

**INFLUENCE OF LEARNER CHARACTERISTICS ON TEACHERS' PARTICIPATION
IN OPEN AND DISTANCE LEARNING:
THE CASE OF MBARUK ZONE, NAKURU COUNTY, KENYA.**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT FOR
THE REQUIREMENTS FOR THE AWARD OF MASTER IN DISTANCE EDUCATION
OF THE UNIVERSITY OF NAIROBI.**

NOVEMBER 2015

DECLARATION

This research project report is my original work and has not been submitted for any award in any other university.

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L45/72880/2014

This research project report has been submitted with my approval as the university supervisor

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DEDICATION

I dedicate this work to my wife Ann, my daughter Joy and sons Daniel and James. Thanks for loving and supporting me in the whole process of writing this project.

God bless you abundantly.

ACKNOWLEDGEMENT

I wish to express my great appreciation to my university supervisor Dr. Naomi Gikonyo for her tireless effort in taking me through each step in this research project. She was always available for me. Her wisdom and expansive experience has been of great help to my work.

I also wish to appreciate the University of Nairobi for offering the Master in Distance Education Degree Course which has opened an opportunity for me to further my studies. In particular I wish to acknowledge the Dean, School of Continuing and Distance Studies for ensuring that distance learners get quality education with well-established learner support system. I am also very grateful to the chairman and all the members of the Department of Distance Studies whom I have been in contact with in the course of my Studies and from whom I have acquired a lot of knowledge.

I would also like to thank my classmates; Willy, Steve, Rose, Boniface among others for their encouragement especially during my time of difficulties and throughout the course.

May God bless you all.

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ABBREVIATIONS AND ACRONYMS

BED – Bachelor of Education

DL - Distance Learning

EFA - Education For All

ICT - Information and Communication Technology

ODE - Open and Distance Education

ODL - Open and Distance Learning

OUUK – Open University of United Kingdom

UON - University of Nairobi

ABSTRACT

This research project has determined the influence of learner characteristics on primary school teachers' participation in Open and Distance Learning (ODL), the case study of Mbaruk zone in Nakuru County. The study was guided by four objectives: to determine the influence of demographic factors, income level, information and communication technology as well as the accessibility to learner support services on teacher' participation in ODL. The literature review was organized under the following headings; Demographic factors which deals with the age, gender and work roles as well as the family roles, Income level of the learners, Information and Communication Technology as well as the use of Learners support services. A descriptive survey research design was used to obtain data describing the existing phenomena. A census was done and yielded 60 teachers. A questionnaire was used to collect data and the data was analyzed using frequencies and percentage tables. The data was processed and analyzed using the statistical package for social sciences (SPSS). The findings of the study shows that demographic factors, income level, information and communication technology and accessibility to learner support services influence teachers' participation in ODL Programmes. The researcher recommends that ODL learners should balance time for study and that of other responsibilities. Scholarships, sponsorship, use of Higher Education Loan Board as well as personal loans should be emphasized to meet the financial needs of the learners. Institutions of higher learning should aim at providing improved ICT facilities and learner support services. Individual learners are also encouraged to embrace ODL as the only means to further career development since the community require competent teachers who can transmit knowledge to the society and also act as role models. The findings will also be of great use to institutions of higher learning in realizing the ways of meeting the needs of the teachers. The Government of Kenya will also benefit from the findings as it will get to know the needs of its teachers. Policy makers involved in ODL will benefit from the research information as well as the curriculum specialists in developing the curriculum and the syllabus. Teachers should also be encouraged to study regardless of their geographical, social, economic or other related constraints.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

As education enters the 21st century, teachers are challenged daily to keep up with the rapid changes that are evolving at an even increasing rate. One of the major Millennium Development Goals declared that by 2015, children everywhere boys and girls will be able to complete a full course of primary schooling. Giving all children of the appropriate age access to school implies that large number of additional teachers must be recruited and trained. Therefore working teachers need the support, unqualified teachers need to be trained and trained teachers need career long life professional development and updating. The demand for teacher education in developing education in developing countries is so great such that policy makers, program planners and teacher educators will have to explore alternatives to these existing convection programs. Distance education can provide flexible and effective response to the challenge. (Republic of Kenya, 2003).

Distance learners have characteristics of adults with professional responsibilities (jobs), social responsibilities (families), study part time, limited formal education or are long time away from formal education, highly and intrinsically motivated and who are interested in practical results for career, occupation or lifestyle. Teaching through ODL has enjoyed a long history. Distance learning is a form of education and training delivery in which students are remote from Distance Education Institutions. The instructors and the students are not in the same location. Learners are separated from the institutional base or the teachers either in time or in space for a significant portion of their learning. DL offers unique opportunities for life long life learning to working adults, out of school programmes for children for and youths who are unable to attend ordinary school as a result of disability, illness or remote location, educational opportunities for nomadic and itinerant groups and preserved for teachers' preparation and in-service development among others (UNESCO 2002).

There are several benefits of DE. It is convenient for both students and instructors, flexible and thus provide students with options to participate in education on an individual bases and it is as effective as conventional instruction when appropriate methods and technologies are used. In addition it is a cheaper form of education compared to conventional form of education. The use of multisensory media provides for optimal combination of media and

interaction with students. It also offers increased opportunities for increased interactions with students and ensures equity in educational opportunities. ODL is now established as a reputable system of education. This is clearly evidenced in the number and scope of establishment of open and distance systems all over the world (UNESCO, 2001). One example of ODL system worth mentioning is the Open University of the United Kingdom (OUUK) which since its inception in 1971 has managed to educate and train over 2,500,000 students. For the students, any educational institutions is attractive if it has the right mix of pricing, academic experience and credibility. In such an environment coupled with appropriate learner support system that create added value to the students and determine the quality of the students learning experience. Learners focus on their courses of study deeply motivated to go on to the end of the course successfully. When learners appreciate the learning environment created by the ODL institution, their enrolment rates are increased, (Tresman, 2002).

Students are demanding quality educational service and are less willing to make promises. For institutions of ODL to survive in this competitive environment, there is need for implementation of relationship marketing strategies to promote students retention. Education policies and practices are changing due to the increasing demand courtesy of the global Education for All (EFA) call. Higher educational institutions in a bid to rally behind the same call have chosen to deal with both conventional modes to their employment level. However, within their work station, there has been need to advance in two ways; both academically and professionally. This improves them in their management of the emerging products and friends in the education sector, (World Bank, 2003). In recognition of the importance of human resources development, the Kenyan government has shown its support by outlining this notion in the master plan on education and training. To confirm this, currently all Kenyan public and some private universities have established various entry levels of DL programmes even lowering entry requirements for those with modest qualifications. These include offers such as those of certificates, diplomas and degree courses, (Otto, 2009).

When this is the position, the question still remains on which are these factors that influence the participation of primary schools teachers in higher learning in Mbaruk zone in Nakuru County by open and distance learning. The demand for teacher education in developing countries is so great that policy makers, programme planners and teacher educators will have to explore alternatives to this existing conventional programme. Distance Education can provide a flexible and effective response to the challenge. Demand for qualified teachers has

been high and will continue to be high level and beyond a highly desirable goal of basic education for all (UNESCO 2004).

In Kenya, the quality of teachers in both public and private schools has been a matter of discussion in various forums. At the time of independence, there were many untrained teachers most of whom had only primary level of education. By the arrangement with the Ministry of education, the UON through college of Education and External Studies has from 1986 launched degree level DI programme in Education. Indeed the debate over the quality of teachers' education has continued to be addressed in successful educational programmes by the government. An example is the master plan on Education and technology for 1997 - 2010 which proposes that as a way of encouraging teachers to increase their academic knowledge, they be encouraged to study for higher academic qualification provided such study do not adversely affect performance of their official duties.(Republic of Kenya 1997).

1.2 Statement of the Problem

Teacher Education is an important area where distance education has been used extensively to provide teacher preparation, upgrading of academic qualification and in service continuing professional development in particular subjects, content areas and instructional methods. Many are examples particularly from both developing and developed countries that show teachers' training at a distance reach large group of teachers and profound impact on the development of National Educational Systems. Teachers preoperational courses are increasing and some institutions involved with teacher preparation are to provide pedagogical course work in Distance Education as part of the programme, (Thompson 1997). Concern over the Teacher education has been a world phenomenon, ODL plays a great role in addressing the teacher shortage. Higher education through distance education has expanded significantly all over the world and according to UNESCO (1998), the global enrollment for higher education increased from 420 million to 1,105 million in 1995. This rapid growth in demand is attributed to social status attached to university degree and shortage of employment opportunities with low level qualifications, (Rambo, 2008). UNESCO further attributes the high demand for higher education to failure of mainstream systems to cater for the increasing popular demand for higher education.

Research done by UKPO(2004) reveals that majority of students would like to use the DL mode should a few areas such demographic factors, level of family income, ICT literacy and use of learner support services are looked into. The questions students ask are; does the course have challenges for them? What do they have to say as the good or bad things about the whole system? How affordable is the course in comparison to the conventional system. A rich literature in the world over the performance, success, satisfaction, motivation and retention shows great willingness in learners to use DL mode. It was for this reason that the researcher has established the factors that influences participation of public primary school teachers in Mbaruk zone in Nakuru County.

1.3 Purpose of the Study.

The study sought to investigate the influence of learner characteristics on teachers' participation in ODL Programmes.

1.4 Objectives of the Study.

This study was guided by the following four objectives:

- i. To establish the influence of demographic factors on teachers' participation in ODL in Mbaruk zone.
- ii. To assess the influence of the income level on teachers' participation in ODL in Mbaruk zone.
- iii. To determine the influence of the ICT literacy on teachers' participation in ODL in Mbaruk zone.
- iv. To determine the influence of learners accessibility to learner support services on teachers' participation in ODL in Mbaruk zone.

1.5 Research Questions.

- i. To what extent do demographic factors influence the teachers' participation in ODL in Mbaruk zone?

- ii. How does level of income influence the teachers' participation in ODL in Mbaruk zone?
- iii. How does ICT literacy influence teachers' participation in ODL in Mbaruk zone?
- iv. How does accessibility of learners support services influence teachers' participation in ODL in Mbaruk zone?

1.6 Significance of the Study.

The study investigated the influence of learner characteristics on teachers' participation in ODL programmes so that it can help teachers to have more clear insight of the mode thereby giving them a better chance to make decisions and on any of these institutions for further advancement.

The BED (Arts) programme is of great importance. First to the individual learner, the programme offered through DL grant them another chance at professional training which guarantees a better pay and social recognition leading to self-actualization. The completion of this course facilitates further career advancement both in this and other educational fields. The programme is very important to the society since it leads to the equipping of its schools with competent teachers who can transmit knowledge and be role models to the youths at the same time. Society is still in need of more trained teachers. The study will also help institutions of higher learning to plan better strategies of training individuals through Distance Education. These institutions will in turn admit learners whom they know well and how to assess them. The Government of Kenya will also benefit in understanding the need of teachers whom they organize for school based teachers professional development using the DL mode.

