up-grading teachers. Headteachers in government aided schools indicated that it is beyond their mandate to grant study leave to the teachers unless they get a directive from the district authorities which was rare. Headteachers could not even recommend in-service teachers to apply for study leave at the district because face-to-face sessions at the university were conducted during primary school holidays:

> "We do not give study leave. We expect teachers on training to use school holiday time for their academic work like attending lessons at the university. In case of any special programme at the training university during school time, the teacher concerned seeks permission from the headteacher" (Headteacher, School G).

And:

> "Study leave! No study leave is given. This is because we have one teacher per class meaning that some lessons are likely to be missed if any one teacher got a study leave" (Headteacher, School E).

The findings showed a consensus from headteachers in private and public schools that it was a rare practice for up-grading teachers to get study leave from their workplaces. The implication is that the students continue doing their normal school work as they study. This finding exemplifies the observed lack of sufficient time for in-service teachers to concentrate on their academic work due to busy work schedules in Uganda (Aguti, 2006, Bunoti, 2010).

The students' responses on obtaining study leave from their schools indicated that the majority (apart from 1) did not get study leave. Students noted that the school authorities expected them to study during school holidays and report at school when they start a new term. In reality, this

is a mistaken belief about distance learning in Uganda whereby many people equate it to merely a study programme run during school holidays. This is because students continue with their study activities beyond the face-to-face period including school term-time. My view expressed in the conceptual framework (see Figure 3.1) is that involving workplaces as an integral component of learner support could widen their understanding, and strengthen the management and delivery of learner support system for in-service teachers.

However, many students expressed their view that they were allowed some time by the headteachers to move to the university to collect and hand in coursework, and some teaching candidate classes were replaced by other teachers during holiday teaching. One of the students who claimed to have got study leave stated:

> "I was given some days off my normal duty to complete my assignment by the headteacher. This enabled me to do my coursework without pressure of my teaching work" (Student 3, FGD 2).

This student stated that she was teaching in a private school and the headteacher is very supportive of the teachers on issues of professional development. With the exception of one student who obtained a study leave, findings from the students were consistent with those of headteachers that most schools in the case study did not give study leave to the in-service teachers.

6.2.4 Given promotion

Responses of headteachers on the extent to which in-service teachers were given promotion as a way of supporting them to improve on their social and financial status and meet their study needs indicated differing views especially between public and private schools. 3 out of 4 headteachers from public schools said that they had not promoted any in-service teacher showing that it was beyond their mandate. Headteachers severally expressed that promotion of teachers is done by the district education authorities and was beyond their powers. However, one headteacher from a public school indicated that he made some internal promotions and appointed one in-service teacher as a senior woman, and seconded her to apply to the district education service to be promoted from an education assistant to a senior education assistant (Headteacher, School B). This finding suggests that even though promotions of teachers could not be done at school level, some headteachers could indirectly influence the process by recommending their teachers to the district authorities.

Conversely, the 3 headteachers from private schools indicated that some of their teachers on training were promoted. The common attribute in headteachers' views was that in addition to their training, those promoted had exhibited capability and commitment to the school:

> "One was promoted to the deputy headteacher position and one become the director of studies when on training. The deputy headteacher by the time he went for up-grading, had 9 years teaching experience and after enrolment at the university for a bachelors degree, he was considered for that post" (Headteacher, School A).

In order to capture the students' perspective on whether they got any promotion at work, I asked: 'have you received any promotion at school since you enrolled on this course?' The majority of the students (except 3 out of 36) indicated that they had not received promotion at their respective schools since enrolling on their current study programmes. Many students indicated that enrolling for further studies was their own personal initiative without involving the school administration and could not seek for promotion before completing their studies.

However, a few students expressed their view that they had been promoted:

> "I was working as a deputy headteacher but was promoted to Acting headteacher when I started this in-service training. But I cannot confirm that it was because of additional training that I was promoted" (Student 4, FGD 4).

And:

> "I have been given a care-taking responsibility for the office of the deputy headteacher. I attribute it to the confidence the headteacher saw in me after enrolling on the diploma programme" (Student 2, FGD 1).

The revelations from the students indicate that there were more chances of getting career promotion in private than public schools in the case study. This is because headteachers are involved in effecting staff promotions in private schools unlike in public schools. Based on interviews and FGDs findings, there is an indication that going for further studies could be a necessary but not a sufficient attribute for one to be promoted at the workplace. Enrolling for further studies ought to be supported by experience, capability, and commitment to the school ethos by the trainee to create more chances for career promotion.

6.2.5 Promised promotion

When asked: 'do you promise your in-service teachers to be promoted as a way of motivating and supporting them to continue with their studies? The headteachers expressed their diverse responses. Some said that they do not promise while others stated that they keep promising their

trainees the likelihood of being promoted but after the course. Even those who do not promise promotion indicated that they keep encouraging the students to take their training seriously. Some headteachers mainly from private schools expressed their view that they keep promising promotion to their trainees:

> "We promise promotion for the teachers on training in our school and it has motivated several to go for further training. This is because their salaries are increased after adding more academic qualifications" **(**Headteacher, School A).

The findings imply the likelihood of salary increase after getting an additional academic qualification in private than public schools in the study. Earlier studies in Uganda (Aguti, 2003; Bunoti, 2010) indicate the hardship of getting a salary increase for up-grading teachers in public schools in Uganda. This is because there is lack of a supporting policy to adjust on teachers' salaries after getting higher qualifications.

The students' responses on whether they enrolled for further studies because they were promised promotion indicated that they were likely to be promoted when they complete their studies. The majority of the students expressed that they were working in acting capacities as headteachers and deputy headteachers, and likely to be confirmed when they complete their current studies:

> "Several of us expect to be promoted after this course and it is actually the reason why some of us enrolled on the BED programme. Our expectations may be fulfilled soon when we complete our studies" (Student 4, FGD 1).

And:

> "I have been promised promotion when I successfully complete my course. All headteachers were given a period of 3 years by the government up to 2018 to have obtained bachelors degree in education or else they lose their offices. Some of us are training to prepare for promotions after this BED course" (Student 2, FGD 2).

One gets an impression that that even though promotion is not guaranteed on completion of their study programmes, the students believed that the training enhances their professional and career development and increases chances for better work placements. What is lacking in Uganda's education system is a clear government policy to influence teachers' promotions when they acquire higher qualifications (Aguti, 2006).

6.2.6 Use of school library

The headteachers indicated that majority of the trainees used library facilities in their respective schools of work:

> **"**The two teachers on training have English and Religious Education as their specialised teaching subjects and we have a few relevant books that they can use for their studies from our book store" (Headteacher, School B).

Even in absence of an organised school library, the finding indicate that there is a bookstore used by both pupils and teachers. It is at the discretion of the trainees to determine the relevance of the available library resources to their courses of study. Another headteacher stated:

> "We have an organised school library stocked with books and some computers. Though most of the books are on primary school curricula for pupils, teachers use some of them to get information for their studies" (Headteacher, School A).

The above expression reveals that some schools have organised library facilities that pupils use together with their teachers. Findings indicate that the headteachers do not restrict the students from using relevant library materials. However, most library resources at schools mainly suit the primary school pupils hence may not have all that is required by the in-service teachers. This points at the need for the students to develop library use skills to be able to search for other relevant course materials from elsewhere to enrich their studies.

When asked about using library facilities at their workplaces, most students expressed their view that they have used their workplace libraries to get some reference materials that enabled them to complete coursework assignments:

> "I have benefited from the books and other materials of my school library. The library does not have many materials but I borrowed and used some books of science for my coursework" (Student 5, FGD 1).

And:

> "I have been using the textbooks from the school library in addition to those I get from other sources for reference purposes. It has some good materials on physical education" (Student 5, FGD 2).

The quotes from the students indicate a positive contribution of the workplace to their studies by providing some relevant reference materials. Nonetheless, there was a unique perception by one participant who indicated that in his case, it is the university that has benefitted his school library:

> "For my case it is different. It is the university that has helped my school. When I come to the university library, I search and collect study materials that I take and use to improve on our school programmes" (Student 7, FGD 3).

This reflects that the student used his time and money to study as he also sourced some reading materials for his school library. The implication is that some schools in Uganda lack basic study materials for their pupils and in-service teachers could bridge that knowledge gap by sourcing for relevant information from other sources like the university library. In general, findings from the students are consistent with those from the headteachers that schools provide within their means library resources some of which are used by their teachers on training.

6.2.7 Use of school ICT facilities

The headteachers (4 out of 7) perceived lack of modern ICT facilities like computers in their schools for the teachers and pupils to use. 2 headteachers indicated that they had a few computers shared between staff and pupils, and only 1 headteacher said that they have a well-established computer laboratory used by teachers and pupils. Some of the headteachers who lacked computer facilities in their schools commented:

> "We lack modern technologies like computers but both teachers on training have smartphones they use to search for information. They can also go to the nearby town to access the internet from public internet cafes" (Headteacher, School B).

And:

> "We do not have ICT facilities like computers in my school. But, one of the teachers on training has a smartphone that he uses to get internet and do some research" (Headteacher, School D).

Findings show that even in absence of computers for staff and pupils in several schools, the use of mobile telephony is becoming common among the in-service teachers. There is an indication that some trainees have to move to the nearby urban areas to access computer facilities. The lack of computer facilities in several schools in Uganda could be explained by the lack of integration of computer literacy in the curriculum of teacher training institutions (Naikumi, 2013) and poor ICT infrastructure especially in the rural areas (Basaza et al., 2010).

There was a unique finding where age of the trainees was considered to influence the use of modern technologies in the school:

> "We lack computers at school but we have electricity. However, all my teachers are young, below 30 years. They all have smart phones that they use for communication and search for information" (Headteacher, School C).

This view highlights that young teachers (below 30 years) have grown up in the digital age and acquired smartphones used in communication and research. This appears unique because it reflects that a more youthful teaching staff can easily adapt and use modern technologies in

research, teaching and learning which is lacking in the literature on teacher education in Uganda. On the other hand, the headteachers who claimed to have ICT facilities in their schools commented:

> "The few available computer facilities can be used by both the teachers and the pupils. Teachers without the necessary skills can get support from the school computer teacher and other colleagues" (Headteacher, School F).

And:

> "We have a computer laboratory. There are also several computers in the library and we regularly organise training for our teachers. We also have projectors that some of teachers use in teaching and demonstrating to the pupils. The children have computer lessons on the teaching timetable" (Headteacher, School A).

Schools F and A were private and located near towns with access to a fairly reliable power supply which could explain their headteachers capability to provide ICT facilities like computers and projectors unlike in rural-based schools most of which have no access to reliable sources of power supply.

The students' responses indicated that the majority lacked ICT facilities in their schools. In 2 FGDs, all the students said that they do not have computers in their schools. Only 7 out of 36 participants indicated to have access to computer facilities in their workplaces:

> "We do not have computers in my school and I have not learned to use them. There is no electricity supply even if we had computers. I write my assignments and send to my sister in the city for typesetting" (Student 2, FGD 4).

And:

> "We had four computers two years ago but they are not working at the moment. I have to move to town about 45 kilometres from my school to use computers in a public internet café" (Student 7, FGD 1).

These findings reflect poor ICT infrastructure and electricity supply in several places in Uganda that forces some in-service teachers to move for long distances to access typing facilities for their coursework.

Nonetheless, a few students indicated that they used ICT facilities in their schools in research and completing coursework assignments. Those students used the school computers and laptops to research and typeset their coursework. Some students had modems at school that eased access to the internet. This finding implies that some students enrol on distance education when they

already have ICT skills, have regular access to ICT resources and can even be supported on-line:

> "I have used computers at school to search for materials and complete my coursework. We access the internet and even last semester, my results were sent by the department administrator and I got them using the school computer. The only problem is that at times our school internet goes off" (Student 4, FGD 4).

There is an indication that even in schools that have modern ICT facilities and internet connection, they experience the challenge of unreliable internet access (it is on and off). In general, findings from the headteachers and students indicate that most schools lacked modern ICT facilities in the study. This finding matches with findings of earlier studies (Basaza et al., 2010; Mutonyi & Norton, 2007, Ouma, 2003) that found limited use of modern ICTs in teaching and learning an impediment to the learning process in distance learning in Uganda.

6.2.8 Peer support

The headteachers were asked if there was any form of peer support for in-service teachers in their respective schools. Their responses indicated that the students were supported by other teachers when preparing for school practice, in question approach, and sourcing study materials. Some headteachers indicated that they were also involved in supporting some trainees as peers when requested:

> **"**There is great peer support among my teachers. When one was doing school practice, he was supported by co-teachers to organise his teaching materials. He could ask questions and they shared their experiences" (Headteacher, School D).

And:

> "I have observed good peer support among teachers in my school especially in preparation of school practice supervision. I am one of those who have been supportive but a request has come from the student" (Headteacher, School A).

The headteachers' expressions indicate that the trainees have a pool of support from fellow school staff. However, peer support is available but gotten on request. A peculiar comment was made by one headteacher that sometimes students seek support from experienced teachers especially when completing their coursework assignments but, some experienced teachers show little interest to work with those on training (Headteacher, School B). This statement was not substantiated but it gives an impression that some experienced teachers may not want to support those on training in some schools. This finding reflects presence of a weak collegiality culture among teachers in some schools.

When I asked the students: 'what forms of peer support did you get from your workplaces?' Students gave contrasting responses on peer support with two thirds expressing having gotten support from fellow staff, and one third of the 36 respondents saying that they are not liked by some of their peers. Some of the students who obtained support from peers remarked:

> "I am poor in Mathematics and have always requested for support from fellow teachers who up-graded earlier to approach challenges in mathematics. They are very useful colleagues and our headteacher is also supportive" (Student 5, FGD 1).

And:

> "I receive support and guidance when reading and completing coursework assignments. Some friends have given me their own textbooks to use or referred me to the libraries they used when in training" (Student 6, FGD 1).

The responses imply that the students mainly receive academic support from fellow staff especially in acquiring reference materials and tackling problematic subject areas. Though peer support is free, it has to be sought by the trainee.

Conversely, the students who felt that they received limited peer support expressed their concern that some of the colleagues felt jealous of their studies and were not willing to help even when they could:

> "For my case, some members are very supportive and keep on encouraging me to study as I work, but some are not supportive. They show a negative attitude that how can I be above them especially those of Grade III certificate but with more teaching experience than mine" (Student 4, FGD 3).

And:

> "If you are not careful, you can be failed by fellow teachers at school. I have been reported to the headmaster several times by a particular jealousy fellow teacher that I do not want to work but spend much time reading my course materials. But I try to balance time between my work and studies" (Student 8, FGD 4).

The findings reflect the reality that the trainees use part of the valuable school work-time for their personal studies. It may be challenging to have a clear separation between time for work and for studies when on a distance learning course which necessitates good planning to have a balance. Findings suggest that one ought to be careful when dealing with the unsupportive peers, which matches with the observation of one headteacher that some experienced teachers may not want to work with those on training. This anomaly would need the school administrators to nurture

teamwork spirit and concern for each other exemplified in the '*ubuntu* philosophy' (Letseka, 2016). In summary, most students agreed with the headteachers that peer support is given in workplaces but on request.

6.2.9 Recommendations and school practice support

Regarding the question: Is there any other support you give to your in-service teachers which we have not captured? The headteachers indicated that they wrote recommendation letters to support their applications, kept encouraging them to work hard, and provided meals to their supervisors during school practice:

> "The teachers on training in our school get permission and approval of the school management committee. I write reference letters to support applications of those teachers applying to be enrolled for further studies" (Headteacher, School G).

And:

> "As a school, we encourage and allow our teachers to study as they continue teaching. The school is purely private and emphasises the importance of continuous studies to improve on the teachers' skills and knowledge in teaching" (Headteacher, School A).

It should be noted that though the headteachers felt that recommending their teachers for university enrolment, and providing meals for the school practice supervisors were a learner support, the students did not express it in their discussions. This could have been an oversight or suggests that the students took such support for granted unlike their headteachers.

6.3. Perspectives of quality of learner support from the university

Staff and students' perceptions of the quality of learner support by the university were sought. Before giving their own perceptions, staff were asked: 'what do you think are your students' perception of the quality of learner support you give?' Staff responses included; students rank our learner support quality higher than other universities, they appreciate our services like supportive field visits, friendly face-to-face sessions, and provision of course materials like modules, providing library services in the different study centres, and using a SMS and mobile telephony for communication:

> "Our current and former students appreciate the support we give compared with other universities in the country. However, sometimes the print modules get finished and when some students are provided course materials on CDs, they complain especially those without easy access to computers" (Uni staff 1).

And:

> "Students appreciate our services basing on the evaluations they make on our courses and facilitators. This explains the increasing number of students enrolled every year. They like our modules, skilled facilitators and having residential workshops when primary schools are closed for holiday" (Uni staff 5).

The above findings indicate that though course materials inform of modules were provided, they are at times not enough. An alternative in the form of CDs is said to be in place though not user friendly for some students who lack access to computers. The views of the staff indicate an increase in students' enrolment to which they claim could be a reflection of their quality learner support services.

A peculiar view was expressed by 2 of the 6 staff interviewed that many of their students do not look for quality but merely for academic papers:

> "Many students come looking for academic papers not necessarily quality. Many aim at just getting the pass mark. Usually, those who get good grades perceive our learner support to be of good quality and those who do not meet our minimum grades doubt the quality of our services" (Uni staff 2).

This finding reveals that many students look for academic papers and are not bothered with the quality of learner support. It further indicates that some students used their academic grades to gauge the quality of faculty learner support (good academic grades implied quality learner support). This staff perspective was cross examined with that of the students (see section 7.3).

Each staff was then asked to allocate a percentage mark to his/her perceived quality of learner support to the students by the faculty. The responses were recorded and averaged as shown in Table 14.

Table 14: Staff grading of their perceived quality of learner support

Interviewee Identity	Perceived percentage mark	Justification
Uni staff 1	80	"I give 80% because we make efforts to introduce a new concept of distance learning to most of our students who have never used it"
Uni staff 2	70	"I give 70%. Because we do all the best we can to support our distance learning students and the remaining 30% goes with limitations"
Uni staff 3	85	"I give 85% because we provide a variety of support services"
Uni staff 4	75	"I give a distinction grade that is 75% and above. This is on the basis of our high level of organisation and management of support services to our students"
Uni staff 5	78	"This because the faculty trains both the staff and the students to appreciate and use this mode of learning which has attracted many working teachers"
Uni staff 6	75	"Over 75%. It was more than that before the number increased. I hope it will improve when we get new members of staff"
Average score	77.2	

When asked to justify their percentage scores, staff cited good organisation and management, introduction of distance education concept to the students, provision of modules, organising field visits and care for the learners:

> "I give a distinction grade that is 75% and above. This is on the basis of our level of organisation and management of support services to our students which is highly regarded compared to the services offered by other universities" (Uni staff 4).

And:

> "I give 80% because we make efforts to introduce a new concept of distance learning to most of our students who have never used it" (Uni staff 1).

The inference from the staff' expressions is that the faculty allocated resources to ensure that staff are supported to manage and deliver learner support services. However, the challenge of limited resources has been echoed in the literature on learner support in Uganda (Bbuye, 2006; Bunoti, 2010) which could be an impediment to effective learner support delivery despite the faculty's efforts to improve in the current study.

To probe the students' perspective of the quality of learner support, every student was asked to assign a percentage mark to the support he/she had gotten from the university. The responses

from the 8 participants in each FGD were then averaged to give the group mean score summarised in Table 15.

Table 15: Students' grading of the perceived quality of learner support by the university

Participants	FGD 1	FGD 2	FGD 3	FGD 4
1	78	68	65	55
2	65	75	55	65
3	68	71	58	52
4	81	73	64	50
5	75	65	60	46
6	70	74	60	56
7	72	65	62	45
8	68	70	58	60
Average score	72.1	69.6	60.3	53.6

Whereas the group average perceived scores for two FGDs (BED 1 Arts and DEP 1 Arts) were higher (72.1% and 69.6%) respectively, the scores for the other two groups (BED 1 Sciences and DEP 1 Sciences) were lower (60.3% and 53.6%) respectively. The justification given by the students in the first two groups for their scores included; though there were a few unclear issues in some modules, there was good handling of students by staff, good teaching, and provision of course materials particularly modules. They however cited insecure accommodation outside the university, limited access to computers, and distributing modules without introducing them to justify the percentage marks they did not award. Students doing sciences justified their average scores by noting that though the course content coverage was above average, and received modules from the faculty, the face-to-face period of two weeks was so short. They also considered the fees policy of zero balance (clearing all university fees before examinations time) unfriendly and that they had limited access to the science laboratory for practical work. Findings from the students reveal that though they studied in the same environment, there were specific course-related challenges based on subject combinations. The onus is on the faculty to explore further course-specific needs of the students doing Arts and those doing Sciences to inform decision making for improved learner support management and delivery.

From Tables 14 and 15 above, it is evident that the students' perception of quality of learner support by the university is inconsistent with the perception of the staff. Whereas the mean score of the perceived quality of learner support by the staff was 77.2%, the mean score for the students was 63.9%. The implication is that staff highly ranked their perceived quality of learner support by the university compared to the ranking of the students. This could be an indicator that staff guided by the institutional quality assurance policy (UMU, 2015) considered their support as

being fit for the learners, which did not reflect the image of the support as perceived by the students (Garvin, 1987).

Building on the questionnaire findings on the students' ranking of the four identified constructs of learner support using factor analysis (academic advising support, library and technology support, counselling and career support, and communication service support) reported in chapter 5; the staff were asked to rank the same learner support services based on their perceived quality of each learner support. The 6 staff except 1 (who interchanged the 3rd and 4th factor), gave the same ranking of their perceived quality in the order of; academic advising support, communication service support, library and technology support, and counselling and career support. This is evidenced from the following interview extracts:

> "Academic support is our number one, followed by communication, library and technology, and lastly counselling and career support. Academic support is the reason why we exist and do so through continuous communication. Library and technology support come before counselling and career support because we have better facilities for the former than the later" (Uni staff 3).

And:

> "We have greatly improved on academic advising and communication service support. We are trying to improve library and technology support, but we lack a university specialised counsellor for counselling and career support" (Uni staff 4).

Staff claimed to make their rankings based on the feedback on evaluation of teaching from current and former students, much efforts they put in supporting the students, and their own observations. Academic advising support and communication service support were better provided to the students than library and technology support, and counselling and career support services. The argument given is that academic support is the core focus of the university service delivery and they continue communicating to make the students abreast with the university programmes.

Like the staff, students were asked to rank their perceived quality of the four constructs of learner support identified from the questionnaire findings (Academic advising support, library and technology support, counselling and career support, communication service support). The four groups of students arranged the factors in a descending order based on their perceived quality starting with academic advising support, library and technology support, counselling and career support, and communication service support. There is a discrepancy between staff and students perspectives especially with regard to communication service support. Whereas the staff ranked

communication support high (second) implying it is well supported to serve the students, students ranked it lowly (last) implying that its provision is largely lacking. This finding indicates that the perception of quality of the service by the service provider (staff) may not necessarily reflect the perception of the service user (students) of that same service. Regular seeking of the views of staff and students on learner support by the faculty could help to make informed decisions for improvement and reduce on discrepancy in their perspectives.

6.4. Perceived effect of learner support on the students' pedagogical practices

In this section, findings on the effect of university learner support on the students' pedagogical practices are presented. The respondents included staff, students and selected headteachers. All those groups of respondents were asked to give their perceived effect of learner support by the university on the students' specified pedagogical practices.

6.4.1 Perceived effect of learner support on subject content

The responses of students indicated that many had acquired more knowledge on the subject matter, improved on grammar, improved on vocabulary, corrected errors on some concepts they had taught to the pupils, and exchanged ideas among peers, and their lecturers:

> "I have learned new things that I simplify for my pupils. I have developed a spirit of practicing and applying what I have learnt. This has enabled me to improve on the subject matter content I teach to my pupils" (Student 8, FGD 1).

And:

> "We have acquired relevant skills to match subject content and child growth in our module of Early Childhood Education. I gained more content and now have knowledge of what to do at each stage of the pupils' growth" (Student 6, FGD 3).

The students' expressions indicate that the training support widened their scope of understanding of the subject matter and being able to simplify it for the benefit of pupils in primary schools. The implication is that learner support had a positive effect on the students' ability to acquire, understand, and teach their respective subject content to the pupils.

To probe further, staff were asked to give their perception of the effect of their learner support on the students' subject content. Staff responses indicated that the students had broadened understanding of the subject contents through personal discovery and research, improved on subject content organisation for class delivery, and were capable of handling bigger concepts

than before. Staff specified that they instil skills that enable their students to have more quest for knowledge:

> "We broaden the subject knowledge content of our trainees by involving them in personal discovery through research, sharing with peers, and reflecting on their subject content to show relevance to the pupils they teach" (Uni staff 3).

To gain more insight on the effect of learner support on subject content, the views of the headteachers who worked with the students were sought. Headteachers stated that the trainees had improved on their subject content, and acquired techniques of simplifying the subject matter for the pupils. It was believed that students' improvement on subject content was a result of improved research skills and better preparation for lessons (Headteacher, School D). Findings from the headteachers indicated improvement in subject content knowledge and class presentation by the students. Despite improved subject content, some headteachers stated that some students expressed their feeling of discontent with the content of some university courses that they regarded to be complicated and less relevant to primary schools:

> "I have heard some trainees complaining that some of the content they have been taught is not relevant to the primary school curriculum like theology and some complicated philosophy content" (Headteacher, School A).

This observation highlights the relevance of the university curricula to the society that ought to be regularly evaluated by the service provider. However, I would urge the students not only to put emphasis on their teaching subjects in primary schools, but also to understand the importance of the foundations of education that consider subjects like philosophy that could be complicated, but relevant in the professional development of teachers.

6.4.2 Perceived effect of learner support on managing big classes

The majority of the students expressed that the training support had limited effect on their abilities to manage big classes. Some noted that they have tried to group the learners based on the knowledge they acquired in training but limited time and room space posed a challenge. Students indicated that they were exposed to some interventions to manage big classes in the training. For instance, this semester we have learnt about cooperative teaching and learning, and methods of teaching which cater for the needs of different school environments (Student 5, FGD 4). This finding suggests that cooperative teaching and learning by teachers and pupils can improve on managing big classes though the student was not clear of how it works. A few students expressed that in some schools, the problem of big classes is managed by use of modern technologies in teaching and learning:

> "In my school, we use projectors to teach big classes. I at times use videos for my pupils to see and follow the lesson. These make pupils attentive and easy to manage even in a big class" (Student 7, FGD 3).

The implication is that subject content is projected using ICTs to ensure that all the children are able to see and participate in the lesson. This could be a worthwhile development in influencing the pupils' learning but, as indicated in the literature (Basaza et al. 2010; Mutonyi & Norton; 2007, Ouma, 2003), the use of modern technologies in teaching and learning is still limited to a few schools in the Ugandan context.

Staff had varied responses when asked to give their perspective of the effect of learner support on the students' ability to manage big classes in primary schools. Some indicated that they had observed many students discussing the different ways they used to cope with big numbers of pupils in class, while those teaching big classes at the university encouraged their trainees to use some of the methods they used like small group discussion and peer teaching. Though the students were exposed to different methods of managing big classes in training, staff' responses remained silent on their observed effect in primary schools. This could imply limited staff follow-up on the trainees' practices in primary schools.

Additionally, staff indicated that the problem of big classes needed government's intervention:

> "I cannot say that there is a short cut to solving the problem of congested classes. My thinking is that this problem needs infrastructural development and employing more teachers especially in public schools. Even when we talk about group discussions, there is need for space to accommodate them" (Uni staff 3).

This finding clarifies that putting children in groups may be good but you need space for the small groups to work. The government is implored to build school infrastructure to provide more room space, and employ more teachers to cater for the learning needs of pupils in Uganda.

To further investigate the effect of learner support on the students' ability to manage big classes, the views of the headteachers were sought. Only 1 out of 7 headteachers interviewed indicated to have observed improved management of big classes by the trainees. The current in-service teachers manage big classes better than those who have not trained, and one of them grouped her pupils according to their learning needs with leaders for each group (Headteacher, School E). On the contrary, most headteachers (6 out of 7) indicated that they had not seen any significant change in the way the trainees managed big classes apart from those using groups.

A more complex situation was expressed by Headteacher, School B:

> "The problem in my school is that pupils in some classes are combined because we lack enough classrooms. For example, primary 1 and primary 2 pupils; and primary 3 and primary 4 pupils are combined. Children of each class face in opposite directions but in the same classroom. The teachers talk in turns when explaining the subject matter so that the pupils can listen to their specific subject teacher"

This situation is complex to understand how the teachers manage to teach combined classes in a limited classroom space. It may not be easy for the pupils to follow their subject teacher especially where one has a low voice projection compared to the other teacher in the same classroom but presumed to be teaching a different class of pupils. In such a situation, it may be prudent to think of what one staff member earlier suggested of the need for the government to develop school infrastructure and employ more teachers in Uganda's public schools (Uni staff 3).

6.4.3 Perceived effect of learner support on use of technologies in research and teaching

Students' responses indicated that many trainees had acquired mobile telephony that they used in research. Though faced with unreliable power supply, a few students had computer facilities in their schools, and others moved long distances to access computer and internet facilities in towns. For instance, it was possible to access the internet and use mobile telephony for social media unlike before enrolling on the BED programme (Student 7, FGD 1). The findings specified that the students used mobile telephony for searching information and not for classroom teaching. The implication is that smartphones could only aid some simple information search but many students lacked facilities to display such information to be viewed by their pupils.

Some trainees claimed to have gained prestige in their schools because they can use computers while others conveyed the lack of such facilities in their work places:

> "Some of us have bought smartphones and can access information on the internet even in our villages. When I find a difficult word while teaching, I just pull out my phone and search for its meaning. I have gained prestige in my school and society because I can use and guide others to use the computer" (Student 7, FGD 4).

Conversely, another student commented that not everyone had access to modern technologies like computers at the workplace, and some students' mobile phones could not get internet (Student 2, FGD 4). A similar scenario was alluded in the study of Mayende et al. (2014) where several students had mobile phones that could not access social media like Facebook in Uganda. Findings indicate that though many students lacked access to computers and reliable electricity supply in their schools, there was increased use of smartphones for information searching.

To probe further the effect of learner support on the students' use of modern technologies in research and teaching, the views of the staff were sought. Staff responses indicated that the students had acquired knowledge of using computers and mobile telephony in research and teaching though not certain of how they applied such knowledge and skills in their schools. This is because staff had not made a follow-up to find out their students' application of those technologies in primary schools. Staff hastened to add that several students lacked the ICT infrastructure in their schools especially in the rural places:

> "Several students especially those from hard-to-reach areas are not using modern technologies in research and teaching as such facilities are non-existent in their schools, and lack reliable power supply and network connection" (Uni staff 1)

In addition, findings revealed that several students did not know how to use computers in teaching and research by enrolment time. They gained the necessary IT skills at the university, were encouraged by the lecturers to continue using computers and to acquire mobile telephony for research in teaching, and those with laptops were guided to use wireless connection for information search while at campus for face-to-face sessions:

> "I have been setting coursework which encourage the students to source for information using computers and the internet. The questions I ask direct them to use e-resources" (Uni staff 2).

These are indications that the university has programmes intended to influence the students to gain knowledge and use modern ICT facilities in teaching and research. However, the findings did not indicate whether the support given by the university improved on the students' use of modern communication technologies in teaching and research in primary schools.

To gain a deeper understanding of the effect of learner support on the students' use of modern technologies in teaching and research in primary schools, the views of the headteachers were sought. The headteachers interviewed indicated that there was limited use of modern technologies in teaching and research by the trainees because they lacked computers. However, headteachers observed that many students used mobile telephony mainly for research. Only one headteacher claimed that his teachers were computer literate, used the school computers to do research and conduct classroom demonstrations (Headteacher, School A). The findings imply (with the exception of a few schools that had computer facilities), that most trainees improvised their own means to access ICT facilities (mainly mobile telephony) they used to facilitate research and teaching.

6.4.4 Perceived effect of learner support on time management

Students' responses indicated that the majority (trainees) had improved on time management in their workplaces apart from one exceptional case who claimed to have been discouraged by other teachers saying that she wanted to please and get favours from the headteacher by working more than others. The rest of the students noted that they had improved on time management at work:

> "I have improved on self-time management and also that of my pupils. I started by counselling late comers and the problem has reduced in my class. My pupils keep reminding one another to keep time for our class activities" (Student 4, FGD 1).

And:

> "I have improved on my time management for teaching, personal study, and family activities. I respect and strictly follow my teaching timetable, the way our lecturers do here at the university" (Student 8, FGD 4).

The findings reflect that many trainees tried to improve on time management for class and school activities despite isolated challenges faced in some schools. If time management could become the teachers' habit, this could save Uganda's schools money and time alluded in the literature (Winkler & Sondergaard, 2008).

The study sought staff's perspectives of the effect of learner support on the students' time management. Only 1 out of the 6 staff stated that some of the trainees have not been time conscious at the university, which could have an effect on their conduct at schools. The remaining 5 staff indicated that time management is a core value in their training, time is a compulsory unit taught to all students, and many students had improved on keeping time:

> "Many students are time-conscious and they have learnt vicariously that time is a value not to be overlooked. I support them by being a role model in valuing and managing time in teaching/learning and life" (Uni staff 6).

And:

> "Time management is an item we extensively discuss with our students. I have noted that by the end of first year, many of them become good time managers and conscious of deadlines compared to enrolment time" (Uni staff 1).

Based on the observed change in the students' behaviour in managing time while at the university, findings portray that they could be doing the same in their workplaces. This prompted the need to get the headteachers' perspective as work-based supervisors.

4 out of the 7 headteachers interviewed indicated that the students had improved on time management at school though they could not solely attribute it to the training. This is because their school policies stipulated time keeping as a core value for all the teachers. Conversely, some headteachers indicated that a few trainees still had a problem of time keeping at school. For example, arriving at school two to five minutes late, and not keeping time for different school activities. This finding indicate that the problem of time management prevailed in spite of the training gotten by the students. The headteachers' responses were thus inconsistent with the views of the students and staff who portrayed sanity in time management by the trainees. My view is that if the university's efforts to instil and encourage effective time management are sustained by the efforts of workplace supervisors (headteachers), then the trainees would continuously link the training and work demands on time management (see Figure 3.1).

6.4.5 Perceived effect of learner support on critical thinking and assessment

In response to the question; 'what has been the effect of learner support by the university on your critical thinking and assessment?' The majority of the students said that they had improved on reasoning, were more critical on issues than before, and try to be critical when teaching and assessing pupils. Some students claimed to have improved on their abilities to interpret and simplify the subject content for their pupils. Although many trainees claimed to have improved on their critical thinking and assessment, it could not easily be justified during the discussion as there was nothing empirical to validate their claims. This prompted the need to find out the perspectives of the staff, and headteachers to cross-examine and validate the students' claims.

