FACTORS INFLUENCING UTILIZATION OF EDUCATIONAL RADIO PROGRAMMES PRODUCED BY KENYA INSTITUTE OF CURRICULUM DEVELOPMENT: A CASE OF PUBLIC PRIMARY SCHOOLS IN RUIRU SUB-COUNTY, KIAMBU COUNTY

John Kamiri Weru

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DECLARATION

This research project report is my original work and has not been presented for a degree in any other university

Signature……Date……

John Kamiri Weru

L45/66597/10.

This research project report has been submitted for examination with my approval as the University supervisor.

Signature……Date……

Dr.Naomi Mwangi

Senior Lecturer,

University of Nairobi.

DEDICATION

This research study is dedicated to my wife Mary Wangui, my son Alex Weru, my daughter Patricia Mutundu, my late parents William Weru and Naomi Mutundu whose moral support and encouragement has brought me this far.

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LIST OF ABBREVIATIONS AND ACRONYMS

CCTV	-	Close Circuit Television
CD	-	Compact Disc
CDF	-	Constituency Development Fund
(CPA)	-	Certified Public Account
DVD	-	Digital Versatile Disc,
EDC	-	Education Development Center
EDU	-	KICD Education channel
EFA	-	Education for All
EMS	-	Educational Media Service
FM	-	Frequency Modulation
FPE	-	Free Primary Education
ICT	-	Information and Communication Technology
IRI	-	Interactive Radio Instructions
KBC	-	Kenya Broadcasting Corporation
KICD	-	Kenya Institute of Curriculum Development
KIE	-	Kenya Institute of Education

KEPSHA	-	Kenya Primary Schools Head Association
KNUT	-	Kenya National Union of Teachers
MDG	-	Millennium Development Goals
MOE	-	Ministry of Education
MOEST	-	Ministry of Education Science and Technology
NCST	-	National Council for Science and Technology
NGO’s	-	Non Governmental Organizations
PI	-	Primary level 1 teacher
SPSS	-	Statistical Package for Social Sciences
TV	-	Television
TVES	-	Information Retrieval Systems
UPE	-	Universal Primary Education
VOK	-	Voice of Kenya

ABSTRACT

This study is aimed at investigating Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of Curriculum Development: The purpose of the study is to make recommendations on how utilization of educational radio programmes can be a success. The study sought to find out to what extent level of awareness, teacher's workload, teacher's pedagogical skill and power supply influenced utilization of KICD radio the programmes in public primary Schools Ruiru Sub- county, Kiambu County. The research adopted descriptive survey design. The targeted population consisted of 29 primary schools, 29 head teachers and 441 teachers. Purposive sampling was used to select teachers each teaching one of the following subjects Mathematics, Science, Kiswahili, Religious Studies and English these were subjects being aired by KICD by the time study was undertaken. Simple random sampling is used to select 5 teachers from each school each teaching one those subjects giving a total of 50 teachers this constituted 11.3% of teachers' population. Data was collected using questionnaires .To improve validity and reliability of the questionnaires a pilot study was conducted in one of the schools that was not to be used in the study. Coefficient Alpha for to internal consistency proposed by Cronbach of 0.75 allowed the use of the instruments to collect data. There after the instruments were fine-tuned as a result of the test trials. Data obtained was analyzed using Excel to determine utilization of KICD educational radio programmes. The study found that teachers and headteachers were aware of existence of radio programmes, many teachers hard a heavy workload among other duties, most teachers and headteachers lacked pedagogical skills in utilization of radio programmes and finally some schools schools lacked cheap power supply or used expensive sources of power. The following recommendations were suggested KICD should in-service teachers and headteachers on the utilization of radio programmes while intensifying awareness campaigns on use of radio to all stakeholders. The Institute should avail broadcast timetables and teacher's guides to schools on time for schools to harmonize broadcast timetables with the school timetable. MOEST should employ more teachers to lessen the workload. The government should hasten the connection of electricity power to schools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Educational radio programmes is content developed and transmitted through radio to the target listener for the purpose of teaching and learning. Radio has been used for instructions in a number of countries as illustrated. In Thailand radio has been used to teach mathematics. In India it has been used in teacher training. Other countries that have used educational radio includes: Columbia and Mexico, for literacy training and other programmes. Nicaragua has used radio for health Education. In Philippines educational radio has been used, for nutrition education. In Africa educational broadcast have been used in Nigeria, South Africa and Botswana.

In Kenya Broadcast-to-schools was started in 1963 and transmitted through the national broadcaster the then Voice of Kenya (VOK) then through World-Space project in 2001.In 2007 broadcast reverted back to the national broadcaster now named KBC. It was assumed that this would enable more schools access the educational broadcast as this channel is cost effective and reception signal is available in most parts of the country. In addition, the broadcast would be accessible through ordinary radio recievers which are easy to operate (KIE 2005). Radio broadcast to schools has been identified as one of the strategies to be used to ensure the access (Sessional paper No.1 of 2005) for that reason KICD was allocated a dedicated radio and T.V channels to broadcast educational media programmes in 2010.

According Hawkridge and Robinson (1982) utilization of educational broadcasting depends mostly on the local conditions, which includes distance, population density, power supply and transport. Hawkridge and Robinson continue to say *"For radio to be operated there is need for power supply, in some areas there might be no supply of power or reception, areas where reception is poor utilization may be affected".* Radio receivers and their maintenance is another important condition for proper utilization of radio programmes. Teachers and learners must be informed on scheduling of programmes this call for resources like broadcast timetables and teachers guide be in place on time .Teachers are very crucial in the success of radio broadcast this then will require effective training of teachers. Regular in-serves courses and workshops should be organized for head teachers, classroom teachers and key stakeholders. This will happen if there is collaboration between the broadcasting organization and the body employing teachers. However if effective training of teachers is not done the educational programmes will not be successful (Hawkridge and Robinson 1982).

In Kenya monitoring of use radio programmes done in 2005 indicated that 84% of schools were utilization radio to teach various subjects (KIE 2005) the use decreased to 56% in 2008 while in 2010 the use reduced to 30.7%, (KIE 2010). However in 2012 utilization raised slight to 31.6% due to intervention strategies undertaken.The downward trend continued that 2013 utilization was at 23% (KICD 2013). When compared to countries like Japan, Sweden and Canada utilization of radio progrmmes is up to 90% in both primary and secondary (Hawkridge and Robinson 1982).While in United Kingdom it is 95% (Burton & Paulu 1981).

Other than airing the educational radio programmes KICD also disseminates educational materials through compact disc and audio tapes .These material are sold at KICD Multimedia Bookshop as the main outlet. Sale of compact discs and audio tapes was at best in 1997 in that year 6,604 audio cassettes were sold however sales went down in 1998 to 3,312 declining further in in1999 to1,259 (KIE1999). Between 2012 and 2014 sales were so low that only 494 audio cassettes were sold (KICD 2012-2014) Most of the sales to private schools (89.3%) public primary schools purchasing only 10.7% of the audio materials. This is a clear indication of low utilization of the education audio materials.

Educational radio broadcast by KICD occupies eight hours of every day on the KBC English Service Channel transmitting 3,300 programmes annually. The programmes target primary and secondary school learners whose focus is the school curriculum. The programmes also target learners in teacher training colleges, education officers as well as the general public

To facilitate in utilization of radio programmes the government issued 16,000 radio receivers to public primary schools with an aim of supplying at least 30,000 radios by the end of the project (KIE 2005). Apart from supplying receivers Kenya government pays excess of 40 million shillings annually to air broadcast to schools radio programmes not mentioning money spent on their production and human resources (KIE 2008).There is constant need to obtain feedback on the problems the schools are facing in implementing the radio programmes and formulate possible solutions and effect intervention measures. Therefore the study intended to investigate Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of

Curriculum Development in Public Primary Schools in Ruiru District. The study of Ruiru Sub-County may shed light on reasons there is a low utilization of the radio programmes in the other part of the Republic of Kenya.

1.2 Statement of the problem

Monitoring of utilization of KICD educational radio programmes done in 2005 indicated that 84% of schools were using radio to teach various subjects (KIE 2005). In 2008 Monitoring indicated 56% of primary schools utilized radio programmes, in 2010 utilization had drop to 30.7%, (KIE 2010) while in 2012 utilization slightly increased to 31.6% while in 2013 utilization went down to 23% (KICD 2013) to add on to this the sales of packaged radio programmes have also been on the decline. Despite the government investing a lot of money in production and airing of the radio programmes the utilization of the programmes has continuously decreased. Hence there is need to investigate factors leading to low usage of the programmes and recommend appropriate measures to be taken to reverse the trend.

1.3 Purpose of the study

The study intended to investigate Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of Curriculum Development with a purpose of making recommendations on how the utilization of the programmes may be improved**.**

1.4 Research Objectives

The study was guided by the following objectives:

i. To examine the influence of level of awareness on utilization of KICD Educational radio programmes.

ii. To establish the influence of teacher's workload on utilization of KICD Educational radio programmes.

iii. To establish the influence power sources on utilization of KICD Educational radio programmes.

iv. To determine the influence of teacher's pedagogical skills on utilization of KICD Educational radio programmes.