This study will also be important to distance learners in the course of their study, DE institutions as they offer DE programmes, policy makers as they make and implement policies in the area of DE as well as researchers in ODL. It will also help learners to study regardless of geographical, social, economic or other related constraints. The findings of this will also be useful as a source of information by the curriculum specialists in the review and development of curriculum and syllabus with information on DL in mind. The implementation of those findings will hence increase the participation of primary school teachers in higher learning in DL mode.

1.7 Delimitations of the Study.

The study was conducted in primary schools in Mbaruk Zone and therefore the respondents were only from the zone. This means that the information gathered from the study will be treated with caution when applying it in other geographical areas. The researcher found it easier to collect the information from the DEO's office on the students who have completed or ongoing with higher education. The study was also confined to those pursuing the BED (Arts) programme through DL. It covered particularly those primary school teachers already training or trained and employed by TSC or on contract or permanent.

1.8 Limitations of the Study.

The study investigated the influence of learner characteristics on teachers' participation in ODL programmes. The researcher would have liked to collect the data personally but due to the expansive spread of the schools in Mbaruk zone, time and the cost implications, he used research assistants to do this hence missed the face to face interaction with some of the respondents. The data was also limited to the four variables of the study.

1.9 Basic Assumptions of the Study.

The researcher assumed that all the respondents for the study were available and that they were ready to answer all the questions both correctly and truthfully. It was assumed that the respondents would co-operate and fill the questionnaires correctly and objectively and return them immediately after answering them for prompt analysis. It was also assumed that the infrastructure would be okay in the zone to enable the researcher reach the respondents with ease. All the above assumptions were okay.

1.10 Definition of Significant Terms.

Age – The number of years a teacher has. This shows whether young or old.

Distance learning - The type of learning where learners and teachers are separated most of the time with limited face to face interactions.

Education background - whichever level one learnt up to in his or her formative learning stage.

Gender - Whether one is a male or a female.

Higher education -Used to mean education beyond first level and post-secondary.

Learner characteristics- Refers to the features exhibited by distance learners

Income Level - To mean the amount of money one gets at a certain given period.

Information and communication Technology literacy- **The ability** to use technology in teaching the learners.

Learner Support Services - Used to refer to the help a student is accorded in order to sail through successfully in learning.

Participation - It's enrolling to completion in a course in higher learning.

1.11 Organization of the Study.

The study is organized in five chapters. Chapter One focuses on the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, and definitions of significant terms. Chapter Two focuses on literature review, demographic factors, income level, ICT literacy and accessibility to learner support services, theoretical framework, conceptual framework, literature gap and summary of literature review. Chapter Three describes the research methodology that was used in the study. It is divided into the following topics; research design, target population, research instruments, validity of research instruments, data collection procedure and data analysis. Chapter Four focuses on data analysis and interpretation. Finally, Chapter Five discusses the summary of the study, findings, conclusions, recommendations, and suggestions for further research in the area of study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a critical review of the available literature on the influence of learner characteristics on teachers' participation in ODL programmes. It highlights the theoretical and conceptual frameworks of the study. It is organized in four thematic areas guided by the main independent variables: demographic factors, income level, ICT Literacy and accessibility to learner support services.

2.2 Participation in Open and Distance Learning

There has not been one particular definition of Open and Distance Education as it comes in a variety of form. Nevertheless, ODL can be differentiated from other additional approaches through attempts to offer a set of criteria as one given by Garrison and shale, (1987). They suggest that ODL majorly uses non-contiguous communication between the teachers and the learners which facilitates and support the educational process. There is the use of technology to moderate the necessary two ways communication employed. At its basic level, ODL takes a place when a teacher and students are separated by physical distance and technology is used to bridge the instruction gap. ODL is an excellent method of reaching adult learners. Because of the competing priorities of work, home and school, adult learners do not have a lot of high degree of flexibility. The very nature of distance learning gives adult learners possible control over the time, place and pace of education, (UNESCO, 2002)

ODL is used in a variety of settings and for a broad range of purposes. Universities use it to increase number of learners who have access to higher education, companies use it to upgrade the skills of its workers keeping them updated of the rapidly advancing technologies. Individuals use ODL for their professional growth, government use it provide in-service training for teachers and other professionals and to deliver instructions to remote rural areas that may not be otherwise served, (Polashnik and copper, 1998).

The Open University of United Kingdom has been described as one of the most successful cases of policy implementation ever attempted in the ODL field. It demonstrated not only the potential of DE to provide opportunities regardless of geographical locations but also

demonstrate that distance is not a barrier to the delivery of high quality education. It enrolls more than a third of all part time students in Great Britain and graduate about one in twelve of all university graduates (<http://www.open.ac.uk>)

Access to education has been a great challenge especially for developing countries. For instance though India is the 3rd largest higher education system in the world, it only provide access to only seven percent. In Nigeria, the formal education system which is offered through conventional education has gained loss in momentum and seems not to be responding challenge in the exponential rise in the population of those interested in education. ODE seem to be the only remedy to the perennial problems of equitable access to education, equity of opportunities as well as providing a second chance for those who had been forced to drop out of the education system, (UNESCO 2002).

From Papua New Guinea, there is considerable high potential distance and lifelong flexible learning for technical vocational education and training courses to assist in achieving educational objectives. The population is dispersed throughout the areas separated by mountains, seas, valleys and forests. Travelling is difficult and expensive and therefore regular schooling is difficult for most people. In light of this, Open and Distance Education can make one important solution and contribution to the social, economic and educational goals of the place, (UNESCO 2001).

The development and the place of ODL in Kenya like other countries were necessitated most importantly by the need to train and upgrade certain professionals especially teachers. There was need to train unqualified and upgrading under-qualified primary school teachers. Other areas of concern were special education, adult literacy, teacher programmes and professional training. From the endeavors in Kenya, a lot has been achieved where the public university and private university capacities have been increased more than double through the use of Distance Learning approach. Since the ODL system has been opened and a new chapter for government to realize these goals, it is necessary to study on the influence of learners characteristics on primary school teachers' participation in ODL programmes with a view to revamping it in order to make it even more effective and sustainable,(UNESCO 2001).

2.3 Role of Open and Distance Education in Teachers' Education

The world need better teachers and more teachers. Research shows that there are millions of children who are still out of schools. These need teachers as the vision of Education for All by

2015; a world target draws near to its realization. For this to be realized there is need to raise the skills for the existing teachers of whom some are untrained and unqualified (UNESCO 2001).

Comparison of policies within the US by researchers found that the states leading the nation in students' achievement and those that had made the most significant gains in achievements were the states that had most highly qualified teachers and that had made consistent investments in teachers' professional development. Teacher Education is an important area where distance education has played great roles such as in initial professional education, continuing professional development, curriculum reform changes and teachers' career development. The skills levels required in the labour market are high and all societies faces the challenges of raising this additional performance. In this context, lifelong learning is a high priority for all. The commonwealth of learning (COL) advocates for the use of ODL option for teachers' education especially for highly populated areas like South Africa and sub-Saharan Africa. Brazil, Nigeria, China and Indonesia all have teacher education program through their open universities, (UNESCO 2002).

2.4 Participation of Teachers in Distance Learning

The ability to participate in distance learning is deeply rooted in the development of a distance organization philosophy that supports technology, lifelong learning and change. This philosophy should also support equal access to course materials, updated information, maximizing resources and promotion of learning capable to supporting organizational objectives. Organizational philosophy establishes the organizations levels and professional growth and development of the organization and its employees, (Berger, 2001).

To increase participation in higher learning through Distance Learning, effective, efficient representative and transparent institutions should be built that are responsive to community needs and aspirations. Due to complex interconnections, the realization that one cannot isolate system components somewhere at sometimes is essential. Therefore a wholesome approach is required of a management. High participation encourages experiential learning, lifelong learning, shared learning, and transformable learning in addition to conventional forms of education. In addition development and employment of appropriate technology is required

with stress on adaptability, durability, effectiveness, efficiency and simplicity, (Kermath, 2007).

For any system to have high participation, certain component must be put in place. First; the institution must endeavor to provide what the society needs hence the issue of relevance. In case of the ODL, there is need for qualified teachers who are conversant with the curriculum demands and are well rounded to provide mentorship to their learners in the field. Learners require appropriate technology to improve the access to education and to bridge the gap between the learners and the tutors. Distance Learning provides needs to understand that their educational product and services are to service the Distance Learners and provide an encouraging educational experience, (Berge, 2001).

2.5 Teachers' Demographic Factors and Participation in ODL Programmes.

The characteristics and personal situations of the students enrolled in distance education courses can present barriers to effective learning and success in distance education environment. Family factors such as marital status, family size and economic status of the family influences teachers' participation in ODL programmes. Marriage is the most important institution where boys and girls grew up knowing that marriage is ultimate duty particularly for girls. This influences girls schooling. Since society expects girls to get married and look after husbands, their education is not taken seriously. The importance allocated to marriage leads to early marriages which are major causes to school drop outs. Marriage continue to influence participation in Distance Education even in higher learning where many cannot follow up their careers until they know whom they will marry, their potential husbands and wife's attitude to work, careers, size of the family hence a challenge to combine marriage, employment and education, (Gacheri, 2010). Study by Zuhairi, Zybaidah and Daryanol (2008) shows that social roles may disrupt female students in their studies.

Gender issues are part of gender inequalities that are undesirable in participation in distance learning in which an intervention is required. In the perspective of gender and education, there has been an endeavor of making education opportunity available for all by the government of Kenya and other governments in the world. Through distance education and training, one acquires capacity, confidence and credentials necessary to cope up with demands of increasingly selection of markets and labour, commodities and services. Beside this,

importance of education, there has been observed gender biasness in many aspects of education which are prevalent in launch of education and skill development in the family, society and institution levels. Spouses and relative financial difficulties especially in rural settings has been a stumbling block to enrollment in Distance Education programs, (Evans, 1995).

The number of girls and women reduces as one moves higher level of education while in area of skills; women tend to dominate in areas which require minimal one comparatively less marketable skill. Training of girls and women are often differentiated from that of boys and men. The vocational training of women has largely dominated in fields related to their perceived household responsibilities such as catering rather than high level courses of technical or scientific. Education and training should prepare men and women, boys and girls for participation in the economy beyond the household. Due to attitudinal barriers, the perceived differences between male and female roles and capabilities which are indicated through socialisms in homes, schools creates lack of confidence and self-esteem to enable women compete favorably with men. It has been noted with regrets that girls and women are hampered by traditions which put premiums on the usefulness of their labour as the domestic front in caring for children, cooking and hence cannot pursue higher level of education that will take them far from these chores, (Republic of Kenya, 2007).