Staff indicated that critical thinking is one of the teaching areas covered in professional education studies, and critical analysis and understanding of the subject matter, and assessment are expected of all their trainees. Staff added that issues of critical thinking are embedded in all the faculty modules to influence the trainees' practices in primary schools:

> "The questions I set for course work and examinations do not only test for recall, but application, synthesis and evaluation of knowledge. These encourage critical thinking. In assessment, we impart to our students some skills which are beneficial to their life and work experiences for example, essay writing skills" (Uni staff 2).

And:

> "In our teaching and assessing, issues of critical thinking are discussed. In addition to recall questions, we put emphasis on comprehension, application, and synthesising questions to instil a sense of critical thinking in the trainees to be able to influence their teaching in schools" (Uni staff 3).

Though the staff responses indicate that the training institution emphasised critical thinking in assessment in all the courses taught, there was no evidence that the students had improved on their individual practices in teaching. This precipitated the need to get the perspective of the headteachers who worked with the students in the primary schools.

The headteachers expressed their view that the training support had, had limited positive effect on the trainees' use of critical thinking in teaching and assessing their pupils:

> "There are limited activities given to boost the children' critical thinking by the students. Majority use past papers when setting but we are now encouraging them to set their own questions and consider the 3 levels of knowledge, comprehension and application in assessment" (Headteacher, School A).

The responses of the headteachers reflect that learner support had limited effect on the issues of critical thinking in assessment in primary schools. The inconsistency between the headteachers and students' perspectives would imply that whereas the students feel to have improved in critical thinking since enrolment, the headteachers had not noticed a significant change in their practices in primary schools. The students should reduce reliance on past papers and ably focus on the 3 levels of knowledge, comprehension and application in assessment emphasised in the Uganda's primary school system in order to have a positive influence in their pupils learning. In the same vein, critical thinking should not only be seen in the training course materials, but should be put to practice by the students and regularly assessed by the trainers.

6.4.6 Perceived effect of learner support on lesson planning

The students' responses indicated that majority of the trainees had improved on lesson planning:

> "I started making schemes of work and lesson plans when the importance of good lesson preparation was emphasised in training. It has helped me to improve on my teaching style and lesson preparation to interest the pupils" (Student 4, FGD 3).

This finding indicate a direct relationship between lesson preparation and quality of learning in primary schools. The student was able capture the attention of the pupils in class because of good lesson preparation hence linking the purpose of the training and the work environment of the in-service teacher. However, some students could not solely attribute improved lesson planning to their current training because they had internal school programmes aiming at improving lesson planning with the school administers supervising the process. The positive attribute is that regardless of prior knowledge of lesson planning, this particular training could have influenced improvement in the trainees' practices for enhanced professional development.

Data obtained from the staff revealed an improvement in lesson planning by the students:

> "Lesson plans and schemes of work preparation by our trainees has improved from what I observe during teaching practice supervision. Such skills are imparted during the training, monitored, and assessed" (Uni staff 5)

And:

> "We have followed up the students on school practice to monitor, supervise and assess their ability to prepare and use lesson plans and schemes of work when teaching. Faculty score records show an improvement" (Uni staff 6).

The findings indicate that there is monitoring and assessment of the lesson planning process of the trainees by their lecturers. The physical movement of the lecturers to observe and assess their students' practical classroom environment could be a positive trend to get evidence on application of knowledge and skills acquired. Nevertheless, the continuity of the practice could not be ascertained as staff did not indicate to have made any follow-up on the practices of teachers who completed their courses.

When the views of headteachers were sought, the majority indicated an improvement in lesson planning among their trainees with several stating that lesson planning is a 'must to do work' for all teachers in their schools. It was also noted that the practice of lesson planning is as well influenced by some NGOs in some schools:

> "Preparing lesson plans and schemes of work is done by all the teachers in this school. It could be a result of training for some teachers and also the support we get from one NGO that monitors our teaching practices" (Headteacher, School E).

Based on the claims of the students that they have improved on lesson planning, the views of the staff that they emphasised lesson planning in training, and pronouncements of the headteachers that lesson planning improved in their schools; it can be inferred that there is a consistence in the findings that learner support could have positively influenced the trainees' practices and nurtured a lesson planning culture.

6.4.7 Perceived effect of learner support on counselling and mentoring of pupils

Whereas a few students indicated that they lacked specialised knowledge to mentor and counsel their pupils, the majority (two thirds) voiced their view that they had acquired better skills and knowledge and improved on counselling and guidance programmes for their pupils:

> "I requested our headteacher to start a School Family Initiative (SFI) which has improved on counselling of pupils by teachers. Each teacher is allocated a group of pupils to guide as a family mother or father. Each family has grandmother or grandfather who is one of the school administrators. We also have a family aunt and uncle who can be approached by pupils who may not like to tell their problems to the family mother or father. The family aunt or uncle is selected from the fellow teachers who is a mother or father to another family" (Student 7, FGD 4).

This approach in counselling pupils could have been derived from the notion of extended African traditional family that cherishes having grandparents, aunts, and uncles as part of the family in addition to core family members (father, mother, and the children). Though the findings did not show proof of the effectiveness of this innovation, it gave the idea that the counselling organisation at school was built on a family structure familiar to the children at their homes.

Staff were also asked to give their perceived effect of learner support on the students' ability to counsel and mentor pupils. Their responses indicated that when teaching, they include counselling and mentoring in the professional courses, and emphasise the role of the teacher as a counsellor in the school:

> "As a training university, I can say that we have a limited programme to counsel and mentor our trainees with no established counselling department. But as trained teachers, we counsel our trainees especially on academic matters" (Uni staff 3)

And:

> "We encourage our trainees to practice what they learn. We encourage them to organise family committees where specific teachers are allocated a group of pupils to counsel, guide and mentor into responsible persons. The implementation of such initiatives depends on the organisation at school level" (Uni staff 5).

The above findings reveal the lack of an established counselling department at the training university. The lecturers are indicated to be trained teachers who could counsel their trainees. The challenge this could pose is the limited counselling skills of the lecturers who were not professional counsellors. The issue of organising family committees raised by staff is consistent with the initiative of organising family meetings and counselling pupils that was raised by the students. Staff responses' reflect that despite their efforts to impart counselling and mentoring skills to their trainees, the application of the acquired knowledge and skills differed from school to school depending on the level of organisation.

To cross-examine findings from the students and staff, the study explored the views of the headteachers on their perceived effect of learner support on the counselling and mentoring of pupils by the trainees. Out of the 7 headteachers interviewed, only 1 indicated that he had not observed any difference between teachers on training and others in counselling and mentoring the pupils. Conversely, 6 out of the 7 headteachers expressed their concern that they had noticed improvement in counselling and mentoring of pupils exhibited by several trainees. Findings showed that the trainees were guiding, counselling and mentoring the pupils in a friendlier manner, and were influencing fellow teachers to improve on their practices. There was an indication that some trainees were guiding some pupils to be able to guide and counsel fellow pupils:

> "Both teachers on training have improved on the way they counsel the pupils. One of them is in charge of sanitary in the school and is doing well in guiding and counselling the children to maintain a clean and health environment. She even guides particular pupils to counsel and guide others" (Headteacher, School E).

There is a consistency between the views of most students, staff, and headteachers that learner support is having a positive effect on counselling and mentoring of pupils by the trainees. However, the quality of counselling for pupils could not be ascertained bearing in mind that the trainees lacked services of professional counsellors in training (see section 6.1.3). I would suggest that to improve on counselling in schools, teacher trainers should strengthen their counselling and career support (including professional counsellors) to counsel and impart desirable skills to their trainees.

6.4.8 Perceived effect of learner support on team teaching

The students' indicated that they had acquired more knowledge on the importance of team teaching in training but many found it problematic to apply the knowledge and skills acquired in their classroom environment:

> "I have knowledge of team teaching but the teachers in my school are not many. One cannot leave his/her class to team with another and teach together. Even some days not all teachers come to school" (Student 7, FGD 3).

And:

> "I have learned about team teaching and its advantages but it is not easy to use in my school. We are few teachers and each is given his/her own class and one cannot leave her class to go and work with another teacher" (Student 1, FGD 4).

The students' responses indicate that they were equipped with the necessary skills to practice team teaching, but the circumstances in their working environment with a few teachers and each allocated his/her class, makes the practicability of team teaching difficult in several schools. However, a few trainees indicated that team teaching is a must in their schools as they have to plan and teach together, set examinations, and mark in groups at departmental level.

When asked about their perspectives on the effect of learner support on team teaching by their trainees, the staff indicated that team teaching is encouraged by grouping their students to work in teams so that they appreciate the value of learning from peers and apply the knowledge in their schools:

> "We nurture team teaching by grouping our students to work in teams with the hope that they can use the same in their schools. The challenge could be in schools that have fewer teachers to team in teaching but joint activities like setting tests, marking, and preparing schemes of work are encouraged" (Uni staff 2).

The excerpt reveals that though the university exposes the trainees to team teaching, the implementation depends on their respective school administration and working environment. This finding implies that there is a limited link between the faculty and schools in monitoring and assessing the application of team teaching knowledge and practice by the students.

Further investigation of the effect of learner support on team teaching explored the views of the headteachers. There were varying responses with majority of the headteachers expressing lack of team teaching among the trainees. A few headteachers applauded the positive effect of the training support on team teaching exhibited by the trainees in their schools. Headteachers who had not witnessed team teaching indicated that they had few teachers and it is difficult to team up as they are all in their classes at all times. However, it was revealed that some teachers swap some lessons for example, one who is good in teaching English swapping classes with the one who is good in Mathematics. Like the students, headteachers' views suggest that team teaching is limited not because the trainees lack knowledge but the number of teachers is small in their respective schools.

Conversely, those that registered increased involvement of the trainees in team teaching attributed it to the influence of their school culture:

> "Team teaching is part of our school culture. There are a few moments when you get one teacher in a class in our school as everything is done in teams. These include teaching, teaching preparation, marking of tests and examinations of the pupils is done in teams" (Headteacher, School A).

The finding indicates that team teaching is an established practice in some schools and entrenched in the school culture that guides the teachers' pedagogical practices. In this case, involvement of the trainees in team teaching strengthened bonding of teachers and improved on the existing pedagogical practices embedded in the school culture. In general, findings reflect that team teaching is appreciated in principle by all the categories of respondents, but the reality is that its application by the trainees is constrained by the small number of teachers in their workplaces.

6.4.9 Perceived effect of learner support on learners' use of teaching aids

The students' responses indicated that the majority had perceived themselves improve on the use of teaching aids in class because of the training:

> "I personally have improved on subject content and use of teaching materials. I teach mathematics and have learnt to use concrete objects and other learning aids in the class for improved teaching and learning" (Student 6, FGD 3).

And:

> "We no longer have permanent fixed teaching aids on the wall in my school. I now use manila papers to develop different teaching aids depending on what I am going to teach and remove them afterwards" (Student 4, FGD 4).

The findings show that the students are using teaching aids in a more professional manner than before such as using concrete objects and removing teaching aids after use instead of fixing them permanently in class which may attract the attention of the pupils when attending a different lesson. The students were not clear on what happens to the learning materials after use in terms of storage and future use.

There was an expression that though some trainees knew how to use different teaching aids, they lacked funds to get relevant materials especially those from UPE schools. UPE refers to Universal Primary Education which is free education provided by the government of Uganda to all children of primary school-going age in public schools. Building on the students' expression above, it may be beneficial for the training institution to train and encourage their trainees to use local and relatively cheap materials and to involve the pupils in making some teaching aids to reduce on the financial burden on some impoverished schools.

When asked about the use of teaching aids by their students, staff expressed their view that the students had steadily improved on making and using teaching aids in their classrooms. The trainees make their own teaching aids and some involved the pupils in making and using some teaching aids based on the staff observations during school practice supervision. Staff

commented that school practice supervision records at faculty indicate that the trainees are using a variety of teaching aids. Staff also noted that in training, the students were supported to develop teaching aids especially during media and instructional materials course which is compulsory. The continuity of using teaching aids after the training could not be verified by the staff as they had not made any follow-up on the classroom practices of their former students.

Similarly, the headteachers voiced their view that there was increased use of teaching aids by the trainees:

> "I have observed that many are moving away from merely using paper work which is theoretical to using real objects in teaching. For example, when teaching about flowers, you see one bringing the actual flower in class or taking the children in the field rather than merely drawing it on the chalk-board" (Headteacher, School A).

And:

> "I saw one of the teachers on training teaching about culture, he organised a cultural dance and brought traditional materials that were used by pupils as they trained. I admired his creativity" (Headteacher, School D).

There is a consistency among the students, staff, and headteachers that the trainees were exposed to the making and using of teaching aids which they are applying in their classroom settings. The difference is that the ability of the school to provide some funds to purchase some teaching aids to supplement what the teachers can make locally dictates the pace of using teaching aids in the different primary schools. The indication is that workplace support in acquiring and using teaching-learning aids cannot be underestimated for enhanced practice among the teacher trainees.

6.4.10 Perceived effect of learner support on learners' use of teaching methods

Most students expressed their view that they had improved on the teaching methods due to the influence of support obtained in training:

> "Things have changed in the way I teach. I now vary teaching methods based on the topic and state of my pupils. For example, the way learners pronounce words with letters L and R. I am now able to introduce the lesson with a tongue twister that tallies with the lesson which was not the case before" (Student 7, FGD 1).

And:

> "I can now use various teaching methods in my classroom. For example, discussions in groups and fieldwork. My expression of issues in the classroom and outside is better than before" (Student 6, FGD 1).

Although most students claimed to have acquired various teaching methods for their classroom delivery like discussions in groups and fieldwork, a few expressed their discomfort with the continuous use of the lecture method by some of their lecturers. The students needed exposure to different teaching methods rather than the lecture method during their training. This does not mean that the lecture method is useless because it can be more ideal when one is introducing a new topic which may not be familiar to the students. However, the students' expression seems to confirm (EFA GMR Team, 2005; Ministry of Education and Sports, 2013) positing that several teachers continued using rigid teaching styles that make the learners passive in the teaching-learning process in Uganda.

Interview data obtained from the staff threw some light on the effect of learner support on the teaching methods of the trainees. Staff claimed to have exposed the students to the different teaching methods during the training such as; chalk and talk method, story-telling, group discussions, and fieldwork:

> "Although many trainees come emphasising the use of talk and chalk teaching method, we emphasise on learner-centred teaching and learning in training. We encourage them to use methods of teaching that put the learner in the centre of his/her learning" (Uni staff 1)

And:

> **"**Our trainees have improved in their teaching. They use teaching methods like discussions, group work, and 'think, pair and share'. This involves giving two pupils the same task to do; they first do it independently, then pair, and share their findings" (Uni staff 3).

Findings reflect that the use of child-centred as opposed to teacher-centred teaching methods are encouraged in training. Staff observed that the students were innovative by using techniques that allow individual and group expressions during the teaching-learning process in primary schools. This would indicate a break-away from the traditional methods that have tended to put the teacher at the centre of classroom teaching and learning in Uganda (Hardman, 2015; Hardman et al., 2008).

To gain a deeper insight of the effect of learner support on the trainees' teaching methods, the

opinion of the headteachers was sought. The headteachers indicated that trainees had improved on their teaching methods. They kept varying application of the teaching methods like using group work, demonstrations, and discussions. It was also revealed that in some schools, about 90 percent of the trainees mainly used group work, and pair work when teaching (Headteacher, School C). These findings imply that the trainees are now able to vary teaching methods based on need, give practical work, use demonstrations, group discussions, organise field visits and excursions for the pupils. The opinion of the headteachers is consistent with the views of the students and those of staff that the training support influenced the trainees to improve on their teaching by using different pupil-centred teaching methods. Such positive efforts to apply learner-centred teaching-learning methods are however limited by the crowded classes in several schools in Uganda (Kewaza & Welch, 2013).

6.5 Staff perceived challenges faced in managing and delivering learner support

Research evidence elicited from staff in-depth interviews forms the basis of the presentation in this section. In describing the challenges they faced in managing and delivering learner support, 5 out of the 6 staff identified the critical challenge of a limited number of fulltime staff at the faculty that could not adequately support the students. This implies that the available full-time staff could not sustain quality in the provision of learner support to the in-service teachers:

> "We have a limited number of full-time staff that affects the quality of our work adversely. Relying on part-time staff helps to reduce the monetary costs but seems to be more expensive in terms of time. It takes much time to coordinate part-time staff during setting coursework assignments and examinations, marking and giving feedback to the students, and meet the university deadlines" (Uni staff 2).

And:

> "Majority of our facilitators are part-timers because it is not cost effective to have all of them on fulltime. They sign contracts with the university on an annual basis to provide their expertise but it is difficult to coordinate them" (Uni staff 3).

Findings reveal the importance of having adequate teaching and support staff in managing and delivering learner support to distance learners, showing that much reliance on part-time support could help to reduce monetary expenses but poses a challenge to proper and timely coordination of learner support activities. This is because part-time staff are either not readily available or may not be reached in time. Many part-time lecturers in Uganda are said to be involved in 'moon-

lighting', meaning teaching in several universities to meet the ever increasing cost of living and sustain the needs of their families (Bunoti, 2010). Teaching in many institutions implies that the lecturer is always moving which breeds inefficiency due to limited time allocated for lesson preparation, teaching and assessing the students.

Staff expressed their view that lack of a reading culture among the students posed a challenge to effective learner support. All the 6 staff interviewed conveyed that while the university took the initiative to provide course materials, the students did not effectively utilise them:

> "For some of our students, their reading culture is low. This has been a challenge to the effectiveness of our courses. This could be attributed to a few public libraries and limited emphasis on reading at the lower education levels in the country" (Uni staff 2).

This assertion reflects a low reading culture in the community indicated by lack of public libraries and limited emphasis on reading at primary and secondary school levels in Uganda. This finding matches with earlier findings by Bunoti (2010), and Mamdani (2007) who found a limited reading culture among staff and students in Uganda.

The staff mentioned poor citation and referencing among their students as another learner support challenge:

"Many of our students have a challenge of citations and referencing their work correctly. We use the Harvard referencing system in the faculty, but you find students mixing it up with other referencing styles" (Uni staff 2).

This expression indicates that while the faculty recommended the use of the Harvard referencing style by all students, the in-service teachers continued using different referencing styles. This was partially due to the influence of the referencing styles used in other educational institutions attended by the students prior to this enrolment. It was however, not clear to ascertain the extent to which staff had supported the students to learn and use the recommended faculty referencing style in the study.

In addition to the problem of improper use of the Harvard referencing style, many students lacked adequate writing skills:

> "Many of our distance learners lack academic writing skills such structuring essay writing and using the Harvard referencing style. Therefore, alongside teaching subject content and methods of teaching, we struggle to impart such important skills" (Uni staff 3).

The finding supposes that the students' lacked academic writing skills reflected in improper easy writing structure. My view is that learning such vital writing skills is a pertinent reason for the students' enrolment for further studies and ought to be seen as a component of the training rather than a challenge to the service provider. Staff should appropriately guide the students to improve on their writing skills as an academic learner support.

Interview data indicated untimely communication between the faculty and the students as a major challenge faced by university in the study. Communicating without receiving a feedback was common between the faculty and students:

> "There is a challenge of effective communication which is a two-way between the faculty and the students. Sometimes messages are sent on cell-phones but not received by some students. If they all had emails, it would be better to serve and support them" (Uni staff 5).

The expression reflects that both the faculty and the students face a communication challenge. It is reported that at times messages are sent to the students' cell phones but not received which could match with the explanation of (Mutonyi & Norton, 2007) that several rural areas lack ready supply of electricity or have poor communication network in Uganda. There was an indication that many students lack email contacts that limits timely communication. The communication challenge is worse with students in the hard-to-reach places:

> "There is a challenge accessing our students working in hard-to-reach places such as remote villages, islands and mountainous areas. They cannot be easily reached by a phone call, SMS, WhatsApp, and written letters making communication difficult." (Uni staff 1).

Hard-to-reach areas in the Ugandan context mainly refer to places with poor communication and infrastructure network such as mountainous, semi-arid areas and islands detached from the main land by water bodies. Such places lack good roads, access to electricity, and experience unstable communication network access hence difficult for the students working in such areas to get timely communication from the university.

Findings from staff revealed that not all students were able to attend the faculty field support organised near their home/workplaces:

> "When we organise field visit support for the students, some of them do not turn up because of personal commitments elsewhere or sickness. These are the groups that later complain that they did not get some information, yet such information could have been communicated during the field support" (Uni staff 4).

The finding indicates that even though learner field support was organised by the faculty, not all in-service teachers attended. The faculty seems to make important communications during those field visits which some students who do not attend miss and later complain. This could be an indicator to the staff that relying on a particular communication medium for distance education students may not profit all, hence the need to vary the communication media.

Staff expressed their concern that it was challenging to organise face-to-face residential workshops. This is because the period for residential workshops was too short for effective learner support:

> "Doing so many activities in a short time of two weeks of residential workshops is a challenge that reduces our support efficiency. Such activities include organising for teaching, doing examinations, introducing modules for the next semester, and counselling trainees among others" (Uni staff 1).

The finding reflects that face-to-face period is a critical learner support period when many activities are concurrently accomplished. Such activities included face-to-face lessons, learner-learner interactions, fees clearance, counselling students and doing examinations. The practice in Uganda is that many of those activities are shelved until the residential workshops that pose a learner support challenge because of the time constraint. This practice also explains the lack of study leave in the findings because the course is believed to be a primary school holiday programme (see section 6.2.3).

Unexpectedly, all the 6 staff interviewed recounted incidences when several students delayed to report for residential workshops and had not even read the course materials distributed by the faculty:

> "Many students report late for face-to-face workshops when they have not read the modules. The common argument is the lack of time for revision as they have busy work schedules in their schools" (Uni staff 2).

Though findings identified the busy work schedules that compelled students to report late for residential workshops and having not read the course materials, the students added their inability to raise university tuition in time. However, the coming to face-to-face workshop without prior

preparation and reading the necessary literature could also depend on the level of preparation of the students for distance education by the training institution. Absence of proper initiation of students in distance education during the learner in-take phase (Floyd &Casey-Powel, 2004), limits their ability to cope with the course demands.

Furthermore, staff responses indicated inadequate counselling and guidance to the students as another learner support challenge. Whereas 2 staff members indicated that they provided some counselling to their trainees as trained teachers, the other 4 indicated lack of organised programme to provide counselling services to their trainees:

> "Providing guidance and counselling to our students has been a big challenge. These key issues are not timetabled but mainly handled when need arises. We even do not have a faculty staff in-charge to provide guidance to others" (Uni staff 1).

This finding reflects inadequate counselling and guidance support for the students. This is because support could only be given when requested by the trainee and delivered by the staff who were not professional counsellors. This finding points at the need for an institutional counselling and guidance department or programme to support students and staff.

Staff identified inadequate learner supervision during action research as a learner support challenge. Most staff (4 out of 6) voiced their view that the staff are allocated many students to supervise during action research some of whom end up producing unsatisfactory work:

> "The number of the students has increased. For example, the number of BED 1 students is 216 compared to about 80 BED 2 students. This high enrolment has posed a challenge of ensuring effective learner research supervision." (Uni staff 2).

There was an indication that some students continued doing their research without regularly consulting their supervisors for guidance. The faculty's inability to provide adequate supervision to the increasing number of students was perceived to lower the quality of the students' research output. This finding is in harmony with that of Bunoti (2010) who found a high students: lecturer supervision ratio, with several students complaining that they were not given adequate supervision time by their supervisors in one university in Uganda.

Furthermore, findings from the staff revealed that many students lacked ICT skills by the time of enrolment. Many in-service teachers especially from the rural remote areas could hardly use the computers as they lacked both the necessary knowledge and the computer facilities:

> "Computer literacy is low among many of our distance learning students. This affects the quality of their research and the nature of course work assignments done" (Uni staff 2).

And:

> "Many of our students are computer illiterate which makes communication with the use of emails so difficult. Among those living in rural areas, a few have regular access to computers. As such a good number of them still want to handwrite and present their coursework yet we insist on typed work" (Uni staff 3).

Those comments reveal that there was limited knowledge of using computer facilities by many students. Surprisingly, in this era of modern communication technologies, there was an indication that several trainees preferred to hand-write their coursework and yet the faculty expected typed work. The implication is that those who could not type-set their coursework had to seek services of other service providers at a cost (see section 6.2.7).

Staff responses revealed that inadequate library support was a learner support challenge faced by the faculty. Although staff indicated that there was provision of library services at the main university and regional study centres, they hastened to add that what is provided in the libraries may not be sufficient for the specific needs of each student:

> "The libraries in the study centres are not well-equipped with all the necessary reference materials because of the costs involved. Therefore, some students who cannot easily access e-learning materials have to move for long distances to the main university library which is expensive and time consuming" (Uni staff 4).

This finding reveals a challenge of in-service teachers supported to get the necessary course reference materials. Additionally, students who lacked access to e-learning materials had to move long distances to search for library physical resources. The onus is on the university library to scale-up learner support informed by students' feedback based on learner support evaluation and findings of the current study.

Staff noted peculiar behaviours of some staff and students as a learner support challenge:

> "Some lecturers are rude/selfish and unapproachable, but also some students are uncooperative. These are hiccups to effective learner support that I have observed in the faculty" (Uni staff 6).

This view reflects that some staff precipitated quality learner support challenge through their behaviours of being rude or selfish. The implication is that such characters could not be easily

approached by the trainees for support in their studies. Similarly, some students are shown to be uncooperative during their studies. This reflects their inability to smoothly work with peers and the facilitators in their academic life. Such improper behaviours limited effective learner support management and delivery to maximise collective gains for both the students and their trainers.

Findings revealed a limited financial resource base as a learner support challenge in the current study. Surprisingly, only 1 out of the 6 staff interviewed cited the challenge of limited financial resource base and yet regarded it the biggest challenge they faced in learner support:

> "The biggest challenge we face is the limited resource base. We mainly rely on the students' tuition to provide all the necessary support such as producing the course materials. If they do not pay in time, it limits our learner support efficiency" (Uni staff 1).

This view indicates that the university raises its revenue mainly from the tuition paid by the students. This implies a direct relationship between the students' ability to pay and the university's ability to provide relevant learner support (the higher the revenue from students' tuition, the better the learner support). This finding could be an eye opener for the university to diversify its sources of revenue rather than entirely relying on students' tuition for improved learner support management and delivery.

Staff expressed their view that coupled with the challenge of limited resource base, was the limited faculty financial support from university management:

> "Limited support from the university management, lack of money to reach all students especially in hard-to-reach areas, and limited use of multi-media (computers, internet, radios, smartphones) hampers learner support" (Uni staff 6).

This view reflects that limited support from the university management which mainly hinges on the finances and policy issues can impede the faculty's ability to support the distance learning students. In this study, the faculty's inability to reach all students in hard-to-reach places and the limited use of multi-media were attributed to lack of funds. The implication is that faculty needed strong management's support via increased resources allocation to be able to reach all the students and use modern technologies in learner support.

Findings from the staff indicated the lack of ample students' representation in their university representative bodies which was termed lack of 'political space' for distance learners:

> "The students' guild is only composed of full-time campus students. The lack of effective representation on the university students' leadership body has limited our distance learning students in participating and organising themselves to represent their interests before the faculty and university administration. They therefore need a political space to organise their own leadership" (Uni staff 4).

This view highlights that distance learners are excluded from the students' leadership at the university. The rationale is that distance learners views were not well presented to the university authorities due to lack of a formal leadership structure and that if given sufficient 'political space' (meaning included in the students leadership structure), they would organise themselves and be able to improve on their ability to agitate for quality learner support from the university.

6.6. Chapter Summary

The key findings presented in this chapter include; an analysis of the perceived nature of learner support by the students and staff, information on students and headteachers' perceived learner support from the schools, the perceptions of the quality of learner support from the training university, perceived effect of learner support on the learners' pedagogical practices, and staff perceived challenges faced by the university in managing and delivering learner support. Consistencies and inconsistencies from the responses of different respondents were identified and cross-examined; and forms the basis for data triangulation in the discussion presented in chapter 7.

The perceived nature of learner sup-port from the training university focussed on issues of support relating to academics, library and technology, counselling and career, communication, safety and security, fees clearance, students' registration and orientation, child day care, and students' involvement in their leadership. These findings are pivotal in understanding the efforts of the training university in enhancing learner support from the perceptions of the students and staff. They also inform practice and research in learner support (see sections 8.2.1 and 8.3.2). Findings on learner support from the trainees' workplaces that relate to finances, workload, study leave, promotions, library and ICT use, and peer support reveal that the limited support obtained by the trainees from their workplaces contributed to their wellbeing and training. The workplace contribution is however very limited especially financial support in the case study. This ought to be considered at institutional and national level for effective integration in the learner support systems and practices in Uganda.

The effect of learner support on the trainees' pedagogical practices focusing on subject content, managing big classes, use of technologies, time management, critical thinking, lesson planning, counselling and mentoring, use of teaching methods and learning materials provides a link between the training of in-service teachers and their classroom delivery. Those pedagogic practices need support from both the training institution and workplace for improved teaching and learning in schools. The identified challenges faced by the training university in managing and delivering learner support including: a few full time staff, poor reading culture, communication, counselling, research supervision and library support, reflect the current low quality of learner support in the study context. These are necessary in framing recommendations for practice and further research (see section 8.3).

CHAPTER 7: DISCUSSION OF FINDINGS

To understand teacher learning, we must study it within these multiple contexts, taking into account both the individual teacher-learners and the social systems in which they are participants

(Borko, 2004, p.4).

7.0 Introduction

This chapter has 5 main sections. Section 7.1 addresses research question 1 on the nature of learner support delivered to distance education in-service teachers by the university. Section 7.2, addresses the students' perceived quality of support from the workplace/schools in relation to research question 2. The perceptions of the quality of learner support by the training university are deliberated in Section 7.3, while section 7.4 discusses the perceived effects of learner support by the university on learners' pedagogical practices. This is followed by Section 7.5 with a discussion of the challenges faced by the faculty staff in managing and delivering learner support.

7.1 The nature of learner support by the training university

Discussion in this section is guided by the research question:

How do learners and staff perceive the nature of support to the in-service teachers by the university?

Findings record that learners perceive the nature of their support to include academic, library and technology, counselling and career, communication, security and safety, fees clearance, child day care support, students' registration and orientation, and students' leadership. Whereas FGDs and interviews revealed issues of security and safety, students' registration and orientation; 2 questionnaire respondents indicated the need for organised child care during residential face-to-face workshops. The findings indicate a consistent pattern in the perceptions of most students on the nature of learner support. However, there are some inconsistences between students and staff perceptions on the nature of support services delivered by the training university. These findings are discussed in the subsequent sub-sections.

7.1.1 Academic advisory support

Findings revealed under this heading in tables 12 and 13 include specific learner support services like; provision of modules and coursework, giving feedback on coursework and exams,

conducting course evaluations, instructors giving comments on coursework, meeting with the instructors, organising induction and face-to-face workshops and providing information on admissions. Others forms of academic support include giving tips on examinations, introduction of new subject content, provision of faculty/student handbook, giving field support and study guides; teaching methods and school practice supervision, and fostering interaction among students. These findings fit in the third phase of Floyd and Casey-Powell' (2004) inclusive student services process theoretical framework (section 3.5.2). The study revealed very limited on-line academic learner support. Singh and Lewa (2014) view the limited amount of on-line learner support emerging from the lack of investment by the Ugandan government. I would add that the limited investment in on-line support by the government and individual universities is due to limited financial resources. Additionally, qualitative results indicate that provision of modules, field visit support, face-to-face support, action research supervision were the main academic learner support services.

Findings revealed that printed modules were the basic course materials in the sense that they introduce the subject content. Students are expected to supplement these study materials by identifying and reading other related references. However, effective use of both faculty course materials and students' references is limited due to the poor reading culture in Uganda's education system (Bunoti, 2010). There should be deliberate government efforts to nurture a reading culture in Uganda especially in the primary and secondary education systems to influence reading even at tertiary level. Initiatives of individuals and institutions investing in ICTs to enhance access to reading materials in Uganda (Baryamureeba, 2007; Mlay, et al., 2015) need a supportive socio-economic environment to have a positive impact.

The revealed use of printed materials is consistent with findings of earlier studies in Africa and Uganda (ADEA, 2003; Basaza et al., 2010; Bbuye, 2006; Binns & Otto, 2006; Okopi, 2010). Although operating under different socio-economic conditions from the UK, Uganda's educational institutions can gain some insights from the recent studies at the OU UK (Li, et al., 2017; Slater et al., 2015; Toetenel & Rienties, 2016) that highlight the need for training institutions to build a database of their course materials and review them regularly to meet the changing needs of the students. Building a data base of the course materials improves on their management and delivery, but would need commitment of institutional management to allocate resources, and staff to implement, monitor and evaluate the effectiveness of the intervention in Ugandan universities.

Findings revealed that the majority of the students appreciated the practice of distributing training modules by the faculty. However, the students expressed their feeling of unhappiness because

they received the modules late on several occasions, some modules were shallow in content, and some were difficult to comprehend. Such failings place stress on the students who are already burdened with balancing their time for work, family and studies. They also indicate the difficulties faced by the faculty to produce and distribute course materials to the students. This leads to a clash between the students' expectations and quality of the course materials. Since the practice of providing modules was appreciated by the students, the onus is on staff to delight them by improving on quality of module content (use simple language, be concise and clear, make them interactive and relevant to society needs), and distribute them in time to the students.

The perception of the students who want good quality course materials delivered on time and see the university as not providing such good quality materials contrasts sharply with the difficulties faced by the university to research, develop, produce and distribute good quality study materials. To partially overcome the problems of student expectation of good and timely course materials, and difficulties faced by the university in producing the materials, Willis (1993) argues for an integrated approach to the production of course materials in distance education. By integrating, Wills implies an increased variety of materials thereby increasing the possibility that some materials will get to the students on time and will be of good quality. Students' discontent with the quality of some course materials drives the need for regular review of the course materials. Staff recognition of the short-comings of course materials in content and delivery similarly acts as a driver for regular review. The review process should be informed by research based on the views of the students, labour market, and staff. The aim is to make the reading materials relevant and appealing to the users hence improving on the quality of learner support.

Field-visit, academic support involves staff moving and meeting students in places closer to where the students live. It is clear that the physical and practical challenges in getting staff and students to the learner support centres for field support are significant. Staff often have to travel long distances with attendant costs of travel, accommodation and meals. An obvious solution would be to provide learner support on-line rather than face-to-face. However, provision of on-line support requires considerable technological and infrastructure investment if the students working in rural, remote and hard-to-reach areas are to benefit. In addition, supporting on-line community of learners requires a team of skilled practitioners and technical support workers (Duranton & Mason, 2012). On the contrary, Tait (2014) contends that with the current increased use of ICTs in learner support, differentiation of academic and support staff is not necessary as the tutor using the available technologies can provide all the necessary support to the students. My discrepancy with Tait's (2014) perspective relates to the notion that the tutor is capable of using the technologies and also has the pre-requisite knowledge of the different learner support

services. In reality, it is problematic to find many lecturers who are specialists in technical support fields like counselling and career support specifically in Uganda. Additionally, it is still debatable among commentators of learner support whether technologies can effectively substitute for the services of support staff in distance education (De Langen & Van den Bosch, 2013; Minasian-Batmanian, 2005; Rekkedal, 2011). In Uganda currently, there is limited use of technologies in both academic and non-academic learner support. Support staff do the production and distribution of study materials in conjunction with the academic staff and ensure the learning facilities (libraries and computer facilities) in the study centres are in place for staff and students' use.