1.5 Research questions

i. Does the level of awareness affect the utilization of KICD Educational radio programmes?

ii. Does the teacher's workload affect the utilization of KICD Educational radio programmes?

iii. Does source of power affect the utilization of KICD educational radio programmes?

iv. Do teachers have the required pedagogical skills to enable them utilize KICD Educational radio programmes?

1.6 Significance of the study

The study is important to KICD because it will suggest improvement on strategies that may lead to better utilization of the educational radio programmes. The study will be of benefit to Directorate of Quality Assurance and Standards of the Ministry of Education Science and Technology in developing policies aimed at enforcing utilization of the radio programmes as a strategy of delivering content. The curriculum developers will benefit from the study by obtaining information on how to producer quality radio

programmes resources and on the need to create awareness on such resources. Field educations officers are also expected to benefit from the study by ensuring teachers are using alternative delivery methodology in their teaching. Teacher training colleges are also expected to benefit from the study as they prepare teachers on different strategies that can be used to deliver content. The other beneficially of the study are teachers, teachers are the most important in the implementation of the curriculum hence the information obtained from the study will help teachers in the use of radio programmes.

1.7 Limitations of the study

The school radio broadcast programmes produced at KICD are transmitted through the national broadcasting station, Kenya Broadcasting Corporation (KBC) to all parts of the republic. Kenya has more than 200 sub counties because of time limitation it was not possible to collect data from all the sub counties. Kenya has lately experienced security challenges in parts Coast, North Eastern and Eastern regions this limits data collection in those areas. Lack of adequate finances to pay for allowances, travel, production of data collecting instruments limited collection of data. The lack of secondary data on the utilization of radio programmes is yet another limitation the researcher had to contend with. Some respondents may not be willing to give truthful information on the fear of victimization. This may compromise the validity of the data collected. For these reasons the researcher restricted the study to Ruiru sub-county that mean that the findings cannot be generalized to the larger population.

1.8 Delimitations of the study

Delimitations define the parameters of the investigation. In the study the researcher confined his study to teachers and head teachers of public primary schools of Ruiru sub-county. Teachers and head teachers are trained in uses of various teaching methods used to deliver content hence expected they would give informed information. Private schools and secondary schools are excluded from the study because they were not issued with radios. The researcher only administered instruments to teachers who were on session at the time of study.

1.9 Assumptions of the study

The assumptions of the study are that teachers and headteachers would give truthful information to the researcher. Most public schools were supplied with radios by MOEST it can be assumed that there are radios in the schools. The other assumption is that the schools obtained copies of radio broadcast teachers' guide and the broadcast timetable. The Kenya Institute of Curriculum Development performs awareness campaign on broadcast to schools through the media, and the teacher's forums held annually. Therefore the assumption that teachers are aware of the radio programmes can be made. KICD Radio programmes are aired through KBC radio station, English service. KBC is the national radio service, radio signal reach all parts of the country hence an assumption that there is reception of radio programmes in all parts of the country Ruiru included.

1.10 Operational definition of significant terms

Awareness - This refers to the knowledge that educational radio programmes developed by KICD are aired through KBC English Channel to schools.

Workload - This is the work assigned to a teacher. The work may include teaching, co-curricula activities, setting of examinations, guidance and counseling, boarding master or mistress among other duties.

Power supply - This is the energy source needed to run the radios. Power supply may be from the national grid line, generators, solar power and wet and dry batteries or any other power source.

Pedagogical skills- These are teaching skills or methods teachers employ for effective delivery of radio programmes. The skills include; ability to incorporate radio lessons in their work plan, prepare teaching resources, listening skills, guiding the learners as per instructions from the radio teacher during and after the radio lessons, arranging learners for a radio lessons and motivating learners to listen to radio broadcast.

Utilization - This is listening to radio programmes prepared by KICD and aired through KBC.

Radio Programmes- These are educational radio programmes prepared by KICD targeting primary and secondary schools, teacher trainees, education officers and the general public.

Edu-entertainment - These are radio programmes that not only provide information also entertain

In- service -This refers to short courses offered to teachers and headteachers

Already practicing on issues arising from the curriculum such as preparation of teaching resources.

1.11 Organization of the study

The research study is organized into five chapters. Chapter One deal with the general introduction to the study, statement of the problem, the purpose of the study, research objectives, research questions significance of the study, limitations and delimitations of the study, assumptions of the study and operational definition of significant terms. Chapter Two covers literature review under the following sub-theme; utilization of educational radio programmes, level of awareness , teacher's workload , pedagogical skills , power supply the theoretical and conceptual framework, summary of literature review and summary of research gaps. Chapter Three describe the research methodology, research design, target population, sample size and sampling procedure, data collection instruments, validity and reliability of the research instruments, data collection procedures, data analysis procedure, ethical issues and operational definition of variables. Chapter Four covers data presentation, interpretation and analysis. Chapter Five concentrate on summary of the findings, discussions on the findings, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the researcher reviewed literature related to Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of Curriculum Development. The literature is reviewed under the following themes; utilization of educational radio programmes, levels of awareness, teacher's workload, power supply and pedagogical skills. The researcher attempted to identify gaps on the findings from the other research work done on the area. Finally the researcher presented the theoretical framework and Conceptual framework of the study.

2.2 Utilization of educational radio programmes

Evaluation of communication programs, projects and experiments have repeatedly shown that radio can teach; it can present new concepts and information (Galda & Searle, 1980; White, 1976, 1977; Leslie, 1978; Jamison & McAnany, 1978; Byram, Kaute & Matenge, 1980; Hall & Dodds, 1977; McAnany, 1976). In this regard, Sweeney and Parlato (1982) concluded that radio plays an effective educational role both as the sole medium and in conjunction with print and group support. Educational radio has been used for instructions in a number of countries as illustrated. In Thailand radio has been used to teach mathematics to school children (Galda, 1984) while in India it has been used in teacher training (Faulder, 1984), and rural development (Long, 1984). Other countries that have used educational radio includes: Columbia, for various programs (Muhlmann, Masoner, & Bernal, 1982). Mexico for literacy training and other

programs (Ginsburg & Arias-Goding, 1984), Nicaragua, for health education (Cooke and Romweder, 1977). In The Phillipines radio has been used for nutrition education (Cooke & Romweder, 1977).In Guatemala, educational radio has been used to promote changes in farming practices and to improve production (Ray, 1978).

In Africa educational broadcast have been used in countries like Nigeria,South Africa, Somalia, Botswana and Swaziland. In Nigeria Radio Nigeria started eighteen and a half hour a day broadcasting educational programmes Mackey(1964) states *"Nigerian are keen on education and once they realize what a nationwide school broadcast system has to offer they will make full use of the available facilities"*. In Somalia, EDC uses shortwave radio to broadcast instructional segments on basic reading, math, and life skill *Educational Radio in Somalia (2008). In* Botswana, radio has been used for civics education (Byram, Kaute & Matenge, 1980) in Swaziland it has been used for public health purposes (Byram & Kidd, 1983).

In Kenya according to Ominde (1964) in the Education Commission Report indicated that radio provides a wonderful means of bring the outside world into the school in a way never before possible. This shows that as early as in the sixties the Kenya government through Kenya Education Commission has encouraged the use of radio to reach pupils who are disadvantaged by communication difficulties, poverty and isolation. Kinyanjui (1973) say that radio has been used to support correspondence courses in Kenya.

2.3 The influence of the level of awareness on the utilization of radio programmes

According to Fullan (1982) administrative machinery has been identified as a factor influencing curriculum implementation. He assert that "*administrative machinery need to ensure adequate communication take, communication is one of the strong factors affecting African system of education. All too often head teachers, teachers and parents are ill informed about intended changes in school programmes".* Therefore communication has to be effective if curriculum implementation is to take place successfully.

Broadcasting is transmission of programmes by different types of media. For consumers to utilize a resource, they must be aware on it existence. Hawkrige (1982) stated that educational radio is broadcasting programmes aimed at teaching directly and indirectly both for formal and non- formal learning. For better utilization of broadcast radio programmes efforts must be made to publicize the resource. In United Kingdom publicity of radio broadcast is done through other radio stations, leaflets and posters which are sent to public libraries and educational centres (Hwarkridge1982). Britain also supplied 38,200 radio receivers to primary schools between in 1978-9, by this time about 92% primary schools used radio BBC, overall 95% of all schools in UK use radio (Burton Paula1981). In USA awareness is created by advertising on the existing radio stations Hausman et al (2007) noted "Radio is an ideal sales vehicle to stretch the imagination as well as mind" In Kenya Okumbe J.A (1998) emphasis the need to market goods and services. He notes that marketing an educational organization entails making consumers aware of services and goods on offer. In this respect KICD must make a

deliberate effort in making its services known to the consumers. The study hence try to find out gaps in the way KICD is making consumers aware of radio programmes.