The issues of gender that have hampered student's enrolment in ODL programs in GilgilSub County are the cultural practices and patriarchy. These have perpetuated gender inequalities by sustaining gender differences in decision making and resource ownership. But to address the issue of morale dominance, patriarchy, the domestic and public domain, dichotomy have been questioned and are being deconstructed in many societies especially in urban areas through slow changes, occasioned by reconstructing and re-organizing of cultural practices and social life and education (UNESCO, 2004).

2.6 Income Level and Teachers' Participation in ODL Programmes.

Affordability of a Distance learning programme can be accessed through measuring how conveniently the learners pay for their tuition and other accompanying expenses such as travel costs for tutorial use of the internet etc. The affordability of Distance Learning can only be measured in comparison to face to face conventional education. However, this is not a simple function. Issues of cost of distance education systems are difficult to resolve partly because of

lack of sufficient data and partly because of the difference between the economic structure of Distance Education systems and those of conventional education system (Kinyanjui 2010).

The Government of Kenya has consistently directed public resources to establish and expand facilities, sustain human resources as well as improve accessibility and quality of university education. Besides, efforts have been made to encourage private sector and other development partners to invest in the provision of university education to enhance accessibility to those in need of higher academic qualifications, (Republic of Kenya 2002). Inadequacy of financial support to higher education subsector is one of the challenges with which the wider education sector grapples with even through enhancing equitable access to university education remains a key development agenda. Although HELB was established to further higher education, limited financial support from the same make it difficult to provide assistance to learners outside regular academic programmes. Even though HELB is mandated to finance university education in Kenya, it does not have any financing scheme targeting distance learners. In addition distance learning has not received adequate attention from the stakeholder in higher education. As a result, distance learners struggle to meet the cost of tuition accommodation transport and learning materials. They are left to look for their own alternative methods of financing their education,(Kioko, 2012).

Rambo (2008) in his study on financing distance learning in Kenya found that affordability of the B.ED (Arts) by distance learning was statistically associated with learners gender, total number of dependents, average income and highest education level. He also found that learners financed distance learning through loans from commercial banks, personal savings, donations, support from family members and bursaries. Others included proceeds from disposal of assets, dividends from stocks as well as fundraising. Loan from SACCO societies and commercial banks were the formal source of funding.

Impediments to effective participation in distance learning included meager incomes, inadequate time to engage in income generating activities, high cost of residential fees and inadequacy in learning materials. In addressing the issue, learners adopted a number of coping mechanisms such as disposing properties, suspending personal development projects venturing into income generating activities such as farming. The university also allowed learners to take up the optimal number of units they could afford creating provision for special papers. Further studies showed that B.ED (Arts) by distance learning was relatively more cost

efficient than the regular modes. This arose from effective cost management practices and distance learning methodology adopted, (Kioko, 2012).

Demand for education is determined by a number of factors of which some are social and psychological factors such as level of disposable income, recognition, reduction in family size and acquisition of a higher standard of living, (Kioko,2012). The most important psychological reason which affects the demand for education is the peristaltic process. This is a process in which parents are eager to let their children acquire a higher education level than they themselves reached. Disposable income greatly affects the demand for primary, secondary and higher education. If the family disposable income increases, demand for education increases because their tuition fees, books, uniforms and stationery will be affordable, (Wanjala and Otieno, 2010).

Motivation is the inward thought, feeling, want or desire to do something. It is a component very necessary for an individual to perform a task to completion. Learners have to have the motivation by themselves to involve certain activities within the learning process. As a result, teachers participate in the DL programmes who are learners by virtue of engaging in the practice which otherwise they did not know must possess certain motivators in them. According to Otieno(2010), there are factors related to people's needs that motivate people to work. These are psychological safety or societal needs, social affiliation needs, esteem needs and self-actualization. Teachers who have satisfied all these needs become competent in their profession. Thus they are promoted and earn higher incomes. Once the income is received and household expenditure is met, the teacher remains with disposable income which enables them to meet the cost of further education through effective demand for the higher learning by Distance Learning mode.

Upon completion of university degree programme through distance learning and consequent attainment or conferred with degree certificates, there are many expected returns accrued upon the individual, society and even to the education providers (institutions). Education acquired by an individual is his/her security and personal asset which will never be removed from her/him till death, (Nyabaga, 2012).

In the Kenyan scene, the UON through the school of continuing and DE has committed itself to developing and enhancing various academic programmes in the area of teacher education.

The school is playing a dynamic role in human capital development in the education sector for sustainable development by contributing towards research in and acquisition of skills in the planning, management and maintenance quality in educational institutions. Thus with the case studies in mind, ODL cannot be out of context as it addresses the exact needs of society as precisely and practically as possible. By their very nature, most distance learners are in employment. ODL enhances the opportunity of practically putting the knowledge acquired to work thus allowing for integration of content with skills in the job market, (Raphael 2011)

In his study, Nyabaga (2012) says that high cost of education in Kenya has contributed many Kenyan students opting to join other universities outside Kenya. Makerere and Kampala International Universities both in Uganda have attracted many Kenyan students due to affordable fees and other expenses. There is popular demand for education as a means of human development by acquiring basic tools for an acceptable decent life. Finance will be changing as great expansion of educational demand take place. Government will be hard pressed to loosen control of education process as a well as their role in financing these ventures. Those who benefit immediately from the education will be expected to meet the cost of the services themselves.

Keegan (1990) asserts that students participate in distance learning to overcome such barriers such as geographical distance, financial and time constraints and restrictive admission policies, in the process of furthering their education. Lifelong learning is now regarded as an essential element of economic growth, and success by many governments. There is pressure for education institutions to increase participation of students with university entry qualifications who were otherwise not considered joining regular government sponsored programs. With the large number of students qualifying with minimum entry requirement to join public universities and with less such opportunities Open and Distance Learning becomes the only solution where learners operates off campus studies. Education is a private investment and it entails the efforts and commitment by the individual and his or her family to meet the direct costs as a mechanism of harvesting a wider range of tangible and intangible benefits of education in future. Individual distance learners incur a lot of direct and indirect costs. The direct costs include the expenditure on books, stationery, school fees, library services, computer services and research money. The private costs include the foregone opportunities such as holiday tuition, hardship allowances and family business incomes. The private benefits every distance learners aspires to get includes better salaries, employment

opportunities, increased allowances, job promotion, better retirement benefits and investing in income generating projects, (Nyabaga, 2012).

2.7 Information and Communication Technology Literacy and Teachers' Participation in ODL Programmes.

Doyle (1992) defines information literacy as the ability to access, evaluate and use information from variety of sources. Bruce (2003) from educational perspective defines information literacy as the ability to access, evaluate, organize and use information in order to learn, solve problems and make decisions in formal and informal learning contexts at home, at work and in educational settings. It is a key to lifelong learning which includes computer literacy, information and technology literacy, library skills, information skills and learning to learners. There is no doubt that the spread of ICT tools has made information more easily available. However in order to make best use of that information, people need to be information literate. ICT tools facilitate the storage, reception and transmission of information. Extending its reach however requires literacy skills, (Walsham, 2001).

Media and technology is the medium of communication, interaction and instructions in ODE. The types of available technologies used in DE are divided into two groups; synchronous and asynchronous. Synchronous technology is a model of online delivery where participants have to be virtually present at the same time. Examples include the web based services; telephone, videoconferencing, web conferencing and direct broadcast satellite and live streaming. Asynchronous delivery technology allows participants to access materials on their own schedule. These include audio cassette, e-mails, message boards' forums, prints, voice mails, DVDs among others. Telematics in ODL systems refers to the delivery of information from tutors to Distance Learners through use of telecommunication technologies. ODL as a method of teaching and learning is made possible by the extensive use of multi-media which provides the vital two way communication so that the students can benefit from and even initiate dialogue with the tutors and with other learners, (UNESCO, 2001).

Bates (1984) suggest that new technologies promises a wider range of teaching functions and a higher quality learning, lower costs, greater students control, more interactions and feedback for students. In fact ICT can support designing of learner centered, engaging interactive,

affordable, efficient, easily accessible, flexible, meaningful and facilitative learning environment. Media technology should be seen as an instrument that facilitates learning by assisting the participant to overcome the barriers of geographical distance and time barriers that lead to the isolation of distance learners. Through technology, ODL systems are sustained as learners are reached effectively. The teaching system used by the Zimbabwe Open University (ZOU) takes into cognizance the reality of the lack of contact between the tutor and the learners because of the nature of distance education. The university therefore uses print and radio as the delivery system as in the process of establishing a remote classroom video network and use of internet, (UNESCO, 2001).

According to Mbogori (2009), Distance learning has evolved from correspondence times to the present age of digital technology. Overtime, learners have consumed the technology of age. The recent past has seen an influx of a series of technological components. The most current is the internet which brings virtual classroom to the learners with rich and valid learning experiences. For such a reason one appears to get interested in the need to study how these technological advances fast track the Distance Learning process. Technology however has been studied variously by difference scholars over the issue of Distance Learning. Technologies of DE delivery are print, broadcast, radio, TV, e-mail, interactive video, satellite communication and multi-media computer technology. Further he categorizes them as either synchronous or asynchronous systems.

According to Joseph (2013), research has found that over the past decades, the economy of the developed nation has grown tremendously largely because of the technological innovations. ICT is a major factor in shaping the new global economy and producing rapid changes in the society. Studies have it that within the past decades, the new ICT has fundamentally changed the way people communicate and do business. The world has become a global village. It has produced significant transformation in industry, Agriculture, Business Engineering and other fields. In today's economy and every profession, we need computer skills first like reading, writing and arithmetic proficiency. Kenya is trying to catch up with other countries using digital technology to boost learning. In industrialized countries, digital technology has been integrated into the education system and has become a key teaching tool in schools. Technology has played a major role in the acceleration of DL opportunities.

Saitoti (2007) asserts that a shift from traditional teaching methods to e-learning would address the problem of access to education. Currently, the transition rates from primary to secondary stands at above 70% while to university above 30% of those who qualify for admission. Garrison (1990) argued that the quality and integrity of Distance Education process is compromised when it degenerates into the old model of independent study. The student becomes isolated, procrastinated and eventually drops out. Students should be exposed to a variety of media material to enhance active learning and participation which will make them to research and develop a sense of ownership. Print materials in DE remain most common media for learning in commonwealth countries. Parraton (2010) stated that DE relies heavily on multimedia broadcast and face to face study to provide quality education. McGiveney(1996) noted that participation in DE courses is still minimal because of lack of dialogue of intercourses when compared to face to face.

Kioko (2012) argues that the recent study done in the sub-Saharan Africa has shown that there has been a rapid participation in Distance Learning compared to the past. Students participating in the internet based learning network have greater curiosity and interest. This has increased motivation of the students making them self-driven even to tackle difficult tasks. However, there has been drawbacks ranging from de-motivated staff and negative attitude coupled with lack of ICT governing policy, (Gakuu, 2006).