Several studies (Bbuye, 2006; Brindley & Paul, 2004; Hadjinicolaou, 2014) have underscored the role of field learner support in distance education. It can be argued that a sound field learner support requires proper planning and allocation of institutional resources (human, material, financial, and time) to ensure effective service delivery. In this study, the findings revealed an anomaly where new and continuing students were combined during face-to-face field visit support (see section 6.1.1). This practice does not adhere to the *Ubuntu* African value of fairness to all students (Letseka, 2016). The idea is that students at different levels of course enrolment have their specific learning needs that ought to have been independently addressed by the faculty. Such a practice could be attributed to the limited staff knowledge and skills in managing and delivering learner support in open and distance learning in Uganda (Basaza et al., 2010, Bunoti, 2010). Nonetheless, the students' appreciation of staff efforts to extend support closer to their workplaces can be enhanced by drawing some lessons from Simons et al. (2018) recent study at OU UK; who found that students value field support from tutors and fellow students through mobile telephony conversations, module chat-rooms and physical meetings. The Ugandan case should not equate field support to physical meetings but could exploit other avenues of field support such as use of simple technologies like mobile phones.

The findings revealed that face-to-face residential workshops organised by the university at the end of every semester were valued by the students. During those residential workshops, students physically meet and interact with their lecturers and fellow students, share knowledge based on their course materials, and sit for end of semester examinations (see section 6.1.1). This finding matches with those of earlier studies in Uganda that underscored the value of face-to-face workshops in distance education (Muyinda, 2012; Nankanja & Bisaso, 2010). Like in Nepal (Pangani, 2016), Uganda's education culture is dominated by face-to-face tutoring. It involves 'blended learning environment' whereby distance education features learning activities supported by face-to-face sessions and some on-line (Laer & Elen, 2016). Whereas this finding

contests the view of Rekkedal (2004) who discredits face-to-face classes because not all students are able to attend, it affirms Shimoni et al. (2013) claim that students are provided with academic and tutorial support during face-to-face workshops. It can be argued that Rekkedal's view is based on the state of ICT use in distance education in Norway which is developed compared to the practices in Uganda. Nevertheless, Rekkedal (2011) indicates that blended learning results in higher completion rates and learners' satisfaction compared to pure on-line learning. It can be argued that though the need to support students in the different geographical areas is desired like the case of Norway and Uganda, the former is a high income country with easy access to modern ICTs to support the distance learning students unlike the later.

Staff findings revealed that during action research supervision (it involved students identifying research topics from problems experienced in their classrooms in primary schools and guided by the staff throughout the research process). Findings revealed that research supervision entails physical meetings, use of postal services, telephone and SMS, and exchange of emails (for those with access to internet facility) between the supervisor and the supervisee. However, the students commented that some of their research supervisors took too long to give feedback on their work that slowed their research progress. Such an anomaly could be attributed to factors such as staff overload (given many supervisees) and the limited use of modern ICT facilities in communication between staff and students. This finding is consistent with Bunoti (2010) who found that lecturers were on average allocated 20-24 research supervisees and several students complained of inadequate research supervision time in one university in Uganda. Ngubane-Mokiwa (2016); and Okada et al. (2014) consider delayed feedback on students' research as demonstrating lack of emotional connection by the supervisor. Related studies conducted in Europe (Andrew 2012, Nasiri & Mafakheri, 2015; Sussex, 2008; Willems et al., 2011; Wisker, 2007) indicate a disconnection between the supervisor and the supervisee due to technology imbalance posing research supervision challenge in distance education. The point is that having ICT facilities is a necessary step to improving research supervision, but the sufficient condition is that both the supervisor and the student should have access to those facilities.

Findings revealed that a few students living in towns easily accessed computer and internet facilities unlike the majority living in rural areas. Evans and Green (1995) term such a scenario 'dancing at a distance'. Therefore, while the value ascribed to the use of IT facilities to enhance learner research supervision in distance education cannot be disputed (Dennison, 2009; Könings et al., 2016; Wright & Griffiths, 2010), my view is that there is a need to understand the context of societal culture. In this case, the cultural issues embedded in the Ugandan education system where many people believe that supervision is effective only when the supervisee physically

meets the supervisor and is able to take notes as they discuss should be analysed. For example, in their study of m-learning initiative to support field research supervision in Uganda, Muyinda et al. (2010) found that m-learning in addition to creating work overload for a lecturer supporting many students, it created a 'strange vocabulary'. It was considered a 'strange vocabulary' because it is new to staff and students and not yet embedded in the culture of Uganda's education system. It is after appreciating the people's culture that the essential ICT research supervision interventions can be sustainably introduced and embraced by students. This is embedded in the ethics of care advocated in the *Ubuntu* philosophy of distance education (Rampa & Mphahlete, 2016).

7.1.2 Library and technology support

Students and staff underscored the value of guidance on library use and information search, provision of both on-line and off-line library materials, technology training, use of university website, use of group email, and provision of information on scholarships in enhancing learner support. The recognition of the usefulness of library support by staff and students matches with established literature (Pirmann, 2009; Tait, 2004) who posit that the library is the most critical of all the learner support services in distance education. However, FGD findings highlight that learner support from the library staff depended on the student's need and personal request. This would indicate that students who did not seek guidance on library use missed such useful learner support to enrich their learning. This finding shows a mismatch with the literature both from developing countries (Mayende & Obura, 2013; Oladokun, 2002, 2014), and developed countries (Lee, 2003; Stephens, 1996; Tait, 2004) indicating that provision of library support to all students is a must by the university librarians. It should be a responsibility of the librarians to have regular training programmes for the students in the effective use of library resources. This could lead to improved learner support delivery and academic performance in distance education (Cox & Jantti, 2012; Needham et al., 2013; Stone, 2012).

Whereas the questionnaire and interview findings indicated that several students did not get time to use library resources due to their busy work schedules, FGDs findings showed that during face-to-face residential workshops, the library is not kept open throughout the day. The differences in the students' views from the questionnaires and FGDs could be attributed to the period when the students are pre-occupied by their busy work schedules (at schools) and the short period of two weeks for face-to-face learning (at the university) respectively. The staff focused on the teaching timetable during residential workshops which was 'packed' with many learning activities and examinations that could not allow ample time for the students to make use of the library resources. However, this does not rule out the library practice of opening and closing

within specific time periods during working days and weekends (see section 6.1.2). The rigidity of the library rules on opening and closing time seem not to differentiate between the learning needs of the full-time and distance learning students which is unrealistic. There ought to be room for flexibility for the librarians to serve distance learners outside the routine time schedules for on-campus students.

Concerning the nature of technology support, several staff indicated that the faculty recently started training students in computer use after realising that several students join the university without prior computer knowledge. This move is a positive step in valuing the role of computer skills by the faculty to enhance the quality of the students' research. It is in line with (Bruso, 2001; Cohen, 2003; Douce, 2018; Floyd & Casey-Powell, 2004; Matovu, 2012) who contend the central role of modern communication technology in enhancing students' research especially through computers and mobile telephony. Research cautions that in order to elicit pedagogic and psychological support to erase a feeling of isolation among distance learners, technology support should involve providing the facility and teaching the students how to utilise it (Bertin & Narcy-Combes, 2007; Lee, 2003; Shimoni et al., 2003). A similar view is echoed by Busulwa and Bbuye (2018) who found that teachers appreciated the importance of using simple technologies for like m-learning only after being sensitised and trained on their use in Uganda.

Conversely, the students expressed their perceived lack of computer training by the university and yet many lacked computer skills. This is because the training started by the university specifically targeted first year students and did not provide for the continuing students. In addition, many students had limited access to computer facilities at work, limited affordability and lacked Wi-Fi especially in rural and hard-to-reach areas. The finding on the limited ICT use matches with Roberts and Associates (1998) positing that in sub-Saharan Africa, the internet, satellite, radio, and audiocassettes are more predominant in Francophone than in Anglophone or Lusophone countries. Uganda is one of the Anglophone countries with limited ICT use. However, both the staff and students valued ICT as an integral component of effective learner support (see sections 5.2.2 and 6.4.3). A similar view has been echoed in the literature from both high income and low income countries (Drennan et al., 2013; Kennedy & Pisarksi, 2005; Matovu, 2012; Okopi, 2010; Ouma, 2003; Potter & Naidoo, 2006). Investing in modern ICTs by teacher training institutions is desirable for effective learner support management and delivery.

7.1.3 Counselling and career support

Findings from the students and staff indicate lack of an institutional counselling department or programme to support the students. Counselling and career support is provided to the students

by the lecturers who are not specialised counsellors. The main areas of focus in counselling indicated coursework problems, sickness and stress, lack of tuition, fear of examinations, missing results, unfriendly lecturers, failed coursework, and future courses for study. The emphasis is on academic counselling by the lecturers and yet the students also have social and psychological challenges. This practice does not adhere to the literature (Moore & Kearsley, 2005; Shimoni et al. 2013; Venable, 2007) who posit that provision of specialised counselling and guidance services is a key learner support service in distance education. It can be argued that the lack of an established counselling and career department is an indication that the university does not consider it core in both staff and student development hence the limited resources are channelled in priority service departments.

Nevertheless, students indicated that counselling and career support is a core support that they needed to cope with the challenges and stress associated with the 'unfamiliar' mode of learning (distance learning) different from their prior learning experiences (see sections 5.3.3 and 6.1.3). The lack of specialised counselling services left many students in a state of social and psychological confusion. As a partial solution to the problem, several studies (LaPadula, 2003; Murray et al., 2015; Rienties, et al., 2014; Verduin & Clark, 1991) advocate for increased allocation of material and financial resources by the training university to strengthen counselling support for the students to cope with academic, personal and career challenges. Frieden (1999) cautions that uncarefully organised counselling support may create frustration instead of aiding the distance learners to take charge of their learning. In order to provide one-on-one access to professional counsellors (Krauth & Carbajal, 1999), and practically and empathetically counsel the students (Holmberg, 2005); the onus is on the training university to devote some of its limited resources to ensure that the students access services of professional counsellors.

7.1.4 Communication service support

Murray et al. (2015); and Trindade et al. (2000) believe that regardless of the nature of distance education, reliable communication is the single most support that the institution can use to inform students of any new development in their studies. The findings revealed the use of cell-phones, internet, and postal service, printed materials, and face-to-face as the main forms of communication used in learner support. Staff indicated a perceived improvement in communication by the faculty to support the students such as giving faculty telephony numbers, using printed materials like flyers, emails, and face-to-face communication to give information to the students. However, students revealed that some of them missed timely communication on collecting modules, reporting for face-to-face sessions, and time for staff field support (see sections 6.1.4 and 6.5). The contrasting perceived nature of communication learner support

between the students and staff is clearly evidenced by the two quotations (from Student 8, FGD 3; and Uni staff 2) given at the beginning of chapter 6. Whereas the students indicated that communication from the faculty is poor, staff believed that the use of SMS, phone calls and emails were doing well to deliver information to their students. The limited communication infrastructure and unreliable nature of the media used to distribute information to the students could explain this contrast (Bunoti, 2010). For instance, whereas the staff communicated using emails, many students took long to get the information as they lacked internet access in their homes and workplaces.

The students moved long distances to towns closer to their workplaces to access internet facilities. Similarly, the use of postal addresses take some time for the students to get information and for the case of telephony, unreliable power supply and communication network access in rural and remote areas impedes timely information delivery. This means several students remained isolated as they could not easily access their instructors and peers due to poor communication facilities. Several commentators (Bates, 2005; Puri, 2006; Tait, 2004) argue that timely communication to distance learners can counteract a feeling of isolation from the instructor and fellow learners. The use of modern ICT and internet facilities like web portal, posting information on the website and use of emails is encouraged for timely communication in distance education (Chiu, et al., 2008; Markova et al., 2017; Murray et al., 2015; Voorths & Falkner, 2004). The desirability to invest and use modern ICTs in managing and delivering learner support could exist but limited by the economic resources in several Ugandan universities.

7.1.5 Administrative services support

Findings revealed that fees clearance, students' registration and orientation, security and safety, child day care, and students' leadership were the main administrative support services. Whereas the staff focused mainly on academic issues, the students went beyond academic issues and also looked at their social lives that could directly or indirectly impact on their academic work (see section 6.1.5). Problems of security and safety were expressed by the students staying in hostels outside the university during residential workshops, and child day care was expressed by a few students. The insecurity challenge in the students' hostels during residential workshops is rooted in the political situation in the country. Bunoti (2010) observes that many government officials in developing countries focus on consolidating and maintaining political power at the expense of other services. The argument is that when a government remains in power for so long, provision of some services may not be consistent and Uganda is not an exception.

Findings indicate that the university's fees payment processes were made known to the students by the finance and registry departments. There is an indication that fees clearance was mainly done off-line at the university study centres (see sections 5.4.2 and 6.1.5). The provision of fees payment and clearance information is in line with Floyd and Casey-Powell (2004); and Savithri and Murugan (2006) who consider it a valuable support to the students. However, the students highlighted that the tuition charged by the university is so high and the fees clearance process is cumbersome. Although the students considered university fees to be so high, it could not be easily proved given that in Uganda and elsewhere (Okopi, 2010), it is common knowledge that the fees paid by distance learners is lower than that paid by fulltime students. In Uganda, Bunoti (2010) and Kasozi (2006) observes that increasing university fees is a political issue that often leads to protests and riots. Such a scenario poses an adverse effect on the university's ability to continuously improve on managing and delivering quality learner support. Concerning the cumbersome nature of the fees clearance process which is marred by long queues, having on-line clearance ought to be explored by the university and continue clearing students throughout the semester rather than waiting for the residential workshops when they all converge.

On registration and orientation of the students, there was a consistency in the findings from the students and staff that the process is done by the faculty in conjunction with the registry and finance departments. Registration was valued as a form of initiation of the students in the distance education. A similar view has been echoed in other studies in Uganda and elsewhere (Forrester et al., 2004; LaPadula, 2003; Mayende & Obura, 2013; Shimoni et al., 2013; Workman & Stenard, 1996). By involving the registry in registration and orientation of the students, the findings match with the study of Quann and Associates (1979) who postulate the central role of the registry department in students' registration and orientation. The bureaucratic nature of the registration process marred with long ques during face-to-face period is time consuming and frustrating to the students in the current study. Research advocates for transparency in the registration process for effective learner support (Brindley et al., 2004; Dirr, 1999; Floyd & Casey-Powell, 2004; Shimoni et al., 2013). In Uganda, Muyinda (2012) claims that pre-enrolment learner support is only limited to advertising the courses.

Questionnaires and interview findings, show a consistency on lack of formal students' leadership for the distance learners. Staff termed it 'lack of sensitivity' to students' representation in their leadership by the university authorities. The phrase lack of 'political space' was used to mean absence of formal students' leadership structure for distance learners that limited their representation in the institutional students' leadership framework. This can be attributed to top-down leadership style in the Uganda's education system. To enhance distance learners' sense of

belonging, several studies (Higher Learning Commission, 2007; Romanova & Nevgi, 2006; Shimoni et al., 2013; Zhang et al., 2005) argue for the students' increased representation in leadership. However, it can be quite challenging to engage the distance learners in students' leadership due to the unique nature of their studies. These are students who live and do most of their studies away from the university with limited physical contacts with the university or faculty leadership. It can be difficult to invite them for regular meetings involving students' representation unless it is face-to-face period.

That withstanding, the onus is on the university administration to ensure that all categories of students are represented in students' leadership to be able to articulate their group's unique needs and have their 'voices formally heard' by the university authorities. My thought is that if ICTs are used to enhance learner support by the university, then they can as well be used to enhance learners' representation in their leadership (provided that learners can access ICTs). In addition to students' leadership, studies indicate different ways of creating a sense of belonging for distance learners such as maintaining supportive institutional website (Kvavik & Handberg, 2000), organising weekend visits programme (LaPadula, 2003), creating networking sites (Lefever & Currant, 2010), and creating universities shared learner support 24/7 (Sykes, 2002). Such services can complement each other but their provision necessitates institutional management's commitment in form of human, time, financial and material resources for effective learner support management and delivery.

Concerning security and safety of the students, findings indicate that there was a security problem in some of the outside hostels used by the students during the residential workshops (see section 5.4.1). The limited security lights and loss of material things like cell-phones and bags in some of the resident hostels posed a security threat to the students' lives and property. This finding is consistent with Bunoti's (2010) study in one university in Uganda that found loss of property and cases of injured students due to insecurity around the university especially at night. A related finding has also been echoed by Akpoiroro and Okon (2015) who found that in Federal universities in South Nigeria; learner support services focus on security, medical services, library, and hostel, transport, and ICT services. To avert such security concerns in Uganda, university authorities working with the private hostel owners should ensure improvement in physical security by engaging more security personnel and improving on the security lights. Security and safety support should also be extended to the students' ICT facilities like laptops. Alves and Uhomoibhi (2010); and Qureshi et al. (2012) argue that due to increased use of computers and web applications such as blogs in distance education, security should be extended to such students' facilities to counter virus attacks. This kind of learner support could be crucial in

Uganda where the majority of the students are novices in the use of ICTs and highly prone to virus attacks.

A unique learner support of providing child day care was revealed by the students. I consider it unique in the sense that it was identified by a few students, only revealed by the questionnaire method, and it has not surfaced anywhere in my literature search. These students could have been mothers who reported to the university with their babies for face-to-face sessions. They indicated that baby-sitters kept taking the crying children to class that affected their concentration in the lessons (see section 5.4.3). It can be observed that though this problem affected a small group of the students (breast-feeding mothers) directly, it affected many students indirectly due to the noise from the crying babies. This has a gender bias cultural connotation in the African context (Singh & Lewa, 2014). It was a concern of only women (breast feeding mothers) who were facing a challenge of taking care of their babies as they attend lessons. They could not leave their young children at home because society considers them responsible for child care and up-bringing yet their husbands were not studying. While the students have a genuine reason to request for a child day care, it has cost implications for the students and the university. Since the demand for such services is low evidenced by only 2 out of the 304 students, it is likely to be an expensive venture for both the university and students. Nonetheless, the university should get sufficient information about students who are likely to report for face-to-face sessions with their babies so that suitable child care support is arranged.

7.2 Students' perception of learner support quality from the workplace/schools

In this section, the discussion is guided by the research question:

How do distance education in-service teachers perceive the quality of support given by the schools where they work?

The results from the students and selected headteachers revealed that financial support was the least obtained learner support from the schools of work. This is evidenced by 84.2% of the questionnaire respondents who indicated that they did not obtain any financial support. Similarly, 5 out of the 7 headteachers interviewed, and the majority of the students in FGDs expressed their view that there is absence of financial support from schools for in-service teachers (see sections 5.2.1 and 6.2.1). The findings reflect absence of official financial support system from workplaces for the up-grading teachers in Uganda. The implication is that either the financial obligations are entirely borne by the student, or it remains at the discretion of the school authorities to decide whether to financially support or not to support their trainees. Although

Floyd and Casey-Powell's (2004) theoretical framework (learner intake phase) raises the need to provide learners access to possible sources of funding, it limited this learner support to the training institution. This study has extended the scope of coverage of financial learner support to include workplaces of the trainees as the ultimate beneficiaries of the acquired knowledge and skills. This is expressed in the conceptual framework and the research findings (see sections 3.5.3, 5.2.1 and 6.2.1).

Pertaining to reduced workload support from the schools, there was a consistency between the questionnaires and FGDs findings on the limited provision of reduced workload. Like 77% of the questionnaire respondents who either disagreed or strongly disagreed that they obtained any workload reduction, majority of the FGD participants indicated the lack of reduced workload at their respective workplaces while on training (see sections 5.2.1 and 6.2.2). On the contrary, the interview findings indicate that 5 out of the 7 headteachers reduced on the trainees' workload to enable them have sometime for their studies. The inconsistency in the findings from the students and headteachers could be attributed to the variations in their expression of the scope of reduced workload. Whereas the headteachers considered reduction of extra-time lessons for teachers on training as reduced workload, the students did not express the same (see section 6.2.2). The argument is that though the ministry directive is for primary schools to operate between 8.00am and 4.00pm, the practice is different in many schools in Uganda. The influence of competition in academic performance at national level in order to attract more pupils and funds, has compelled many schools to open before and close after the official working hours. The enforcement of the policy has remained weak because those expected to enforce it (headteachers) are the ones encouraging extra-time lessons in their schools arguing that the policy provides for the minimum standards. Like in Uganda, in his study at the UK OU, Tait (2003b) observes that distance learners experience workload pressure and it significantly accounts for their dropout.

Regarding study leave provision for the in-service teachers, there was a consistency between the expressions of the majority of students and headteachers. 69.7% of the questionnaire respondents either disagreed or strongly disagreed to have obtained study leave. Similarly, all the 7 headteachers interviewed indicated not to have given any study leave to in-service teachers; and majority of the 36 FGDs participants indicated absence of study leave from their schools of work (see sections 5.2.1 and 6.2.3). The lack of study leave could explain the limited time for up-grading teachers to complete their academic assignments (Aguti, 2003). The students and headteachers' perception that the in-service course is a holiday programme could also explain the absence of a study leave. Though face-to-face sessions are conducted during primary school holidays, other tasks like sourcing library materials, reading modules, and completing

coursework assignments continue even after the school holiday time and have an effect or are affected by other work and family obligations of the student. Like in Mohammad and Harlech-Jones' (2008) study in Pakistan, the top-down hierarchical social and administrative structure in the Ugandan education system where policies are decided by the central government and implemented at school level, headteachers especially in public schools lack authority to grant study leave to their teachers (see sections 2.4 and 6.2.3). In line with this chapter opening quotation (Borko, 2004, p.4), understanding such social systems in which teachers train and work becomes crucial if we are to appreciate the nature of learner support they receive from workplaces.

Concerning promotion or promised promotion as a way of motivating the in-service teachers by schools, the findings revealed diverging views between the respondents, and within the different data collection methods. The questionnaire findings revealed that less than 50% of the students had either been promoted or promised promotion when enrolled on their study programme. While the FGDs findings showed that only 3 out of the 36 students had been promoted, it further revealed that most trainees enrolled because they had been promised promotion. The headteachers noted that more trainees from private than public schools had either been promoted or promised promotion. In the Uganda's education system, teachers in public schools are promoted by the district authorities hence beyond the mandate of their headteachers; but in private schools, headteachers can easily influence and/or effect promotions of their teachers. Besides, even students who had not been promised promotion believed that the training enhances their professional and career development hence creating better chances for future work placements.

On the use of the school library support, the findings indicate that the students had access to the available library resources in their respective schools. 36.5% of the questionnaire respondents agreed or strongly agreed to have obtained such support compared to other support services whose ratings remained below 30% (see section 5.2.1). From the interviews, the headteachers indicated that the students were free to use the available library facilities in their respective schools. A similar view was echoed by most students in FGDs (see section 6.2.6). The implication is that teacher trainees obtained some useful study materials from their workplaces. These complimented the faculty supplied course materials and others sourced from elsewhere.

Concerning the use of ICT facilities, there is a consistency from the findings that students obtained limited ICT support from their workplaces (see sections 5.2.1 and 6.2.7). This scenario could be attributed to the lack of integration of computer literacy in the primary school curriculum and the limited ICT infrastructure both at national and school level in Uganda (Basaza

et al., 2010; Bunoti, 2010; Naikumi, 2013). However, the findings indicate increased use of smartphones especially among youthful teachers that is bridging the ICT gap in primary schools (see section 6.2.7). This finding is inconsistent with Mayende et al. (2014) who found limited use of simple technologies like cell-phones for Facebook by distance learning students in Uganda. The current positive trend in acquiring and using smartphones in Uganda could account for the inconsistence with the literature of 2014.

Concerning peer support at the workplace, findings from the students and headteachers were partially consistent. Like the majority of the headteachers who stated that there is availability of peer support for the in-service teachers inform of writing application recommendation letters, question approach, access to study materials and school practice preparations; most FGDs participants upheld such peer support (see section 6.2.8). The findings indicate that the trainees had a pool of support from other teachers in their respective schools. However, how to tap such support depended on one's need and relationship with others because support could be given on request. For the students who expressed their perceived little peer support, they cited cases of jealousy from some teachers especially those with lower qualifications than them but reluctant to enrol for further studies. In this case, I could argue for strengthening of the counselling and career guidance programmes not only for the pupils but also the teachers in primary schools. This can aid the teachers to appreciate the value of further training and nurture a supportive collegiality culture in schools.

7.3 Quality of learner support delivered by the university

Discussion of results in this section is guided by the research question:

What perceptions do in-service teachers have about the quality of learner support delivered by the training university?

Factor analysis of the questionnaire findings revealed four constructs of learner support from the students' perceived quality of each support. These include academic advising support, library and technology support, counselling and career support, and communication service support. Conversely, staff interviewed ranked the same factors differently based on their perceived quality. With the exception of 1 staff member who interchanged the 3rd and 4th factor, the remaining 5 gave the same ranking of their perceived quality in the order of; academic advising support, communication service support, library and technology support, and counselling and career support (see sections 5.3 and 6.3). The findings reveal a discrepancy between the students- and staff-perceived quality of learner support. Whereas the staff claimed to base their ranking on

the positive feedback on evaluation of teaching from current and former students, efforts they put in supporting the students, and their own observations; the students claimed that their ranking of the learner support reflected their experience with each of the support highlighting their perceived dissatisfaction with communication support (see the quotation at the start of chapter 6). The contrast indicates that staff ranked communication support high (second) implying it is well supported to serve the students, yet the students ranked it low (last) implying that its provision is unsatisfactory. The students' perspective is consistent with Bunoti (2010) who claim that students were dissatisfied with the limited information flow in her case study of another university in Uganda.

Staff and students expressed their thoughts on perceived quality of learner support by individually allocating percentage marks on each of the learner support items (see Tables 14 and 15). The average mark for each group is shown in the table below:

Table 16: Students and staff perceived average percentage rating of quality of learner support

	Students	University staff
Total number	36	6
Average mark (%)	63.9	77.2

Findings reflect inconsistency between the students' and staff perceptions of quality of learner support delivery by the university. The mean score of the perceived quality of learner support by the staff was 77.2%, while that of the students was 63.9%. This implies that the staff had a higher perceived quality of learner support delivery than the students. This variation can be explained by the different meanings attached to the concept of quality. Whereas the staff considered quality as being fit for the purpose (Harvey & Green, 1993; UMU, 2015); the students viewed quality as the image of the support as perceived by the users (Garvin, 1987). However, a few staff noted that many of their trainees consider quality in form of grades and academic papers not learner support delivery (see section 6.3). Staff noted that such students were happy with the learner support as long as they obtained a pass mark in their academic work unlike when they did not get the pass mark. This could reflect under-estimation of the students' quality support concerns by some staff. Whereas it is true that the students needed good academic grades, they also required improved learner support (see sections 5.3 and 6.3). This is consistent with Markova et al.'s (2017) study in Russia who found that distance leaners' satisfaction goes beyond grades and depends on the learner support obtained especially on use of active learning techniques, ability to interact with peers and their lecturers, and timely learner support delivery. Valentine (2002)

cautions distance education trainers to have extensive training in learner support for quality service management and delivery, which is relevant to the situation in Uganda.

7.4 Effect of learner support on the students' pedagogical practices

In this section, the discussion is guided by the research question:

In what ways and to what extent are learner support services perceived to affect pedagogical practices of in-service teachers on distance education?

As illustrated in Table 6 and Figure 8, the foci of the findings on effect of learner support on the pedagogical practices of in-service teachers considered; subject content, managing big classes, use of technologies in research and teaching, time management, critical thinking and assessment, lesson planning, counselling and mentoring of pupils, team teaching, use of teaching aids, and use of teaching methods. In the discussion, the findings from the students, staff and selected headteachers are triangulated and allied to the literature.

From the questionnaire findings, the students expressed their positive perceived effect of learner support on their handling of the subject content in primary schools. It was ranked highest in the descriptive statistics with 92.4% of the students agreeing or strongly agreeing to have improved on their subjects' content. Similarly, the FGDs findings indicated that most students had improved on the subject matter knowledge, grammar and vocabulary, and appreciated sharing ideas with their lecturers and peers. Increased sharing of ideas among students and their lecturers is in line with Hardman et al. (2009) who found better learning where teachers dialogued with the pupils in several primary schools in Uganda. The students' views above were consistent with those of the staff and headteachers on the positive effect of learner support on the subject content. The staff indicated that the students improved on their understanding and organisation of the subject content, and the headteachers claimed that the trainees showed improvement in subject content and displayed techniques of simplifying the subject content befitting for the pupils to comprehend. This improvement was attributed to the trainees' improved research skills and lesson preparation.

However, both the questionnaire and interview findings revealed students' perceived discontentedness with the content of some courses taught at the university like theology and complicated philosophy that had little relevance to their work in primary schools (see sections 5.3.1 and 6.4.1). This finding highlights the importance of the relevance of the university curricula to the needs of the society. It should be the responsibility of the university to regularly review and improve on the quality of its academic programmes. This does not mean that the

seemingly complicated content of the foundation of education subjects like philosophy be deleted from the curriculum because it is perceived to be difficult by some students. The content delivery need to be packaged in such a manner that is appealing to be appreciated by the teacher trainees for their professional development. Nevertheless, several studies in Uganda and sub-Saharan Africa (Avalos, 2011; Kanjee et al., 2010; Nshemereirwe, 2011; Somerset, 2011) indicate a school culture whereby primary leaving examinations exert much pressure on the curricula which could explain the trainees' discontentedness with being taught what they are not going to teach and examine their pupils.

Concerning the effect of learner support on managing big classes, several inconsistencies were revealed in the findings. Whereas 80.3% of the questionnaire respondents (students) either agreed or strongly agreed to have improved their abilities to manage big classes, majority of the students in FGDs indicated limited improvement in their abilities to manage big classes. This sounds peculiar because the FGDs participants were drawn from the questionnaire respondents. The differences in the students' responses can be explained by the differences in the nature of closed and open ended questions used in the questionnaire and FGDs respectively. Whereas the students only indicated to have acquired knowledge about managing big classes in the questionnaire, they went further to explain the extent to which they were able to make use of the acquired knowledge in the FGDs. Several students voiced their view that though they had been exposed to knowledge of managing big classes like grouping pupils, and cooperative teaching and learning, their ability to influence the implementation was limited by the inadequate infrastructure and facilities in their workplaces. The above divergence between the findings of the questionnaire and FGDs methods highlights the value of using mixed methods so that the findings can reinforce and enrich each other and give possible perspectives of the problem (Creswell, 2009; Creswell & Plano Clark, 2010; Denscombe, 2014; Newby, 2010). Besides, the findings indicate that a few students used ICT facilities such as computers, projectors and videos; and were able to project subject content in big classes for all the pupils to see and participate in their learning. Though this could be a positive trend in improving learning, it only benefitted pupils in a few schools and is not a justification for having big classes because it contradicts common sense in educational debate that indicates that the smaller the class size, the more effective the teaching and learning (Blatchford & Mortimore, 1994; O'Sullivan, 2006).

From the qualitative findings, there was a consistency between the perspectives of the staff and the headteachers on their perceived effect of learner support on managing big classes. Staff indicated to have exposed their trainees to the different methods of managing big classes such as small group discussions and peer teaching, but noted physical infrastructure constraint for

effective implementation of such interventions in several primary schools in Uganda. Besides, the headteachers revealed a perceived insignificant change in the way the trainees managed big classes. Only 1 out of the 7 headteachers noted an improvement in the way trainees managed big classes. The rest indicated the problem of limited room space in their schools for effective management of big classes. For example, one headteacher cited a complex situation in his school where pupils of 2 big classes use the same classroom but sit facing in the opposite directions, and the teachers talk in turns when explaining the subject content. This finding is consistent with the findings of several researchers on the problem of managing big classes in several developing countries (Gove, 2015; Hartwell et al., 2003; Luschei & Chudgar, 2015). The quality of teaching and learning cannot be easily improved under such a circumstance hence necessitating government's intervention on issues of school infrastructure development, and the need to train and employ more teachers in Uganda's primary school system.

On the effect of learner support on the use of technologies in research and teaching in primary schools, the questionnaire findings revealed that only 36.5% of the 304 students agreed or strongly agreed that they had improved on this pedagogical practice (see Table 6 and Figure 8). This finding is consistent with earlier studies (Naikumi, 2013; Sife et al., 2007) that highlight the lack of integration of computer literacy in the curriculum of teacher training institutions, and the limited skills and facilities to use ICT in interactive teaching and learning by primary school teachers in Uganda. Qualitative findings were similar to quantitative findings on the issue of limited use of ICT in teaching but deferred on the issue of research. While quantitative findings indicate that only 36.5% of the students used ICTs in research, qualitative findings indicate that the majority of the students had acquired smartphones that they used to access information on the internet even in rural places. Moreover, some trainees in the urban areas used computer facilities in their schools in research and teaching. But as alluded in the literature (Basaza et al., 2010, Mutonyi & Norton, 2007; Ouma, 2003), only a few schools have computer facilities in Uganda.

Questionnaires and FGDs findings revealed an improved students' perceived effect of learner support on their time management. 90.8% of 304 students agreed or strongly agreed that they had improved on their time management as a result of the training. Similarly, the majority of the FGDs participants indicated to have improved on time management in their workplaces (see sections 5.2.2 and 6.4.4). Regarding staff, 5 out of 6 considered time management a core value in the training and a mandatory course unit for all the students. There was an expression that such training positively influenced time keeping among students. Though 4 out of 7 headteachers expressed their view that the trainees improved on time management, they added that the practice

could not be solely attributed to the training. The headteachers claimed that most of their school policies include time keeping as a core value for all their teachers. However, the views of 3 headteachers were inconsistent with those of the trainees and their trainers whereby, they observed that some trainees exhibited a problem of time management when they reported to school late and failed to adhere to the time specified for some school activities. Although this finding is same as that found by Munene (1997) who observed poor time management by the pupils, teachers and head-teachers in Uganda, the bigger number of the headteachers (4 out of 7) indicated a perceived improvement in time management which is in line with Hartwell et al.'s (2003) finding in some schools in Uganda. This could be an indication that with time and influence of training, time keeping by teachers is steadily improving in Uganda.