2.4 The influence of the teacher's workload on the utilization of radio programmes

In many schools there are various position of responsibilities assigned to a teacher according to Sushila (2004). In United Kingdom a teacher may be in charge of timetable, curriculum, careers, examinations, discipline and student welfare. Cole M. (2008) states that in United States of America teachers, alongside the core teaching duties they are required to assess learners, do career appraisal, review learners for further training, maintain discipline, follow learners health and safety issues, attend staff meetings, cover for absent teacher, administer public examinations and do administrative work .Wango (2009) notes in Kenya other than teaching a teacher may be in charge of clubs and societies, games and sports. Proper utilization of any medium requires careful planning. The teacher need to encourage the students by motivating them to learn effectively from radio programs (Chaudhery,1996). A teacher need to help students to benefit from listening to radio broadcasts by being attentive and carrying out the activities given by the radio teacher. These activities may be during radio lesson or even after lesson. Preparations for a radio lesson involves collecting materials needed for the lesson, reading and interpreting instructions in the teacher's guide and prepare charts among other activities before the lesson starts. The teacher will also be required to make sure a radio is available and in working conditions. Curriculum designed by KICD is meant to help the learner development in the areas of cognitive, psychomotor and altitude. However the teaching in schools tends to put too much emphasis on passing examination at the expense of the learners developing holistically. Learners require not

only to develop their mental capability but also skills and attitudes. According to a monitoring report KIE (2010) radio programmes are most helpful in improving learners' listening skills. In the book *Crises in the curriculum* (Cuff and Payne 1985) the authors notes "*we are not concerned solely with the preparation of students for examination but developing a sociological outlook which recognizes that the individual exist in relation to other part of the society .The schools heads, parents and society are all putting pressure on teacher to achieve good grades both for a good prospect of the learner advancing in career, getting praises for the head teacher or getting higher enrolment hence better profit for the owner. The influence is now so strong especially when taken in conjunction with the desire of principals and head teacher for statistics which proves that successful teaching is taking place is necessary for examination success rather than guiding the students towards appreciation of sociology"*. The pressure from the schools heads, parents and society to perform well in examinations in addition to the already a heavy teaching workload may make the teacher reluctant to utilize the radio programmes he/she see radio lessons as an added workload. The study attempted to establish the influence of teacher's workload and pressure to pass exanimations affects utilization of KICD the radio programmes.

2.5 The influence of Power supply on the utilization of radio programmes

In order for the learners to use the radio programs there must be equipment like the radios, speakers, telephone connections and infrastructures like power supply Rayundu (2005). Radios will require source of power either through batteries, solar energy, generators or grid electricity connections, this has a bearing on cost because lack of electricity would mean using expensive source of power like batteries and generators.

Study done by KICD in 2010 indicated 38.1% of primary schools used electricity as a source of power while 33.5% used dry cells to run their radios. The use of dry cells is a concern since dry cells are expensive and considering many schools uses world space radio receivers which are heavy consumer of dry cells. This means schools experience budgetary constraints in buying the cells and some may not even be able to sustain the radios (KIE 2010).If schools lack cheap power, power supply is erratic or very expensive this would lead to low use of radio programmes. Johnson and Huff (2000) notes that lack of power or power cuts may affect the use of radios. Alola (2012) add that regular power supply in various listening centres should be guaranteed to ensure hitch free educational broadcast. Therefore there is need to investigate if presence or absence of cheap source of power has effect on the utilization of educational radio programmes.

2.6 The influence of teacher's pedagogical skills on utilization of the radio programmes

Pedagogy can be defined as the art of teaching. Pedagogy involves the ability to convey knowledge and skill in away a student may understand, remember and apply. According to McBride (1990) teachers especially newly recruited may not be aware of different methods in which content can delivered. Nunan (1998) and Cohen et al (2000), says that teachers who are interested in day-to- day aspect of teaching should be more interested in the methodological considerations. Capel et al (1996) advance for learner centerd methodology in teaching. Successful use of radio programmes relies heavy on the headteachers and the teachers. Dikshit (2002) notes that headteacher helps in making the whole exercise of radio programmes effectiveness, efficient and shapes the manner in which they are used in the school.

The headteacher will have the responsibility of ensuring; there is a radio in school which is in working condition, broadcast timetable is factored in the school master timetable, every teacher whose subjects is covered by radio broadcast has a timetable indicating the programme and have also factored radio lessons in individual scheme of work and lesson plan. According to Wambutta (1993) head teachers should ensure that teachers supervise their classes during radio programmes. The teacher on the other hand is very crucial in the success of the radio programmes. “From experience; teaching with any medium requires careful planning. If radio programs are to be used effectively the teachers’ role must be spelt out clearly” Satyanarayana & Sesharatnam (2000). They need to help learners to benefit from listening to radio broadcasts by being attentive and carrying out the activities given by the radio teacher during and after the radio lesson.

Perraton (1978) states that group learning is more effective than individual learning and that group discussion is an effective method of learning from radio. The facilitator must converse with students in order to emphasize the main points covered by radio programs as well as to provide feedback where necessary. The facilitator must ensure that programs are supported by visual demonstrations, that groups are cohesive, and that discussions are carried out effectively by employing techniques of group discussion (Daniel & Marquis, 1983; Moore, 1983). Multi-media such as print materials, posters, films, and chalk boards, must be used to elaborate the main points to students. Finally, Bates (1982) argues that it is important to identify clearly the primary target audience in order to select appropriate production styles and transmission arrangements which are best suited to that audience.

Educational radio can be most effective when supported by trained facilitators, group learning, group discussion feedback, and the use of multimedia approaches. Perraton (1978) argued that trained facilitators must be used in order to successfully utilize educational radio. In another study, Sehram (1977) observed that educational broadcast are not meant to replace or take over from the classroom teacher but instead are meant to supplement the teacher's work. In order to reach widespread acceptance as a beneficial educational tool, it is imperative that radio be utilized and evaluated as such a tool, rather than the hasty, uninvolved use by what Postman calls "one-eyed prophets" Postman (1993,), or by educators who practiced traditional, non-engaging methodology in conjunction with its use in the classroom.

In the current globalized economy a country requires an ICT- literate workforce that will enhance its participation in the knowledge economy. In Somalia teachers trained with skills to integrate ICT in their lesson has their learners perform better than students without interactive radio instructions in mathematics and Somali literacy (*Educational Radio in Somalia,* 2008). In Kenya ICT has been integrated in the syllabuses for pre-school teacher training while capacity building to equip serving teachers with ICT skills has been a priority Ministry of Education 2006-2011 Strategic Plan MOEST (2006-2011).

In a study on problems encountered in teaching of home science by radio in primary schools in Langata division, it was found that teachers have a positive attitude towards use of radio in teaching. The researcher however observed that there is a problem in that teachers were not adequately enlightened on how to conduct radio programmes Wambutta, (1993). She recommended frequent in service of teachers on how to conduct

radio programmes. According Olouch (1982), Omulando and Shiundu (1992) one of factors in implementing any curriculum is the in-service training of teachers. In-servicing is training of teachers on how to handle an aspect of curriculum while they are still in the field. This then calls for teachers to have skills in harmonizing the class timetable with radio timetable, integrate radio lessons with the class lessons, preparing teaching resources, effective listening, taking cues and instructions from the radio teacher. Therefore the study tried to evaluate whether teachers have the requisite pedagogical skills to enable them use radio programmes effectively.

2.7 Theoretical frame work.

Radio can be used to present content through lectures, talks, speeches, drama, role play, discussion and even modeling. According to Kombo D.K, Tromp L.A (2006) a theory is a reasoned statement or groups of statements which are supported by evidence, meant to explain a phenomena. Theories can provide an understanding of how people are most likely to respond to a communication such as a radio drama under given conditions. Theories help determine what type of communication is needed to encourage the audience to make specific behavioral change. Theories may also suggest motivations for a character's behavior or anticipate how listeners will respond to a plot twist. In this way, scripts draw insight from tried and true explanations of communication and behavior change, while ensuring that those insights become an integral part of a compelling story. The cognitivists say learner uses cognitive process to receive or process information. They call this process of receiving information environmental stimuli. For this process the teacher must select appropriate instructional plans while learner’s mind must apply relevant cognitive operations to process the new knowledge structures (Streibel, 1986).

David Ausbel Theory of Meaniful Instruction place a lot of value to well written learning instructions. He says that learners can understand better facts, principles, procedures and rules without the teachers or peers interpretation so long as they a written properly. The theory of Meaniful Learning has influenced the design of instruction in course development. The theory suggests that the content to be learned must make sense to the learner in order to understand it. The content can only make sense if it is properly presented leading to understanding of the knowledge.