Study indicates that barriers of the use of ICT includes inadequate infrastructure, power and connectivity is a nightmare in some areas. In other countries, ICT takes a periphery position as they prioritize to deal with more acute and pertinent social-economic and political problems related to poverty eradication, drought menace and HIV/AIDS, pandemics among others. Nevertheless, technology has broadened access for Distance Learning in the globe,(Joseph, 2013).

UNESCO studies suggest that for quick realization of mass education in Africa, technology is paramount. It further notes that internet has revolutionized distance learning in the 21st century. In that, it offered online enrolment and off campus courses. Institutions should think of using of adaptive technology and introduce computers that are designed particularly for the disabled which includes wheelchair switch that respond to voice commands and computer programs besides the online curriculum, (ADEA, 2004). In several countries, policy decisions have been made to devote day time hours to educational activities. This is so in

India where day time TV is devoted to developmental purposes. In Israel, its devoted to educational programmes and in Japan and United Kingdom, broadcasting agencies have a long-term commitment to education.

Communication technology in the beginning could not be welcome and adopted by education systems because of the problems they had such as limited finance resources and large numbers, technologies are costly to acquire and maintain. Technology is also developing at high rate hence educational systems have to train their staff through in-service to be able to use the new technology. Teachers also resist introduction of new products of communication technology. Various countries using broadcast media base their choice in cost and availability both to organization and the students. Japan has intensive developed use of TV because of its well-developed TV network and prosperous economy. The open university of Britain insists that students attend Summer Schools because of very good communication that is roads, railways, airways and telecommunication. The memorial University of New Found land service remote rural communities by use of print, radio and audio cassette, materials intensively, (Paratton, 2010).

On the whole mobile phone technology contributes equally well towards performance, encourage participation within learning, promote competition and encourage cohort socialization. They give due date of assignment, registration of the course deadline and provision of course materials. A question in the mind of many would be how effective is our current institutions to subsidize for the much expensive internet technologies. The learner at present finds himself/herself in the best position to own a simple mobile phone. The use of cell phone is significantly increasing with more than 40% of the population subscribing to a specific service provider. On its part, the government of Kenya plans to facilitate universal access to ICT infrastructure and improve connectivity. Teachers willing to join DL have the option of the mobile phone technology should the institution strategize well while waiting for the government plan to come to a reality, (Otto, 2009).

Currently, the DE programmes at UON use mainly print media as means of delivering course materials to the learners. A study by Mbogori (2007) showed that learners were satisfied with the print media type of delivery and occasional meetings at study centres for face to face discussions. On average, the learners had computers skills and were able to use the internet to access study materials. Areas where the university extra mural centres were located had

electricity radio, TV reception especially those near urban centres for the learners to make proper use of them. Summarily, technological factors brings to the discussion on how important it is to know which technology a learner can access, afford and use conveniently. With the correct choice, their participation level higher learning will very high.

2.8 Accessibility to Learner Support Services and Teachers' Participation in ODL Programmes.

Distance learning approaches are appropriate for upgrading learners' qualifications such as teachers'. There are several types of Distance education materials. Most programmes offers complement courses to encourage diverse learning approaches such as assignment that require learner to use reference materials would be inappropriate without library access. Most Distance Education programmes are organized into a series of self-study course modules or combination of these requiring individuals to complete the series in order to qualify. In continuing professional development courses, participants study and complete assignments at their own convenient time. The primary goal must be to provide a higher level of interactivity between the learner and the content of the course, (Njoroge, 2011).

Institutions must consider course standards and support courses content and course pacing in developing distance learning programmes. Distance learning institutions uses study guides which explain the basic course outlines of the course such as the goals and requirements, contact information for tutors and instructors and assignment due dates. A study guide integrates activities to keep the students motivated and engage in learning. Moore recommends that paying attention to the content and format in a study guide is very important. He emphasized that the information should be well organized, clearly presented, entertaining and visually appealing. Activities provide opportunity for participants to practice the concept they have learned through says that Distance Learning programmes need monitoring and evaluation to ensure quality of support offered to learners. Seeing from the trend of education at the moment Distance Learning is seen as taking route in most institutions of higher education and if well monitored can offer quality education to Kenyans, (Moore, 1996)

According to widely cited definitions, Distance Education is planned learning that normally occurs in a different place from teaching and as a result require special techniques special

methods of communication by electronic and other technology as well as special organizational and administrative arrangements . The quality of open and distance education offered to learners is of great importance. Many quality assurance mechanisms are put in place in different countries whose institutions offers Distance Education includes the learning materials, learner support services and the media technology,(Moore and Kearshey, 1996).

In ODL where the learner and the teacher are separated by space and time, distance education materials replaces the teacher. These materials must be able to relay content accurately and effectively just like face to face teacher would. The learning materials must actively engage the learners in the learning process while at the same time offer some degree feedback of the progress made. To produce this quality learning materials, ODL institutions employ the services of professional teams composed of course writers, institutional designers, editors, graphics designers among others. As a result of quality production, it has been noted that even face to face teachers uses Distance course materials for institution in conventional education system, (Bowa, 2005).

The Open University of United Kingdom course teams use a combination of media in learning material development which includes specifically designed printed self-text, study guides and course readers containing a variety of selected articles and course resource pack for each student containing print, video cassette and audio cassette for each course stage. The materials are of high quality and widely used outside the Open University programmes by schools and other training providers, (UNESCO, 2001).The South African experience through UNISA shows the importance of developing high quality learning materials that are directed at meeting the needs of the clients. The university combines print self-study materials, assignments, discussion classes and supervised teaching practices over the four years. The curriculum in each programme has three components: Educational themes (pedagogy), professional studies and selected areas of specialization such as school subjects in its teacher's education.The UON on Kenya through the school of continuing and distance education has organized and coordinated faculty and experts in learning materials development to come up with high quality modules that are very useful to the Distance learners, (Assey, 2004).

Concerning learner support services, Distance Learning offers learners freedom in what, where and how they learn. However it is necessary for the ODL institutions to address their challenges to avoid losing students who feels they cannot cope with the responsibility of

individualized learning. Open and Distance Learning institutions should initiate strong and effective learner support services. 80% of teaching Distance learners is through print media, the rest is through audio study materials and face to face. This call for the institutions offering higher education by ODL to ensure students gets enough learning materials for them to be effective in learning, (Bowa, 2005).

The Open University of United Kingdom has put in resources in a bid to evaluate the impact of effective learner support services in promoting sustainable open and distance learning. The university developed a midpoint quality improvement strategy to counter some of the challenges of the learners. Such as having induction services for the new and returning students, matching students with tutors who would shoulder responsibility of overseeing the students' progress and monitor and contact students perceived as being at risk of dropping out, establishing peer support, paying close attention to students work load issues, establishment of an internal curriculum review process, put procedures in place that allows students to officially interrupt their studies when necessary with the confidence that they would carry forward and credit earned at the point, rewarding students achievements in meaningful ways and giving retention bonus like voucher or discounts to reward successful course completion among others, (UNESCO, 2001).

UNISA offers new students a tutorial package upon registration. This package contains a tutorial letter, self-study materials known as study guides, information on prescribed texts and some audio and video tapes where applicable. It maintains contact with students through regular tutorial which provides guidance on assignments and examinations including use of past papers, tutors contacts, names and venues for the forthcoming discussion classes (UNESCO, 2001). According to the commonwealth of learning, to avoid cases where distance learners get disillusioned by the pressure of independent study, tele-centres also called extra mural centres staffs have to be of assistance to them. Thus the tele-centres staff and the locally recruited or online tutors must be fully conversant with the educational philosophy and methods of distance education and be sensitive to the learners needs while being skilled in providing ICT training, supporting the learners and encouraging community enterprises. This call for faculty that is available and skilled in tutoring and mentoring as few face to face meetings they facilitate in the centres, offers the human touch in the otherwise lonely educational trek through Distance Learning .Lecturers are integral part of learners support as they facilitate learning in the ODL context. A study based on the UON lecturers revealed that

most of them had the willingness to be trained in E-learning. Open and Distance Education relies heavily on ICT for the transmission of educational material and as such a distance trainer need some basic computer skills if they are to offer their courses in the electronic forms. In addition, study by Bowa (2005) showed that inadequate provision of support services to distance learners at UON extended degree programme leads to low performance in course work and examination, (Raphael, 2011).

With the growth and availability of electronic media, it has been possible for open and distance education institutions to offer tremendous support to the distance learners. The student support is the key area in the successful implementation of open and distance education programme. It is worth to point out that Distance Learners on the basis of their demographic, characteristics need a lot of support in academic, social and psychological aspects of their lives if they are to overcome all the barriers that faces them, (UNESCO, 2001).

To emphasize more on quality of Distance Learning, Open and Distance Learning institutions carries out regular assessment in the context of Distance Education means the planned evaluation of students' performance through tests, projects, practical, examinations and assignment. They are formally marked and graded to produce results. These results are processed and recorded marks determine the success or failure of the students. Assessment generates feedback, that is learners study various units at the college, the tutors set examinations which are moderated by the external examiners from the central examination centre and marked at the central marking place by the lecturers who teach in that department. This avoids malpractices such as leaking and cheating before and during examination, (Wanjuu, 2012).