Concerning the effect of learner support on critical thinking in assessment, the statistical data in Table 6 shows that 89.5% of the students agreed or strongly agreed that they had improved on critical thinking and assessment of their pupils. Similarly, majority of the students in FGDs commented that they had improved on their reasoning, were more critical on issues than before, and tried to be critical in assessing their pupils. Students' views were cross-examined with those of their trainers and headteachers for validation. Whereas the trainers indicated that critical thinking is a unit taught in professional education studies and embedded in all the faculty modules to influence practices of the trainees, most headteachers revealed that they had observed limited improvement in critical thinking in assessment of pupils by the trainees. The headteachers indicated that activities to instil a sense of critical thinking among the pupils were limited, there was dominant use of past papers when setting tests, and there was limited emphasis on the 3 levels of assessment of knowledge, comprehension, and application expected in Uganda's primary school system. The inconsistency between the perspectives of the students and those of the headteachers would imply that though knowledge of critical thinking in assessment could have been acquired in training, their practicability was missing among several trainees in primary schools. Nevertheless, like previous studies (Brown, 2004; Clarke, 2012; Lyonga, 2014; Meier et al., 2006; World Bank, 2010), the findings underscore the value of assessment and critical thinking as a cornerstone in the teaching-learning process and the heart of what matters in education. The limited application of the knowledge and skills of critical thinking in assessment corroborates findings of several studies on developing countries (EFA GMR Team, 2014; EFA GMR Team, 2015b; Gove, 2015).

Furthermore, findings indicate a consistency on the effect of learner support on lesson planning. The statistical findings (Table 6 and Figure 8) reveal that 87.9% of the students agreed or strongly agreed that they improved on lesson planning. Though the majority of the students in FGDs

indicated to have improved on lesson planning, they added that such a positive change could not solely be attributed to the training because they had internal school programmes that monitored and enhanced quality lesson planning under the supervision of their school administrators. Additionally, most headteachers (6 out of 7) claimed to have observed an improvement in lesson planning by the trainees in their schools. However, some headteachers echoed the role played by some NGOs in influencing preparations of schemes of work and lesson plans in their schools (see section 6.4.6). From the interview findings, staff indicated that a follow up was made on the students to monitor and supervise their work during school practice, and they did well in lesson planning. It can be argued that staff, students, and headteachers expressed their perceived positive effect of learner support on lesson planning by the students, but there were also complementary efforts by the schools and NGOs to influence the practices in several schools. This finding contradicts findings of previous studies (Hardman et al., 2009; Hartwell et al., 2003; Ministry of Education & Sports, 2013) that found inadequate teaching preparation and organisation skills for delivery in form of comprehensive schemes of work and lesson plans in Uganda. However, concerted efforts of schools, training institution and NGOs could explain the positive trend in lesson planning in the findings unlike in the previous studies.

Regarding counselling and mentoring of pupils, questionnaire findings revealed that 82.9% of the trainees agreed or strongly agreed that the training support helped them to improve on child counselling and mentoring in their schools. 82.9% is higher compared to the 66.7% of FGDs students who expressed their perceived improvement in counselling and mentoring of the pupils. This is because qualitative findings showed that several trainees lacked specialised knowledge and skills in counselling. In addition, the innovation of starting school family initiatives by some trainees corroborates with the notion of extended African family system hence supporting the pupils based on the knowledge of familiar family relationships (see section 6.4.7). Similarly, 6 out of the 7 headteachers voiced their view that several trainees exhibited improvement in the way they counselled and mentored the pupils such as being friendlier and guiding peer counselling among pupils and fellow teachers. This finding is inconsistent with Hartwell (2003) who found inadequate child mentoring knowledge and skills among teachers and some teacher educators in Uganda. The improvement in the trainees' practices could be attributed the positive trend in organisation of teacher training since 2003 in Uganda.

Questionnaire findings revealed that learner support improved on effective use of teaching aids with 82.3% of the students agreeing or strongly agreeing to have improved on their classroom use of teaching aids (see Table 6 and Figure 8). Further investigation using FGDs revealed that most students improved on the use of teaching aids manifested in form of use of concrete objects

rather than mere drawings on the chalk-board, and avoiding fixing teaching aids permanently in classroom that could attract pupils' attention when attending other lessons. This avoids inappropriate application of teaching aids when permanently fixed on the classroom walls (Hartwell et al., 2003). In addition, findings from headteachers and trainers indicate that several trainees made and used their own teaching aids (see section 6.4.9). This conforms to the view of several commentators (Izizinga, 2000; Kanyike, 1998; Zhang, 2006) who urge teachers and pupils to use the environment to develop some local learning materials. In addition to the individual teachers' efforts to provide teaching aids, material and financial support from the school administration can enrich their efforts and enhance effective teaching and learning.

Both quantitative and qualitative findings revealed an improvement in the use of teaching methods by many trainees. Section 5.2.2 indicate that 90.5% of the students agreed or strongly agreed that they had improved on the way they used the different teaching methods in class. A similar view was echoed by several students in FGDs noting that they had acquired knowledge on the use of more child-centred teaching methods like group work, discussions, fieldwork, story-telling, 'think, pair and share', and were able to vary teaching methods based on the topic and level of their pupils (see section 6.4.10). Though the trainers indicated that most of their trainees were applying the knowledge they acquired on the use of learner-centred methods, a few students expressed their discomfort with some of their lecturers who continued using the lecture method that left them as passive learners. This finding supports the view of EFA GMR Team (2005), who contend that several educators continued using rigid teaching styles that make learners passive in their own learning in Uganda. However, the expression of most headteachers that many trainees kept varying application of teaching methods, could give practical work, use demonstrations, group discussions, and field visits and excursions in teaching (see section 6.4.9), could be an indicator of the positive effect of the training support on the students' use of teaching methods.

7.5 Challenges faced in managing and delivering learner support

Discussion in this section is guided by the research question:

What are the challenges faced by the university in managing and delivering learner support to in-service teachers on distance education?

Staff revealed that challenges faced in managing and delivering learner support by the training university include; a limited number of full time staff at the faculty, lack of a reading culture, poor citations and referencing styles by students, untimely communication between the faculty

and the students, and failure of some students to attend faculty field support. Other challenges include difficult to organise successful face-to-face residential workshops, inadequate counselling and guidance, inadequate action research supervision, lack of ICT skills by students, inadequate library support, limited financial resource base and university management support, and limited students' representation in their leadership and governance.

Staff members expressed their view on the challenge of a small number of fulltime staff at the faculty with limited knowledge and skills in distance education (see section 6.5). The few fulltime faculty staff could not adequately support the students since they even lacked the necessary skills. This finding reflect the central role played by staff in learner support showing that much reliance on part-time staff creates a challenge to proper and timely coordination of learner support activities as such staff are not readily available. The inadequacy of staff skills and knowledge in distance learning is exemplified by some staff exhibiting rudeness and being unapproachable (see section 6.5). This finding is similar to that of Bunoti (2010) who describes staff rudeness in learner support as 'unprofessional behaviour'. Elsewhere in developing countries (Basaza et al., 2010; Bwire et al., 2015; Nyerere et al., 2012), highlight that lack of supportive skills by the teacher trainers impedes the quality of the trainees and promotes frustrations in learning. In such a circumstance, Mukamusoni (2006) in her study in Rwanda observes the need for a clear government driven agenda to improve on education where teacher trainers are appropriately prepared to support in-service teachers physically, socially, psychologically and emotionally. In Uganda, I would urge the training institutions in conjunction with the ministry of education to take the lead in continuous staff training and development to nurture quality learner support systems.

Staff responses indicate a perceived lack of a reading culture among their students. Findings indicate that the university took the initiative to provide learning materials but the students did not make effective use of them (see section 6.5). The limited reading culture is a national-wide problem in Uganda which can be attributed to a few public libraries and inadequate emphasis on reading in the primary and secondary schools (EFA GMR Team, 2014; UNEB, 2005). Literature indicate that the poor reading culture among Africans is rooted from the African oral culture where there is much preference for talking as opposed to reading which is solitary and seems to demean the social attribute of the African culture (Kaberia, 2012). The implication is that in line with Borko (2004), the socio-cultural system influenced the reading culture of the study participants. Mlay, et al. (2015) attribute the poor reading culture to the forceful means used by some parents to initiate their children in reading in Uganda. However, Baryamureeba (2007), and Mlay, et al. (2015) found that ICT use helps to promote reading by enabling the students to have

access to different reading sources in Uganda. Such are commendable efforts in enhancing the reading culture but often hampered by the limited ICT infrastructure in Uganda.

Besides, the study's revelation that most students poorly cited and referenced their work could be linked to the limited reading culture and exposure. The majority of the students had prior limited reading exposure hence produced unsatisfactory citation and poorly referenced their work against the faculty guidelines. The influence of the familiar referencing styles used in other institutions attended by the students prior to the current enrolment also explains their inability to make proper use of the recommended Harvard referencing style (see section 6.5). The staff did not indicate the extent to which the faculty had supported the students to learn and use the Harvard referencing style hence could be partially blamed for the students' inability to cite and reference their academic work appropriately. The onus is on the faculty to incorporate useful academic writing skills in the training programme, impart and assess the trainees' ability to apply and exhibit such knowledge and skills respectively.

The challenge of untimely communication between the faculty and the students featured severally in both quantitative and qualitative data. From factor analysis results shown in Tables 12 and 13, communication service support was ranked lowest implying one with the least perceived quality by the students. Similarly, staff conveyed a challenge of communicating without receiving a feedback between the university and students. There was an indication that the university made efforts to communicate to the students using SMS, phone calls, postal services and emails but several students did not get information in time (see sections 5.3.4, 6.1.4, and 6.5). The inability of the students to get even telephony calls and SMS in time supports earlier research findings that several rural areas lack ready supply of electricity or have poor communication infrastructure that limits a two-way communication in Uganda (Bbuye, 2006; Mutonyi & Norton, 2007; Ouma, 2003). The study revelation that many students lacked or did not check their email inboxes regularly also sheds light on the challenge of untimely communication as information from the faculty could not be easily accessed by the students especially those from the hard-to-reach places. Uganda could borrow a leaf from studies conducted in other African and Asian countries indicating enhanced communication and access to education using affordable mobile phones (Makoe, 2012; Motlik, 2008; Tagoe & Abakah, 2014; Valk et al., 2010).

Staff responses reveal that some students failed to attend faculty field support despite being invited. Faculty prepared field support visits near the students' home/workplaces but not all of them attended. Students who missed field support also missed important communications from the university relating to policy and study programmes hence remained uninformed (see sections

6.1 and 6.5). Relying on off-line learner support is consistent with the findings of earlier studies in Uganda (Basaza et al., 2010; Mutonyi & Norton, 2007) that found limited on-line support and much face-to-face support in distance learning. For improved learner service delivery, the faculty should vary the media of communication rather than relying on a particular medium or period like field visits. Though commentators of learner support like (Hope & Guiton, 2006; Tait, 2014) would question the role of field visits in the current digital age with increased use of modern communication technologies, it can be argued that not all countries and even institutions within the same country have the capability to adequately acquire and use such technologies. The challenge of inadequate use of modern technologies is more acute in institutions in low income countries like Uganda.

Concerning organisation of face-to-face residential workshops, the questionnaire and interview findings revealed a challenge of having many tasks that had to be completed in a short time period of two weeks per semester (see sections 5.3.2 and 6.5). The implication is that the effectiveness of learner support delivery during face-to-face period is curtailed by the so many activities programmed to be accomplished in a short time period. Considering the value attached to face-to-face learner support in ODL (Gravani & Karagiorgi, 2014; Olivier, 2016; Price et al., 2007), effective planning is needed for fruitful returns. In Uganda, planning should consider effective use of the limited human and material resources aiming at improved learner support and satisfaction. Though planning should consider integrating ICTs in both on-campus and off-campus learning, Price et al. (2007) cautions that the success of on-line support leans much on the students and their lecturers' capacity and ability to communicate on-line. The idea is that efforts have to be made by training institutions to enable the students and staff access ICTs in Uganda to make on-line support a reality.

Additionally, findings revealed that several students reported for residential workshops late having not even read the modules (course materials); a practice that deterred effective and quality support during the short residential workshops. This is because the students who reported late missed some vital support offered by the faculty in their absence. This could be a pointer to the literature on Uganda that indicate inadequate study time for distance learners due to work, family and study engagements (Bbuye, 2006; Bunoti, 2010). I would like to observe that the challenge of reporting for face-to-face workshop without prior preparation and reading the modules could signpost the limited preparation of the students for distance education by their trainers. This is because like the students, Basaza et al. (2010) found that many Ugandan trainers lack adequate skills and knowledge in distance education.

Staff and students' responses were consistent on the faculty's inability to provide adequate counselling and guidance to the students. The students indicated a perceived feeling of distress and psychological stress due to limited counselling support to cope with their work and academic demands. Similarly, staff voiced their view on absence of an organised counselling programme or department to support their trainees (see sections 5.3.3 and 6.5). Given the necessity of counselling support for students in distance education, institutions that do not provide such support could be described as 'living in a fool's paradise' (Tait, 1989). Though some lecturers tried to counsel and guide the students in absence of professional counsellors in the current study, their efforts were limited by time and counselling skills. Staff having limited counselling skills matches with Kishore's (2014) study findings in India where academic counsellors are got from higher institutions of learning with limited exposure to ODL system. While Kishore (2014) advocates for capacity building programmes to equip the academic counsellors with the necessary knowledge and skills for quality learner support delivery, Tait (1999) recognises that face-to-face interaction is a widely believed practice in counselling, but argues that computer aided guidance and counselling can be pivotal in learner support delivery. The implication for Ugandan universities is the need to invest in both human and ICT infrastructure to reduce on much dependence on face-to-face counselling for students which is problematic to access at a distance.

Inadequate research supervision is another learner support challenge expressed by students and staff. Whereas the students noted the unbecoming practice of some of their research supervisors who took long to give feedback on their research after submission, staff (4 out of 6) indicated that some students continued doing their research without regularly consulting their supervisors. They further noted that lecturers were allocated many supervisees that led to limited supervision and unsatisfactory research work (see sections 6.1.1 and 6.5). This finding indicates a direct correlation between the quality of research supervision and quality of the students' research work. The implication is that students' unsatisfactory research work reflected limited supervision support. This finding is consistent with Mapolisa's (2012) study in Zimbabwe who found that distance learners were supported by supervisors who had limited research skills, got little direction and had few supervision meetings that led to low quality research work. In Uganda, earlier studies (Basaza et al., 2010; Bbuye, 2006; Bunoti, 2010) have linked the limited research supervision to the increasing number of learners (supervisees) compared to that of the lecturers (supervisors). In order to improve on research supervision, Mapolisa (2012) urges supervisors to have a 'a big heart' for the supervisees manifested in allocating sufficient time for supervision meetings, timely feedback on research scripts, continuous counselling, and motivation of the

students. Additionally, lecturers should have continuous research-based refresher courses to make them relevant to the students' changing supervision needs.

Findings revealed lack of ICT skills by students as a learner support challenge. Whereas several students claim lack of computer training by the university, staff observed that many students did not have ICT skills by the time of enrolment. This problem was acute among students from the rural and hard-to-reach places who could not use the computers as they lacked the necessary computer facilities and knowledge (see sections 5.3.2, 6.1.2, and 6.5). The lack of ICT skills among several students corroborates with earlier studies in Uganda and Africa (Malik, 2012; Mayende et al., 2014; Mutonyi & Norton, 2007; Sife et al., 2007). Staff expressed their concern that some trainees preferred to hand-write their coursework and yet the faculty expected typed work. This finding reflects the limited knowledge of using computer facilities among several students. The implication is that such students had to seek services of other service providers to type-set their work.

Coupled with the limited ICT knowledge and skills, the findings revealed a challenge of inadequate access to library resources and materials by the students especially from rural and remote areas. The students who lacked access to e-learning materials due to lack of ICT facilities or knowledge and skills had to move long distances to search for physical library resources (see section 6.5). The implication is that library resources are not adequately provided by the university and evenly distributed in Uganda to benefit all the students. Absence of adequate library support poses a quality concern on the students' coursework and research. Though Tait (2014) argues that distance should no longer be the focus in ODL in the digital age, access to library resources using modern technologies varies between countries and institutions depending on their respective levels of socio-economic infrastructure development. In Uganda with limited ICT infrastructure development, distance education providers have to devote significant resources to acquire and use modern communication technologies for quality library support.

Students and staff responses indicate a perceived limited financial resource base at the training university. Whereas 67% (203 of 304) students expressed their view that the tuition fees charged by the university is so high, staff cite the challenge of limited financial resource base (much reliance on students' tuition) by the university (see sections 5.4.2 and 6.5). This implies that the university's ability to provide relevant learner support depends on the students' ability to pay. Research indicate that though operating costs may be low, investment and fixed costs are quite high in distance education hence the need for a strong financial resource base (Rumble, 1997, 2001). Limited financial challenge is aggravated by inadequate faculty financial support from the university management that allocates resources. The findings indicate that the faculty's inability

to reach students in hard-to-reach places, and the limited use of multi-media in distance education hinged much on the limited funds allocated for the tasks (see section 6.5). This finding corroborates with earlier studies in Uganda (Bbuye & Aguti, 1997; Juma, 2003) that contend that the insufficient commitment of funds to distance education by universities makes it difficult to effectively support the students. Literature further indicates that lack of a national policy framework for distance education limits university management support because there is no formal guidance (Ouma, 2003; Stella & Gnanam, 2004). For effectiveness in managing and delivering learner support, institutional management's support in terms of policy and funding to the faculty is pertinent.

Responses from students and staff indicate limits to students' involvement in their representative bodies. Students revealed that unlike their colleagues on full-time programmes, they (distance learners) lacked an organised forum to express their academic, social and political interests. Similarly, several staff voiced their concern on the lack of 'political space' for distance learners in the university students' leadership (see sections 5.4.4 and 6.5). The implication is that the students on distance education lacked a formal leadership structure and given 'political space' they would have effective representation to their representative bodies and agitate for a better learner support. However, this is a rare worldwide experience in educational institutions because by nature of their study programmes (studying at a distance), distance learners are often left out of the formal students' leadership structure. However, exploiting the possibility of using modern ICT facilities to incorporate distance learners' representation in leadership could be a worthwhile venture to enhance leaner support management and delivery in Uganda.

CHAPTER 8: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The experience of becoming a teacher needs to be acknowledged for what it is: complex and demanding.

(Fuller & Bown, 1975, p.50).

8.0. Introduction

In line with the quotation above (Fuller & Bown, 1975, p.50), the results of the current study reflect the claim that becoming a teacher (specifically using distance education) is a 'complex and demanding' venture. Results indicate that it is not only complex and demanding on the side of the teacher trainee (to balance time between studies and work), but also for the training institution (to nurture a suitable training environment), and for the trainee's workplace (to support the trainees and maintain quality learning for the pupils). The teacher trainees have to study and at same time continue working and caring for their families, which demands a lot of commitment to succeed. In order to provide an enabling learning environment for the teacher trainees, the training university faces a demanding task of ensuring that relevant resources (human, materials, funds and time) are allocated to sustain effective learner support. Findings revealed that those university resources are often inadequate for effective service delivery to students. The efforts of the university to provide learner support could be supported by the trainees' workplaces, but they are also faced with the problem of limited means to support the trainees in their studies and work. It is thus 'complex and demanding' for each of them (students, university and schools) to harmonise their interests and ensure that teacher training remains relevant to the pupils' learning. In this chapter, a summary of the empirical findings and conclusions of the current study is presented. This is followed by a presentation of the contribution to knowledge, framing recommendations to inform policy, practice and further research, a critique of the study, and ends with my final thoughts.

8.1. Summary of findings and conclusions

In this section, I address the research questions by highlighting the main findings based on the main study themes.

8.1.1 The nature of learner support from the training university

Findings revealed the following categories of learner support for in-service teachers in Uganda:

- Academic advising

- Library and technology
- Counselling and career
- Communication service
- Security and safety
- Fees clearance
- Child day care
- Students' registration and orientation
- Students' involvement in leadership.

In general, there are discrepancies between students and staff perceptions of the nature of learner support. These discrepancies mainly relate to the provision of technology, communication, and administrative learner support (see sections 7.1.2, 7.1.4 and 7.1.5). Findings imply much reliance on staff views, and limited efforts made to incorporate the students' views in planning and delivering learner support by the training university which makes it problematic to harmonise their interests for the common good of improving learner support management and delivery.

Findings indicate that the university is committed to blended learning involving both off-campus and some on-campus activities for the students. On-campus activities like face-to-face classes benefited the majority of the students by providing an interactive and discussion forum with fellow peers, and their course facilitators. Face-to-face sessions were used by the students and staff to discuss the modules and promote learner-learner interaction hence reduced learner isolation. The challenge is that for varied reasons (see sections 6.1.1, 6.5 and 7.1.1), some students either missed or reported late for residential workshops. The implication is that though central in learner support in the current study, face-to-face sessions did not benefit all the students. This finding adheres to Rekkedal's (2004) study that discredited face-to-face workshops on ground that it is problematic for all students to attend.

The study confirmed that modules were the basic learning materials for the students. However, in the questionnaire and FGDs, several students claimed that the quality of some of the modules was poor claiming that they are shallow in content and difficult to comprehend. Reliance on use of modules as an academic learner support appears to be in harmony with earlier findings in Uganda and other developing countries (Aguti, 2003; Binns & Otto, 2006, Rumajogee, et al., 2003). The implication is that to make the central role of modules felt as a learner support, the onus is on the faculty to review all the existing modules using qualified staff with ample knowledge in developing distance learning materials. The aim is make modules interactive, have relevant content and references, and fitting the course level of the students.

Findings revealed that field visits support is intended to promote learner-learner interaction, and learner-lecturer discussions (see section 6.1.1). However, its effectiveness was limited by the limited frequency of its occurrence (once a year). Although field support was mainly off-line in this study, emphasis on the combination of both on-line and off-line field learner support has been echoed in related studies from countries in the south and west (Bbuye, 2006; Brindley & Paul, 2004; Busulwa & Bbuye, 2018; Hadjinicolaou, 2014). The implication is that distance education providers have to venture in on-line learner support for improved service management and delivery.

Furthermore, the study found that staff supervised the students during their action research period (see section 6.1.1). Action research is intended to prepare the trainees to improve on their classroom practices by reflecting on their pedagogies during the training, identifying a problem area, developing an appropriate intervention, implementing the intervention, and using the outcome to inform their own practices. Besides, students had limited access to modern ICT facilities that limited interactions with their supervisors to get research feedback. A disconnection between the supervisor and supervisees due to technology imbalance is not only found in developing countries but also reported in several related studies in Europe (Andrew 2012, Nasiri & Mafakheri, 2015; Sussex, 2008; Willems et al., 2011; Wisker, 2007). In the study, research supervisors ought to embrace the *Ubuntu* philosophy of care (Letseka, 2016) to effectively monitor and guide their students to produce quality research output.

Findings highlighted that there was on-line and off-line library and technology learner support from the university (see section 6.1.2). This finding is consistent with those of Pirmann (2009); and Tait (2004) who underscore the indispensable role of the library in learner support in distance education. In the current study, the library staff should not only provide study materials, but should also prepare both staff and students for effective use of the library resources.

Further still, findings consistently revealed lack of a counselling department or programme to support students (see section 6.1.3). However, the students indicated that counselling is a core learner support that they needed to cope with stress associated with distance learning. This result is congruent with findings of several studies (LaPadula, 2003; Murray et al., 2015; Rienties, et al., 2014; Verduin & Clark, 1991) who argue for strengthening counselling learner support to cope with academic, personal and career challenges. Lack of an established counselling and career department is an indication that the university does not consider it a core need to be responded to in allocating institutional limited resources. The value of counselling services ought to be understood and appreciated by the university community (students, staff and management) in order to start and strengthen the department to support the students and staff.

Murray et al. (2015); and Trindade et al. (2000) posit that the value of reliable communication cannot be underestimated in learner support in distance education. In the current study, communication was via cell-phones, internet, and postal service, printed materials, and face-to-face. Whereas staff indicated a perceived improvement in communication support by the faculty, students claimed that some of them missed timely communication from the university on a range of issues including collecting modules, reporting for face-to-face sessions, and field support. This shows a mismatch between the staff and students perceptions of the nature of appropriate learner support which could be attributed to variation in the viewpoints of a service provider and user respectively.

Additionally, findings revealed the multiple nature of administrative services learner support which include fees clearance, students' registration and orientation, security and safety, child day care, and students' leadership involvement. Issues of security and safety, and babies' day care support were only expressed by the students. This further reveals that staff see their support function as addressing academic matters, while students focused on both academic matters and socio-political issues that impact on their studies. This disjuncture reflects the limited staff knowledge and training in distance education which should be a concern of the training university for their professional development and improved learner support.

8.1.2 Learner support from the workplace/schools

Findings indicate that financial support was the least obtained learner support from workplaces/schools (see sections 5.2.1 and 6.2.1). Financial obligations were mainly borne by the students with limited support in some schools placing further pressure on teachers who are so poorly remunerated in Uganda (Bunoti, 2010; Nalugo, 2014). Unlike Floyd and Casey-Powell's (2004) theoretical framework that limited financial support to the training institution identifying possible sources, this study added financial support from the trainees' workplaces.

Concerning reduction of trainees' workload at school intended to create more time for their studies and professional development, there was inconsistency between findings from the students and headteachers (see section 6.2.2). This inconsistency was attributed to differences on how the concept of reduced workload was understood by the students and headteachers. Headteachers considered reduction of extra-time lessons as reduced workload, a view not shared by the trainees because it was outside the statutory working time. This finding of increased workload pressure is consistent with findings in earlier studies conducted in institutions in developing and developed countries (Bunoti, 2010; Tait, 2003b).

The views of the students and headteachers were consistent on absence of study leave for the trainees (see sections 5.2.1 and 6.2.3). Like in Pakistan (Mohammad & Harlech-Jones, 2008), the top-down hierarchical social and administrative structure in the Ugandan education system explains the headteachers' inability to grant study leave to their in-service teachers as study leave for teachers is mainly decided by the district authorities hence beyond the mandate of most headteachers in Uganda indicating the need for policy change at a higher level.

Findings indicate that less than 50% of the students were promoted or promised promotion as a motivation to study. Headteachers further expressed their view that more trainees from private than public schools had either been promoted or promised promotion (see sections 5.2.1 and 6.2.4). This could be explained by the nature of Uganda's education system, where there are more bureaucratic tendencies in public than private educational institutions (Bunoti, 2010). Headteachers in private than public schools have more influence in determining staff promotions (see sections 6.2.4 and 6.2.5). The implication is that direct government involvement in influencing and monitoring policy implementation and teacher promotion in public as opposed to private schools in Uganda, makes it difficult for the headteachers to influence teachers' promotions in the former than the later schools.

The study found that library use was the most frequently used school-based learner support. Findings indicate that students were free to access the limited library resources at their respective schools. For instance, 36.5% of the students obtained work-based library support which was better compared to the rest of the support services (see sections 5.2.1, 6.2.6, and 7.2). The implication is that strengthening school-based library resources could benefit in-service teachers by bringing learning resources closer as they enrol on distance education courses.

Findings were consistent in revealing that students obtained limited ICT support from their workplaces (see sections 5.2.1 and 6.2.7). This result is consistent with those of earlier studies (Basaza et al., 2010; Naikumi, 2013) that highlight limited integration of computer literacy in the primary school curriculum and limited ICT infrastructure in Uganda. However, the revelation in the findings that there was increasing use of smartphones among teacher trainees is inconsistent with Mayende et al.'s (2014) study that found limited use of simple technologies like cell phones for Facebook by distance learning students in Uganda. The discrepancy with Mayende et al.' finding could be explained by the increasing trend in acquiring and using smartphones in Uganda, coupled with the encouragement made by the faculty for students to buy phones that can enhance their learning in the current study.

Pertaining peer support from workplaces, findings indicate that the trainees had support from fellow teachers which include; writing application recommendation letters, question approach, access to study materials, and school practice preparation. However such support was only obtained on request. Conversely, a few students cited jealousy from fellow teachers who were reluctant to enrol for further studies. The implication is that when trainees are not supported by fellow teachers and become uncomfortable in the workplace, it is likely to have adverse effects on their studies especially during school practice. My view is that schools need to strengthen counselling and career programmes for both pupils and teachers to nurture a supportive collegiality culture.

8.1.3 Students' perceived quality of learner support from the university

The study found a discrepancy between the students and staff perceived quality of learner support. Questionnaire findings revealed four constructs of students' perceived quality of learner support (academic advising support, library and technology support, counselling and career support, and communication service support). Staff differed in their opinion as most of them (except 1) ranked the same factors differently in the order of; academic advising support, communication service support, library and technology support, and counselling and career support. The main distinction is that staff ranked communication support highly (second best), but students ranked it lowly (least supported). While staff based their ranking on the positive feedback on evaluation of teaching from current and former students, students based their ranking on their experience with each of the support delivered by the faculty. For improved learner support delivery, the views of both the students and staff should be analysed to inform practice,

Considering the mean scores of percentage rating of quality, findings indicate a higher mean score of 77.2% for staff, compared to 63.9% for students (see Table 16). This variation in quality rankings between staff and students could be explained by the different meanings attached to the concept of quality. Quality as being fit for the purpose (Harvey & Green, 1993; UMU, 2015); and quality as the image of the support as perceived by the users (Garvin, 1987). While some staff indicated that several students consider quality in form of academic grades not quality of learner support, students revealed that they needed both good academic grades and quality learner support. The students' perspective is consistent with Markova et al. (2017) who found that distance leaners' satisfaction goes beyond grades and depends on quality of learner support. Staff ought to seek the views of their students before making conclusions on issues of quality in learner support.

8.1.4 The effect of learner support on students' pedagogical practices

Learner support effect on students' ability to manage the subject content in primary schools is consistent with Hardman et al. (2009) who found teachers' good mastery of subject content and dialogue with pupils in several primary schools in Uganda. Questionnaire findings revealed that 92.4% of the students improved on the content of their teaching. Similarly, FGDs findings showed that many students had improved their knowledge of the subject matter, grammar and vocabulary, and appreciated sharing ideas with their lecturers and peers; a practice they extended to primary school pupils. For sustainability, staff should launch tracer studies involving current students, alumni and employers to evaluate the effectiveness of their training.

Staff and headteachers' responses on the effect of learner support on the subject content matched with those of the students. Staff indicated that students improved their understanding and organisation of the subject content, and headteachers voiced their view that the trainees displayed techniques of simplifying the subject content befitting for the pupils to comprehend thereby increasing the quality of teaching and learning. This shows that learner support positively influenced students' understanding of the content of their teaching subjects. However, there was a feeling of discontentedness among some students who considered some subjects like theology and complicated philosophy irrelevant to their work in primary schools.

On managing big classes, the questionnaire findings revealed that the trainees improved their abilities to manage big classes, yet limited improvement was revealed in the FGD findings (see sections 5.2.2 and 6.4.2). The nature of closed and open ended questions used in the questionnaire and FGDs respectively could account for the differences in the students' expressions. On a positive note, the study found that some students used ICTs and were able to project subject content in big classes to promote learning. Though several pupils benefited from such an intervention, it contradicts common sense in educational debate that argues for small class size for effective learning (Blatchford & Mortimore, 1994; O'Sullivan, 2006). Additionally, findings from staff and headteachers revealed that learner support had an insignificant effect on the students' ability to manage big classes. Though students were exposed to knowledge of managing big classes, the limited room space in most schools to accommodate small group discussions and peer teaching limited their efforts.

An investigation of the effect of learner support on use of technologies in research and teaching in primary schools indicated that only 36.5% of the students had improved on this pedagogical practice. This finding is congruent to those of Naikumi (2013); and Sife et al. (2007) who found limited integration of computer literacy in teacher training curriculum, and limited ICTs facilities in primary schools in Uganda. To reinforce and enrich quantitative findings (Creswell, 2009;

Creswell & Plano Clark, 2010; Denscombe, 2014; Newby, 2010), qualitative findings revealed that majority of the students had acquired smartphones that they used to access information on the internet. The implication is that trainees improved on ICTs use in information search but not in actual classroom teaching. However, with the recent introduction of a daily excise duty imposed on social media use (Uganda Legal Information Institute, 2018), the future of ICT use in schools is not certain in Uganda.

Both questionnaires and FGDs findings revealed a perceived improvement in time management by the trainees at their workplaces (see sections 5.2.2 and 6.4.4). This finding is in line with Hartwell et al. (2003) who found effective time management by teachers and pupils in some schools in Uganda. However in line with Munene (1997), a few headteachers observed that some trainees reported to school late and did not adhere to the time specified for some school activities. This is an indication that though most students improved on time management, some still exhibited improper time management. Continuous emphasis on effective time management during teacher training could nurture a new breed of teachers that highly value time as a fixed resource that should be properly used.

Findings from the students on the effect of learner support on critical thinking in assessment were inconsistent with those of the headteachers. Whereas the students indicated that 89.5% of the trainees had improved on critical thinking in assessment of their pupils; most headteachers revealed that they had not observed any substantial improvement. Headteachers revealed that there was limited emphasis on the 3 levels of assessment of knowledge, comprehension, and application expected in Uganda's primary school education (see sections 6.4.5 and 7.4). The inference is that the knowledge acquired on critical thinking by the trainees had not made a significant impact on the their practices in primary schools, which corroborates findings of several studies from developing countries (EFA GMR Team, 2014; EFA GMR Team, 2015b; Gove, 2015). Teacher training should focus on critical thinking skill development and regularly assess the trainees during school practice to sustain the practice in Uganda.

Quantitative and qualitative findings were consistent on the positive effect of learner support on lesson planning by trainees. Statistical findings revealed that 87.9% of the students had improved on lesson planning. Similarly, qualitative findings from staff and headteachers revealed an improvement in lesson planning by the trainees based school practice records. This finding is inconsistent with findings of previous studies (Hardman et al., 2009; Hartwell et al., 2003; Ministry of Education & Sports, 2013) that found inadequate teaching preparation in several schools in Uganda. Unlike in the previous studies, concerted efforts of schools, training

institution and NGOs could explain the positive trend in lesson planning in the current study (see sections 6.4.6 and 7.4).

Both quantitative and qualitative findings indicate that the trainees had registered an improvement in the counselling and mentoring of pupils. For instance, questionnaire findings revealed that 82.9% of the trainees had improved on child counselling and mentoring in their schools, and qualitative findings revealed that trainees adopted school family initiative intervention in counselling pupils. This finding is inconsistent with that of Hartwell (2003) who found inadequate child mentoring knowledge and skills among teachers and some teacher educators in Uganda. I could attribute the perceived improvement in the trainees' counselling and mentoring practices to the positive trend in teacher training since 2003 in Uganda. As enrolment of pupils and their counselling needs increase, teacher training institutions are continuously incorporating counselling and mentorship issues in their courses (see section 6.1.3).

Findings from the students were consistent that learner support improved on their effective use of teaching aids. Like 82.3% of the questionnaire respondents who conveyed to have improved on their classroom use of teaching aids, FGDs participants revealed that they could use concrete objects rather than mere drawings on the chalk-board, and avoided fixing teaching aids permanently in the classrooms not to distract pupils' attention when attending other lessons. This finding matches Hartwell et al. (2003) positing that not fixing teaching aids permanently on the classroom walls improves on their application. In line with findings of several commentators (Izizinga, 2000; Kanyike, 1998; Zhang, 2006), the interview findings revealed that several trainees and their pupils used their environment to develop some local learning materials.