Constructivists theorists talk about learners being allowed to seek multiple points and perspectives (Gardner and Hatch,1989).They continue to say that knowledge domains are interconnected and not isolated therefore the learner should be allowed to attain self-understanding cognition. They should solve issues using knowledge from as many sources of data, opinions and perspectives as possible.

The conversational theory talk about the learning as interpretation of the real world, there is a need to conduct several conversations to clear misconceptions and uncertainty. Language is very important because it is through the language of conversation that a learner is able to construct physical and social world.

Gachuhi and Matiru (1989) notes that Holmberg didactic conversation theory stipulates that suitable two way communication is established through personal relationship which is developed through correspondence therefore there is need to establish telephone connections in order for two way conversion to occur.

Hari- Augustin and Thomas (1991) self-organized theory suggests that conversation is exchange of meaning.

Cybernetic theorists suggest that living things depends on the constant flow of information to survive. The information given by the distance educator to the learner leads to information transfer from the learning materials to the learner.

Education system theory suggests that learners learn differently at different places, at different rate, in different times and have different learning needs and wants.

Equivalency theory states that that there is no difference between teaching by face to face and at a distance. Both systems of learning are equal to each other in terms of teaching and learning.

Bandura's Social learning theory of 1986 may help drama writers identify the types of characters that most attract the audience, the consequences of behavior that people are concerned about, and the types of stories that give people increased confidence in their ability to perform a behavior. Modeling is part of the stock-in-trade of the radio drama writer, who deliberately creates role model characters whom the audience can admire and choose to copy. Sometimes the writer also creates negative models to demonstrate the unfortunate results of undesirable behavior.

Behaviorist suggest that intelligence is not inherited, human beings are born with a blank slate but are trained to learn. Human beings can learn anything provided that content is presented in an appropriate rewarding way (Skinner B. F 1938).

These theories may assist in construction of quality radio programmes.

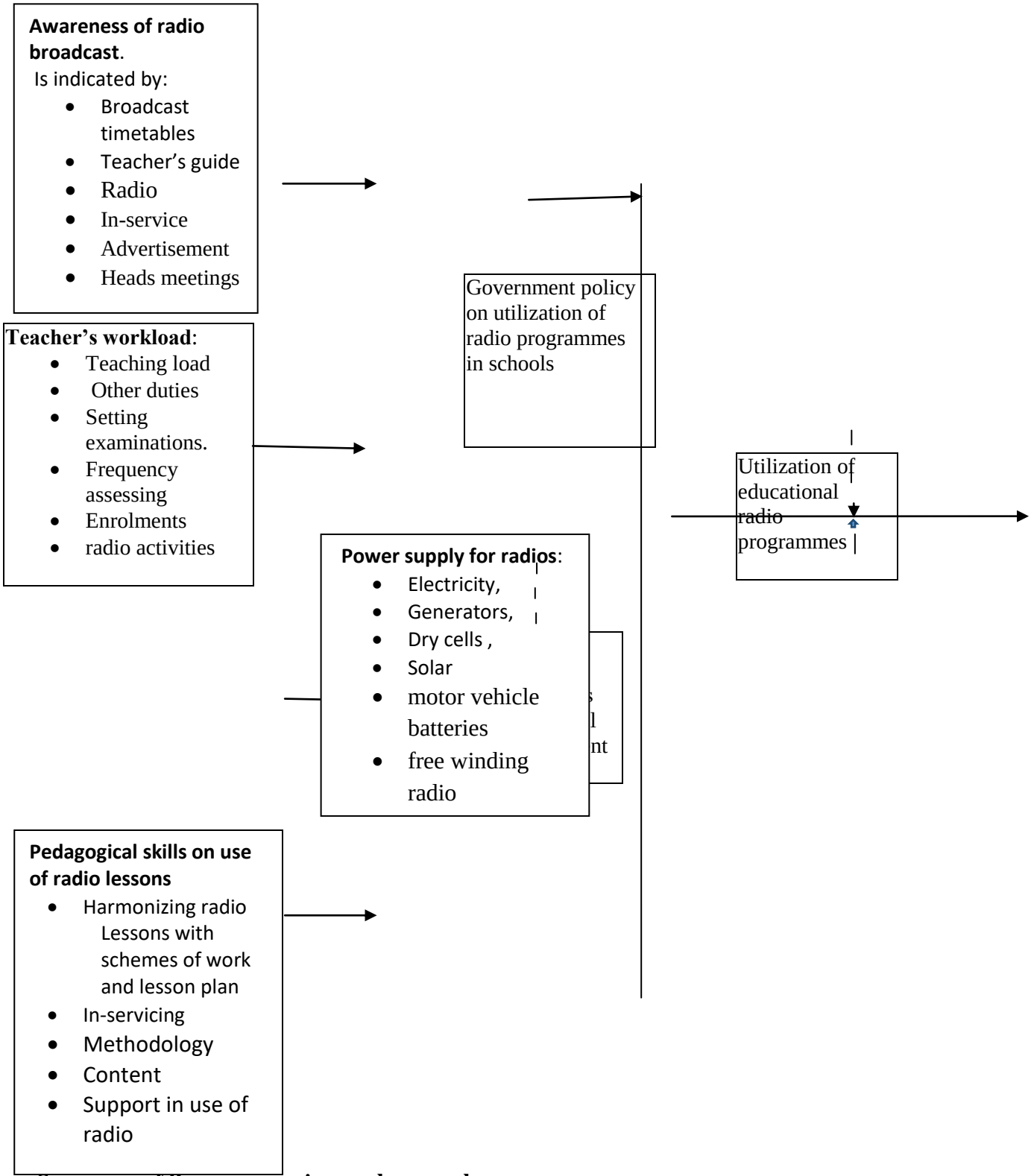
2.8 Conceptual framework

Kombo D.K and Tromp L.A (2006), state that conceptual framework may be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. Kombo and Tromp add that conceptual framework

is important because it assists a researcher to organize work and complete an investigation successfully. A well-constructed conceptual framework guide the entire research writing process and keep the research on track and save time. The conceptual framework indicates the effects of the independent variable (cause) on the dependent variable (outcome). In this study the independent variables are; level of awareness on the existence of educational radio programmes, teacher's workload, pedagogical skills teacher should have and inexpensive power source to run radios. The study investigated how these independent variables affect the dependent variable. Other variables that may influence utilization of the educational radio programmes but may be not measured are government policy on the utilization use of educational (moderating variable). Fear that a classroom teacher may not measure up to the standard of the radio teacher in terms of content knowledge may also affect the utilization of educational radio programmes however this variable will not be measured, it will be considered as an intervening variables. Another intervening variable is level of entertainment. The educational radio programmes produced by KICD are supposed to be Edu- entertainment that is they educate and also for entertain, however it is difficult to measure the level of

entertainment. The conceptual framework relationship between independent and dependent variables are illustrated in Figure 1.

Figure 1. Conceptual framework



2.8 Summary of literature review and research gaps

Educational radio has been used for instructions in a number of countries. In Kenya, Kenya Education Commission advocated use of radio.

Different countries use different ways of bring awareness for instance publicizing through existing of radio stations and using leaflets and posters. The study therefore will try and find out if there is a gap in the way KICD bring about awareness of its products to the consumers.

Teachers are key in the success in any learning process they are responsible for delivering curriculum to the learners. Other than teaching they are assigned other non-teaching responsibilities hence an increased workload. Therefore the study attempted to establish the influence of teacher's workload on utilization of KICD the radio programmes.

For teachers to use radio programmes efficiently and effectively they have to have skills necessary to deliver the content. In order for the teacher to successful utilize the radio programmes he/her must have such skills like ability to; harmonize the class timetable with radio timetable, integrate radio lessons with the class lessons, preparing teaching resources, effective listening, take cues and instructions from the radio teacher . The study hence evaluated whether teachers had the requisite pedagogical skills to enable them use radio programmes effectively.

In order for the learners to use the radio programs infrastructures like power supply is required, power may be supplied through batteries, solar energy, generators or national grid electricity connections, some sources of power like batteries and generators are very expensive. This means schools using expensive power source experience budgetary

constraints. Therefore there is need to investigate if presence or absence of cheap source of power has effect on the utilization of educational radio programmes.

The study was guided by a number of theories such as David Ausbel Theory of Meaniful learning, Gardner theory on multiple points and perspectives, conversational theory, equivalency theory, Bandura's social learning theory and Skinner B. F Behaviorist theory.

The researcher was guided by the following variables: Awareness of radio broadcast, teacher's workload, power supply for radios and pedagogical skills as independent variables while the dependent variable is Utilization of educational radio programmes.

The study aimed to investigate factors influencing utilization of Educational Radio Programmes Produced by Kenya Institute of Curriculum Development in Ruiru Sub-county Kiambu County. It is very important for KICD to understand the effectiveness of the programmes it produces so that improvements on the, awareness, productions, training and advice on the relevant authorities on provision of power supply may be made. This will then lead to better utilization of the radio programmes to the target groups.