Assessment and evaluation practices that are both formative and summative are very important tools in any Open and Distance Education. Many institutions require Distance Learners to set for Continuous Assessment Tests examinations and written assignments as a mandatory part of fulfilling requirements of various examination boards. Apart from the internal examinations, the ODL systems also demand the services of external examiners who help in quality assurance. Quality Assurance practices help promote on institutions credibility in the eyes of the learners, job market and the society at large. For various teachers' education programmes in different countries meant for in servicing teachers or equipping them with

professional skills, several measures taken to ensure output is a well-developed and equipped efficient professionals who will impact positively on their society through education, (Raphael, 2011)

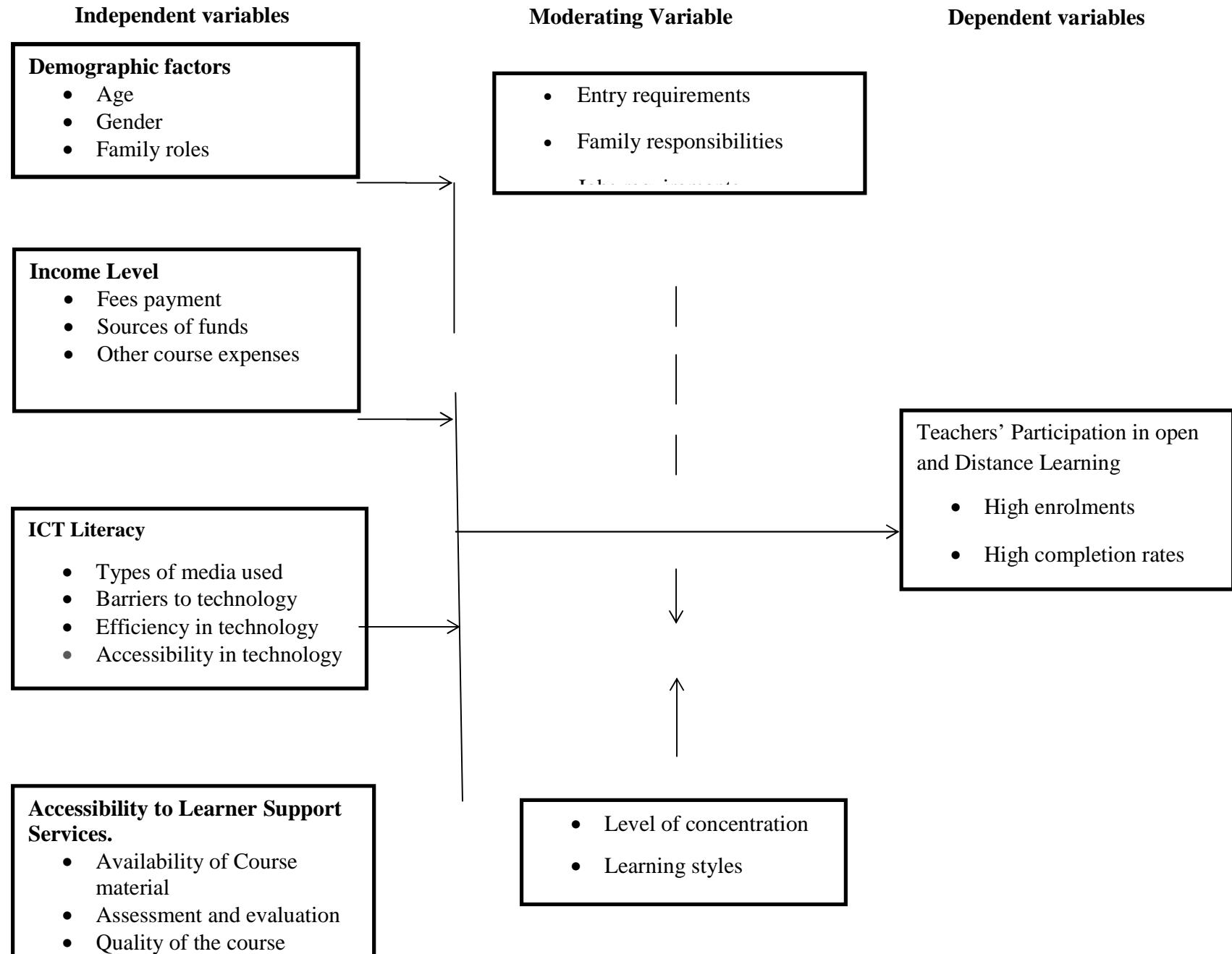
On the African scene, UNISA in its teachers' education programs demands that a student should practice teaching skills in school context for some weeks annually in the four years course. Pre-service students are responsible for arranging them, teaching practice in schools of their choice and are supervised by their senior teachers who assess students practice according to the criteria provided by the institution. Quality measures include the external moderation of question papers and examination scripts. To ensure the content is up to date, the study guides are revised every three years and reviewed by external assessors, (UNESCO, 2001). In Kenya context, most of the Distance Education institutions are required to offer internal examinations which are assessed by both internal and external examiners as part of Quality Assurance and Standard procedures. Assignments are part of assessment. This is a practice in the UON. Assignments make up 15%, CATs 15% and 70% in examination which gives a total of 100%. Students have also to go through teaching practice session during their course specifically part six of their course. They are assessed by their lecturers who visit them at their teaching institutions where they are sent for this purpose. The marks are computed together with the course work and examinations to get the total grades, (Raphael, 2011).

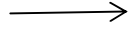
2.9 Conceptual Framework

This study is guided by four independent variables, one dependent variable, one moderating variable and one extraneous variable as shown in figure 1.

Figure 1. Conceptual framework

Figure 1 shows conceptual framework which indicates the variables under study





Extraneous variables

Fig. 1: Conceptual Framework

In this study, the conceptual framework will show the four independent variables: Demographic Factors, Income Level, ICT Literacy, and Accessibility to learner support services. The study will seek to find out how the four independent variables influence the participation of primary school teachers in Higher Education using the ODL programmes. Participation in higher learning is the dependent variable. Apart from these four Independent variables, participation in higher learning can also be indirectly affected by other variables indicated as moderating and extraneous variables as shown in the conceptual framework. These are not to be deeply studied as they do not present part of the main issues of the study.

2.10 Summary and Research Gaps

This chapter reviews literature globally, in Africa and locally on the different variables under consideration in this study as well as some background information about Open and Distance Education. The literature highlights the need to study factors that influence participation of teachers in higher learning through distance learning mode. All the factors are discussed ranging from the Demographic factors, Income level, ICT Literacy and Accessibility to Learner Support Services. These factors give a base for the conceptual framework of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the research methodology. This included a discussion on research design, target population, sample size, sampling techniques, data collection methods, research instruments, validity and reliability of the research instruments and data analyzing techniques.

3.2 Research Design

A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with the economy in procedure. It is the conceptual structure within which research is conducted. It constitutes the blue print for the collection, measurement and analysis of the data, (Mugenda&Mugenda, 1999).

The research design used is descriptive survey. This study aimed at collecting data from respondents on factors influencing learner characteristics on teachers' participation in open and distance learning. These were Demographic factors, Income Level, ICT Literacy and Accessibility of Learners support services.

3.3 Target Population

The target population for this study comprises of primary school teachers in Mbaruk zone. This zone has 60 public primary school teachers who have enrolled in distance learning and are ongoing while others have already completed their course. The zone educational officials led by the District Educational Officer, TSC officials, District Quality Assurance Officers and a TAC tutor managing the zone for tutorial support. Within the same zone, there are two Constituency Development Fund officials who assisted in the information on financial support. The researcher worked with those teachers participating in Higher Education at the time of study and those who have finished their studies using distance learning mode. Such records were accessed from the District Education officers' office.

3.4 Sampling Techniques

The researcher carried out a census because the entire population was sufficiently small and the research could include the entire population in the study.

3.5 Research Instruments

Data was collected using questionnaire. This is a set of carefully selected and ordered questions used in a survey studies. It is attractive, neat and simple and has clear questions. Each questionnaire was attached together with a letter requesting the correspondent to accept and faithfully answer the questions alongside the permission to undertake the research study. The researcher took upon the responsibility of distributing the questionnaires to the sample schools. All the respondents were supposed to fill them anonymously to clear any form of victimization. After the given period of about two to three weeks, the researcher was to collect the questionnaires. Use of format was both closed and open responses together with raw and derived scores. The items were set in line with the variables under the study.

3.6 Validity of the Instruments

Validity is the degree to which a test instrument measures what it purports to measure and consequently permits appropriate interpretation of scores. It is the degree to which evidence support any inferences a researcher makes based on the data he or she collects using a particular instrument. Validity depends on the amount and type of evidence there is to support in interpretation researchers will make concerning the data they have collected. It is the process of collecting and analyzing data based on an instrument, (Frankel & Wallen, 2000).

Before releasing the questionnaire, the researcher ensured that the instruments had content validity through consultation with the research supervisor and other experts. This was purposely done to detect any omission, errors and ambiguities so that they can be corrected appropriately.

3.7 Reliability of Research Instruments

Reliability is another important measurement in research. It refers to the consistence of the score obtained for each individual from one administration of an instrument to another and from one item to another. Reliability has two aspects such as stability and equivalency. Reliability is the said to be stable if it gives consistent results with repeated measurements of the same object with the same instrument. The degree of stability is determined by comparing the results of repeated measurements. Equivalency is the measure of how much error gets introduced by different

investigators or different samples of items being studied. It is done by comparing the observation of two researchers of the same events, (Frankel & Wallen, 2000). To test the reliability, the researcher used the split-half technique. This involved administering the instrument to the same group of respondents and then put them in groups of two to identify the degree of correlation. The scores realized will be compared and will give the evidence.

$$R = \frac{2\rho}{1 + \rho}$$

where R = Reliability Index; ρ = Pearson product moment correlation coefficient.

3.8 Data collection procedure

The researcher sought authorization from The National Council of Science and Technology before embarking on the research. The researcher also got the authority from the District Education Officer. After getting the authority from the relevant offices, the researcher then embarked on administering the questionnaires to the schools where the respondents are. The respondents were briefed about the project and then trained on how to fill the questionnaires. After a given period of about one week, the researcher went round the schools collecting the questionnaires and brought back the data which was later analyzed.

3.9 Data analysis Techniques

After collecting the data, the first thing the researcher did was to scrutinize the instrument for completion, accuracy and the uniformity. After this, the researcher used both descriptive statistics and inferential statistics to encode and analyze data acquired from research instrument. Both qualitative and quantitative methods were to be used to identify factors that influence participation of public primary schools in higher learning using distance learning mode.

Data presentation was done using descriptive statistics, general tables, frequencies and percentage as they clearly highlights the relationship between variables thus enhancing more efficiency interpretation. Qualitative analysis was used on the content and document typology and protocol while quantitative analyses were done for descriptive and relationships such as correlation analysis. The Spearman Rank Order will be used to analyze data obtained in the study.

3.10 Ethical Considerations

The researcher got a research permit from the National Council of Science and Technology. He sought informed consent from the respondents before getting information from them. This included telling them about the purpose of the study, how they would be involved, what impact it would have on them and that they had the right of withdrawing from the research process even after giving consent if they felt uncomfortable. The respondents were assured that the information sought was for academic purposes only. The researcher also ensured the privacy and anonymity of the correspondents was guaranteed by assuring them that whatever information received from them would be coded to ensure no individual would be identified.

3.11 Operationalization of Variables

The Table 3.1 shows the research objectives, independent variables, indicators, measurement of indicators, measure of scale, data collection methods and data analysis techniques used.

Table 3.1 Operationalization Table

RESEARCH OBJECTIVES	INDEPENDENT VARIABLES	INDICATORS	MEASUREMENT OF INDICATORS	MEASURE OF SCALE	DATA COLLECTION TOOLS	DATA ANALYSIS
To establish the extent to which Demographical factors influence public primary school teacher participation in higher education using distance learning mode	Demographical factors	Age of the learners. Gender of the learners. Family roles.	Age at which learners enroll for learning. Male or females enrolling for learning. Roles of each gender as per their cultures.	Ordinal	Questionnaires	Descriptive statistics
To access how ICT Literacy influence participation of primary school teacher in higher education using distance learning mode	ICT Literacy.	Type of media used. ICT Skills. Accessibility to technology. Barriers to technology.	Use of computers and phones. Level of literacy. Number of people accessing technology.	Ordinal	Questionnaires	Descriptive statistics
To assess how accessibility to learners learner support services influence participation of primary school teachers' in higher education using distance learning mode.	Learner support services	Availability of course materials Assessment and evaluation Quality of course materials	Making of course materials Extra mural centres	Ordinal	Questionnaires	Descriptive statistics
To determine how income level influence Participation	Income level	Ability to pay fees	Sources	Ordinal	Questionnaires	Descriptive

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter is concerned with the presentation, analysis and interpretation of the collected data. Due to the nature of the data, percentages are mostly used to compare the various aspects of the data.