Furthermore, findings were consistent that learner support had a positive effect on students' use of teaching methods. For instance, 90.5% of the questionnaire respondents said that they had improved on classroom application of teaching methods. Similarly, qualitative findings indicated that many trainees used learner-centred teaching methods, gave practical work, used demonstrations, group discussions, and field visits in teaching. However, some students expressed their feeling of dissatisfaction with continuous use of the lecture method by some lecturers that limited their active participation. This finding is similar to those of earlier studies (EFA GMR Team, 2005; Ministry of Education & Sports, 2013) that found educators using rigid teacher-centred teaching styles that made learners passive in Uganda. The way forward would be for the training institutions to rethink their teaching methods by emphasising application of learner-centred methods to create a sense of active participation and learning.

8.1.5 The challenges faced in managing and delivering learner support

Findings revealed that learner support challenges faced by the university include: a limited number of fulltime staff at the faculty, lack of a reading culture, poor citations and referencing styles by students, untimely communication between the faculty and the students, and failure of some students to attend faculty field support. Further analysis revealed challenges of organising successful face-to-face workshops, inadequate counselling and guidance, inadequate action research supervision, students' lack of ICT skills, inadequate library support, limited financial resource base, inadequate faculty support from the university management, and limited distance learners' representation in their leadership and governance.

The study found that there was a limited number of fulltime staff at the faculty. The same staff had inadequate knowledge and skills in distance education which limited their ability to provide quality learner support. This result is consistent with several studies (Basaza et al., 2010; Bwire et al., 2015; Gulati, 2008) who found that lack of supportive skills by the teacher trainers hinders learner support and promotes frustrations in learning in developing countries. This result highlights the central role played by the tutor in learner support. It also highlights the adverse effect on learner support caused by much reliance on part-time staff who are not always available for faculty deployment. The implication is that to create an effective faculty learner support, there is need for a supportive qualified staff, who are ready to support the students.

Findings indicate that students' lacked a reading culture manifested in their inability to make use of the library learning materials. Kaberia (2012) relates the poor reading culture among Africans to the African oral culture that emphasises talking as opposed to reading which is solitary and demeans the social attribute of the African culture. However, in Uganda, Baryamureeba (2007), and Mlay et al. (2015) found that ICT use enables the students to have access to different reading sources and improves on their reading culture. Moreover, the findings indicate that there is poor citation and academic referencing by some students, contrary to Harvard referencing style recommended by the faculty. To improve on the students' quality of writing, the onus is on the faculty to inculcate the recommended university academic writing practices among staff and students.

Additionally, the study found untimely and incomplete communication between the faculty and students as another challenge in managing and delivering learner support. The students could receive information late and found it difficult to get feedback from the faculty (see sections 6.5 and 7.5). The inability of the students to get even telephony calls and SMS in time upholds earlier research findings that several rural areas lack ready supply of electricity or have poor communication infrastructure and network that limits a two-way communication in Uganda

(Bbuye, 2006; Mutonyi & Norton, 2007; Ouma, 2003). In the current study, the training institution can improve on communication with the students by using several media after conducting a communication needs assessment of the students.

Further still, findings indicate that though field support was organised by the faculty, some students missed due to personal reasons. In the process, those who did not report for field support missed important communications relating to policy and study programmes. Field support was mainly off-line hence similar to findings of earlier studies in Uganda (Basaza et al., 2010; Mutonyi & Norton, 2007).

The study found that it was difficult to effectively organise face-to-face residential workshops because of the many tasks that had to be completed in a short period of two weeks. There was an inverse relationship between the number of tasks during the short residential workshops and effectiveness of learner support. Findings further indicate that several students reported late for residential workshops without having read the modules which compounded the challenge of learner support as those who reported late missed learner support offered in their absence. To revamp the situation and improve on learner support, there is need for effective planning of face-to-face learner support in ODL (Gravani & Karagiorgi, 2014; Olivier, 2016; Price et al., 2007).

Staff and students responses were consistent about the challenge of inadequate counselling of students by the faculty. The findings reveal that absence of an organised counselling programme or department nurtured a feeling of distress and psychological stress among the students. This finding is consistent with those of Gujjar et al. (2010); and Kishore (2014) who found inadequate counselling and guidance to the students in distance education in high and low income countries respectively. The results indicate that lecturers tried to counsel and guide the students in absence of professional counsellors, but their efforts were limited by time and limited counselling skills. This indicates a direct relationship between the lecturers' counselling skills and quality of counselling support to the students. The limited staff counselling skills and knowledge meant inadequate counselling services and students' dissatisfaction.

Findings from staff and students revealed that there was inadequate supervision of students' action research by the faculty. Whereas staff expressed their concern on the lack of regular consultations between the students and their research supervisors, students added that some of their supervisors could delay to give feedback on their written research scripts. This finding indicates a direct correlation between the quality of research supervision and quality of the students' research work. The lack of adequate research supervision in the findings is consistent with the finding of Mapolisa's (2012) study in Zimbabwe, who found that distance learners

produced low quality research work because their supervisors had limited research skills. Earlier studies in Uganda (Basaza et al., 2010; Bbuye, 2006, Bunoti, 2010) attributed the research supervision challenge to the high supervisees: supervisor ratio due to increasing numbers of students enrolled in on distance education. For improved students' research supervision, the university should improve on the number and research skills of the lecturers to match with the increasing students' enrolment.

The study found that several students lacked ICT skills by the time of enrolment. Students from the rural and hard-to-reach places were the most affected because they lacked both the necessary computer facilities and user knowledge. This result corroborates with those of earlier studies in Uganda (Mayende et al., 2014; Kajumbula, 2009); and Africa (Sife et al., 2007) that found inequitable distribution and use of ICTs among university students. The training university could spell out the basic ICT skills needed before admission and/or provide an ICT course for beginners to impart the necessary skills to the students in the early stages of their studies.

Besides, results indicate a challenge of inadequate access to library resources and materials by several students. Students who lacked access to e-learning materials due to lack of ICT facilities or knowledge and skills had to move long distances to search for physical library resources. This finding is inconsistent with Tait (2014) who contends that distance should no longer be a focus in distance education in the digital age. The context of Tait's assertion (UK) is quite different from that of Uganda in terms of technological development and use in distance education hence could be a justification for the discrepancy. However, the training institution could think of initially equipping the regional study centres with adequate physical library resources, but ultimately plan for increased ICT use for staff and students to access library resources.

Findings revealed a challenge of limited financial resource base at the training university. This was attributed to so much reliance on students' tuition by the university (see sections 6.5 and 7.5). This implies a direct relationship between students' ability to pay tuition and university's ability to provide learner support. It was further found that the meagre financial resources allocated to the faculty by the university management limited the faculty's efforts to improve on learner support. For example, it limited the faculty's capability to reach students in hard-to-reach places, and use multi-media in learner support. This finding corroborates with Bbuye & Aguti (1997); and Juma (2003) who found that limited financial allocation hampered support to distance learning students in Uganda. The training university has to think beyond the students' tuition as the only source of income, and also develop a clear formula for resources allocation to distance learning faculties.

Students and staff views were consistent on the challenge of inadequate students' involvement in their representative bodies. Whereas students revealed that they lacked an organised forum to express their academic, social and political interests; staff voiced their concern that there was lack of 'political space' for distance learners in the university students' leadership. Though desirable to have distance learners represented in their governance, it is problematic given the nature of their studies. Nonetheless, the possibility of using affordable ICTs to increase students' representation and involvement in leadership could be a worthwhile venture to enhance leaner support in the study context.

8.2 Contribution to knowledge

This study makes four important contributions to knowledge. Firstly, whereas several studies have investigated learner support attributes in distance education in general, this study has focused on learner support management and delivery to in-service teachers. Being the first of its kind in Uganda, it adds a new case study to the existing knowledge on learner support in open and distance education.

Secondly, the study findings have contributed to an understanding of the recent challenges faced by the university in managing and delivering learner support for teacher trainees in Uganda. Such challenges include; a few fulltime staff at the faculty, lack of a reading culture, poor citations and referencing styles by students, poorly coordinated communication between the faculty and the students, failure of some students to attend faculty field support, and the difficult to organise successful face-to-face residential workshops. Other challenges include inadequate learner counselling and guidance, inadequate learner research supervision, lack of ICT skills by students, inadequate library support, limited financial resource base and faculty support from the university management, and inadequate students' involvement in their representative bodies.

Thirdly, literature search on learner support in distance education in Uganda indicates that no other study has used sequential explanatory mixed methods approach and a case study strategy in investigating learner support practices. The available studies used questionnaires and/or interviews only. The use of sequential explanatory mixed methods involving questionnaires, in-depth interviews and FGDs in my study widened and deepened the methodological scope of understanding learner support management for distance learning in-service teachers in Uganda.

Fourthly, this study has made a theoretical contribution in its conceptual framework and in the findings by introducing a new player who has been often left at the periphery of the framework of learner support for in-service teachers. This player is the school/workplace influence on the

teacher trainees. Several models of learner support (Aoki & Pogroszewski, 1998; Compora, 2003; Floyd & Casey-Powel, 2004; Garrison et al., 2000; Reid, 1995; Tait, 2000) have underscored the role of the training institutions and trainees with limited attention given to the trainees' workplace in learner support. Incorporating workplace and university support systems in teacher training has provided an additional perspective that learner support for teacher trainees is not only influenced by the trainers but also their workplaces/schools (see Figure 4, sections 5.2. and 6.2)..

8.3. Framing the recommendations

Findings on managing and delivering learner support for in-service teachers have implications for policy, practice and further research. The first set of recommendations is aimed at influencing policy and practice in developing a sound learner support system in distance education. The second set of recommendations is focused on directing further research on learner support based on the findings and gaps identified by the current study. The aim is to improve on learner support management and delivery befitting the rapid development trends in the twenty first century open and distance education.

8.3.1 Recommendations for policy and practice

Strengthen faculty capacity and commitment to address challenges of learner support: The study revealed that the faculty faced several challenges in the provision of learner support (see sections 6.5 and 7.5). Overcoming and turning those challenges into opportunities is possible when the faculty commits adequate resources (human, materials, finances and time) and display commitment to alleviate the challenges and ensure effective learner support. Meaningful faculty commitment should be guided by the distance learning policy.

Establish and support counselling and career department: Findings highlighted the lack of an organised counselling programme or department to manage students' feelings of distress and psychological stress to cope with their work and academic demands (see sections 6.1.3 and 7.1.3). The training university should prioritise and invest in counselling services to ensure that staff and students access services of a professional counsellor. This should provide a one-on-one access to professional counsellors for practical and systematic counselling support (Holmberg, 2005; Krauth & Carbajal, 1999).

Administer on-line fees clearance**:** This study has shown that the fees payment process is clear but the clearing process is cumbersome to the students as they have to spend some time queuing (see sections 6.1.5 and 7.1.5). In response, the university should invest in on-line clearance and

continue clearing students throughout the year without waiting for the residential workshops when they all converge. This will safe time of both the students and staff currently devoted to fees clearance and make the institution relevant and competitive in the current digital age.

Strengthen students' representation on their representative bodies: Findings revealed that distance learners lacked an organised forum to express their academic, social and political interests (lacked 'political space') (see sections 6.5 and 7.1.5, 7.5). They should have course leaders and be represented on the different administrative bodies like faculty board, senate and students' guild. ICTs can be used to enhance students' representation in their leadership such as attending virtual meetings and ensuring timely communication. This could enhance a sense of distance learners' belonging to the university community.

Build and maintain sound security and safety systems: Like in other developing countries **(**Akpoiroro & Okon, 2015), this study found that socio-political environment influenced the nature of learner support. Several students complained about the poor security systems in some of the hostels during residential workshops (see sections 5.4.1, 7.1.5). At national level, it is a responsibility of the government of Uganda to strengthen its security organs to ensure that peace prevails and security is guaranteed for the people and their property. At institutional level, the training university should strengthen the physical security by engaging adequate personnel and lighting system during residential workshops for the protection of students and their property. Concerning safety of the students' ICTs to counter virus attacks, the training institution should provide adequate technical security advice and support. This could entail employing skilled ICT technicians and investing in anti-virus software to support the students and staff.

Strengthen training and use of technologies in learner support: The training university should aim at addressing students' lack of ICT skills at the time of enrolment which is a pre-requisite for successful distance learning (see sections 6.5 and 7.5). Research indicate that use of modern ICTs and internet can enhance learner support especially communication in distance education (Chiu, et al., 2008; Markova et al., 2017; Murray et al., 2015; Voorths & Falkner, 2004). Equipping the students and staff with such skills needs effective planning and investment in ICTs infrastructure by the university. This can help to nurture a more centralised learner support and reduce on costs associated with maintaining the university study centres in the different parts of the country (see figure 2).

Contextualise learner support and seek ICT partnership: Lack of ICT skills was acute among students from the rural and hard-to-reach places yet expected to use such resources in their studies (see section 6.5). It would be logical for the faculty to identify students' needs, and partner with

other like-minded educational institutions or private internet providers to provide internet services closer to the students at subsidised charges. It makes economic sense for two or more universities operating in the same area to pool resources and have some shared resources such as libraries, computer facilities, and discussion rooms for students and staff. Alternatively, the university should partner with a private internet provider and extend their services closer to the students at affordable costs. ICT enhancing should also consider the faculty preparing the students for m-learning by training them how to use mobile telephony in their studies.

Extend library support to rural and hard-to-reach places: The study found that students in remote and hard-to-reach areas were the most affected in accessing library resources (see sections 6.5 and 7.5). The university should carefully study and invest in a mobile library to extend learning materials to students in places with limited ICTs infrastructure and physical library facilities. The aim is enable all students to access library services wherever and whenever and improve their learning experiences. The university librarians should organise regular training programmes in effective use of library resources for improved learner support.

Reinforce communication between faculty and students: Findings indicate that communication service support had the least perceived quality by the students (see sections 5.3.4, 6.1.4 and 7.5). Faculty should invest in using several media to communicate to the students, and students should be guided on how, when, and to whom to communicate on various issues during their studies. Instructor-student interaction and student-student interaction can be enhanced with guided introduction and use of ICTs through social media platforms and emails. All the students should be encouraged to acquire mobile telephony and relevant educational facilities such as apps, and be guided to use the acquired facilities in their studies. They should also be supported with group emails for different study programmes including their respective instructors to strengthen communication and networking. The university should also take a firm stand and engage the government on the need to abolish daily excise duty on using social media as a learning platform. This can be through public engagement lectures, writing and sending research-evidenced memos to the policy makers, and organising dialogue forum with political leaders.

Instructors should continuously innovate in use of pedagogy: Although students appreciated the use learner-centred teaching methods such group work, discussions, fieldwork, story-telling, ‘think, pair and share in their training; some students claimed that there was continuous use of the lecture method by some lecturers (see sections 6.4.10). To avoid nurturing passive learners, instructors need proper preparation and to innovate in the use of pedagogies to promote learner and learner-to-learner activities with the aim of influencing the trainees to become more

innovative when teaching their pupils. In this way, the training impact will be felt in schools hence linking teacher training and their work expectations.

Regular review of modules by the faculty for continuous improvement: The aim is to make course learning materials relevant and appealing to the users for improved learner support. This is because modules were considered basic learning materials yet some were 'branded' shallow in content, and difficult to comprehend by the students (see section 5.3.1). To ensure relevance of learning materials to society needs, the review process ought to be informed by research (tracer studies) based on the views of the students, labour market, alumni, and university staff.

Explore and use open educational resources (OERs). Teacher training universities in Uganda should exploit the use of open educational resources for teacher education, such as, Teacher Education in Sub-Saharan Africa (TESSA) resources to argument the current limited training materials (see section 5.3.1). For example, the TESSA Uganda Forum in conjunction with the OU UK is organising training workshops for teacher educators to share experiences and training materials for teacher trainees (Cullen, Kasule & Stutchbury, 2018). The efforts of the TESSA project to embed its open educational resources to improve the teaching quality in Uganda's education system (Cullen, Kasule & Stutchbury, 2018) should be extended beyond Primary Teachers' Colleges (PTCs) and National Teachers' Colleges (NTCs) to include in-service teacher trainers in the various universities. This will not only improve on the skills of the teacher trainers, but also provide relevant training materials to enhance the quality of teacher training, and the country's education system.

8.3.2 Recommendations for further research

Although this study investigated critical issues of learner support in distance education in Uganda, it indicates possible areas for further research on learner support:

The current study used a case study to investigate learner support management and delivery in distance education in Uganda. Future research can focus on several case studies or conduct a nation-wide survey to investigate leaner support practices and management in Uganda. Widening the study scope would widen the results to give a general national outlook of learner support.

Building on the current study that was conducted in a private university, future studies could focus on public universities or conduct a comparative study investigating learner support practices in public and private universities. This would benefit the two categories of higher institutions of learning by drawing practical lessons from each other for improved learner support systems.

The current study focused on the training university, students and primary schools as key participants in learner support for in-service teachers. Further studies could focus on an analysis of stakeholders' participation in learner support for teacher trainees in Uganda. This would deepen understanding of the nature of stakeholders, and how they influence each other in an effort to provide sound learner support in distance education.

In absence of a well-defined policy framework for distance education in Uganda, further studies could focus on an inquiry of policy and regulatory frameworks that facilitate and/or impede effective learner support in distance education in Uganda. This would help to identify policy guidelines at regional, national and institutional levels, and how they influence learner support practices in Uganda.

Though the study found a top-down leadership in the education system in Uganda, it did not explore its effect on learner support. Further studies could explore institutional leadership styles and their influence on learner support in ODL in Uganda. This would help to showcase the relationship between leadership styles and quality of learner support, and propose a specific leadership style or a mix of styles that are feasible for improved learner support in ODL in Uganda's socio-cultural setting.

The study revealed that there was limited on-line support practices in ODL in Uganda, but did not find out about stakeholders' attitudes to on-line learner support. Further studies could investigate university staff and students' attitudes to on-line learner support for teacher trainees in Uganda. This would be pivotal in understanding the trainees and the trainers' attitudes as the main stakeholders in using on-line support and strategise for improved service delivery in ODL.

On communication learner support, the study found that the use of mobile telephony was on increase among in-service teachers especially those in the youthful stage. Further studies could focus on questions like: Is the use of smartphones and social media enhancing or distracting quality of learner support in ODL in Uganda? Building on increasing use of smartphones by teacher trainees, further studies would indicate the practical benefits and setbacks of such technologies in the context of Uganda.

Developing an appropriate learner support model for teacher trainees in ODL. Whereas several learner support models (Aoki & Pogroszewski, 1998; Compora, 2003; Floyd & Casey-Powel, 2004; Garrison et al., 2000; Reid, 1995; Tait, 2000) explain learner support in ODL in general, further studies would particularly focus on a teacher training-tailored support model building on the conceptual framework in this study (see section 3.5.3).

Further studies could conduct an investigation of the relationship between learner support and students' academic achievements in distance learning in Uganda. Whereas this study related learner support and pedagogical practices of the trainees, there remains a gap in the literature on how learner support relates to academic achievement in ODL in Uganda which necessitates an independent study.

8.4. A critique of the study

The small sample size of less than 5% of the in-service teachers drawn from only 1 out of 55 universities in Uganda (UNCHE, 2018) could not give the full picture of in-service teacher support in all universities in Uganda. The choice of the case study was purposive because I needed a university that has branches in all regions of Uganda, existed for at least 10 years, and had both BED and DEP programmes. The implication is that the 55 universities could be having their unique learner support management and delivery challenges because of different sizes and resources which was beyond the scope of this study.

The students, university staff and headteachers were sampled for field research data collection. I hoped that they were representative enough to give sufficient information on managing and delivering learner support for in-service teachers in Uganda. The government officials were not sampled which was a probable weakness. This however was controlled by accessing secondary data and policy documents on teacher training and distance education in Uganda that enriched discussions of my findings.

The limited number of methods with a few respondents for each was another limitation of the study. If I were to repeat this research, I would study several cases, and employ more qualitative methods alongside surveys. The number of the respondents for each data collection method and the study period could be increased in view of enriching the triangulation to give a wider picture of learner support management and delivery in ODL in Uganda.

8.5 Final Thoughts

This study has investigated the management and delivery of learner support systems at UMU. It focussed on the nature and quality of learner support, effect of learner support on the trainees' pedagogical practices, and challenges faced by the university in delivering learner support. The views of the study participants particularly students, staff and selected headteachers have given me a wider perspective of learner support as a distance learning practitioner, researcher and trainer.

The study has shown that despite the challenges faced by the university in learner support management and delivery, incorporating the workplace and university learner support systems and practices can transform and lead to a positive trend towards improved learner support in distance education.

On a personal note, the perspectives of the students, staff and headteachers, coupled with a wider reading of the literature has broadened my understanding of the complexity of learner support in open and distance learning. Additionally, considering workplace practices as integral in learner support in a Ugandan educational environment where teacher trainee support is essentially the responsibility of the training university, was an immeasurable experience in my academic and research life.

Listening to the students' stories about their experiences of the support obtained from the training university and their workplaces has been informative and educative to me as a researcher, the university staff as service providers, the students as end-users, and to government as a policy maker. Likewise, the staff narratives have given me a deeper understanding of their working environment and challenges they face in supporting the students. It is a foundation upon which I intend to build further research and influence change in Uganda's education system.

It is my thought that the findings of this study have not only impacted on my knowledge and skills in research aimed at improving teacher training, but will also influence the thoughts of the other teacher-trainers, trainees and headteachers. If considered at a higher level, the study findings will influence policy on distance education and transform learner support practices in Uganda and East Africa.

APPENDICES

Appendix 1: Map of Uganda showing location, lakes, major towns and boundaries

Source: Uganda Bureau of Statistics (2014)

Appendix 2: Distance Learning Programmes at Uganda Martyrs University

MASTERS' DEGREE

Master of Arts in Development Studies with specialization in: NGO Management; Development; Microfinance; Education) (DL) - 3 years

Master of Arts in Local Governance and Human Rights (DL) - 3 years

POSTGRADUATE DIPLOMAS

Postgraduate Diploma in Teaching and Learning in Higher Education (DL) - 2 years

BACHELORS' DEGREE

Bachelor of Arts in Democracy and Development Studies (DL) - 4 years

Bachelor of Arts in Local Governance and Human Rights (DL) - 4 years

Bachelor of Arts in Microfinance and Community Development (DL) 4 years

Bachelor of Education (Primary) (DL & Holiday) - 3 years

Bachelor of Education English Language and Literature (Secondary) (DL) - 3 years

Bachelor of Science in Agriculture (General) (DL) - 4 years

Bachelor of Science in Organic Agriculture (DL) - 4 years

DIPLOMAS

Diploma in Democracy and Development Studies (DL) - 2 years

Diploma in Education (Primary) (DL) - 3 years

Diploma in Local Governance and Human Rights (DL) - 2 years

Diploma in Microfinance (DL) - 2 years

Appendix 3: Students' questionnaire on quality of learner support from the university and workplace

Introduction

I am interested in learning about your experience about the support rendered to you by the university and your respective schools since you enrolled on the distance education programme. Be assured that the information you provide will be kept confidential and used for only academic purposes.

Thank you very much for dedicating some of your time to fill in this questionnaire.

Researcher: Richard Ouma

University of York (UK)

Background Information

Programme of study: ……..…… Year of study: ……..……

Gender: …… Type of School: Government or Private aided

1. PERCEPTION OF QUALITY OF LEARNER SUPPORT FROM THE UNIVERSITY

Learner perception of quality of support given by the university can be rated on a scale of 1-5 as follows:

1 = Strongly disagree. 2 = Disagree. 3 = Neutral. 4 = Agree. 5 = Strongly agree.

Rate your perception of the quality of the following learner support services rendered to you as a distance education student at the university. Tick your choice.

Learner Intake Phase

	Learner support services	1	2	3	4	5
1	Adequate information on Admissions is provided					
2	Registration process is clear and simple					
3	Orientation/induction in distance education is provided					
4	Frequently asked questions and responses are given					
5	Functional help desk after normal work time is in place					
6	Hotline phone number is provided					
7	Fees clearance process is clear and simple					
8	Information on scholarships/financial aid is given					
9	Faculty/Student handbook is provided					
10	The university web-site is user friendly					

Learner Intervention Phase

	Learner support services	1	2	3	4	5
1	"Successful Start Learner Workshop" is organised					
2	Functional help desk after normal work time is in place					
3	Technology training (computer, phone etc.) is provided					
4	There is use of group email to circulate information					
5	Library use and information search orientation is given					
6	There is timely communication/information delivery					
7	Counselling and guidance services are given					
8	Accessible study centres up-country are in place					
9	Suggestion box is provided for students					
10	Easy to receive regular communications					

Learner Support Phase

	Learner support services	1	2	3	4	5
1	Academic support/ It is easy to access my instructors					
2	Instructional Support/face-to-face workshops organised					
3	There is provision of quality modules					
4	Modules and coursework are given in time					
5	Special support is given to students with disabilities					
6	Networking/easy to interact with fellow learners					
7	Students are given study tips/guides					
8	Students are given test/examinations taking tips					
9	Students' Survival Success Course is in place					
10	Computers with internet are availed					
11	Accessing library materials is easy					
12	Introduced to new subject content					
13	Taught variety of teaching methods/ pedagogy support					
14	Field support is given by staff					
15	There is effective school practice supervision – Diploma					

Learner Transition Phase

	Learner support services	1	2	3	4	5
1	Career development programme is in place					
2	Counselling services are in place					
3	Tips to write professional resumes are given					

4	Social media is used in instruction (WhatsApp, Facebook)					
5	There is Time management skills enhancement session					

Measurement Phase

	Learner support services	1	2	3	4	5
1	Course evaluations are conducted					
2	Instructors give comments on coursework					
3	Timely feedback on coursework and exams					
4	Information on alumni services is given					
5	Counselling on further study after graduating is given					

2. PERCEPTION OF QUALITY OF LEARNER SUPPORT FROM SCHOOLS

Learner perception of quality of support rendered by schools can be rated on a scale of 1-5 as follows:

1 = Strongly disagree. 2 = Disagree. 3 = Neutral. 4 = Agree. 5 = Strongly agree.

Rate your perception of the quality of the following learner support services rendered to you as a distance education student by the school where you work. Tick your choice.

	Learner support services	1	2	3	4	5
1	Financial support					
2	Study leave					
3	Library facilities					
4	ICT facilities					
5	Reduced workload					
6	Promoted					
7	Promised promotion					

3. EFFECT OF LEARNER SUPPORT ON PEDAGOGY

Based on your work experience, rank what you consider to be the effect of learner support received during the training onto the following practices in your classroom? Use a scale of 1-5 as follows:

1 = Strongly disagree. 2 = Disagree. 3 = Neutral. 4 = Agree. 5 = Strongly agree.

	Classroom practices	**1**	**2**	**3**	**4**	**5**
1	Improved on critical thinking and assessment					
2	Improved on subject matter content					
3	Adopted more pupil-centred teaching methods					
4	There is effective use of teaching aids					
5	Improved on lesson preparation (scheming & planning)					
6	Improved on lesson delivery (actual teaching)					
7	Improved on managing and controlling big classes					
8	Improved on child mentoring and counselling					
9	Improved on use of ICT in research & teaching					
10	Improved on time management					

Is there something important about the quality of learner support for distance education in-service teachers that you remember but we may have not tackled? Give details.

Thank you for sparing your valuable time to participate in this research study.

Appendix 4: Interview Guide for Faculty Staff on learner support

Introduction

I am interested in learning about your experience in supporting In-service teachers who are up-grading from certificate (Grade III) to diploma (Grade IV), and from diploma to degree level. Be assured that the information you provide will be kept confidential and used for only academic purposes.

1. Give a general background about your experience of in-service teacher training in this Institution? For example, when did you join the institution, when did the programme start, statistics on number of teachers trained, and their distribution by gender etc.
2. What learner support services are offered to distance education in-service primary school teachers at your institution? (before, during and after graduation)
3. What effect does the training given have on the teachers' aspirations for the future of their pupils (e.g. economically, technologically, religiously, socially, politically, and environmentally)?
4. How do your students/distance education in-service primary school teachers perceive the quality of learner support you provide to them?
5. What can you comment on the quality of the following learner support services to your in-service teachers (Academic advisory support, Library and technologically support, Counselling and career support, Communication service support)?
6. Based on you experience, how has the learner support you give affected the pedagogical practices of your trainees? (Say subject content, managing big classes, use of technologies in research and teaching, time management, critical thinking and assessment, lesson planning, counselling and mentoring, team teaching, use of teaching aids, methods of teaching etc.)
7. What challenges do you face in managing quality of learner support for distance education in-service primary school teachers at your institution? What remedies have you instituted to overcome those challenges?
8. Is there something important about quality in managing learner support for distance education in-service teachers that you remember but we may have not tackled?

Thank you for sparing your valuable to participate in this research study.

Appendix 5: Interview Guide for Headteachers on learner support

Introduction

I am interested in learning about your experience in supporting your teachers who are up-grading from certificate (Grade III) to diploma (Grade IV), and from diploma to degree level. Be assured that the information you provide will be kept confidential and used for only academic purposes.

1. Give a general background about your experience of teacher training in this school? (For example, when did you join the school, number of teachers up-graded, and their distribution by gender etc.)
2. What support do you give to up-grading teachers in your school?
3. What is your comment on the level of provision of the following services to your up-grading teachers (Financial support, Reduced work-load, Given study leave, Given promotion, Promised promotion, Use of school library, Use of school ICT facilities, peer support)?
4. Based on your experience, what has been the effect of additional teacher training on classroom practices/pedagogy? (Say subject content, managing big classes, use of technologies in research and teaching, time management, critical thinking and assessment, lesson planning, counselling and mentoring, team teaching, use of teaching aids, methods of teaching etc.)
5. How has the training affected the teachers' aspirations for the future of their pupils (e.g. economically, technologically, religiously, socially, politically, and environmentally)?
6. How has the training affected the teacher(s) general performance in other school programmes outside the classroom?
7. What challenges do you face in the process of supporting your teachers who want to up-grade? What are you doing to overcome those challenges?
8. Is there something important about support for teacher training that you remember in your school but we may have not tackled?

Thank you for sparing your valuable to participate in this research study.

Appendix 6: Focus Group Discussion Guide for the students on learner support by the university and their workplace

Introduction

I am interested in learning about your experience about the support rendered to you by the university and your respective schools since you enrolled on the distance education programme. Be assured that the information you provide will be kept confidential and used for only academic purposes.

1. Describe the nature of learner support services received from the university since you enrolled on the in-service programme? (before and during)
2. How does the nature of training received influence your aspirations for the future of the pupils (e.g. economically, technologically, religiously, socially, politically, and environmentally)?
3. What learner support services have you received from your school since you enrolled on this programme? (say Financial support, Reduced work-load, Given study leave, Given promotion, Promised promotion, Use of school library, Use of school ICT facilities, peer support)?
4. What is your perception of the quality of leaner support offered to you by the university? What can you comment on the quality of the following learner support services from the university (Academic advisory support, Library and technologically support, Counselling and career support, Communication service support)?
5. Based on your experience, what has been the effect of further training on your classroom pedagogical practices? (Say subject content, managing big classes, use of technologies in research and teaching, time management, critical thinking and assessment, lesson planning, counselling and mentoring, team teaching, use of teaching aids, methods of teaching etc.)
6. How has the training affected your general performance in other school programmes outside the classroom?
7. Suggest what the university and schools should do to improve on the learner support for distance education in-service primary school teachers?
8. Is there something important about the quality of learner support you receive as a student that you remember but we may have not tackled?

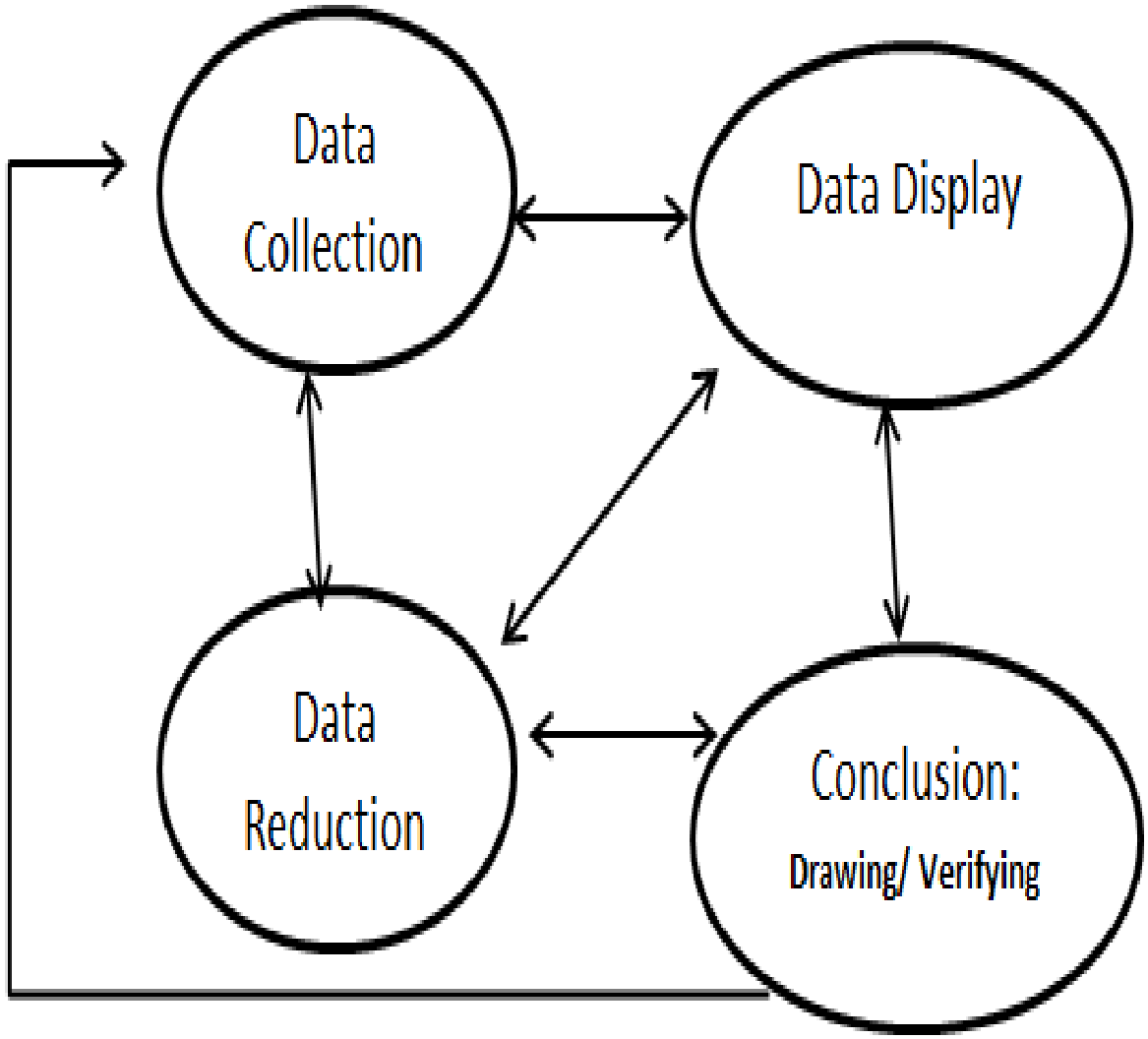
Thank you for sparing your valuable to participate in this research study.