CHAPTER THREE

RESEARCH METHODOLOG

3.1 Introduction

This chapter presents the research methodology that is employed in this study. The researcher discuss the research design, target population, sample size, sampling procedure, data collection instruments, piloting of the instruments, reliability and validity of data collecting instruments, data analysis procedures, ethics in research and operational definitions of variables.

3.2 Research Design

The study to investigate Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of Curriculum Development in Public Primary Schools in Ruiru sub -county adopted the descriptive survey design.

According to Orodho (2004) descriptive survey design allows researchers to gather information, summarize, present, and interpret for the purpose of clarification.

Borg and Gall (1989) note that descriptive designs are used by researchers to gather information ,summarize, present and interpret it for the purpose of clarification and producing statistical information about aspects of education and interested policy makers and educators. Survey design is suitable for this study for it helps get information from teachers and the head teachers who are an informed group. The design is appropriate when dealing with a magnitude of the study population such as that which is required for this study.

According to Kerlinger (1986), survey studies are designed to review characteristics of a population of a group using a representative sample.

3.3 Target Population

According to Orodho (2004) descriptive survey studies, two categories of respondents are crucial, namely, informed specialists and consumers or users.

Ruiru sub-county has a total of twenty nine public primary schools, four hundred and forty one teachers and twenty nine head teachers (Kambui 2011). Head teachers ensure the curriculum is taught as stipulated by the policy. They are also responsible for internal supervision and general administration of the school. The teachers on the other hand are entrusted with the implementation of the curriculum to the learners. Therefore head teachers and teachers they informed specialists. The study was conducted in Ruiru sub-county Kiambu County. Ruiru sub-county is about 17 kilometers from Nairobi its' headquarters are in Ruiru town. Singleton (1993) observed that ideal setting for any study should be accessible to the researcher and allow immediate rapport because of accessibility. The sub-county is yet to be divided into divisions as the present Ruiru sub-county is just a zone of larger Thika district but is broadly divided into two zones Githurai and Ruiru. Therefore the target population of the study is the, 29 headteachers of the 29 public primary schools and 441 teachers as indicated on Table 3.1

Table 3.1 Target Population

Category	Population

Head teachers	29
Teachers	441
Total	470

3.4 Sample Size and Sampling procedure

The Ruiru sub-county has two administrative zones Ruiru and Githurai, 10 public primary schools were randomly selected five in each zone to form part of the sample to be studied. Purposive sampling was used to select teachers teaching one of these subjects; Kiswahili, Mathematics, Science, Religious Studies and English in each school. These are some of the subjects aired by KICD. The researcher then randomly picked five teachers each teaching one of these subjects Kiswahili, Mathematics, Science, Religious Studies and English in the sampled schools. This gave a total of 50 teachers constituting 11.3%. All the10 headteachers of the selected schools were sampled constituting 34.5%.

Gay (1996) says a sample of 10% of a population is the minimum for a descriptive research. The composition of the target population and sample is shown on Table 3.2

Table 3. 2 Composition of the Target Sample

Respondents	Population	Sample
Heads	29	10
Teacher	441	50
Total	470	60

3.5 Data Collection Instruments

The researcher employed questionnaires in this study to collect data. Head teachers and teachers responded to structured questionnaires. Questionnaires were used for the study

because they provide anonymity, the questions are standardized the procedure is uniform and are economical. Questionnaires can be used to collect information from a large sample, giving the respondent time to think about the response and finally they are easy to score.

According to Piel (1995) questionnaires provide a cheap means of collecting data from a large number of people. The items in the both questionnaires covered the demographic characteristics of the respondents, awareness level, teacher's workload, pedagogical skills, sources of power and problems encountered in the use of KICD educational radio programmes. The respondents were asked to tick in the space provided for closed-ended questions. For open -ended questions the respondents were to provide in depth response to factors affecting utilization of educational radio programmes.

3.6 Piloting of the instruments

According to Kombo and Tromp (2006) to ensure the effectiveness of questionnaires a pre-test should be carried out**.** Before the actual study is undertaken piloting was done in one public primary school which had similar characteristics with the sample schools to check on their validity and reliability.

Orodho (2004) say in piloting the researcher is concerned about the validity and the reliability of the instruments.

Wiersma (1985) say piloting is vital as it helps identify misunderstanding, ambiguities and inadequate items.

3.6.1 Reliability of data collecting instruments

Reliability refers to the consistence of the scores obtained. Mugenda and Mugenda (1999) define reliability as a measure of the degree to which a research instrument yields consistent results after repeated trials. To ascertain reliability of the instruments, questionnaires were administered to the head teacher, five teachers each teaching one of the subjects; Mathematics, English, Kiswahili, Science, and Religious Education. The scores obtained were subjected to internal consistency technique; one item is correlate with scores obtained from other items in the instrument. The reliability coefficient is calculated using coefficient alpha proposed by Cronbach (1951) $\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$ α

N is equal to the number of items, c-bar is the average inter-item covariance among the items and v-bar equals the average variance. The calculation yielded a correlation co-efficient of 0.75.Mugenda and Mugenda (1999) say a correlation co-efficient of 0.71and a bove should be accepted for an instrument to be reliable.

3.6.2 Validity of data collecting Instruments

Mugwenda and Mugenda (2003) define validity as the degree to which results obtained from the analysis of data actually represent the phenomenon under study.

Kothari (2003) says that the basic validity is the content which a measuring instrument provides adequate coverage of the topic under study. Kothari continue to say validity is determined primarily by judgmental and intuitive from experts. Therefore to enhance validity of the questionnaires the researcher sought advice from the supervisor and other experts from the Department of Distance Study of University of Nairobi. Where necessary corrections were done on the instruments after the piloting results.

3.7 Data Collection Procedures

The researcher obtained a transmittal letter to the schools from the University of Nairobi. He further sought for a permit to conduct research from National Commission for Science Technology and Innovation (NACOSTI). The letter from (NACOSTI) enabled him to get permission to conduct the research in public primary schools from Ruiru District Education Office.

The researcher visited the sampled schools personally and explained to the headteachers and the teachers teaching Mathematics, English, Kiswahili, Science, and Religious Education the purpose of the study. At the same time where possible questionnaires were administered and teachers and headteacher. The researcher checked the questionnaires and ensured all items were responded to.

However some teachers and a headteacher were not willing to fill in the questionnaires. This was one of few challenges the researcher faced while collecting data. The other challenge is distance between schools.

3.8 Data Analysis Procedures

According to Orodho (2008), data analysis is the process of systematically searching and arranging data with an aim of understanding and presenting them to others.

The data collected is subjected to both qualitative and quantitative analysis. Quantitative findings were presented as frequencies, distributions tables and percentages. Tallying were made to determine numbers of respondents to each variable. Data analysis process involved interpretation and making sense of the collected information as per variables understudy. The response from the instruments were analyzed qualitatively and quantitatively using statistical package for social sciences (SPSS) and Excel software.

(SPSS) and Excel software helped the researcher to analyses, and generate tabulated and descriptive reports, to answer the research questions.

3.9 Ethics in Research

Any researcher should be consciousness of the need for strict ethical guidelines.

Kombo and Tromp (2006) note that researchers whose subjects are people or animals must consider the conduct of their research, and give attention to the ethical issues associated with carrying out their research. Ethics in research should be an integral part of the research planning and implementation process, not viewed as an afterthought or a burden. Some of the ethical issues a researcher must consider when collecting data are: All persons that participated in the research are to be treated with respect and courtesy. The participating respondents are informed on the purpose of the research in advance and confidentiality for the information give is maintained. The researcher ensure that the procedures are reasonable, non-exploitative, carefully considered and fairly administered**.** On this regard the researcher sought informed consent from the participants without forcing them to give information. Confidentiality for the information given was maintained. The researcher also avoided unnecessary risks, harm, or wrongs.