4.2 Questionnaire Return Rate

The data was collected from a census of all learners in Mbaruk zone, Nakuru County who are taking ODL programmes as well those who had completed.

The researcher issued 60 questionnaires of which he was able to get back 55 representing 91.67%. This information is represented in Table 4.1

Table 4.1: Questionnaire rate of return:

	Number Distributed	Number Returned	% Rate of Return
Male	22	19	86.36
Female	38	36	94.47
TOTAL	60	55	91.67

From the percentages, there was a very good response to both genders. It also revealed that the sample represented more females given that a census was taken on the target population.

4.3 Influence of Demographic factors on Teachers' participation in ODL programmes

The researcher wanted to find out the effect of demographic factors on teacher participation in open and distance learning programmes.

4.3.1 Age of respondents

The study sought to establish the age distribution of the respondents. The findings are presented in Table 4.2.

Table 4.2: Respondents' Age Distribution

	Frequency	Percentage
Less than 25 years	1	1.9
26 – 35 years	10	18.5
36 – 45 years	27	50.0
46 – 55 years	13	24.1
Over 55 years	3	5.5
TOTAL	54	100

The table shows the respondents age distribution.

Using Spearman Rank Correlation Coefficient, ρ (rho) to test whether there was correlation between age of learners and the number who enrolled for ODL programmes:

$$\rho = 1 - \frac{6\sum d^2}{N(N^2-1)}$$

where ρ = Spearman Rank Correlation Coefficient

d = difference between age and frequency rankings

N = number of paired observations.

Using SPSS software, the computed value of ρ resulted to 0.312.

This showed there is a weak positive correlation between age bracket and the number of teachers who participated in ODL mode.

Thus co-efficient of determination, ρ^2 , becomes:

$$\rho^2 = (0.312)^2 = 0.0973$$

That is 9.73% of learners' participation in ODL can be explained by age factor.

4.3.2 Academic Qualification of the Respondents

The study sought to establish the academic qualification of the respondents. The Table 4.3 shows the qualification distributions of learners who participated in ODL programmes.

Table 4.3: Academic Qualification of the Respondents

	Number	Percentage (%)
KCSE	1	1.8
Certificate	3	5.5
Diploma	27	49.1
Degree	24	43.6
TOTAL	55	100

The findings showed that open and distance learning mode is a preferred mode of study to those having diploma qualifications contributing 49.1% of the respondents. It is closely followed by those having degree qualifications (43.6%). This implies that good academic qualifications encourage many teachers to participate in higher learning.

4.3.3 Other demographic factors

The researcher sought to find out how other demographic factors influence teachers' participation in ODL. These are household chores, family responsibilities, family expenses, work commitments and financial status. The findings are represented in Table 4.4.

Table 4.4: Other demographic factors

Factor	Response		Response	
	Yes	%	No	%
Household Chores	38	70.4	16	29.6
Family Responsibility	28	53.8	24	46.2
Family Expenditure	38	70.4	16	29.6
Work Commitments	40	75.5	13	24.5
Financial Status	46	85.2	8	14.2

The results showed that the above factors greatly influence teacher participation in ODL programmes as they are all above 50%. Family responsibilities takes 53.8%. The family expenditure takes 70.4%. Work commitments 75.5% while financial status taking the largest influence of at 85.2%. These factors hinder teachers' participation in ODL programmes.

4.4 Income Level on Teachers' participation in ODL Programmes

The researcher sought to know the influence of the income level of the respondents on participation in ODL programmes.

4.4.1 Sources of Finance.

This section shows various sources of finance for learners. The findings are presented in Table 4.5.

Table 4.5: Various sources of finance for learners

Source of Funding	Frequency	Percentage (%)
Salary	10	20
Personal Loans	30	60
HELB	8	16
Other sources of income	2	4

The findings clearly show that 20% of the learners use salary, 60% use personal loans, 16% uses HELB while 4% use other sources of income. These findings show that almost all the respondents use personal loans to take up ODL courses. The affordability of personal loans encourages many teachers to participate in ODL programmes.

4.4.2 Relative Cost of ODL programmes

This section presents data on the cost of the ODL programmes. Table 4.6 shows the responses.

Table 4.6: Relative Cost of ODL programmes

	Frequency	Percentage
Extremely Expensive	2	4%
Very expensive	8	16%
Expensive	15	30%
Fair	25	50%
TOTAL	50	100%

The Table 4.6 demonstrates the respondents' view on the cost of Open and Distance Learning compared to other conventional modes. The responses posted show that most learners felt that the

ODL is fair compared to conventional learning. Since the cost is relatively fair, many teachers are encouraged to participate in higher learning.

4.4.3 Ease of fees payment.

This section shows data on the degree of ease with which teachers meet their obligations of paying fees. Table 4.7 shows the responses.

Table 4.7: Ease of fees payment

Declaration	Frequency	Percentage
I pay my fees as and when required.	42	76%
I make fees arrangements	10	18%
I have at least once deferred my studies due to financial constraints.	3	6%

From Table 4.7 it is clear that most students, that is, 76%, pay their fees promptly but a few had to defer. This indicates most of the students pay their fees with relative ease due to ability to have personal loans. This encourages more teachers to participate in higher learning.

4.5 ICT Literacy on Teachers' Participation in ODL Programmes

DL mode thrives best through the use of ICT. This is due to the separation in time and space between the learner and the tutor. The researcher sought to know how ICT factors such as computer literacy, availability of computing resources affect teacher participation on ODL. The responses from the returned questionnaires are summarized in Table 4.8.

Table 4.8: ICT Literacy and availability of ICT Infrastructure in Schools

Factor	Response			
	Yes	%	No	%
Computer Literacy.	39	70.9	16	29.1
Availability of computers at work place.	6	10.9	49	89.1
Availability of ICT resources at the learning institution.	28	50.9	27	49.1
Use of ICT resources at learning institutions.	23	82.1	5	17.9
Use of mobile phone for studies.	52	94.5	3	5.5
Access to internet at learning institution.	23	41.8	32	58.2
Adequacy and convenience of the available ICT resources.	13	23.6	28	76.4

The responses reveals that 70.9% (n=55) are computer literate and thus most are able to use ICT resources with ease. About half of the learning institutions (49.1%, n= 55) do not have ICT resources. This can negatively influence delivery of ODL studies on a greater extent. In institutions having ICT resources, 82.1% (n=28) of the students makes use of it. This implies that learners are in much need of ICT resources.

It is also evident that 58.2% of learning institutions do not have internet connectivity available for learners. This can hinder teachers' participation in ODL programmes given that much of the study resources are available online.

4.6 Accessibility to Learner Support Services and Teachers' Participation in ODL programmes

The researcher sought to find the influence of accessibility to learner support services on teachers' participation in ODL programmes. The responses from the questionnaire are in Table 4.9.

Table 4.9: Accessibility to Learner Support Services

Support Service	Rating	Number	Percentage (%)
Relevance of Course Material	Excellent	8	16
	Very Well	20	40
	Fairly Well	22	44
	Poor	0	0
Opportunity to meet and interact with the Tutor	Yes	31	73.8
	No	11	26.2
Ability to attend face to face meetings at Regional centers	Yes	31	66
	No	16	34
Usefulness of the Regional meetings	Very Useful	10	32.3
	Useful	21	67.7
	Poor	0	0
	Not Useful	0	0
Organization of study groups by universities.	Yes	28	56
	No	22	44
Usefulness of study groups	Yes	19	67.9
	No	9	32.1
Usefulness of Teaching Practice	Very beneficial	28	52.8

Beneficial	18	34.0
Fairly beneficial	7	13.2
Not beneficial	0	0

Table 4.9 shows tabulation on the rating of learner support services by teachers participating in ODL programmes.

The findings show that more than 56% of students found the materials uses for learning being relevant. 73% had an opportunity to interact with their tutors, 66% attended the extra mural centres. 56 % attended discussion groups and more than 80% found teaching practice to them. On average, the responses show that learners find support services very beneficial to their studies. This implies that lack of learner support services can greatly affect teacher participation in ODL.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the main findings of the study, discussion, conclusions and recommendations. The purpose of the study was to investigate the influence of learner characteristics on teachers' participation in ODL programmes.

5.2 Summary of Findings

The following are the research findings of the study:

Demographic factors influence teacher participation in higher learning using ODL mode. There is a weak positive correlation ($\rho = 0.312$) between ages of learners and participation in DL programmes. Other demographic factors such as household chores and family responsibility also hinder many in the participation of ODL programmes.

Income level influence teacher participation in higher learning using ODL mode. 60% of the respondents use personal loans to finance their learning and lack of this loans means that teachers will not be able to participate in higher learning.

ICT literacy influences participation in higher learning using ODL programmes. 94% of the respondents use mobile phones in studies and this encourages more teachers to participate in open and distance learning.

Accessibility to learner support services influences teachers' participation in higher learning using ODL mode because learners find support services very beneficial to their studies. This implies that lack of learner support services can greatly affect teachers' participation in ODL programmes.

5.3 Discussion of the Findings

This section summarizes the findings of the study on influence of learner characteristics on teachers' participation in ODL programmes.

5.3.1 Influence of Demographic factors on learner participation of ODL programmes

The study investigated the influence of learners' demographic factors and their influence in ODL programmes. The findings showed that demographic factors such as age, family responsibilities, family expenditures, and household duties greatly influences participation of teachers in ODL programmes.

Distance learners, by and large, are isolated or semi-isolated students whose concepts of going to school are limited to their study materials, their study space, mailbox and their telephone. However, this separation of the teaching acts from the learning acts means that for most part of their learning activity, learners do not have to be present at any one place or time. As such, learners have greater control over their learning and the choice to manage it in a manner that best suits them. As a result especially for those already in the workforce, learning is more easily accommodated into an already fully, daily programme of activities. The disadvantage of this kind of flexibility with ones learning is that the learning tasks usually suffers from procrastination, lack of peer group support, lack of access to bookstores and library facilities, lack of support from instructors and lack of feedback. Moreover not all who choose to seek education via the Distance Education mode have all that it takes to manage and conduct a successful learning experience on their own especially when trying to combine it with paid employment, (Moore, 1996).