Appendix 7: Analysis Grid

	Categories				
Respondents	**1**	**2**	**3**	**4**	**5**
1					
2					
3					
4					
5					
6					
7					
8					

Source: Adopted from Gillham (2000b, p65)

Appendix 8: Components of data analysis: Interactive model



Source: Adapted from Miles & Huberman (1994, p.12)

Appendix 9: Research Ethical Considerations

1. Seeking permission and approval from the Ethics Committee on Research of the University of York.
2. Obtaining an Introduction letter from the department of education through my Supervisor.
3. Respect for all respondents in the study.
4. Seeking permission before conducting both the pilot study and actual study.
5. Clarifying on the purpose of the study to solicit informed consent.
6. Ensuring confidentiality and anonymity of the respondents.
7. Respecting the cultural set up and norms at the study site.
8. Notifying the respondents' of their right to continue or withdraw from the study if they so wish.
9. Promise to password the transcribed electronic materials and keep hardcopies in a lockable case.
10. Using letter codes instead of the respondent's names on the filled data collection instruments.
11. Give out my email and telephony contacts to the respondents in case they may wish to consult me on the data collected or on other related issues.

Appendix 10: Introduction Letter

Managing and delivering learner support for Ugandan in-service teachers: incorporating workplace and university support systems.

Dear Dr/Sir /Madam/Student

I am Richard Ouma currently carrying out a research study to explore quality in managing learner support for distance education In-service primary school teachers in Ugandan Universities. I am writing to ask if you/ your school / institution is able to take part in the study.

What would this mean for me/my school/institution?

The study will take place at Uganda Martyrs University from in May 2016 to July 2017. You will be involved in filling a questionnaire/participant in focus group discussion/interview process. Your time commitment will not exceed a period of two hours in total. The study will seek your views on issues of managing and delivering learner support to in-service teachers in your capacity as a student/university staff/ headteacher.

Your views will be useful in informing improvement in the training process of in-service teachers and also to inform the policy makers in designing a national policy for distance education. The disadvantage is that you have to sacrifice part of your precious time for this noble activity.

Anonymity

The data that you provide (e.g. audio recordings of the interview and focus group discussion) will be stored by code number. Any information that identifies you will be stored separately from the data.

Storing and using your data

Data will be stored on a password protected computer. The data will be kept for five years after which time it will be destroyed. The data may be used for future analysis and shared for research or training purposes, but participants will not be identified individually. If you do not want your data to be included in any information shared as a result of this research, please do not sign this consent form.

You are free to withdraw from the study at any time during data collection and up to three weeks after the data is collected. You will be given the opportunity to comment on a written record of your interview/focus group.

Information about confidentiality

The data that we collect (audio recordings / transcripts) may be used in *anonymous* format in different ways. Please indicate on the consent form attached with a ☑ if you are happy for this anonymised data to be used in the ways listed.

We hope that you will agree to take part. If you have any questions about the study that you would like to ask before giving consent or after the data collection, please feel free to contact the Chair of Ethics Committee via email: education-research-administrator@york.ac.uk

Please keep this information sheet for your own records.

Thank you for taking the time to read this information.

Yours sincerely

Richard Ouma.

Appendix 11: Informed Consent Form

Exploring Quality in Managing Learner Support for Distance Education In-service Primary School Teachers in Ugandan Universities: The Case of Uganda Martyrs University.

Please initial each box if you are happy to take part in this research.

I confirm that I have read and understood the information given to me about the above named research project and I understand that this will involve me taking part as described above.	☐
I understand that the purpose of the research is to inform improvement in the training of in-service primary school teachers in Uganda	☐
I understand that data will be stored securely on a password protected computer and only the researcher will have access to any identifiable data. I understand that my identity will be protected by use of a code	☐
I understand that my data will not be identifiable and the data may be used;	☐
In publications that are mainly read by university academics	☐
In presentations that are mainly read by university academics	☐
In publications that are mainly read by the public	☐
In presentations that are mainly read by the public	☐
Freely available online	☐
I understand that data will be kept for five after which it will be destroyed.	☐
I understand that data could be used for future analysis or other purposes	☐
I understand that I can withdraw my data at any point during data collection and up to three months after data is collected	☐

Appendix 12: Students' responses to the questionnaire open question on learner support

Learner	Programme	Gender	Response
1	BED	FEMALE	I as a student of long distance I need to be given consideration when awarding grades for the classes in the courses that is to say let it be different from those of full time students
2	BED	FEMALE	1) The University should improve on The communication (early) about course work. 2) The semester should be divided in two to avoid intensiveness which may lead to poor performance. 3) Lecturers should use the guide/ provide Manila cards to groups when time for discussion comes. 4) Course works from students should be handled with care.
3	BED	FEMALE	Accommodation/welfare on the face to face has to be fully tackled because it would have convenient if they calculated but with catered for having it in mind that buying food and paying for accommodation is somehow inconveniencing.
4	BED	FEMALE	Professional ethics.
5	BED	FEMALE	1) We cannot use the Library due to not having Identity Cards. 2) Pressure with two semesters examinations. 3) Face to face is a long period, so the University could organise time to meet students before face to face.
6	BED	FEMALE	There is need for the University to provide us timely information on course works and early delivery of modules in the centres to enable students to go through and pass the course work.
7	BED	FEMALE	Administration should be humane enough to reduce the cost of accommodation in this University otherwise the issue is stressing me and yet renting outside the University is a risk on my life and my documents.
8	BED	FEMALE	There is need for the university to improve on communication during the giving out of modules and coursework so that every student meets the deadline" the information should reach the students so that no business goes on between the students and the transferred or terminated staff
9	BED	FEMALE	There is still need to improve on the communication network when it comes to giving out modules and course work and in case of change in staff like the co-ordinator to the programme the information should reach students so that no business goes between the students and transferred or terminated staff of UMU.
10	BED	MALE	Generally all the above items have been well handled except there is need for the University to talk to the college administrators to provide free

Learner	Programme	Gender	Response
			accommodation since some of the dormitories are not occupied by students. The accommodation is very expensive for the distance learners.
11	BED	MALE	I wish to thank UMU for extending UMU branch at this institution in Nyondo-Mbale. I wish to suggest that all other combinations including MTC, Science, Music, PE and Agriculture also be extended and modules be put in time.
12	BED	MALE	No.
13	BED	MALE	The issue of cost sharing and accommodation has not been addressed I therefore call upon the high authority to tackle this issue so that solution can be made.
14	BED	MALE	1) Organising University Hostels to improve on the quality. 2) Presentation of meals needs improvements. 3) Administrative issues should be cantered on the main campus. 4) Computer skills should be lowered into campuses.
16	BED	FEMALE	The issue of modules in terms of inadequate quality of content and late distribution was expressed severally by the learners; for stance: "Always let the modules be interpreted first then course work follows
18	BED	FEMALE	Always help us go through the modules before we begin the course work because there are mistakes always.
19	BED	MALE	Modules should be interpreted first then course work.
21	BED	MALE	No.
22	BED	MALE	Module improvement to enhance our learning should be done
23	BED	FEMALE	Explanation about the new modules before giving coursework.
24	BED	MALE	The university does not put into consideration the provision of accommodation and meals during the face to face sessions.
25	BED	MALE	Students at distance learning should be provided with accommodation calculated at the same rate with tuition fee they pay and also meals should be inclusive.
35	BED	MALE	Many members of our staff feel negatively about a colleague who is on a course of study. I have been strained as a result I cannot fulfil some of my responsibilities at home and at school. Counselling also needs more attention.
46	BED	MALE	Accommodation Facilities.
48	BED	MALE	Sponsorship should be given.
52	BED	FEMALE	The quality of learner support for distance education in service teachers mention are right and filling

Learner	Programme	Gender	Response
53	BED	FEMALE	Time given for face to face needs to be improved. Tuition is very expensive. Teachers are less paid that is why most of them do not come for upgrading. But
54	BED	MALE	The government should endeavour to help teachers to upgrade through financial support.
55	BED	MALE	Helped me to understand that children learn differently depending on the environment they come from and understood learners' kind of personality. Helped me to relate with fellow comrades due to exposure to people from different tribes.
58	BED	MALE	I request the University Administration to start a Masters Programme in Education Management and Policy Planning so that I enrol immediately after this programme.
60	BED	MALE	The lecturer handling face to face programme are very friendly and parental in their mentoring us into transformed and effective teacher for in content delivery. However, the threat is on tuition, from time to time they take of zero balance before one is allowed to sit for examination. I have improved on vocabulary mainly on parts of speech.
65	BED	MALE	Distance learners should also be organised to manage their affairs politically; by for example electing leaders like Guild President, Distance learners' programme and ministers of different responsibilities for the Distance Programme.
73	BED	MALE	I am not a practicing teacher but the above is helpful to me.
76	BED	MALE	I would suggest, that there should be computer literacy classes so as to sharpen the students on computer knowledge thank you!
82	BED	MALE	All meals b provided by the University and should contribute as in earlier years 2010 - 2011.
85	BED	FEMALE	There is little time given to the Distance Learners between work and course work since one has to work between and among all that one is to do at home, community and work place as well. There is psychological torture in terms of retakes and course work during the time of study. It would be better when there was no under making of students.
86	BED	FEMALE	Let there be passing of information on radio Maria or any other station if in case there is need for each of us before they can use the phone because we have been missing a lot of information which has led us into much pressure for this semester. Distance Education is good because it enables me to acquire many things at the same time but the information from the University takes long to reach us.

Learner	Programme	Gender	Response
87	BED	MALE	We need more co-ordinator between Mbale Branch and the Main campus as pertaining things needed by Mbale campus like up to now students do not have I D there are not sure of second year payments and yet students are almost going home.
111	BED	MALE	The time allocated for face-to-face sessions on subject for example at UMU of two days for each is not enough
126	BED	MALE	Modules at centres are put late after we have done coursework.
128	BED	MALE	Studies should be carried out in our cluster cities e.g. Mbale, Mbarara, Lira etc. to reduce the costs of transport and upkeep.
138	DEP	FEMALE	Distance Education is good because it enables me to acquire many things at the same time but the information from the University takes long to reach us.
139	DEP	FEMALE	Communication from the University is very poor in the way that at times we get the information through rumours (hearsay). On reaching there, we find that the rumour was correct. E.g. when it is time to collect the course - works we are almost going minus doing them because of lack of proper communications.
140	DEP	FEMALE	Learning in this University has enabled me to improve my style of living and communication skills improved.
141	DEP	FEMALE	Feeding (meals) and accommodation are not well organised and this causes insecurity to students since people do what they wish and yet the University is the organising body.
142	DEP	FEMALE	Improvement of the content in the modules should be done. 2) Some information is shallow. 3) Some information does not suite the questions given in the modules like SST Module 2.
143	DEP	FEMALE	About the students course work there is need from the University to improve on the students course work. Some course work scripts are not seen and also misplacing the course work. Making students to repeat and yet they have handed in so bad.
144	DEP	MALE	I wish to thank you for the university but there is need on improvement on the above item.
145	DEP	FEMALE	The university should return our scripts so that we are able to go through and do some correction and know how to answer the next course. We have never received our scripts for RE semester on and all for Semester 2.
146	DEP	MALE	More content should be added in some modules. 2) Payments to be reduced on registration.

Learner	Programme	Gender	Response
147	DEP	MALE	I request the University to be sponsoring diploma students for their further learning in future.
148	DEP	MALE	Questions should be set relevantly like in social studies course work module 2. Accommodation facilities and meals should be part of the school.
149	DEP	MALE	The University has so much overloaded Mbale Branch students with both semester one and semester 2 work.
150	DEP	FEMALE	You have overburdened us with work for semester one and two therefore we request you to always give each work in the expected semester like semester one. We do examination in semester one but not combining with semester 2.
151	DEP	FEMALE	There is need to improve on the content in the modules given because some of the information given is very shallow.
152	DEP	FEMALE	You need to improve on giving out course works because some of us got course work late when it was remaining only 3 days to deadline which made us difficult to cope with others.
153	DEP	MALE	Communication link from the university to the students is very poor which led some students to access the module very late after deadline.
154	DEP	MALE	Less content and illustration in social studies module for semester 2 for DEP and less guidance on answering course work using modules.
155	DEP	MALE	Modules do not have enough information. Leading students to fuel course works and attaining.
156	DEP	FEMALE	You need to improve on giving out course works because some of us got course work late when it was remaining only 3 days to deadline which made us difficult to cope with others
157	DEP	MALE	1) There was need to have face to face for every semester because the work load look too big. 2) Need to reduce on accommodation costs to be accessible by everyone. 3) Course work scripts are not returned on time and others miss completely. Otherwise the programme is good.
158	DEP	MALE	Yes, I think there is need to improve on the content of the modules and also delivery of information to students in time in order to be updated all the time always.
159	DEP	MALE	There is need to give us room to revise at least for one week before doing exams other than drilling us ongoing through the module without revision.

Learner	Programme	Gender	Response
160	DEP	MALE	The lecturer handling face to face programme are very friendly and parental in their mentoring us into transformed and effective teacher for in content delivery. However, the threat is on tuition, from time to time they talk of zero balance before on is allowed to sit for examination.
161	DEP	MALE	Finally Uganda Martyrs University is the best among other University but there are problems facing such as course work whose results for some students are always misplaced which leads them to sit for retakes.
162	DEP	FEMALE	Accommodation and meals could be combined together with tuition but not separated.
163	DEP	FEMALE	I do agree that the University is trying the best to improve Mbale campus University but there is need to improve on face to face sessions not to combine to sessions at one and even examinations.
168	DEP	MALE	Most of the content especially mathematics is irrelevant.
173	DEP	MALE	Has it improved the welfare of distance learners?
178	DEP	FEMALE	Administrators are advised to always cater those from far by sending the expected numbers of modules to centres.
179	DEP	FEMALE	What is taught for Diploma is not applicable to what is taught in primary curriculum. So there is a need for curriculum review.
180	DEP	MALE	What is taught at diploma level is math is so difficult and applicable to primary level.
183	DEP	MALE	There is a suggestion that the University should provide free accommodation and feeding to the distance learners or they should be improved on greatly. For hostels have serious challenges of bedbugs so it needs an immediate effective solution or else we shall stay outside.
184	DEP	FEMALE	The University should at least give free feeding and accommodation for distance learners. Thank you.
185	DEP	FEMALE	There is a big complaint on prices for hostels and bedbugs which need attention with immediate effect. There is also need for meals in that the money/tuition we pay can be used because it is a bit high compared to other universities.
186	DEP	FEMALE	1) The orientation was too brief which needs more attention next time. 2) Counselling also needs more attention. 3) There is need to introduce to the students all the staff members who conduct the Distance learning programme.
188	DEP	MALE	Provision of meals and accommodation to the students for distance learning

Learner	Programme	Gender	Response
189	DEP	FEMALE	Distance learning students should be given enough time during face to face session.
191	DEP	FEMALE	At least you should provide free accommodation for distance learners.
194	DEP	FEMALE	Accommodation and food should be provided on the campus and also lecturers should be teaching the modules before giving out course work.
196	DEP	MALE	1) There is psychological torture in terms of retakes and course work during the time of study. It would be better when there was no under making of students.
198	DEP	MALE	Lack of guidelines about the use of computers in teaching and learning different subjects.
200	DEP	MALE	Modifying of modules in that they contain real information and content that can be used in answering course work questions.
207	DEP	MALE	As distance learners, we need to be given a study timetable for module coverage to assist us progress steadily. 2) Accommodation is a challenging point. We beg that we pay =20,000= for staying in the college premises for revision purposes.
208	DEP	FEMALE	Lecturers from main campus should stop harassing fellow adults like children in case they need clarification of some ideas. 2) Also they should handle our course work with care and not just losing them then subjecting teachers to resitting it. They should value out time we used in answering it
209	DEP	FEMALE	Registration of students I was admitted at the USU campus but to my surprise I do not have a registration number and yet I am to do final examinations. Problems of communication from main campus Mable centre, I picked semester 2 module late and made me not to answer some questions because of Uganda Shillings 50,000/= per paper.
210	DEP	FEMALE	Organise the briefing on modules before issuing modules for easy understanding and interpretation of unfamiliar words
211	DEP	MALE	Lack of proper communication of information. 2) Congested untimely programmes.
212	DEP	MALE	1) I request for support on the access of information in time so that I can know how the programme is moving. Because at times I receive the information very late. 2) I request for modules to be given to use in time.
213	DEP	FEMALE	Communication on any changes or new issues should be prompt. As students we need the feedback immediately after examinations.

Learner	Programme	Gender	Response
214	DEP	FEMALE	There should be more time given to students' revision towards examination.
215	DEP	FEMALE	The University should avail us with accommodation and lunch.
216	DEP	FEMALE	Important information should be delivered to every student and more guidance and counselling should be done.
217	DEP	MALE	1) There is need to supply modules in time. 2) There is need for lecturers to visit centres to give extra support to the students. 3) There is need to allocate more time on deadline of handing in course work.
218	DEP	FEMALE	The university should give results to their students with their transcripts so that they can compare because and be motivated but not giving them transcripts only. End of semester papers (written). Segregation should be avoided students from same regions are given more marks but others not.
219	DEP	FEMALE	Provide a day care for the mothers who come with their babies.
220	DEP	MALE	Some of student teachers on their admissions tuition fee. For the year was 1,020,000= which was different from others so it is better to give out admissions with the same amount of money otherwise things were very fine with me.
221	DEP	FEMALE	1) Let the modules be given to students in time and let the faculty be patient with those who do not have cleared fees dues by the time of clearance. 2) Let the University stick on the fees dues which are written on the admission forms. Not un-necessary increments. 3) The lecturers are ever prepared and willing to teach. The admission reads.
222	DEP	MALE	Lack of guidelines about the use of computers in teaching and learning different subjects" (Learner 198); "Accessing ICT is still a problem yet students from far expect to have their service skills to illustrate visible change after leaving the university.
223	DEP	FEMALE	The faculty promised to teach us (some) computers but the course has ended when nothing has taken place. So if possible let the University at least call for those who wish and teach team but on free cost because we were entitled to it, but it is the University which did not provide time. I will be happy for a positive response. 3) In all sessions, some students have been missing modules due to inadequate communication.

Learner	Programme	Gender	Response
224	DEP	FEMALE	Sometime modules given are not for that specific semester in terms of topics and at times they are not distributed in time to some students. 2) Some lecturers do not give mobile numbers and instead give only emails yet some students do not have any knowledge on how to use them while others stay in areas which do not favour the use of emails, for example, no smart phone to use and still the village or local of the teacher do not have cafes and electricity.
225	DEP	FEMALE	What is taught in my area of study for example mathematics is not applicable in maths of primary and so the curriculum should be revised and try to simplify the issue.
226	DEP	MALE	The most content taught in mathematics is not applicable in primary system. So we request for a curriculum review for higher institutions in relation to the content. So, suitable content should be put in the curriculum.
227	DEP	MALE	Mathematics syllabus followed at UMU is less applicable in Primary Teaching and Learning. Therefore there is much need to review the curriculum syllabus taught to Diploma people at UMU. It could have been of importance to teach things that 80% appear in Primary Schools Curriculum/Syllabus.
228	DEP	FEMALE	Being creative, tolerant, during hard situations of practicing profession in various schools and an experience and trained personnel.
229	DEP	MALE	Science students should be allowed to access the science laboratory on various occasions as a way of enhancing practical teaching
231	DEP	FEMALE	The University to avail us with information about University privileges for highly performing students.
232	DEP	MALE	In order to support well the distance learning, at least a field support should be conducted two times a semester.
235	DEP	FEMALE	No! I do not remember any as per now.
236	DEP	MALE	More time is required for face to face lessons with the lecturers to fully exhaust the modules. Two days are insufficient.
237	DEP	FEMALE	Something important is that we have been given enough time for writing course work and face to face.
238	DEP	FEMALE	1. Face to face sessions are given less period of time. 2. Computer Literacy is not developed yet we are in a global change to computer knowledge.

Learner	Programme	Gender	Response
239	DEP	MALE	We should be given more time during the period for face-to-face in order to interact more with our facilitators before sitting for final exams.
243	DEP	MALE	Computer lessons should also be conducted in addition, more time for face to face is needed.
244	DEP	FEMALE	There should be more guidance on Research Proposal.
246	DEP	FEMALE	Church services are given every day/morning by the University Chaplain and those services are helpful because they pray for success and hope in everything
247	DEP	MALE	More time should be added for face to face program so that we can master the content in modules.
248	DEP	MALE	Thanks to the University for the quality services rendered however, I would request the senate to be lenient on the side of tuition.
249	DEP	MALE	Providing enough time for students to carry out their course work. 2) The University should provide students with some modules for easy approach of questions during face to face meetings and also discussions with fellow friends.
250	DEP	MALE	The University should decentralise or take this programme up country for ease of access mostly Teso sub region.
252	DEP	FEMALE	Give more assistance to learners on using computers which are available.
253	DEP	MALE	Flexibility is required.
254	DEP	FEMALE	I would have loved to continue at UMU if the above is improved. I am very happy with the language and PES facilitators however, the music tutor should improve.
255	DEP	FEMALE	There is need for a 1 day break to prepare for examinations. Thank you.
256	DEP	FEMALE	The University should be parental in case someone has got a problem and has explained concerning tuition issues. In other words they should be patient.
257	DEP	FEMALE	The University has tackled most of the services. But only the answer scripts of examination are not given back to the students.
258	DEP	MALE	There is need to improve on the time schedule of distance learners because they have little time to concentrate yet they pay much tuition. So there is need to adjust for the betterment of others.
259	DEP	FEMALE	Accommodation should be provided at a low cost.
260	DEP	FEMALE	The way of distributing modules is really unfair. I missed receiving a module in my last semester and I was not helped at all

Learner	Programme	Gender	Response
261	DEP	FEMALE	1) Give enough guidance in writing a research proposal. 2) Hand out the modules in time. 3) Communication on time about retakes.
262	DEP	FEMALE	Lunch and accommodation should be provided by the University.
263	DEP	FEMALE	It would have been better if the University gave us free meals and accommodation because we are paying a lot of money for tuition.
274	DEP	MALE	Distance learning students should be given enough time during face to face session.
278	DEP	FEMALE	The University should be parental in case someone has got a problem and has explained concerning tuition issues.
281	DEP	FEMALE	Answer scripts of examination are not given back to the students.
286	DEP	MALE	There is need to improve on the time schedule of distance learners
289	DEP	MALE	Accommodation should be provided at a low cost.
291	DEP	MALE	The way of distributing modules is really unfair.
299	DEP	MALE	Provide meals and accommodation to the students for distance learning
301	DEP	MALE	I missed receiving a module in my last semester and I was not helped at all.
303	DEP	FEMALE	Payments to be reduced on registration.
304	DEP	FEMALE	I request the University to be sponsoring diploma students for their further learning in future.

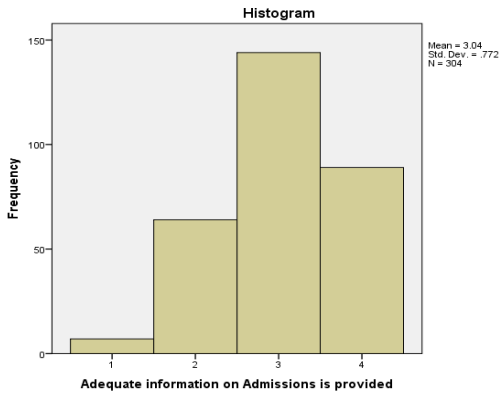
Appendix 13: Factor Matrix (Including All Factor Loadings)

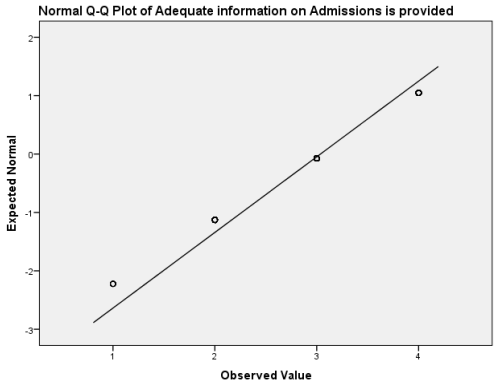
	Component			
	1	2	3	4
There is timely communication/information delivery	.581	-.224	-.166	-.018
Computers with Internet are availed	.577	-.335	-.282	-.259
Accessing Library Materials is easy	.573	-.301	-.349	-.265
Counselling and Guidance Services are given	.567	-.144	.256	.093
Timely feedback on coursework and exams	.565	.316	-.102	-.191
Career Development Programme is in place	.556	-.007	.390	-.171
Field support is given by Staff	.550	.148	-.072	-.077
Taught variety of teaching methods / Pedagogy support	.549	.192	.047	.070
Students are given test /examination taking tips	.548	.194	-.016	-.081
Suggestion Box is provided for Students	.543	-.298	.188	.106
Library use and information search orientation is given	.541	-.433	-.327	-.161
Special support is given to students with disabilities	.522	-.218	.297	-.110
Easy to receive regular communications	.522	-.190	-.213	-.083
Frequently asked questions and responses are given	.521	.067	-.151	.295
The University Website is user-friendly	.513	-.334	-.203	-.006
Students' Survival Success Course is in place	.512	-.045	.205	-.084
Students are given study tips / guides	.508	.208	-.023	.051
Introduced to new subject content	.504	.178	-.066	-.178
Instructors give comments on Coursework	.501	.194	-.145	-.330
There is effective School Practice supervision - Diploma	.492	.115	-.012	-.097
Modules and Coursework are given in time	.492	.118	-.160	-.052
Tips to write Professional Resumes are given	.472	.109	.413	-.196
Instructional Support/Face to face workshops organised	.467	.308	-.014	.214
Networking / Easy to interact with fellow learners	.461	.107	-.067	.004
Information on Alumni services is given	.456	.070	.301	-.108
There is use of group email to circulate information	.454	-.418	.080	.080
Course Evaluations are conducted	.451	.321	-.073	-.118
There is Time Management Skills enhancement session	.440	.310	.298	-.125
Hotline Phone Number is provided	.436	-.161	.153	.379
Orientation/Induction in distance education is provided	.433	.218	-.232	.175
Academic support/It is easy to access my instructions	.430	.312	-.120	.078
"Successful Start Learner" Workshop is organised	.420	.070	-.215	.143
Social Media is used in instruction (WhatsApp, Facebook)	.406	-.207	.199	-.333
Adequate information on Admissions is provided	.392	.199	-.241	.079
Registration process is clear and simple	.389	.146	-.162	.329
Accessible study centres up-country are in place	.344	-.041	.028	.236
Faculty/Student Handbook is provided	.312	.225	-.273	.149
Technology Training (Computer, Phones etc.) is provided	.363	-.563	-.108	-.025
There is provision of Quality Modules	.425	.472	-.161	-.154
Information on Scholarships/Financial aid is given	.389	-.391	.157	.050
Counselling Services are in place	.454	.094	.638	-.127
Counselling on further study after graduating is given	.259	.080	.421	.287
Functional Help desk after normal work time is in place	.382	-.052	.100	.477
Functional Help Desk after normal work time is in place	.416	-.132	.107	.445
Fees clearance process is clear and simple	.327	-.076	-.139	.406

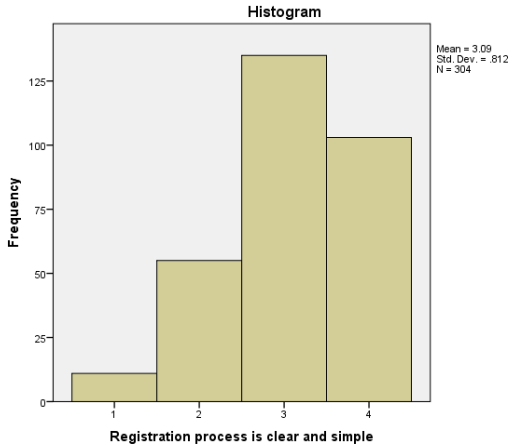
4 components extracted

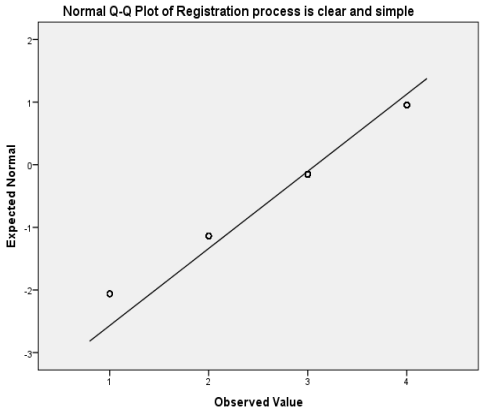
Note: Rotation converged in 13 iterations. Extraction Method: Principal Component Analysis Rotation Method with Kaiser Normalization.

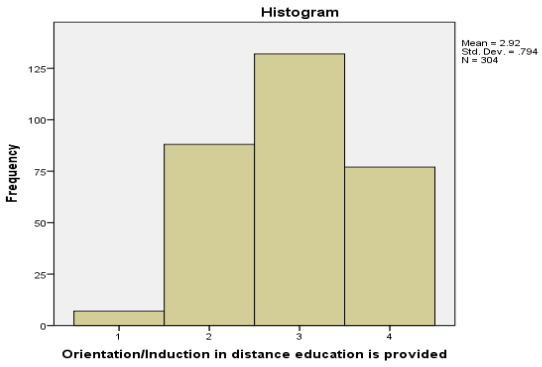
Appendix 14: Normality Plots with Tests and Histogram, and Q-Q Plots

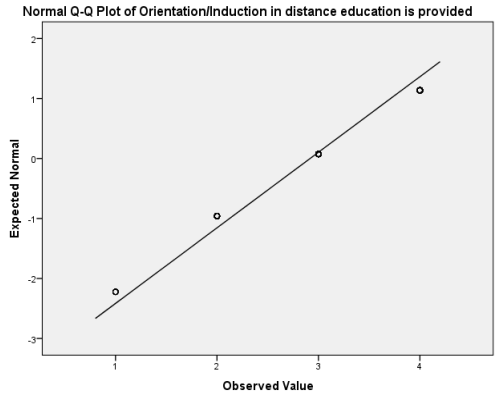


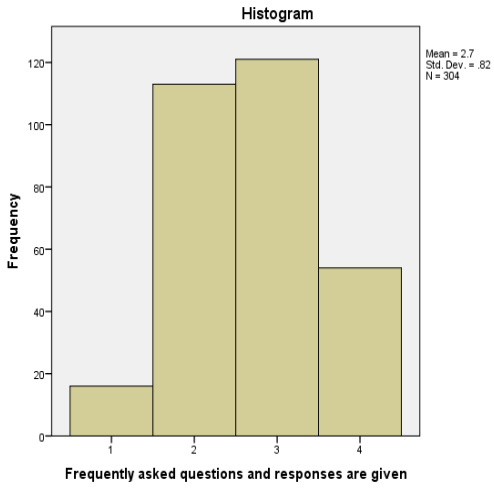


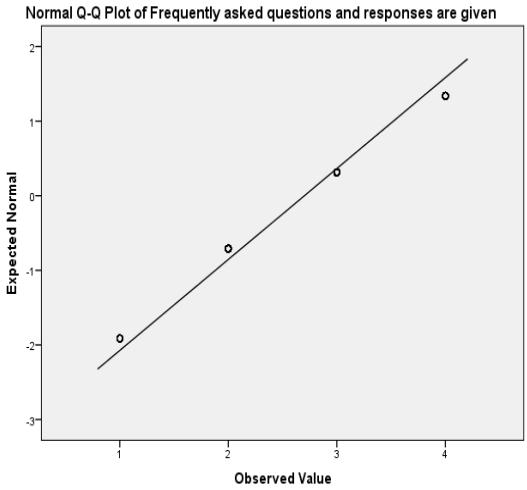


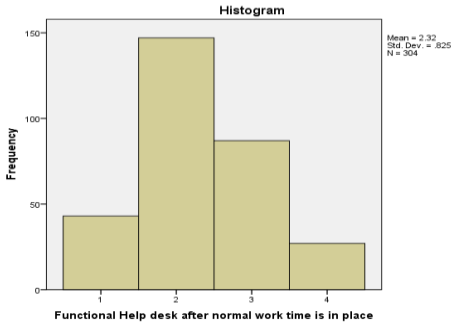


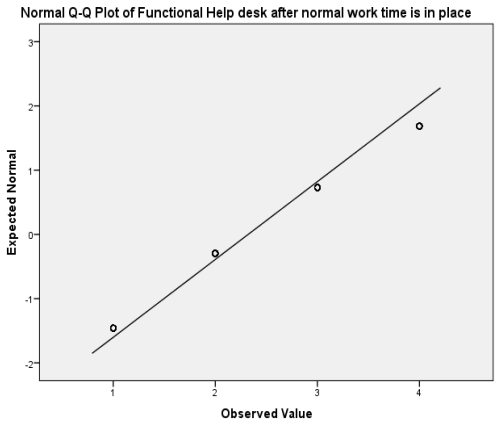


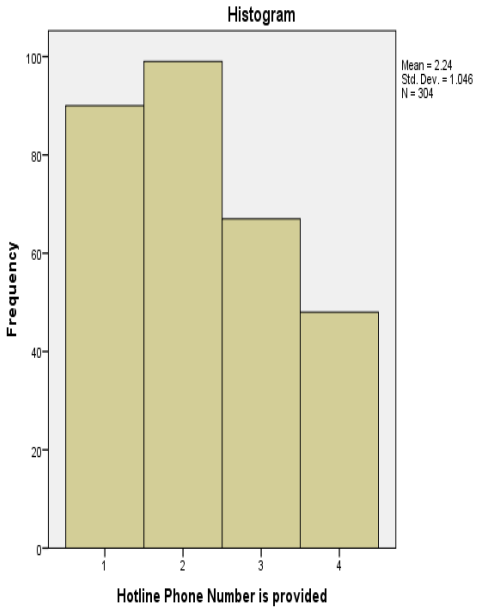


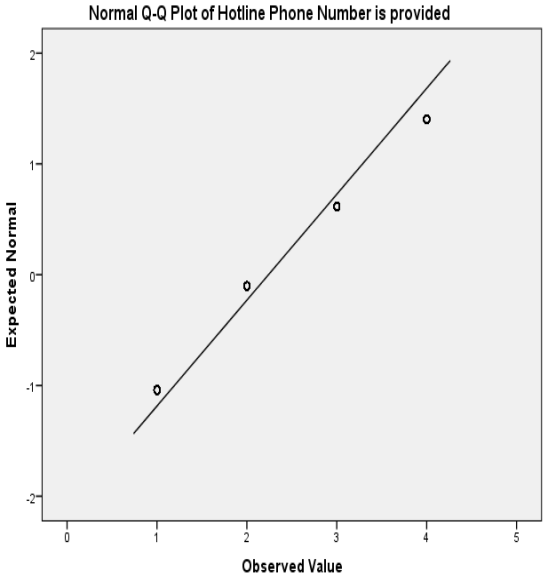

Histogram
Mean = 2.7
Std. Dev. = .82
N = 304
Frequency
Frequently asked questions and responses are given