3.10 Operational definitions of variables

Operational definition of variable is a detailed specification of how one would go about measuring a given variable. In this study the researcher dealt with the following Independent variables; level of awareness, teacher's workload, teacher's pedagogical skills, and sources of power. The level of utilization educational radio programmes is the dependent variable. The researcher defined variables in terms of objectives, type of variable, indicators and their measurements, method of data collection/tools, scale and type of data analysis. Operational definitions of variables are as indicated on Table 3.3

Table 3.3 Operational definition of variables

No	Objectives	Variable	Indicator	Measurements of indicators	data collection tools	measurement Scale	Method of data Analysis
1	To examine the influence of level of awareness on utilization of KICD radio programmes	Level of awareness of radio broadcast	i)Teacher's guide ii)Radio iii)Advertisement iv)In-servicing v)Headteachers meetings	Present/absent Present/ absent Adequate/inadequate Sensitized/not sensitized	questionnaire	nominal	quantitative
2	To establish the influence of teacher's workload on utilization of KICD the radio programmes	teacher's workload	i) number of lessons ii)Other duties iv) radio lesson activities iii)teacher/pupils ratio iv)Frequency of assessment	Many/few/adequate Many/few Appropriate/not Appropriate High/low High/low	questionnaire	nominal	quantitative
3	To assess the influence of teacher's pedagogical skills on utilization of KICD radio programmes	teacher's pedagogical skills	i) Harmonized radio lesson in master timetable and schemes of work. ii)Incorporating radio lessons in lesson plan iii)In-service	Timetable with radio lessons/no radio lessons on timetable Lesson plan with radio lessons/no radio lessons on lesson plan In-serviced/ not in-serviced Teaching skills	questionnaire	nominal	quantitative

			on use of radio iv)skills to be incorporated v)quality of the content	incorporated/not incorporated High/low			
4	To establish the influence of power supply on utilization of KICD radio programmes	power supply	i)school connected to the national power gridline ii)generators iii)solar power iv)dry batteries v)motor vehicle battery vi)free winding radio vii) type of radio used	Connected/not connected Present/absent Present/absent Present/absent Present/absent World-space/ordinary radio	questionnaire	nominal	quantitative

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents data analysis, presentation and interpretation of the study as set out in the research methodology. The main purpose of the study is to establish factors that affect the utilization of radio programmes produced by KICD in Ruiru sub-county with an aim of making recommendations on how utilization can be improved. The researcher dealt on data analysis, presentation interpretation anddiscussion in the following areas; questionnaire return rate, demographic characteristics of the respondent, teachers level of awareness, teachers workload, teachers pedagogical skills, source of power and assessment. The researcher collected data by use of questionnaires as the research instruments. The research instruments were designed as per the research objectives.

4.2 Questionnaires return rate

The target respondents were the head teachers and teachers each teaching one of the following subjects: Kiswahili, Mathematics, Science, Religious Studies and English in Ruiru Sub County. The researcher administered questionnaires to 10 head teachers and 50 teachers in the sampled schools. However, only forty four teachers and 9 headteachers completed the questionnaires. Headteacher from one school was uncooperative and did not allow the researcher to administer questionnaires in her school. The analysis is therefore based on 44 teachers and 9 head teachers. From the study 53 out of 60 target respondents responded to the questionnaire bring the return rate to 88.3% .According to Creative Research system (2003) the response rate is acceptable.

The finding are as indicated in Table 4.1

Table 4.1: Questionnaire return rate

Respondent	Expected	returned	Percentage
Head teachers	10	9	90.0
Teachers	50	44	88.0
N =	60	53	88.3

4.3 Demographic characteristics of the respondents

The demographic characteristics of the respondents in the study was obtained using a questionnaires which focused on gender, age, professional and academic quaifications, teaching experience, subjects taught, schools enrolments and number of teachers.

4.3 .1 Gender composition of the respondents

To get an insight as to the gender of the headteachers who participated in the study the head teachers were asked to indicate their gender. The study showed 4 out of the 9 head teachers who responded were male while 5 were females that translate to 56% females against 44% males. The findings are as indicated in Table 4.2

Table 4.2: Gender of headteachers

Gender	frequency	%
Males	4	44
Females	5	56
N =	44	100

The study also sought to establish the gender distribution of teachers, from the study 50% of the female and 50% of the male participated in the study. The findings are as indicated in Table 4.3

Table 4.3: Gender distribution of teacher

Gender	no	%
Males	22	50
Females	22	50
N =	44	100

4.3.2 Age range of the Respondents

The study sought to investigate the age range of the teachers who participated in the study. The information is presented in Table 4.4

Table 4.4: Age range of the teachers

Age class	frequency	percentage
20-30	9	20.45
31-49	19	43.18
50 and over	16	36.36
N =	44	100

Majority of the teachers (43.2%) were aged between 31 and 49 years, 36.4% were aged 50 years and above while 20.5% were aged between 20 and 30 years.

4.3.3 Professional and academic qualifications of teachers and headteachers

The study sought to find out the highest professional and academic qualifications of the teachers. Table 4.5 presents the findings.

Table 4.5: Highest professional qualification of the teachers

Level	frequency	percentage
P2	7	15.9
P1	10	22.7
S1	6	13.6
Diploma in Education	11	25.0
Graduate teacher	9	20.5
Other	1	2.3
N =	44	100

The findings indicated 15.9% of teachers had P2 certificate 22.7% had P1 certificate 13.6% had S1 certificate 25.0% had a diploma in education 20.5 % had a degree while 2.3% had other qualification like a certificate in guidance and counseling.

The study also sought to investigate the highest academic qualifications of the headteachers the findings are presented on Table 4.6

Table 4.6: Highest academic qualifications of the headteachers

Level	frequency	percentage
-O-	1	11.1
-A-	1	11.1
Diploma	1	11.1
Degree	3	33.3
Postgraduate	3	33.3
N =	9	99.9

From the findings 11% of the headteacher has acquired-O- level 11% had reached -A- level 11% had acquired a diploma and 33% had a degree while 33% had a master's degree as the highest academic qualification.

Apart from the highest academic qualification of the headteachers, the study also sought to investigate the highest professional qualifications of the head teachers. The findings are as indicated on table 4.7

Table 4.7: Highest professional qualifications of the head teachers

Level	frequency	percentages
Diploma in education	1	11.1
Degree in education	3	33.3
Masters	3	33.3
PhD in education	1	11.1
Certified public account (CPA)	1	11.1
N =	9	99.9

The study indicated 11.1% of the headteachers had a diploma in education 33.3% had a bachelor of education degree, 33.3% had master's degree in education, 11.1% had PhD in education, while 11.1% is Certified Public Account (CPA) holder.

4.3.4 Teaching experience of the respondents

The research also sought to investigate teaching experience of the teachers.

Table 4.8 presents the teaching experience range of the respondents.

Table 4.8: Teaching experience

No of years in teaching		frequency	percentage
1-5		3	6.8
6-10		4	9.1
11-15		7	15.9
16-20		13	29.5
21years and above		17	38.6
N	=	44	100

Table 4.6 shows that most teachers had taught(38.6%) had taught for more than 21 years,29.5% of the teachers had taught between 16 and 20 years 15.9% had taught for 11 to 15 years while 9.1% had taught for 6 to 10 years and finally 6.8% of the teachers had taught for 1 to 5 years**.**

4.3.5 Subjects taught by the respondents

The research sought to investigate the number of teachers who taught the various subjects aired by radio broadcast to schools. The findings are as indicated on Table 4.9

Table 4.9: Subjects taught by respondents

Subject		frequency	percentage
Mathematics		8	18.2
Science		11	25.0
English		7	15.9
Religious studies		7	15.9
Kiswahili		11	25.0
N	=	44	100

The findings indicated all the subjects broadcasted by KICD were represented in the study with majority (25%) teaching either Kiswahili or science each, 18.2% had taught mathematics. English and religious education is taught by 15.9% each.

4.3.6 Schools pupils enrolments and number of teachers

The study sought to investigate enrolment of boys and girls from in the primary schools. From the head teachers' records the schools under-study had enrolment of 4090 pupils from classes 4-8, boys constituting of (2030) 49.6% while girls were (2060) 50.4%

The head teachers indicated that there are 217 teachers in the sampled schools

4.4 Level of awareness and utilization of KICD Educational radio programmes

4.4.1 Teachers' level of awareness and utilization of KICD educational radio programmes

The first variable of the study is the level of awareness teachers' workload on utilization of KICD the radio programmes. To determine level of awareness of radio programmes developed by KICD the investigator looked for the following indicators in a school presence and type of radio , radio broadcast timetable and teacher' radio guide, in-service of teachers and if the radio programmes are advertised. From the findings (66.7%) of head teachers said there is a worldspace type of radio radio in their school while 33.3% said they did not have a radio of any type.

The researcher further sought to investigate the availability of broadcast timetable and teachers guide notes. From the findings none of the schools sampled had any of these resources. The researcher went on to find out the level of awareness of teachers on KICD radio programmes. The teaches responses are as indicated Table 4.10

Table 4.10: Teacher level of awareness on radio broadcast

Level of awareness	frequencies	percentage
Yes	31	70.4
No	13	29.5
N =	44	100

From the findings majority of the teachers 70.4% were aware about radio broadcast aired by KICD only 29.5% were not aware. When the researcher attempted to find out how the teachers were made aware the response are as indicated on Table 4.11

Table 4.11: Methods teacher were made aware on radio broadcast

How teachers were made aware	frequency	percentage
Headteacher	16	36.4
Other teachers	2	4.5
In-service	11	25.0
Advertisement	5	11.4
Professional meetings	5	11.4
Other ways	4	11.4
N =	44	100

From the findings most(36.4%) teachers were informed on radio broadcast by their headteacher 25.0% were informed during in-service by KICD officers11.4% learnt about the broadcasting through advertisement on the media 11.4% were informed through professional bodies like KNUT and KUPPET meetings. Another 11.4% indicated they got the information through other ways for example as students in teachers' training colleges or even through discovery method. Only 4.5% were informed by other teachers on the radio broadcast.