This study clearly shows that gender plays a great role in influencing the participation of teachers in higher learning. Females seem to be having more roles that influence their learning. This agrees with Zuhairi, Zybadah and Daryanol (2008) asserted that social roles may disrupt female students in their studies. This may mean that female students have to choose alternative study methods to help them cope with rest of their lives. They may have to balance their work, cultural and natural roles with their studies. However, this study showed more women participated in higher learning than men. This could be due to the study that shows that even male students have roles which greatly influence their choices to participate as they are left with no money to spend for their studies due to much family expenditure. In addition men are generally the main providers in their families in most of family setup and this may mean that they have to budget their income wisely by including expenditure for their studies to avoid inconveniences in the course of their studies.

5.3.2 Influence of Income Level on learner participation of ODL programmes

The study investigated fees payments, the sources of funds that were used to get money for the fees by the learners. The result showed that learners had different sources of financing for their payments of the fees. The most preferred source of financing were personal loans, salary, and

from Higher Education and Loans Board (HELB). The income level factor was rated on its influence on the learner's participation in higher learning. Investigation showed that there were different sources of fees that were cited by learners among them their salaries, loans from banks, Saccos, HELB and personal business. Most of these learners were employed teachers who could obtain loans from different financial institutions for payment of their fees.

The factor, income level of teachers was related on their influence on the teachers' decision to participate in higher learning. Learners explained that they were afraid of dropping out due to fees problems. As such, opportunities to defer studies gave them assurance that they will be able to complete their courses. This coupled with proper learner support services, use of ICT in a number of courses and duration of studies allow learners to learn at their own pace as required in distance learning. These findings concur with those of Holmberg (1990) who said that Distance Education has been found to be very useful due to its ability to serve large number of students at affordable cost without constraints of space and time. Distance learning is cheap compared to traditional learning. However, it has own hidden costs which include cost of internet connectivity, travelling and cost of materials as well as for writing assignments. Kaye and Rumble (1981) states that, adults who are working and learning by distance need to balance their work responsibilities and studies. This fact is supported by McGiveny (1996) who observes that finance is one of the problem affecting distance learners.

Just like at the UoN where fees charged for the course is rated fairly by students, most countries have at least 50% of the budget is derived from the student fees. China Radio and Television University, RTVU charges fees which are 1/3 and 2/5 what is paid in conventional programmes. In the Open University of United Kingdom, OU-UK, the students fees are also subsidized since the government gives the institution grants. However, in the Kenyan institutions, students' fees are the main source of income for running the school of continuing and distance education, (Gacheri, 2010).

5.3.3 Influence of ICT on Teachers' participation of ODL programmes

The purpose of this study was to investigate the influence of the ICT in distance learning. The findings revealed that all respondents had mobile phones which enabled them to communicate with their tutors and fellow learners. Accessibility to internet facilitated bulky of learning materials and majority of the learners (70.9%) were computer literate.

According to the findings in this study, ICT has enabled learners to access materials from internet for their study. This brings about quality research and more materials to be studied. Communication has become easy as all students have mobile phones to communicate with tutors and their peers. The study shows that mobile phones remain the handiest technology to use currently. The findings revealed that ICT places a lot of autonomy on learners in terms of deciding when, where and what to learn. This agrees with Holmberg(1990) who identified factors of high enrollment as convenience, flexibility and adaptability of distance education as it suits learners primarily those who cannot for one reason or another make use of a classroom teaching. ICT has helped many distance learners to access training where it is convenient for them at home or in the office, (Berkenstain, 2003)

In the rural setting, poor infrastructure still hinders distance learning. Otto (2009) encouraged use of cell phones. Institutions of learning have set various technologies but these are inadequate compared to the number of students enrolling. Noteworthy to point out is the fact that it is only inside the institutions that majority of students in distance learning can access technologies. The idea of convenience therefore lacks as not much technology is used by the participants while within institutions. Though comparatively, print technology is used mostly, lack of appropriate current technologies greatly influences participation of teachers in higher learning, (Otto, 2009).

To conclude, types of media used, barriers, efficiency and accessibility to ICT that were studied influenced teachers' participation in higher learning. These findings are similar to Bekele A (2008) which he says participants should have access to many different types of technological tools:- synchronous, asynchronous and multimedia based and further argues that both infrastructure and tools are crucial for success in online learning environment.

5.3.4 Influence of Learner Support Services on Teachers' participation on ODL programmes

The result of this study indicated that all distance learners needed learner support services for their smooth learning. They need such services as relevant course materials, interaction with tutors, regional meetings and study groups all of which influence participation of teachers in higher learning by distance learning mode.

The findings revealed that all the respondents needed learner support services in order to complete their courses smoothly. This is in agrees with Bowa (2005) who stresses that learner

support services provided by the institutions are factors contributing to participation of students in higher learning. They are so instrumental in making a two way educational communications possible.

Some of the learner support services as King (1998) argue that there is recognition, common to modern distance education that students need some regular human contacts in their studies. Because of the nature of inherent problems students face from time to time, they need relevant course materials, interaction with tutors, regional meetings and study groups to enable revive a spirit of continuing with their studies.

Studies shows that most distance students are faced with problems to do with lack of access to reading materials, their duties as adults which are quite demanding, cost of education in which most cases come from internet accessibility and lack of adequate learner support services. Research findings also shows that there were lack of feedbacks and comments in print materials, inadequate staff at regional centres to solve student problems and that regional coordinators didnot avail themselves when needed. Students learning at distance education programmes have to be highly motivated to persist in their studies as they require instructional support. This is shared with Bowa (2005) who observed that students complained of poor support services.

5.4 Conclusion of the Study

The findings of the study on “The influence of learner characteristic on teachers’ participation in ODL” brought the conclusion that demographic factors, income level, ICT literacy and learner support services plays a major role.

The study sought to examine the influence learner characteristics on teacher participation in higher learning using ODL mode. It was found that the four characteristics have a significance influence on teachers’ participation in higher learning. The findings of the study revealed the following:

Concerning the demographic factors; age, gender and family roles are key areas. Since ODL gives a second chance to teachers, a bigger number who participated are at age bracket of 36 – 45 years. Regarding gender and family roles, women in Mbaruk zone took a lead in participation than men.

The study established that income level of the teachers influenced their participation in higher learning. Students rated personal loans as the main source of their finance to pay their fees. Students rated the ODL programmes fairly priced compared to what is charged in other modes of learning. This is coupled by institutions systems of requiring fees to be paid per part of study. Nevertheless, more students would have found it easier to go through the course if the institutions of learning had measures in place to financially assist those students who have difficulties in fee payment as study found out that some students had been forced to defer their studies at one time or other.

The areas of technology no doubt are the pinnacle of success in ODL. Use of mobile phone is the most common that the respondents utilize. Due to barriers to technology, lack of efficiency and lack of accessibility, the government should come in and assist in the issue of infrastructure for affordability. ODL students must use technology to prosper or else they drop out. These make them closer to their tutors for any advice they would need. It is high time that electricity is put in place to assist those who dropped out of school at early stage of informal learning to take up further education by DL mode.

Lastly, the findings show that the accessibility to learner support services plays a major role in influencing teacher participation in ODL programmes. Availability of course materials, assessment and evaluation and quality of the materials influence teacher participation. Course content was presented in print which was good for teaching distance students located in different geographical locations. Course materials were fairly interactive. Nevertheless, more reading ones and use of more personalized language should be included as well as regular evaluation of materials. Extra mural centres to be more equipped with materials.

5.5 Recommendations

The research recommends the following in regard to this study.

- (i) Teachers should be in a position to make clear and wise decisions on the need and importance of participating in higher learning using ODL programmes for one's advancement individually and for the advancement of the society at large. This is because DL gives them another chance at professional training which generates a better pay and social recognition leading to self-actualization.
- (ii) The government should put in place a better policy for distance learning so that most teachers use it to advance their grades and papers. Scholarships and sponsorship

should be provided in addition to HELB loans. Charitable organizations and well-wishers should be encouraged to help teachers to further their studies.

- (iii) Learning institutions should set up good support systems for course beginners and at regional centres to assist the learners. Meetings at various regional centres should be conducted in such a way that students are encouraged to participate actively in face to face with tutors and group discussions.
- (iv) The use of the commonly used technology such as mobile phones should be put into full use by institutions to reach the learners.
- (v) Since distance learning is the way to go in future, the government should address the issue of infrastructure for it to be effective for technology availability, adequacy, affordability and convenience. Teachers who are not yet computer literate should take initial courses to help them access information readily.
- (vi) There is need to encourage more men and women, young and old to embrace the ODL programmes as the way forward to achieving objectives of higher learning.

5.6 Suggestions for Further Research

1. The influence of demographic factors on teachers' participation in ODL programmes.
2. Influence of ICT on teachers' participation in ODL programmes.
3. Influence of regional centre meetings on teachers' participation in ODL programmes.

REFERENCES

- A.Bekele, T. (2008).*Learner and Instruction Identified Success. Factors in Distance Education: DE* vol. 29, No. 3 Nov 2008, 231 – 252
- ADEA Report (2004). *Distance Education and Open Learning in Sub-Saharan Africa*, Johannesburg.
- Assey, A. (2004). *An investigation into the process and management of Distance Education in Kenya*.A case study of the faculty of External Studies, UON. A MED, Thesis presented at the UON.
- Barret, J, (2004).*E-learning and access. Getting behind the Hype in M.Osborne, J.Gallaher& B Cross. Research widening access to lifelong learning; Issues and approaches in International research*. London. Rout Ledge Falmer.
- Bates, A.W.(2004). *Technology, Open Learning and Distance Education*. London Routledge
- Bekenstain J.D. (2003). Information in the Holographic Universe.Scientific, American.
- Berge, Z.L (2001). *Sustaining DT: Integrating Learning Technology into the Fabric of Enterprise*, San Francisco,CA. Jossey – Bass Publishers.
- Bowa, O. (2005).*The influence of learner support services on academic performance of Distance Learner*. A study of the BED students of the faculty of external studies of the UON.
- Bruce, C (2003) *Seven faces of Information Literacy*; toward learning students in new experiences <http://crm.hct.ae/events/archieve/2003/speakers/bruce.pdf>.
- Bubye, C.D. (2002).*Institute of adult and continuing education in Uganda*. A paper presented during the conference at Kampala International University.
- Cragg, C.E. Andrusyszyn, M.A &Humbert, J. (1999).*Experience with technology and preference for Distance Education delivery methods in a reverse practitioner program: British Journal of DE*.
- Daniel, J. (2006).*Higher Education towards borderless community*, Presented on 3rd April 2006
- Doyle C (1992) *Outcome measures of Information Literacy within the National Educational goals of 1990*.Final Report of National Forum on Information Literacy Washington DC; U.S Department of Education.
- Drouin M.A (2008). *The relationship between students perceived sense of community and satisfaction, achievement and retention in an online course*. University Fort Wayne.