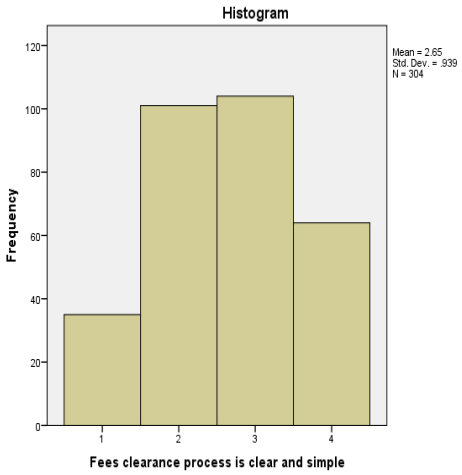

Normal Q-Q Plot of Frequently asked questions and responses are given
Expected Normal
Observed Value

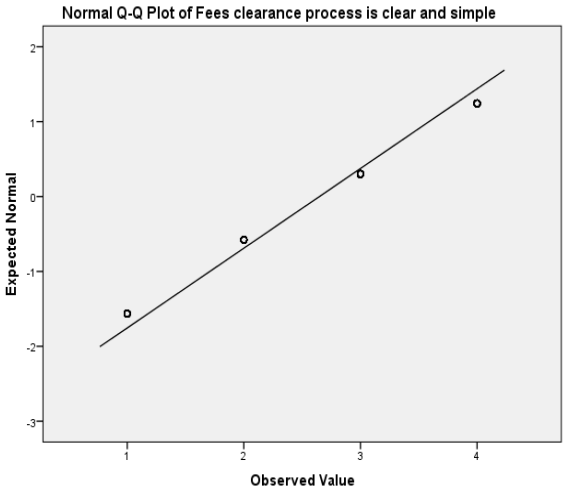

Histogram
Mean = 2.32
Std. Dev. = .825
N = 304
Frequency
Functional Help desk after normal work time is in place

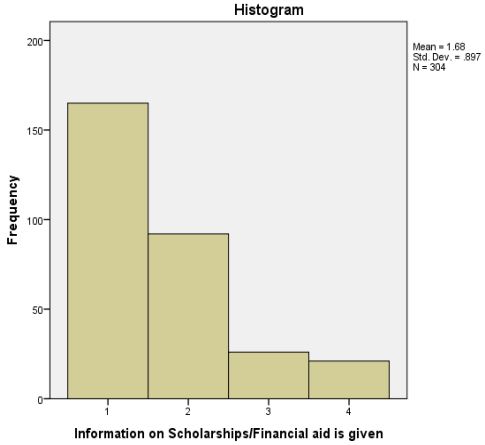

Normal Q-Q Plot of Functional Help desk after normal work time is in place
Expected Normal
Observed Value

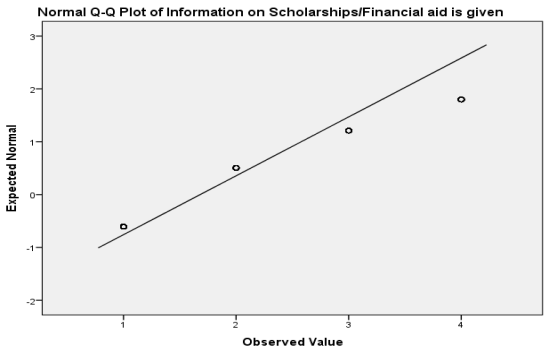

Histogram
Mean = 2.24
Std. Dev. = 1.046
N = 304
Frequency
Hotline Phone Number is provided

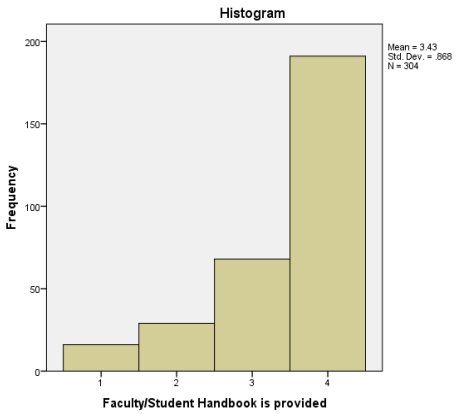

Normal Q-Q Plot of Hotline Phone Number is provided
Expected Normal
Observed Value

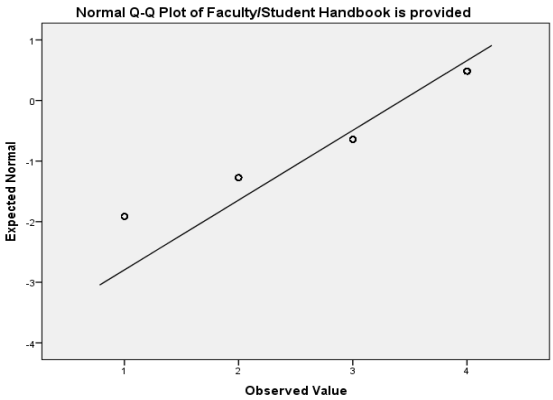

Histogram
Mean = 2.65
Std. Dev. = .939
N = 304
Frequency
Fees clearance process is clear and simple

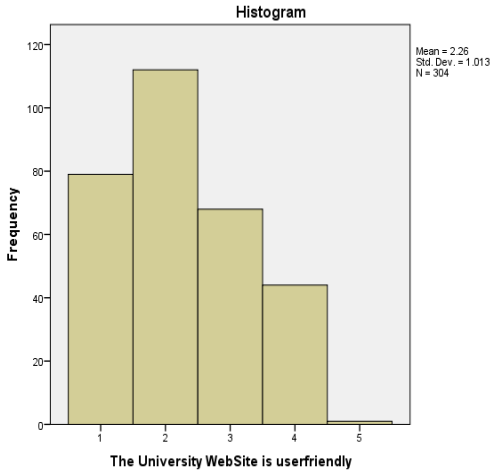

Normal Q-Q Plot of Fees clearance process is clear and simple
Expected Normal
Observed Value

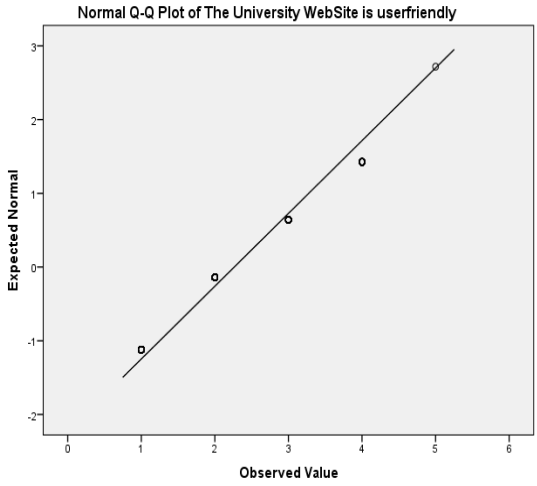

Histogram
Mean = 1.68
Std. Dev. = .897
N = 304
Frequency
Information on Scholarships/Financial aid is given

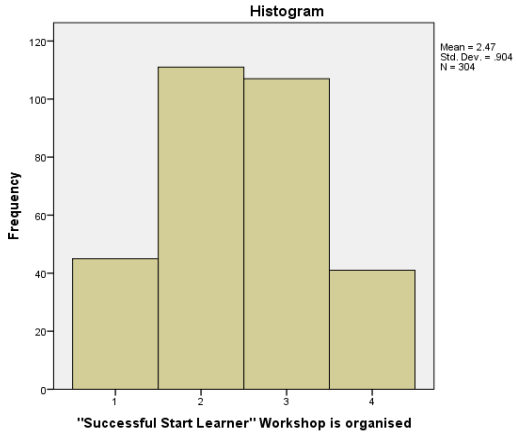

Normal Q-Q Plot of Information on Scholarships/Financial aid is given
Expected Normal
Observed Value

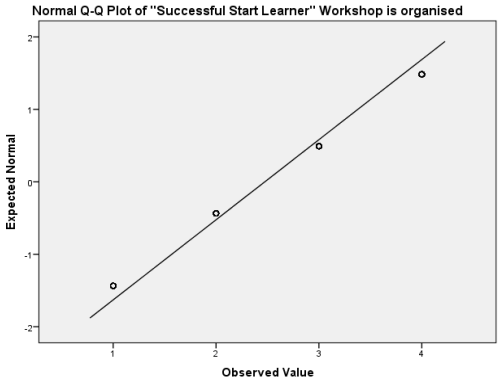

Histogram
Mean = 3.43
Std. Dev. = .868
N = 304
Frequency
Faculty/Student Handbook is provided

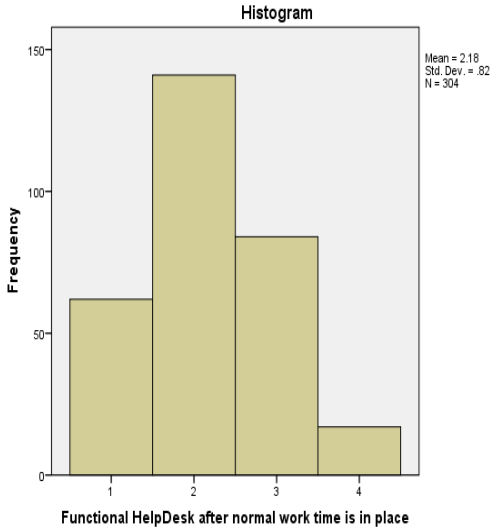

Normal Q-Q Plot of Faculty/Student Handbook is provided
Expected Normal
Observed Value

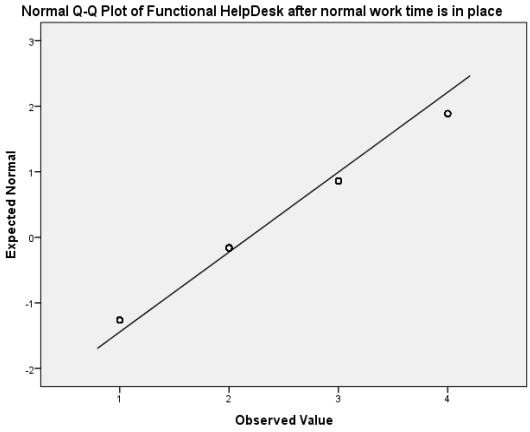

Histogram
Mean = 2.26
Std. Dev. = 1.013
N = 304
Frequency
The University WebSite is userfriendly

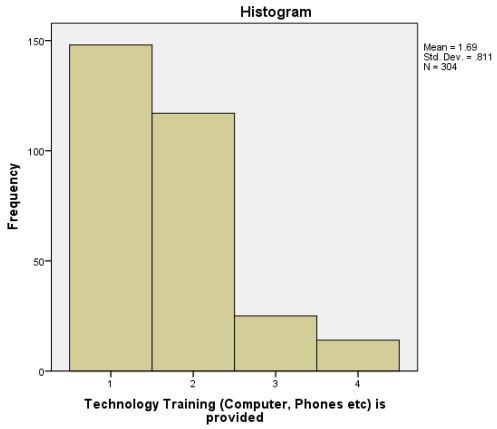

Normal Q-Q Plot of The University WebSite is userfriendly
Expected Normal
Observed Value

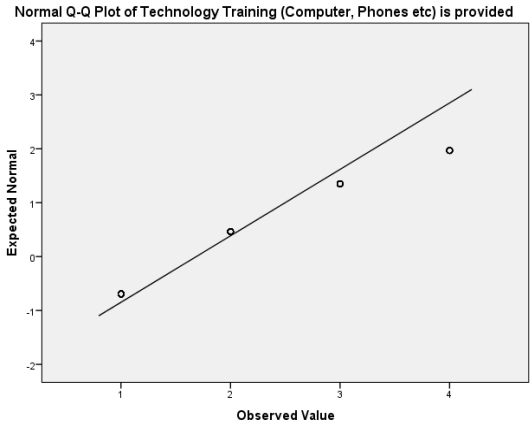

Histogram
Mean = 2.47
Std. Dev. = .904
N = 304
Frequency
"Successful Start Learner" Workshop is organised

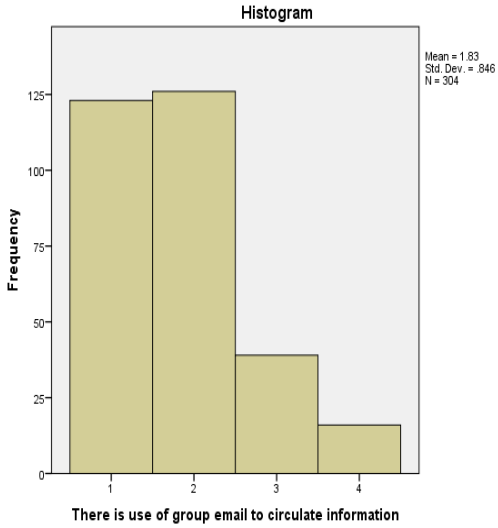

Normal Q-Q Plot of "Successful Start Learner" Workshop is organised
Expected Normal
Observed Value

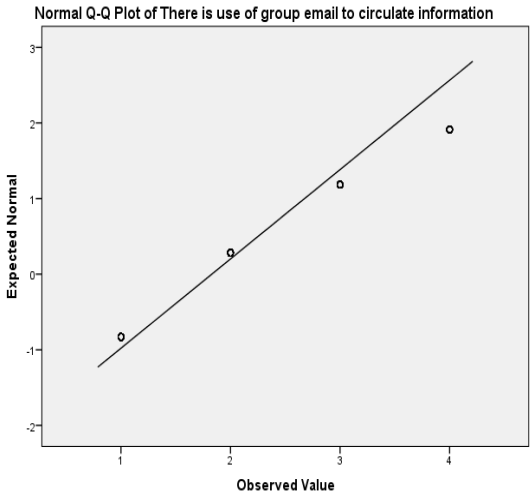

Histogram
Mean = 2.18
Std. Dev. = .82
N = 304
Frequency
Functional HelpDesk after normal work time is in place

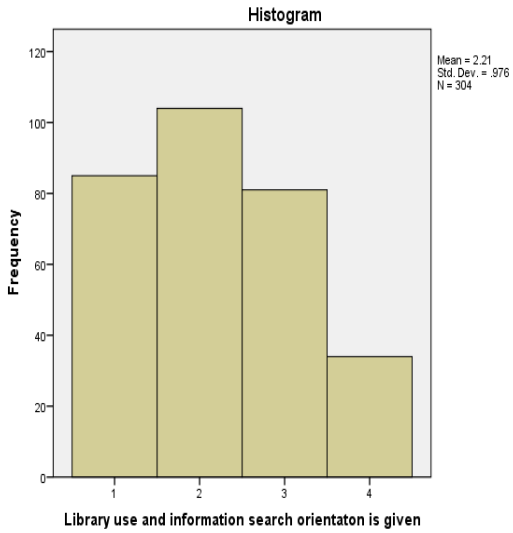

Normal Q-Q Plot of Functional HelpDesk after normal work time is in place
Expected Normal
Observed Value

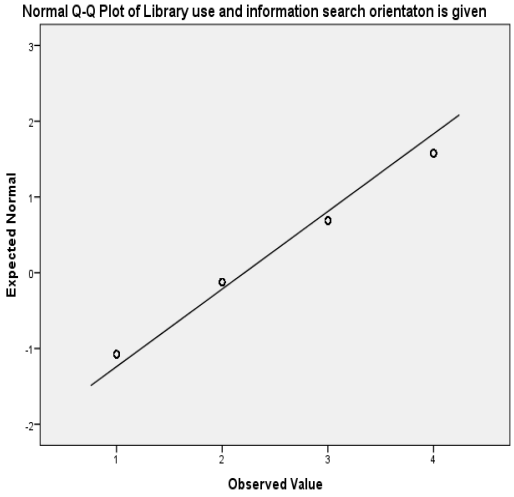

Histogram
Mean = 1.69
Std. Dev. = .811
N = 304
Frequency
Technology Training (Computer, Phones etc) is provided

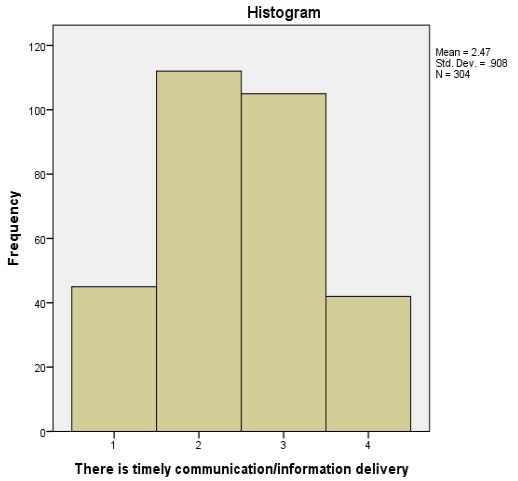

Normal Q-Q Plot of Technology Training (Computer, Phones etc) is provided
Expected Normal
Observed Value

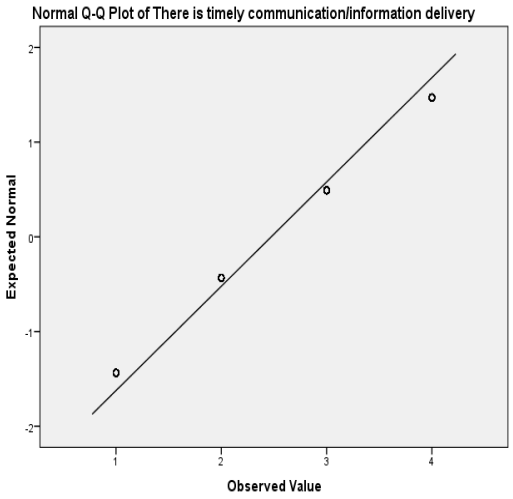

Histogram
Mean = 1.83
Std. Dev. = .846
N = 304
Frequency
There is use of group email to circulate information

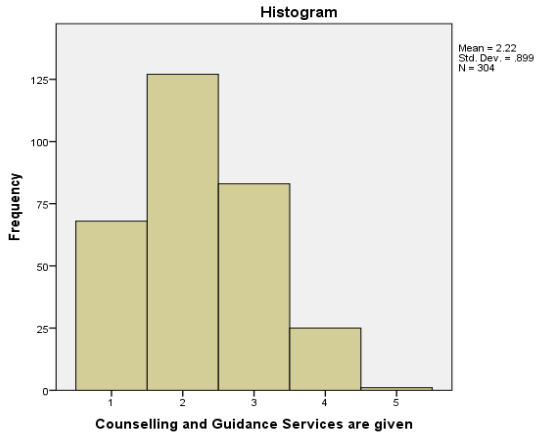

Normal Q-Q Plot of There is use of group email to circulate information
Expected Normal
Observed Value

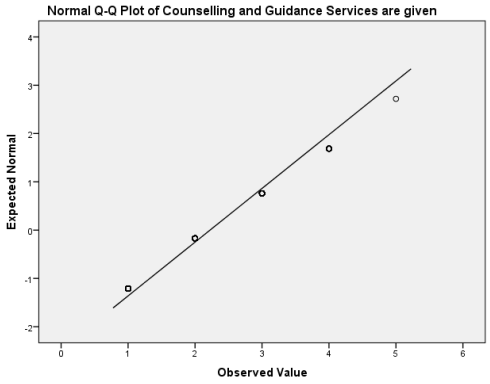

Histogram
Mean = 2.21
Std. Dev. = .976
N = 304
Frequency
Library use and information search orientaton is given

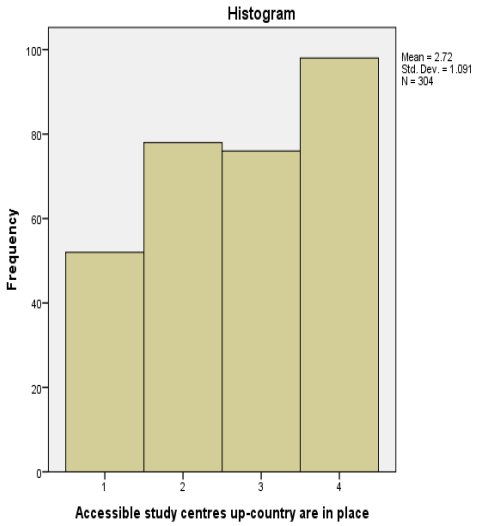

Normal Q-Q Plot of Library use and information search orientaton is given
Expected Normal
Observed Value

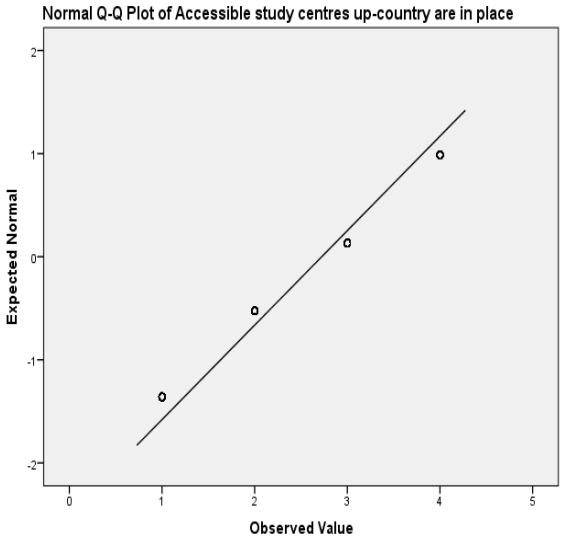

Histogram
Mean = 2.47
Std. Dev. = .908
N = 304
Frequency
There is timely communication/information delivery

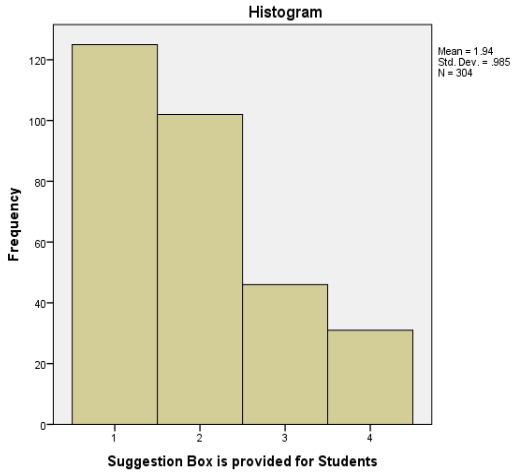

Normal Q-Q Plot of There is timely communication/information delivery
Expected Normal
Observed Value

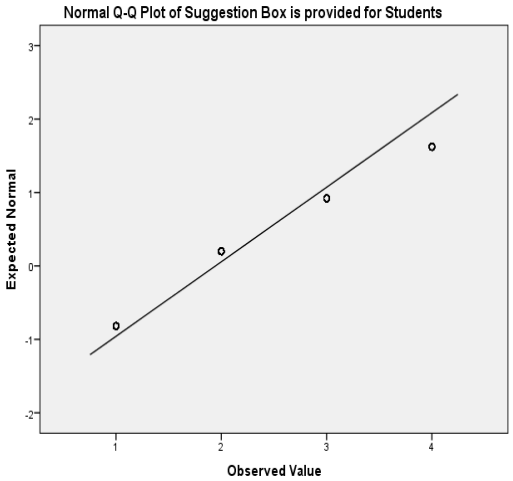

Histogram
Mean = 2.22
Std. Dev. = .899
N = 304
Frequency
Counselling and Guidance Services are given

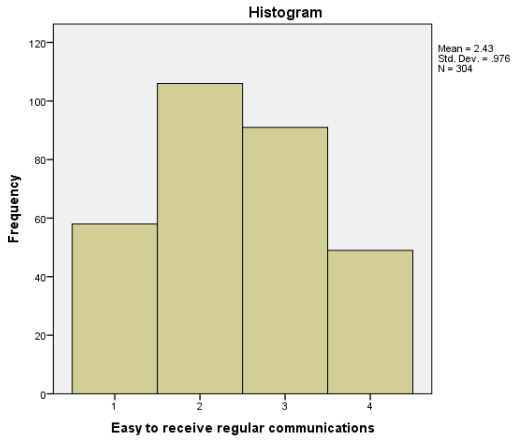

Normal Q-Q Plot of Counselling and Guidance Services are given
Expected Normal
Observed Value

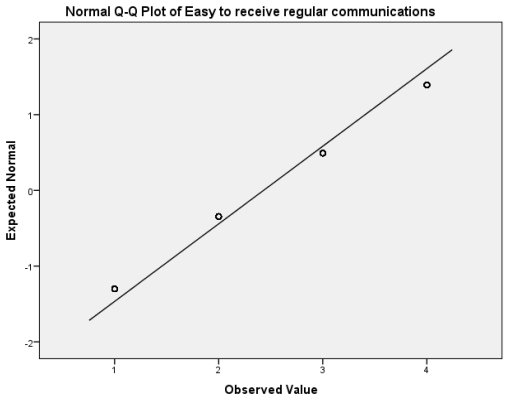

Histogram
Mean = 2.72
Std. Dev. = 1.091
N = 304
Frequency
Accessible study centres up-country are in place

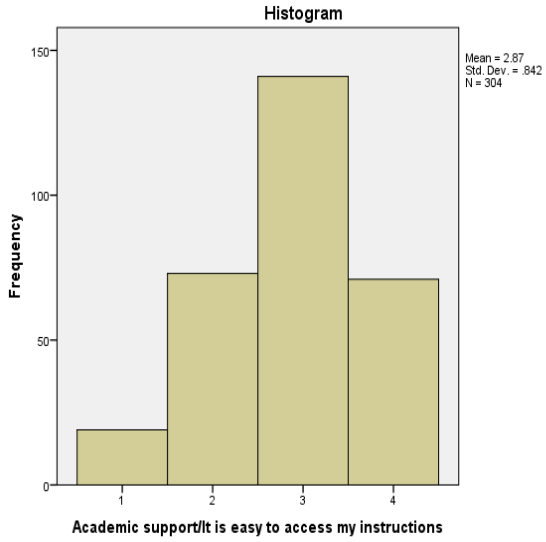

Normal Q-Q Plot of Accessible study centres up-country are in place
Expected Normal
Observed Value

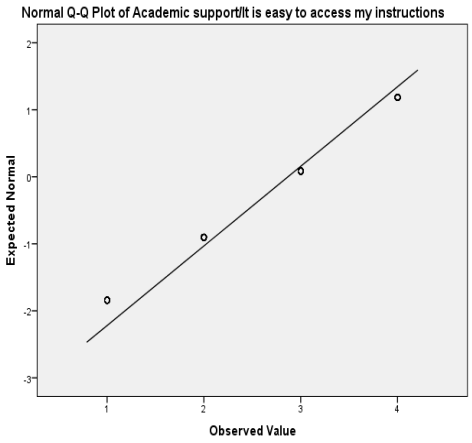

Histogram
Mean = 1.94
Std. Dev. = .985
N = 304
Frequency
Suggestion Box is provided for Students

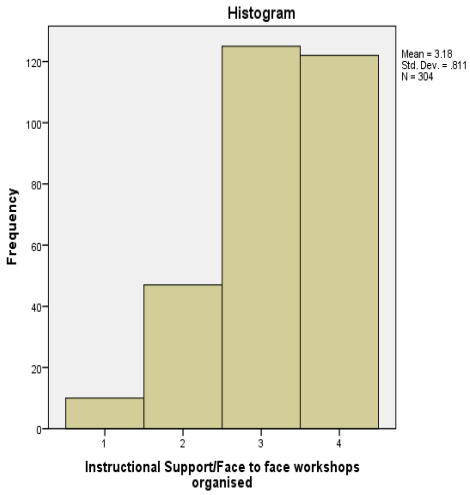

Normal Q-Q Plot of Suggestion Box is provided for Students
Expected Normal
Observed Value

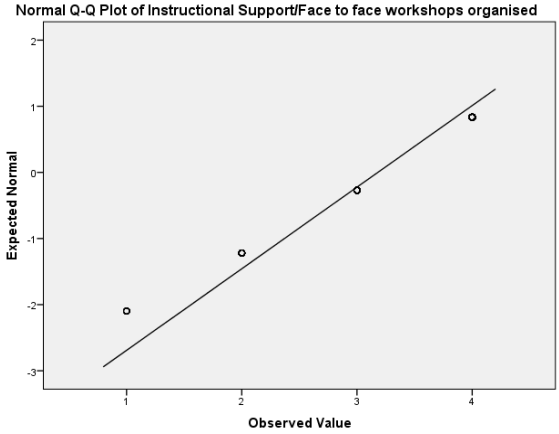

Histogram
Mean = 2.43
Std. Dev. = .976
N = 304
Frequency
Easy to receive regular communications

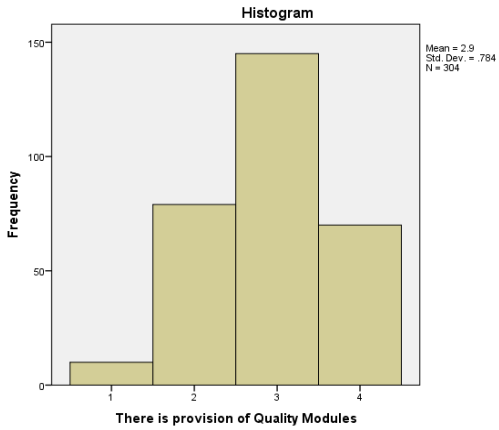

Normal Q-Q Plot of Easy to receive regular communications
Expected Normal
Observed Value

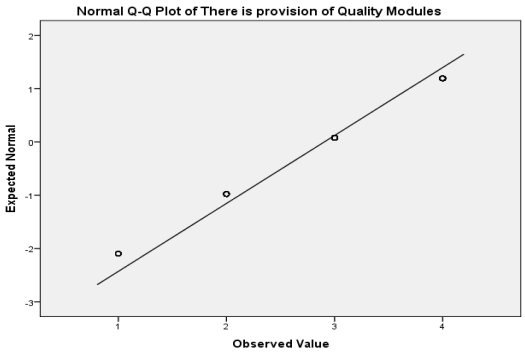

Histogram
Mean = 2.87
Std. Dev. = .842
N = 304
Frequency
Academic support/It is easy to access my instructions

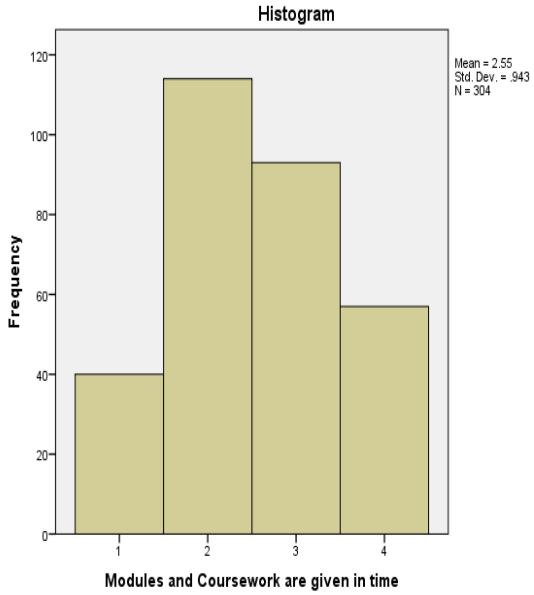

Normal Q-Q Plot of Academic support/It is easy to access my instructions
Expected Normal
Observed Value

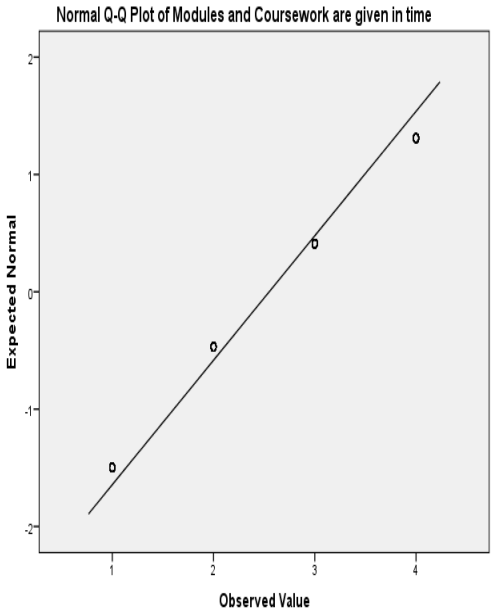

Histogram
Mean = 3.18
Std. Dev. = .811
N = 304
Frequency
Instructional Support/Face to face workshops organised

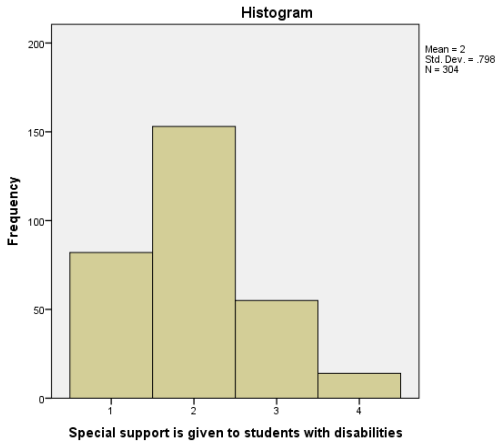

Normal Q-Q Plot of Instructional Support/Face to face workshops organised
Expected Normal
Observed Value

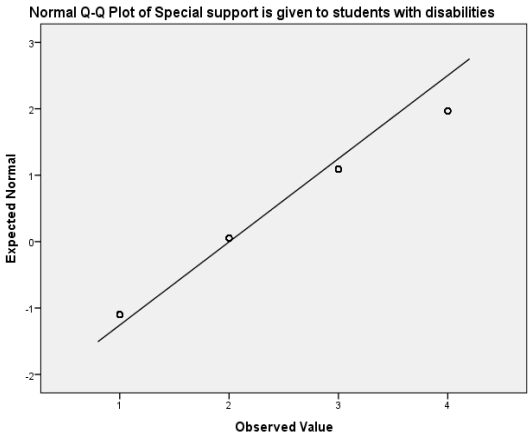

Histogram
Mean = 2.9
Std. Dev. = .784
N = 304
Frequency
There is provision of Quality Modules