4.4.2 Headteachers' level of awareness and utilization of KICD educational radio programmes

The researcher went on to find out the level of awareness of headteachers on KICD radio programmes. The headteachers responses are as indicated Table 4.12

Table 4.12: Level of awareness on radio programmes by headteachers

Respondent	frequency	Percentage
Yes	6	66.7
No	3	33.3
N =	9	100

Table 4.12 shows that most headteachers (66.7%) are aware about radio broadcast only 33.3 % are not aware. Of those who are aware 77.7% were informed about the broadcast at headteachers meetings while 66.7% said they learnt through radio and TV broadcast about KICD programmes.

From the findings, only 29.4 of the teachers and 33.3% of the headtechers were not aware of the radio broadcast.

4.4.3 Availability of radio broadcast resources

The researcher sought to investigate the availability of radio broadcast resources. When the headteachers were asked to indicate the presence of radios in their schools majority 66.7% said there are radios in their schools while 33.3% said they did not have. The researcher observed that there were no broadcast timetables and teachers guide in all the schools.

From the findings majority of the teachers 70.4% are aware about radio broadcast programmes aired by KICD. According to Hawkrige, (1982) broadcasting is transmission of programmes by different types of distribution. For the consumers to utilize a resource, they must be aware on it existence. Most of teachers were informed on radio broadcast by their headteacher, others were informed through, KICD officers, advertisement on the media,11.4% ,professional bodies like KNUT and KUPPET Most headteachers (66.7%) are aware about radio broadcast getting the information through headteachers .Despite the findings indicating high levels of awareness, it contradicts the percentage of listenership which is (30.7%)

Availability of radio broadcast resources

Broadcast timetable, Teachers guide notes and radio are very essential in utilization of radio programmes. When these items are in place, the schools are able to incorporate broadcast time table into the school timetable. The teachers are then are then able to plan and organize for the lesson by having the required learning materials. Majority (66.7%) of school have a radio. Presence of a radio in a public school is expected because the Ministry of Education by then distributed radio to all public primary schools. Receivers were supplied to schools all over Kenya KIE (REPORT 1997) .However other resources like broadcast timetables and teacher guides notes were not available in any of the schools sampled. It is KICD's duty to ensure that timetables, and teachers guide notes are supplied to schools that are not able to access these materials perhaps due to long distances, lack of information or inefficient distribution mechanisms

4.5 The influence of teacher's workload on utilization of KICD radio programmes

The second variable of study is the influence of teacher's workload on utilization of KICD the radio programmes. To investigate whether teachers workload has influence on utilization of KICD radio programmes, the researcher investigated the following indicators ; number of lessons a teacher teach, other duties assigned, pupil teacher ratio, teachers and learners attitude towards radio lessons, radio lesson activities and frequency of assessment of learners.

4.5.1 Number of lessons and other duties assigned to a teacher per week

The researcher sought to establish the number of lessons a teacher handles in a week. The teaches responses are as indicated Table 4.13

Table 4.13: No of lessons taught by teacher per week

Number of lessons	frequency	percentage
1-10	1	2.3
11-20	3	6.8
21-30	16	36.4
31-40	24	54.5
N =	44	100

From the findings majority(54.5%) of the teachers teach between 31 and 40 lessons per week,36.4% teach between 21 and 30 lessons while 6.8% teach 6.8% lesson, only2.3% teach between 1 and 10 lessons. Therefore 90% of the teachers have a workload of between 21 and 40 lessons per week. Apart from the teaching duties the researcher also investigated other duties assigned to a teacher the results are displayed on Table 4.14

Table 4.14: Other duties assigned to teacher

Other Duties	Frequency	Percentages
Deputy Head and discipline	9	20.5
Guidance and counseling	10	22.7
Class teacher	9	20.5
Games teacher	8	18.2
Clubs and society	8	18.2
N =	44	100

From the findings 22.7% of the teachers were doing guidance and counseling, 20.5% were class teachers, 18.2% were in charge of clubs and society, 18.2% were handling games while 20.5% were handling discipline and also worked as the deputy heads

From the demographic information the researcher found out there were 4090 pupils in classes 4-8, 44 teachers and 9 head teachers who participated in the study in the sampled schools. From this data he was able to compute the pupil/ teacher ratio. He found out that there were 77.1 pupils for every one teacher.

4.5.2 Conducting KICD educational radio programmes

The researcher went on to investigate whether teachers liked conducting KICD radio programmes the findings are illustrated on Table 4.15.

Table 4.15: Altitude towards KICD radio programmes

Respondent	frequency	Percentage
Yes	34	77.3
No	7	15.9
don't know	3	6.8
N=	44	100

From the finding majority (77.3%) of the teachers like conducting KICD radio programmes 15.9% of the teachers don't like conducting radio programmes while 6.8% said they don't know. Those who said they don't know may be because they have no idea the radio programmes exist. When the head teacher is asked whether teachers in their schools conduct radio lessons majority (66.7%) said yes only 33.3% said no. When the heads who said teachers are not utilizing the radio programmes were asked why they thought some teachers were not conducting radio lessons all said that they did not have radio teachers guide notes and radio timetables.

4.5.3 Teachers and pupils attitude towards KICD radio programmes

The researcher also investigated how teachers felt on learning they are supposed to use radio programmes in their teachings. The information is presented on figure 4.16

Table 4.16: Teachers attitude toward integrating in teaching radio programmes

Respondent	frequency	Percentage
Strongly dissatisfied	0	0.0
Dissatisfied	6	13.6
Neutral	22	50
Satisfied	13	29.5
Extremely satisfied	3	6.8
Total	44	100

The findings indicate that only 36.3% of teachers were satisfied or extremely satisfied while majority 63.6% were dissatisfied or were indifferent when they learnt they were supposed to use radio lessons. This is contradicts the findings that majority (77.3%) of the teachers like conducting KICD radio programmes.

The researcher also investigated pupils' attitude towards radio lessons. When the headteachers were asked to rate pupils' attitude towards radio broadcast lessons the findings are indicated in table 4.17

Table 4.17: Learners' attitudes towards radio lessons

Attitude of learners towards radio lessons	frequency	percentage
Like them a lot	1	11.1
Like them	5	55.6
Don't like them	1	11.1
Don't know	2	22.2
N =	9	100

From the findings 55.6% of the headteachers said learners like the lessons11.1% said they liked them very much this brings the number of the head teachers who said the pupils were positive on the radio broadcast to 67.7%. The percentage of the headteachers who said the pupils don't like the broadcast lessons is 11.1%, while 22.2% said they don't know.

4.5.4 Radio broadcast activities and Assessments

Teachers were asked to indicate whether pupils were able to carry out activities given by the radio teacher majority of the teachers (75%) said yes only 25% said no. On frequency of assessment of learners the teachers responses are illustrated on Table 4.18

Table 4.18: Assessments of the learners

Response	frequency	percentage
Twice a week	23	52.3
Once a week	14	31.0
Once a month	2	4.5
Midterm	1	2.3
End of term	1	2.3
End of topic	1	2.3
Any time I get a chance	2	4.5
N =	44	100

Majority of the teachers (52.3%) assessed learners twice a week 31.8% assessed once a week those that assessed learners once a month were 4.4% while midterm, end of term, or end of topic were each 2.3% ,4.5% said they assessed learners any time they got a chance. From the findings 84.1% of the teachers assessed learners at least once a week

Majority (90.9%) of the teachers teach more than 21 and 30 lessons per week. Teachers also perform other duties like guidance and counseling, class teachers, in charge of clubs and society, handling games and discipline and also work as the deputy heads. The finding hence indicates that apart from teaching teachers assigned other duties .Majority 63.6% of teachers are dissatisfied or are indifferent when they learnt they are supposed to use radio lessons

From the findings 67.7% of pupils like the radio programmes. This is an indication despite a large number of teachers not being positive on use of radio programmes because of added workload it is worth utilizing them for the benefit of pupils' .Preparing for radio lessons can be very motivating especially if a teacher involves the learners in

the preparations making teachers work easy. Apart from teaching and performing other duties teachers indicated they are handling large class. From the study the ratio of pupil/ teacher is 77.1 pupils for every one teacher. With the large number of learners high frequency (84.1%) of assessing the learners may lead teacher having no time to get involved in activities like conducting radio programmes.

4.6 The influence of power supply on utilization of KICD Educational radio programmes.

The third variable investigated was the influence of power supply on utilization of KICD the radio programmes .The study sought to establish to what extent power supply influence utilization of educational radio programmes prepared by KICD. The researcher investigated the following indicators; type of radio used, various source of power and their cost implications.