- Evans T. (1994). *Understanding Open and Distance Learners*. London. Kegan.
- Frankel, J.R. and Wallen, E (2000). *How to design and evaluate research in Education*. McGraw – Hill Higher Education USA.
- Gacheri N.F. (2010). *Factors Influencing Participation of Women in Distance Learning*. A Thesis in DE presented in UON, Kenya.
- Gakuu, C.M. (2006). *Analysis of factors and attitude that influence lecturers' readiness to adapt use of ICT in teaching*. The case of the UON. A Thesis presented at the UON.
- Garrison D.R. and Shale (1987). *Researching Dropout in Distance Education*.
- Holmberg B. (1990). *Theory and Practice of Distance Education*. New York, Rontlegde.
- Jain, K.K. (2002). *Motivating E-learners*. A case stersityTunAbdualRazala, Malaysia.
- Joseph N. (2013). *Factors Influencing Enrollment in Distance Learning Programmes*. A Thesis Presented at UON, Kenya.
- Juma M.N. (2002). *The establishment of a Higher Education ODL knowledge Base for Decision making in Kenya*. A paper presented to UNESCO, GENEVA, Switzerland.
- Kaye, A and Rumble, G (1981). *Distance teaching for Higher and Adult Education*. London: Croom Helm.
- Keegan D. (1990). *Foundations of Distance Education (2nd Edition)*: London Rout Ledge.
- Kermath, B. (2007). *What's sustainability and how do we get there*.
- King (1998). *An evaluation of student support services in Open and Distance learning in the University of Namibia*.
- Kinyanjui, P.E. (2010). *The commonwealth of learning Distance Education and Open learning in Africa*. What works or doesn't work. Commonwealth of learning. Paris.
- Kioko M, J. (2012). *Factors influencing enrolment of studies in BED (Arts) by Distance Learning at the UON*. A case at UON.
- Krishnan, C. (2004). *Distance Higher Education in Kerala. Learners' assessment*. Discussion paper no. 101. ThiruvananthaPuram: .Kerala Research Programme.
- Mbogori, D.K. (2007). *An investigation of the relationship between the course delivery system and the learners needs in Kenya*. A case study of the External Degree programme of the UON. A PhD thesis presented at the UON.
- McGiveney, V. (1996). *Staying or learning the course. Non completion and retention of nature in further and Higher Education*. Leicester. National Institute for Adult Continuing Education.
- Mbura, E.M. (2007). *Perception of Distance Study Learners on the effective of support services provided by the faculty of External Studies, UON, Kenya*. An MED Thesis presented at the UON.

- Moore and Kearsley G. (1996) .*Distance Education*.A systems view Belmont, wardsworth publishing company, California.
- Mugenda O.M, and Mugenda A, G. (1999).*Research Methods, Quantitative and Qualitative Approaches*. Nairobi Acts Press.
- Njoroge.F.W.(2011). *Factors influencing choice of Distance Education by Teachers' in ECD programme*.A case at UON.
- Nyabaga, J. N (2012).*Factor influencing enrolment of Distance learning in BED (Arts) degree at UON*.A case at UON.
- Otieno D. (2011).*Factors Influencing Primary Teachers Participation in Higher Education by Distance Learning Mode*. Nyanza, Kenya.
- Otto K.O. (2009).*Open Access through Open and Distance learning*.Are gaps narrowing? The Kenyan experience. A paper presented at the Cambridge International Conference on ODL.
- Approaches*.Nairobi: Africa Center for Technology Studies.
- Parraton, H. (2000).*Open and Distance Learning in Developing World*.London, Rent Lodge.
- Parraton, H. (2010).*Teacher Education: - The role of Open and Distance learning. Commonwealth of learning*, Vancouver, British Columbia, September 2010.
- Potashnik M. and Copper J. (1998). *Distance Education, Growth and Diversity, Finance and Development*. International Monetary Fund.
- Rambo C.M (2008).*Financing Distance Learners in Kenya*.A focus on BED (Arts) by Distance of the UON. A PhD Thesis presented at the UON.
- Raphael, V. N. (2011) *Factors influencing sustainability of BED (Arts) programme at the school of continuing and Distance Education*. A case at UON.
- Republic of Kenya.(1998).*Master plan for Education and Training 1997 – 2010*. Nairobi. Government of Kenya.
- Saitoti G. (2007). *Second International Conference on ICT for Development*.Education and training e-learning Africa.Nbi.
- Tolman, E. C (1932).*Purposive behavior in Animals and Men*.New York Century.
- Thomson S. (2002). *Towards a Strategy for Improved Student Retention in programs of Open and Distance Education*.A case study from Open University of United Kingdom from the International Review of Research in Open and Distance Learning Volume 3.
- UKPO E.O. (2006). *Support for Distance Learners in a Nigerian Distance Education programme*.Academic Support Services Department. National Teachers Institute. Open Learning Vol 21 No 3. Nigeria.

- UNESCO (2003).*Teacher Education through Distance Learning*.Summary of case studies. Paris. UNESCO.
- UNESCO.(2001).*Teacher Education guidelines using Open and Distance Learning*. March 2002. International Institute for Educational planning. Paris. UNESCO..
- UNESCO (2002).*Open and Distance Learning.Trends, policy and strategy considerations*.Paris.UNESCO.
- UNESCO (2004).*Report on Education for All* at UNESCO.
- Walsham, S (2001).Knowledge Management.The Benefits and limitations of computer systems. Europeans Management Journal,
- Wanjuu.W.S. (2012).Factors *influencing effective practices of Distance Education in dual Mode University*.A case at UON.
- World Bank (2003).*Case study on Financing Higher Education*. Washington D.C. World Bank.
- Zuhairi A. Zubaidah I. and Daryanol (2008).*The Roles of Distance Education in the Implementation of the Riget to Education in Indonesia*. Open Praxis.
- <http://www.open.ac.uk>

APPENDICES

APPENDIX 1: TRANSMITTAL LETTER

Date: 2015

TO WHOM IT MAY CONCERN,

Dear Sir/Madam,

RE: ACADEMIC RESEARCH DATA COLLECTION

I am a student at the University of Nairobi pursuing a Master of Arts Degree in Distance Education. In partial fulfillment of the requirements of this degree award, I am conducting an academic research on **Influence on learner characteristic in participation of primary school teachers' in higher education using distance learning mode. A case of Mbaruk zone in Nakuru County, Kenya.**

As a result of this, I kindly request for your assistance in responding honestly to the interview questions. I promise that all the information collected shall be solely for the purpose of this academic research. I further assure you that your anonymity and confidentiality shall be maintained both during and after this study.

Your assistance and cooperation is much appreciated.

Thanking you in advance.

Yours sincerely,

Richard Kinyua Muriithi

APPENDIX 2: QUESTIONNAIRE FOR TEACHERS

Interview date

Questionnaire number

TITLE:- Influence of learner characteristics on primary school teachers' participation in Higher Education through Distance Learning mode

Instructions:

For each of the questions below, kindly tick the most appropriate answer.

PART I: DEMOGRAPHIC FACTORS.

1. Indicate your gender in the space provided

Male { } Female { }

2. Indicate age bracket by ticking the correct one.

25 years and less [] 26-35 years []

36-45 years { } 46-55 years { }

56 and above.

3. What is your highest educational qualification?

KCSE { } Diploma []

Certificate [] Indicate any other.....

4. Indicate number of years in profession before you joined the institution.

Less than 5 years [] 6-10 years { }

11-15 years { } 16 and above

5. Indicate yes or no

- Household chores prevent me from attending study groups discussions
Agree [] Disagree []
- I break in between face to face sessions to attend family responsibilities .
Agree { } Disagree []
- Family expenditure leave me with no money to spend on my studies
Agree [] Disagree []
- Work commitments conflict with my studies.
Agree { } Disagree { }

- In your opinion, does your financial status influence your participation in higher learning?

PART II: INCOME LEVEL.

6. Approximately how much do you pay for the following in the course in Ksh. in case any the option is not applicable? Write N/A

- Tuition fees.....
- Attendance of tutorials.....
- Attendance of study group meetings.....
- Purchase of other text books.....
- Photocopying learning materials.....
- Internet browsing for research work.....
- Postage of assignment to lecturers.....

7. How do you think of the amount of fees payable for this course compared to conventional mode of program?

- Extremely expensive Expensive
- Very expensive Fair

8. Does the university make provision for part payments of the tuition fees?

- Yes No

9. Tick the statement that is true for you.

- I pay my fees as and when required
- I make fees payments arrangements
- I have atleast once deferred my studies due to financial constraints

10. How do you pay for your education?

- Salary HELB
- Personal loans Other sources of income

PART III: ICT LEVEL

For this section please give a correct response according to you.

11. Are you computer literate?

- Yes
- No

12. Does the school you teach in have computers?

Yes

No

13. (a) Do the computers assist you in learning?

Yes

No

(b) If yes please explain how.....

.....

14. (a) Does the institution you are leaning in have computers?

Yes

No

(b) Do you use them?

Yes

No

(c) IF yes, how often?

Very often

Often

Not very often

Rarely

(d) For how long are they available for use?

Break time

Evening

Throughout

(e) In not, why?

Very few

No skill

Not functional

No time to use

15. Tick form the list all the types of technology your institution provides for learning.

Print

CD-ROM

DVD

Video conferencing

Internet

Radio

Others

specify.....

16. (a) Do you have a mobile phone?

Yes

No

(b) Does it assist you in your studies?

Yes

No

(c) State whether you use computer at home, work place or in the institution?.....

17. Give you opinion on the adequacy and convenience of the available technologies within the institution of studies.....

.....

PART IV: ACCESSIBILITY TO LEARNER SUPPORT SERVICES

18. How well does the course material cover the topics in the course outline?

Excellent Fairly well

Very well Poor

19. What is your assessment of the level of interactivity in the learning materials in terms of the following? Tick appropriately.

Aspects	Extremely satisfactory	satisfactory	Fairly good	Poor
Learning activities				
Interactive language				
Provision for further reading cues				

20. How do you rate the quality of the following aspects related to the print media used in your study? Tick appropriately.

Aspect	Very good	Good	Fairly good	poor
Choice of print media for presentation of course material				
Convenience in use of print media for student				
Appropriateness of print media for teaching				

21. (a) Do you have opportunity to meet and interact with the following apart from the residential face to face session organized by the college?

Other students Yes No
Tutors Yes No

(b) If yes, which media technology do you use frequently?

E-mail Print
Telephone

22. Do you attend the face to face meetings organized by the university staff at your regional centres?

Yes No

23. How useful are the regional meetings for your studies?

Very useful Poor
Useful Not useful

24. Does the university organize regular study groups for the students?

Yes No

25. Do you attend any study groups regularly?

Yes No

26. If your answer is yes, how useful are these studies to your studies?

Very useful Barely useful

Useful Not useful

27. How beneficial is the teaching practice of teaching?

Very beneficial fairly beneficial

Beneficial Not beneficial

Thank you so much for your time and willingness to participate in this interview. God bless you so much.