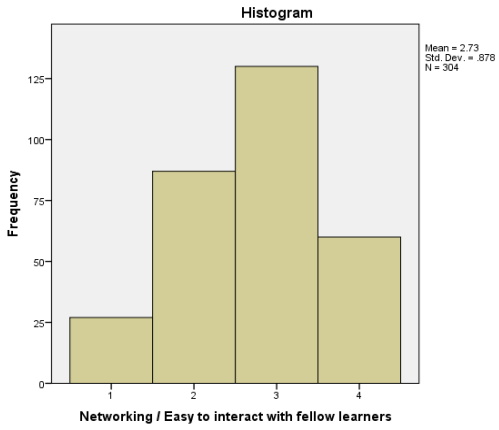

Normal Q-Q Plot of There is provision of Quality Modules
Expected Normal
Observed Value

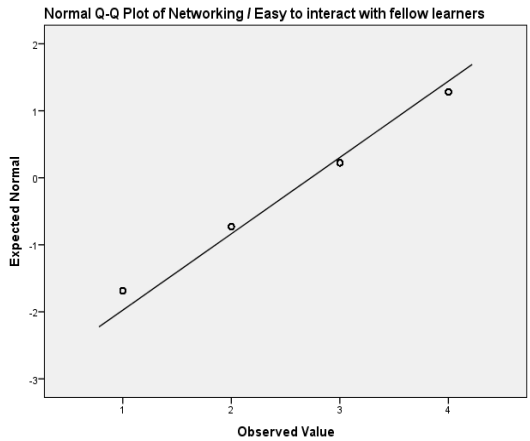

Histogram
Mean = 2.55
Std. Dev. = .943
N = 304
Frequency
Modules and Coursework are given in time

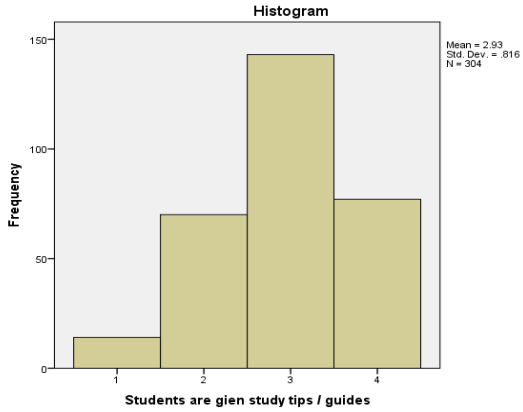

Normal Q-Q Plot of Modules and Coursework are given in time
Expected Normal
Observed Value

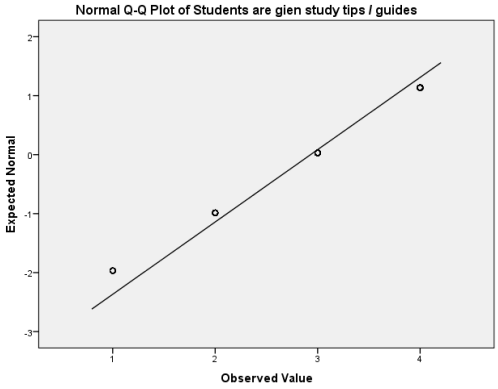

Histogram
Mean = 2
Std. Dev. = .798
N = 304
Frequency
Special support is given to students with disabilities

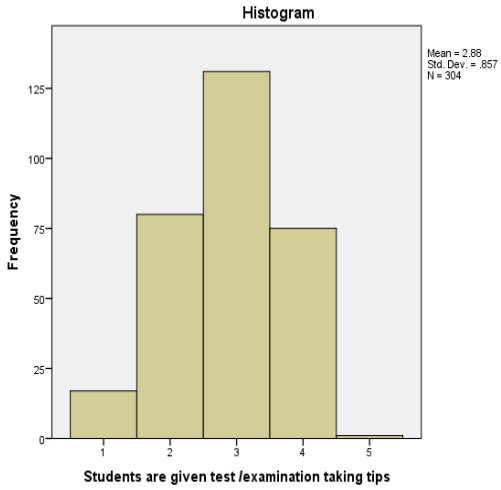

Normal Q-Q Plot of Special support is given to students with disabilities
Expected Normal
Observed Value

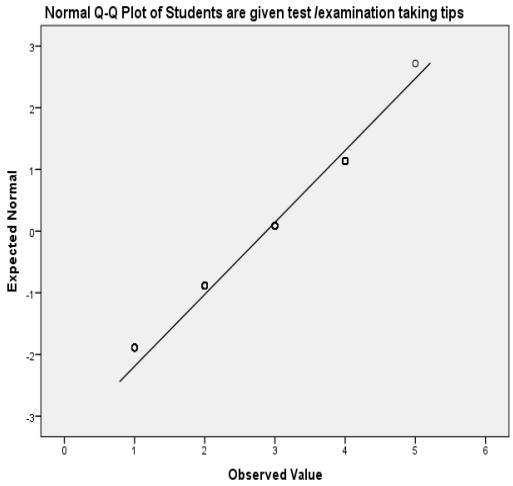

Histogram
Mean = 2.73
Std. Dev. = .878
N = 304
Frequency
Networking / Easy to interact with fellow learners

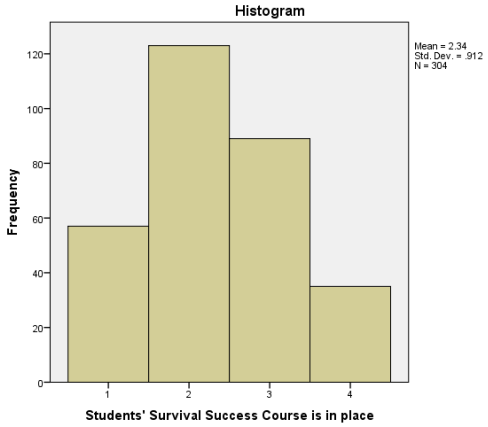

Normal Q-Q Plot of Networking / Easy to interact with fellow learners
Expected Normal
Observed Value

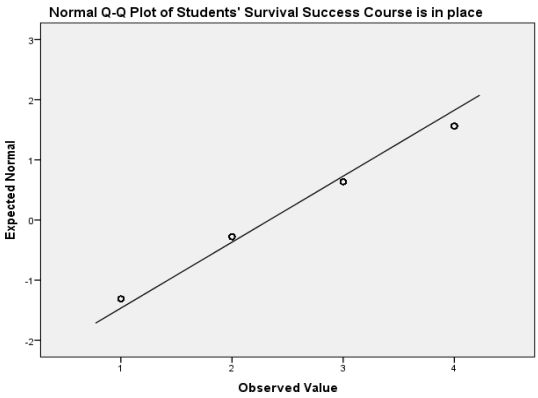

Histogram
Mean = 2.93
Std. Dev. = .816
N = 304
Frequency
Students are gien study tips / guides

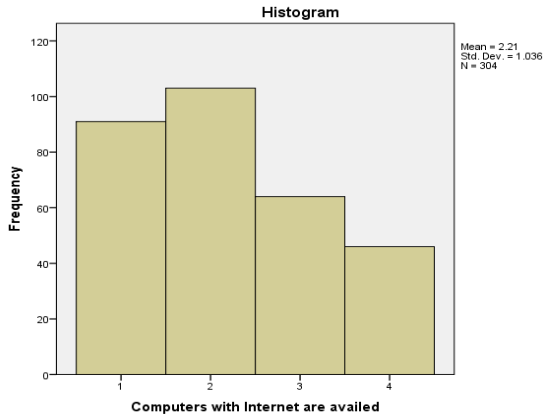

Normal Q-Q Plot of Students are gien study tips / guides
Expected Normal
Observed Value

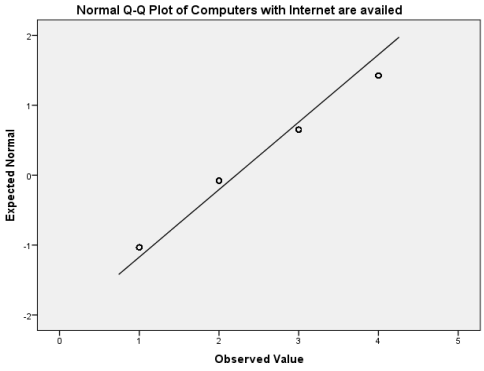

Histogram
Mean = 2.88
Std. Dev. = .857
N = 304
Frequency
Students are given test /examination taking tips

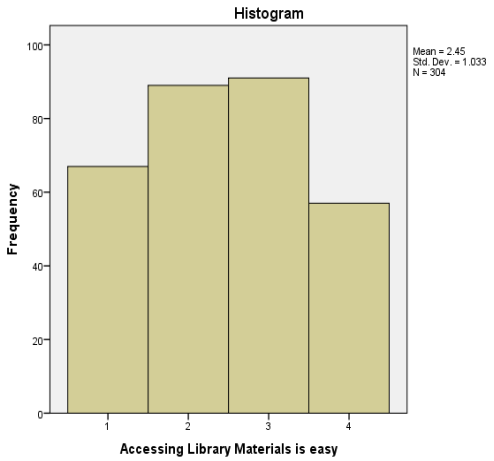

Normal Q-Q Plot of Students are given test /examination taking tips
Expected Normal
Observed Value

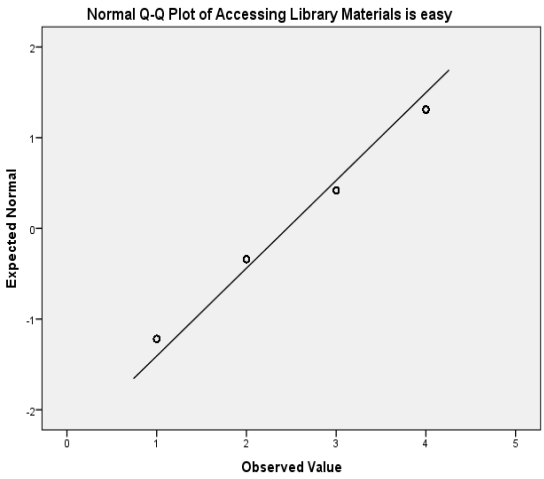

Histogram
Mean = 2.34
Std. Dev. = .912
N = 304
Frequency
Students' Survival Success Course is in place

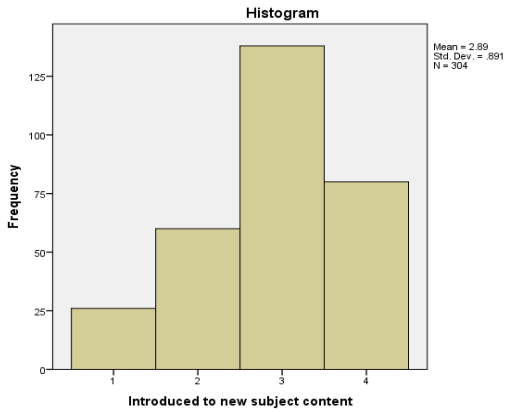

Normal Q-Q Plot of Students' Survival Success Course is in place
Expected Normal
Observed Value

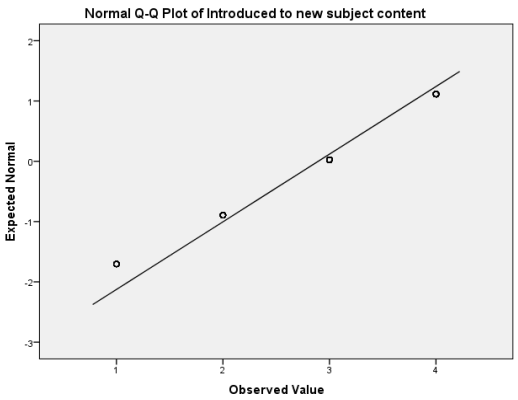

Histogram
Mean = 2.21
Std. Dev. = 1.036
N = 304
Frequency
Computers with Internet are availed

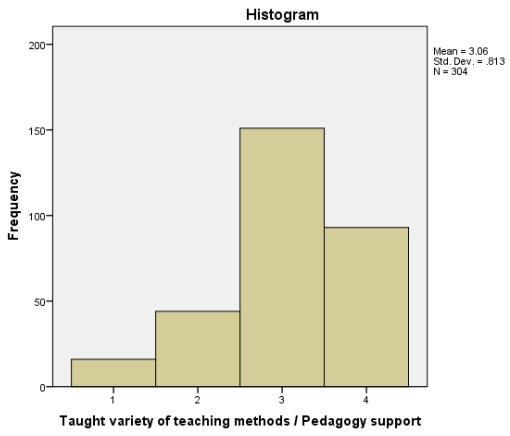

Normal Q-Q Plot of Computers with Internet are availed
Expected Normal
Observed Value

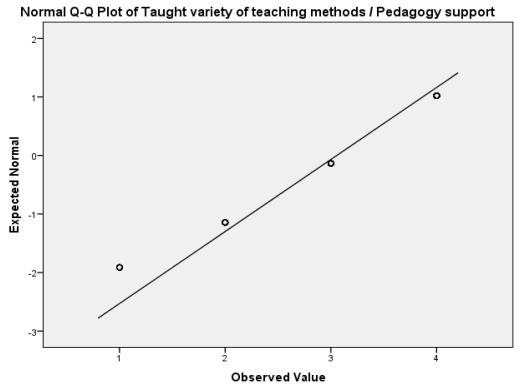

Histogram
Mean = 2.45
Std. Dev. = 1.033
N = 304
Frequency
Accessing Library Materials is easy

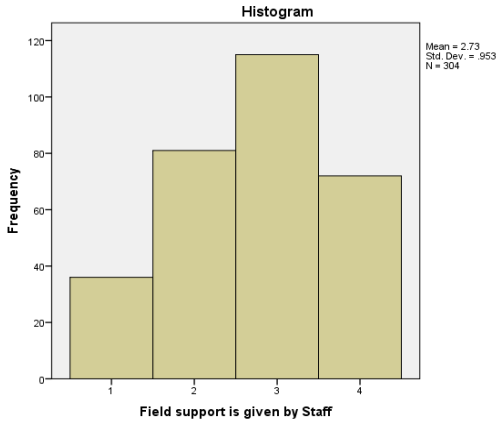

Normal Q-Q Plot of Accessing Library Materials is easy
Expected Normal
Observed Value

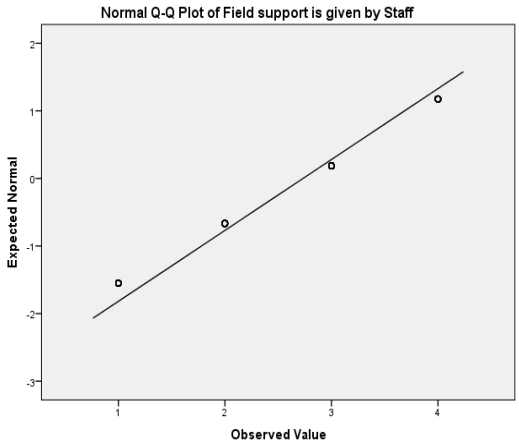

Histogram
Mean = 2.89
Std. Dev. = .891
N = 304
Frequency
Introduced to new subject content

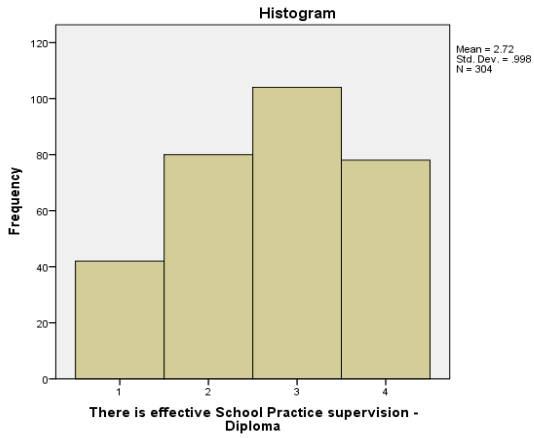

Normal Q-Q Plot of Introduced to new subject content
Expected Normal
Observed Value

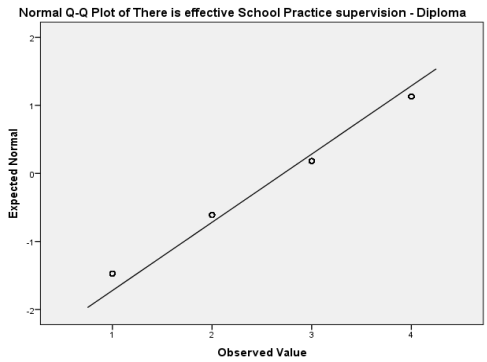

Histogram
Mean = 3.06
Std. Dev. = .813
N = 304
Frequency
Taught variety of teaching methods / Pedagogy support

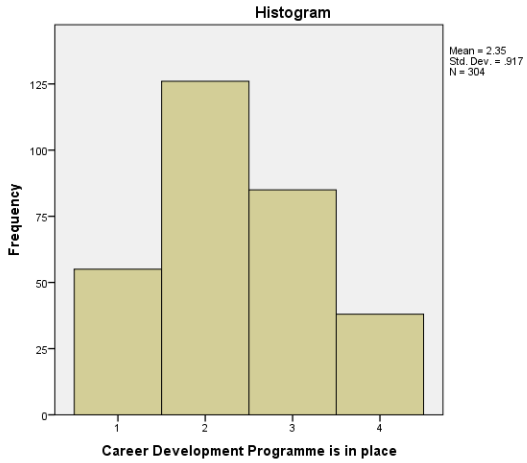

Normal Q-Q Plot of Taught variety of teaching methods / Pedagogy support
Expected Normal
Observed Value

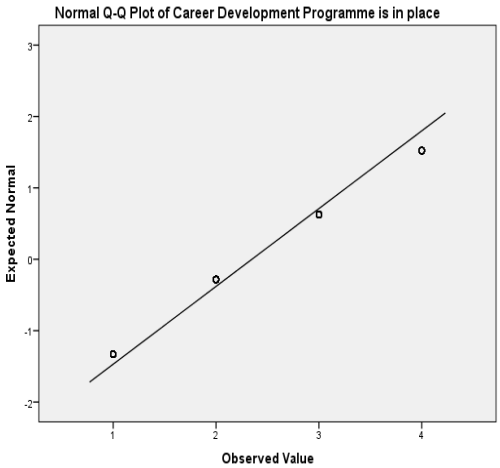

Histogram
Mean = 2.73
Std. Dev. = .953
N = 304
Frequency
Field support is given by Staff

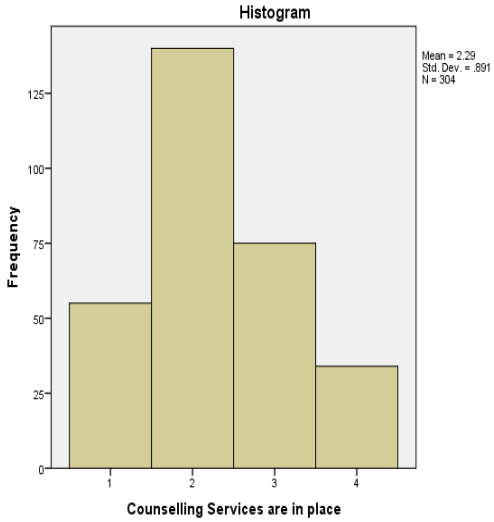

Normal Q-Q Plot of Field support is given by Staff
Expected Normal
Observed Value

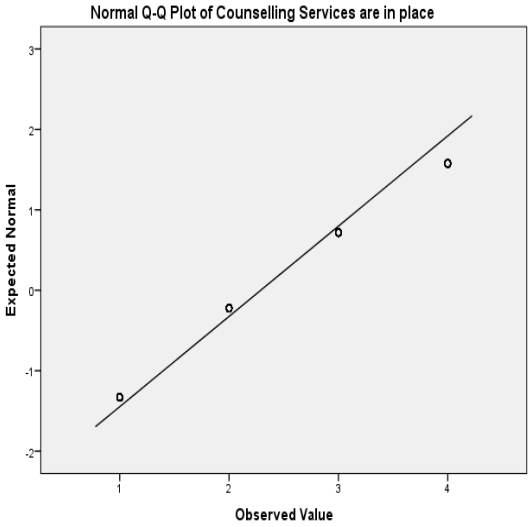

Histogram
Mean = 2.72
Std. Dev. = .998
N = 304
Frequency
There is effective School Practice supervision - Diploma

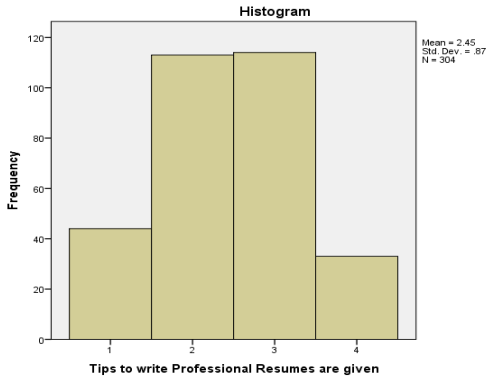

Normal Q-Q Plot of There is effective School Practice supervision - Diploma
Expected Normal
Observed Value

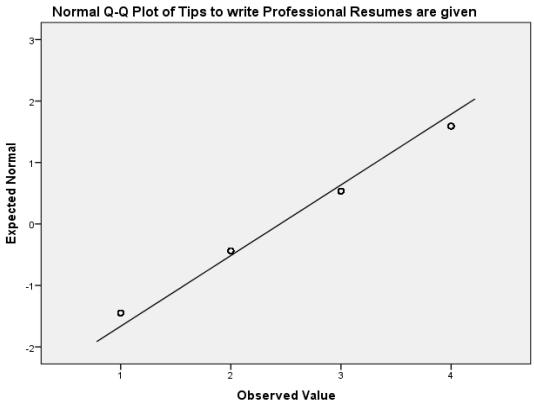

Histogram
Mean = 2.35
Std. Dev. = .917
N = 304
Frequency
Career Development Programme is in place

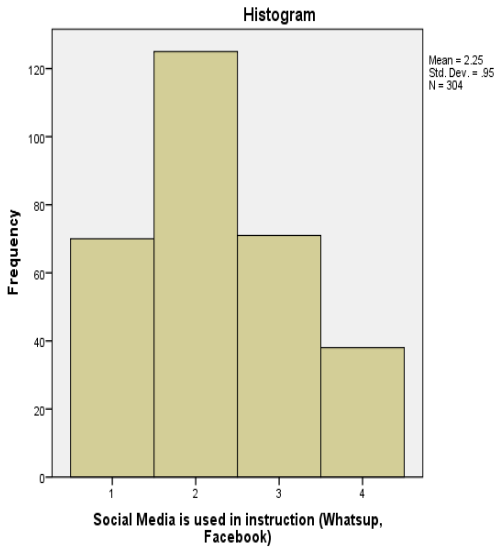

Normal Q-Q Plot of Career Development Programme is in place
Expected Normal
Observed Value

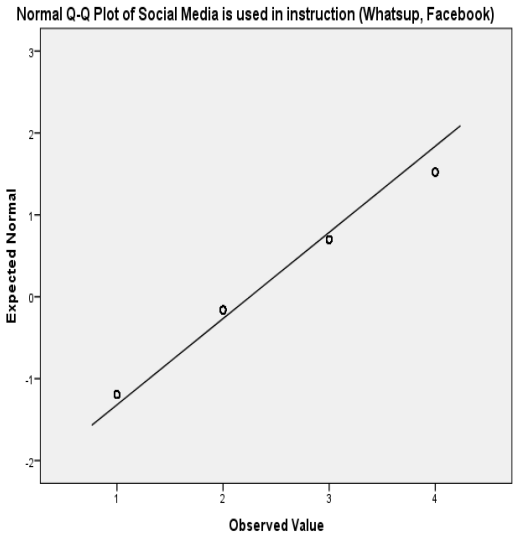

Histogram
Mean = 2.29
Std. Dev. = .891
N = 304
Frequency
Counselling Services are in place

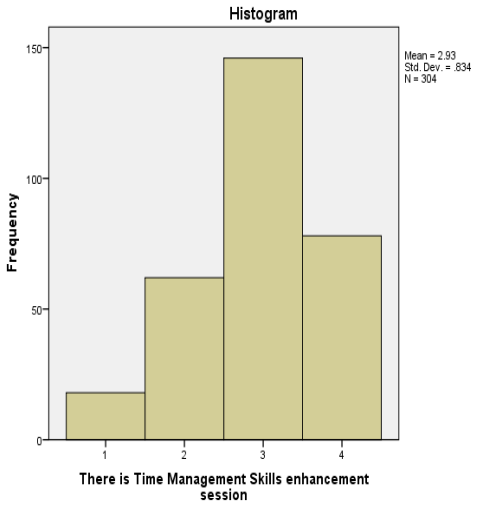

Normal Q-Q Plot of Counselling Services are in place
Expected Normal
Observed Value

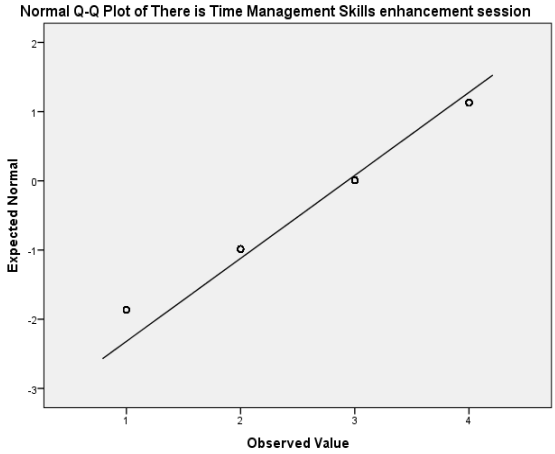

Histogram
Mean = 2.45
Std. Dev. = .87
N = 304
Frequency
Tips to write Professional Resumes are given

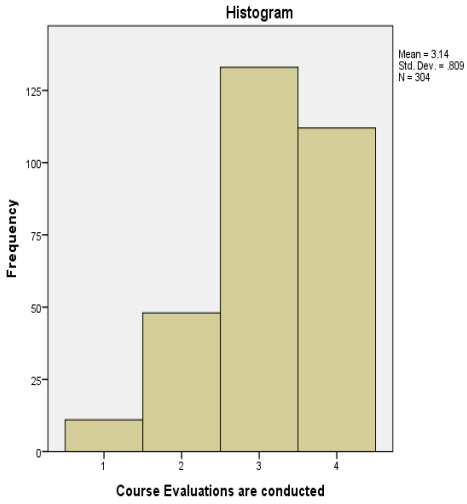

Normal Q-Q Plot of Tips to write Professional Resumes are given
Expected Normal
Observed Value

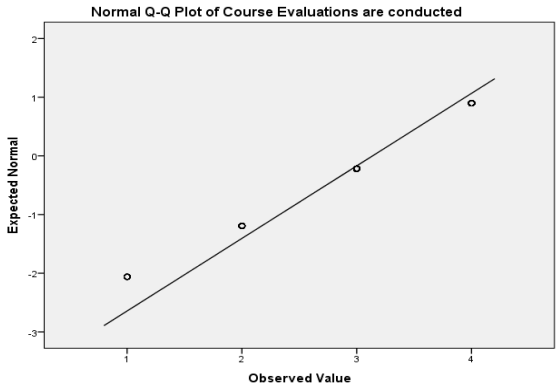

Histogram
Mean = 2.25
Std. Dev. = .95
N = 304
Frequency
Social Media is used in instruction (Whatsup, Facebook)

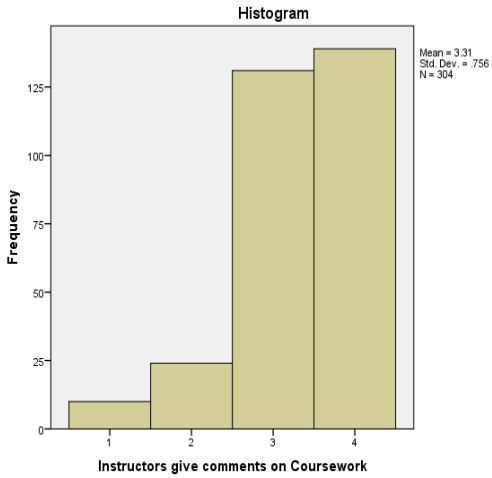

Normal Q-Q Plot of Social Media is used in instruction (Whatsup, Facebook)
Expected Normal
Observed Value

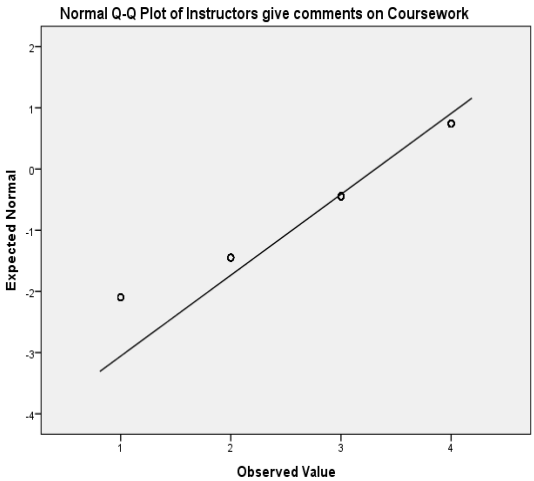

Histogram
Mean = 2.93
Std. Dev. = .834
N = 304
Frequency
There is Time Management Skills enhancement session

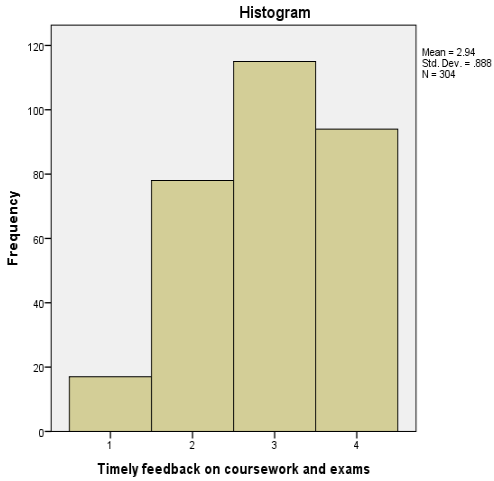

Normal Q-Q Plot of There is Time Management Skills enhancement session
Expected Normal
Observed Value

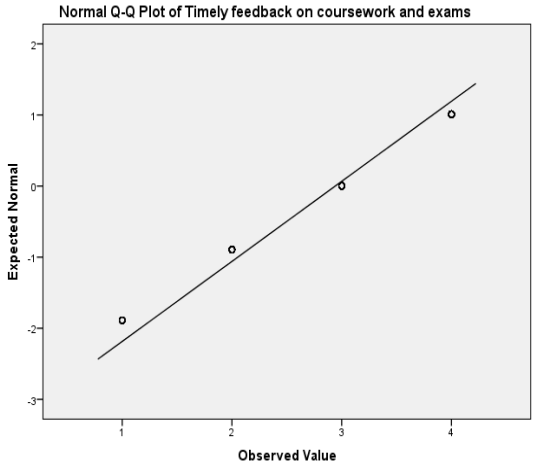

Histogram
Mean = 3.14
Std. Dev. = .809
N = 304
Frequency
Course Evaluations are conducted

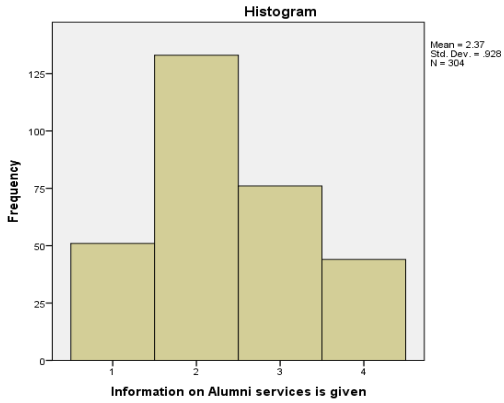

Normal Q-Q Plot of Course Evaluations are conducted
Expected Normal
Observed Value

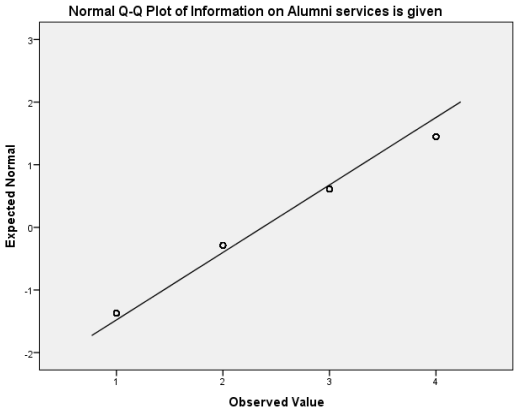

Histogram
Mean = 3.31
Std. Dev. = .756
N = 304
Frequency
Instructors give comments on Coursework

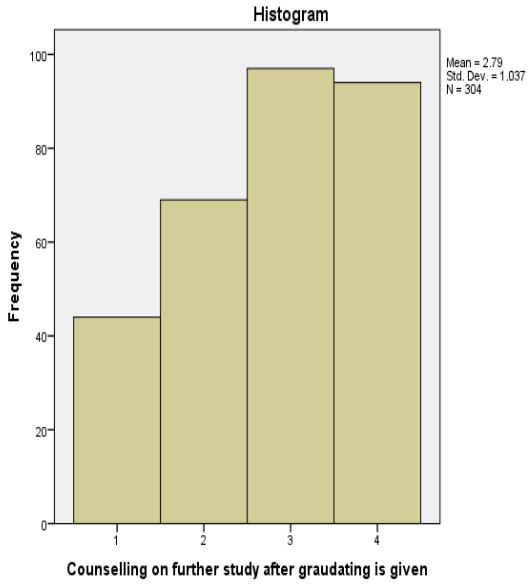

Normal Q-Q Plot of Instructors give comments on Coursework
Expected Normal
Observed Value

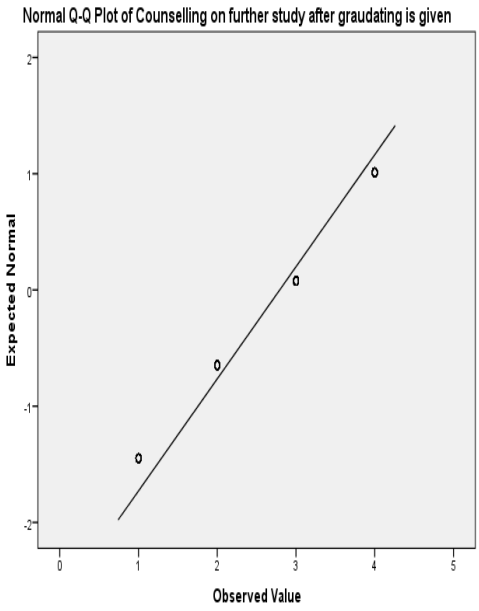

Histogram
Mean = 2.94
Std. Dev. = .888
N = 304
Frequency
Timely feedback on coursework and exams


Normal Q-Q Plot of Timely feedback on coursework and exams
Expected Normal
Observed Value


Histogram
Mean = 2.37
Std. Dev. = .928
N = 304
Frequency
Information on Alumni services is given


Normal Q-Q Plot of Information on Alumni services is given
Expected Normal
Observed Value


Histogram
Mean = 2.79
Std. Dev. = 1.037
N = 304
Frequency
Counselling on further study after graudating is given


Normal Q-Q Plot of Counselling on further study after graudating is given
Expected Normal
Observed Value

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