According to head teachers 6 (66.7%) of the schools has radios while 3(33.3%) do not have radios. Of the schools that have radios 55.6% are using World Space radio while 44.4% are using ordinary radio. When teachers were asked what type of radios they are using (54.5%) said they are using World Space while 45.5% were using ordinary radios which is almost same response from head teachers.

The researcher sought to find out of the schools that had radios how they sourced for power to run the radios the findings are indicated on table 4.19

Table 4.19: Source of power to power radios

Power source of radios	frequency	percentages
Electricity	16	36.4
Dry cells	14	31.8
Winding type	7	15.9
Solar	4	9.1
Car batteries	2	4.5
Generators	1	2.3
N =	44	100

The teachers indicate that the two most commonly used power sources were electricity (36.4%) and dry cells (31.8%). When asked if power supply is regular 38.1% responded in the positive while 61.9 % said power is not regular. Of those that said power is not require 33.5% were using dry cells. The head teachers indicated electricity (44%) as the most used power while dry cells at 33.3% which is a more expensive source. This compared well to teachers responses. The study also indicated 15.9% of the respondents were using winding type radios. Other sources mentioned are solar power at 9.1%.

For schools that use dry cells as their power source, the study investigated the number of cells used. Findings are presented in Table 4.20

Table 4.20: Number of dry cells used to power radio

No of dry cells	frequency	percentage
2	1	2.3
3	4	9.1
4	9	20.5
More than 4	30	68.1
N =	44	100

The results indicate that for those schools that used dry cells, the majority (68.1%) used more than 4 cells to power their radios. The result indicated quite a large number of schools are not connected to the national grid line hence are using the more expensive sources of power. The cost implication may affect utilization of radio programmes being in mind schools cannot charge extra fee for such an activity.

From the findings two most commonly used power sources are electricity (36.4%) and dry cells (31.8%). The results indicate that for those schools that used dry cells, the majority (68.1%) used more than 4 cells to power their radios. This further intensifies the difficulty on sustaining the radios. Other power sources are winding type radios and solar power. Winding type radio are old and outdated and they do not store a lot of energy hence have to keep winding to keep volume high while solar power is only available when there is sunshine. This ended up frustrating the learners who would in turn loose interest in the radio lessons.

4.7 The influence of teacher's pedagogical skills on utilization of KICD Educational radio programmes.

The fourth variable of the study is the influence of teacher's pedagogical skills on utilization of KICD the radio programmes. To determine if teachers' pedagogical skills influenced utilization of radio programmes the researcher interrogated the following indicators ; in- servicing of teachers on use of radio lessons, skills required to harmonizing broadcast timetable in their scheme of work and lesson plan, skills teachers would like incorporated in radio lessons, best methods of presenting content.

4.7.1 In service on utilization of the radio programmes

The researcher sought to find out whether teachers were in- serviced on utilization of the radio programmes. Majority of the teachers (63.6%) said they have never been in-served, while only 36.4% were in serviced. When the head teachers were asked to indicate whether they were in serviced on the use of radio lessons only (22.2%) said they were in- served while majority (77.8%) were never in serviced. When teachers who were in -serviced were asked to comment on the usefulness of the in- servicing 62.5% indicated the in- serving is very useful while 37.5% said the in servicing is not useful.

4.7.2 Skills of harmonizing broadcast timetable,

When the researcher asked the teacher whether they have skills of harmonizing the broadcast timetable with the school timetable 70.5% said no while 29.5% said yes. The some question was asked to the headteachers, 66.7% said no while 33.3% said yes. The response from the teachers did not exactly tally with that of the headteachers. When those teachers who had not harmonized were asked why, 63.6% said they did not have the broadcast timetables 36.4% said they don't use radio programmes. The head teachers whose school have not harmonized the school timetable with the broadcast timetable said their schools were not utilizing radio lessons.

When the researcher asked the teachers to rate the content presented in the radio programmes the responses are as indicated on Table 4.21

Table 4.21: Appropriateness of content presented

Response	frequency	percentage
Difficult	6	13.6
Appropriate	29	65.9
Easy	9	20.5
Total	44	100

Majority of the teachers (65.9%) indicated the content presented is appropriate while 13.6% said the content is difficult.

4.7.3 Methods teachers would want radio programmes presented.

The researcher wanted to find out from teachers the teaching methods they would like the radio programmes in. The responses are summarized in Table 4.22

Table 4.22: Preferred teaching methods to be incorporated radio programmes

Skills	frequency	percentage
Discussions	21	21
Drama/role play/demonstrations	11	11
Question and answer	16	16
Debate	5	5
Lecture	5	5
Storytelling	11	11
Resource person	10	10
Explanations	16	16
Songs	15	15
Total	100	100

On the teaching methods to be incorporated the response indicated discussions is the most popular (21%) other popular methods are question and answer, explanations at (16%), and songs (15%).The least popular method are Lecture and debate at (5%) each . Pedagogy is the art of teaching. It involves conveying knowledge and skills in way students can understand, remember and apply. Pedagogical skills can then be said to be classroom management skills and content related skills. A good teacher presents

information that actively engage the students in the materials they learn and can afterwards apply the knowledge. (www.wisegeek.com)

From the findings majority of the teachers (63.6%) and head teacher (77.8) have never been in served. To use radio lessons effectively a teacher need to prepare teaching learning materials in advance, organize the learners in the class, follow instructions and cues from the radio teachers for a success lessons. If a teacher is not in-served they will not be able to harmonize broadcast timetables with the class timetable he or she will have difficulties in utilizing radio lessons. This indicates that many teachers luck the skill of using radio in class KICD therefore need to do a lot of in servicing of teachers.

Teachers are supposed to use different teaching methods in implementation of any educational programme. The method used should fully engage the learner. The method the teacher uses should encourage active participation and involvement of the learner in order to bring about positive behavior change (KIE 2008)

The findings indicates teachers would like radio lessons in form of discussions, question and answer, explanations and songs .The least popular methods being lecture and debate .

4.8 Problems Faced When Utilizing Radio Programmes

The study sought to find out from teachers and head teachers problems encountered while utilizing KICD radio programmes.

When the head teachers were asked whether teachers in their schools encountered problems when utilizing KICD radio programmes the response are as indicated on Table 4.23

Table 4.23: Problems faced in utilizing KICD radio programmes by headteacher

Problems	frequency	percentage
Yes	34	77.3
No	10	22.7
N =	44	100

A few 22.2% of head teachers indicated that teachers had not reported any problems in the use of radio programmes but the majority 77.8% indicated that teachers had reported problems. Some of the problems reported included lack of dry cells for radios, resources like radio teachers' guides, maps and broadcast timetables .Some head teachers said they were not aware of existence of radio broadcast. When asked what measures they had taken to address these problems majority said they have done nothing as yet. However a few said they had provided dry cells. When head teachers were asked if they faced problems in supervising use of radio broadcast programmes by teachers 11.1% said no while 88.9 said yes. When the teachers were asked whether they faced problems in utilizing the radio programmes the responses are indicated on Table 4.24

Table 4.24: Problems faced in utilizing the radio programmes by teachers

Response	frequency	percentage
Yes	35	79.5
No	9	20.5
Total	44	100

Majority of the teachers 79.5% indicated they faced problems while minority 20.5% indicated they did not face any problems. Problems faced by teachers include large number of learners in a class, some presenters are too fast while others presenters are not audible enough ,power supply is not constant, lack of broadcast timetables and radio

teachers' guide. Other problems cited are lack of in-service on use of radio lessons, while learners with hearing problems are not taken care off.

When asked what measures they have taken to address these problems majority of teachers indicated they use radios that consuming fewer batteries, they buy dry cells in advance, while they ensure radio is audibility to all by placing it at the middle. Some teacher indicated they have contacted KICD to supply broadcast timetable and radio guides.

4.9 Headteachers and teachers views on improving utilization of KICD educational radio Programmes

The respondents were asked to make suggestions on how the utilization of radio programmes can be improved**.** The respondents suggested that utilization of KICD radio programmes could be improved through making resources like radio broadcast timetables, teachers guide available early so that they can be harmonized with the school timetable. Headteachers and teachers said the KICD should continuously offer in-serve. Some respondents suggested that the Institute awareness campaigns should be intensified to all stakeholders. Other respondent suggested that KICD should lobby through the MOEST for all schools to be connected to power supply. The MOEST through Quality Assurance Department should enforce utilization of radio programmes in all schools. Some school heads said despite schools supplied with World Space radio by KICD some broke down and wanted the Institute to help in their repair.

4.10 Summary of key findings and Discussions

The questionnaire the return rate is 88.3% a according to Creative Research System (2003) the response rate was acceptable. Respondent are composed of 56% females and 44% males.

According to (Acharya 2004). Gender demonstrates interrelationships among the concept of parity, equity and equality.

Most respondents(79.6%)are over 30 years .This is an that indicate most teachers are experienced in teaching hence assumptions that they have acquired the required pedagogical skills in handle radio lessons. Most teachers are academically and professionally qualified to implement the curriculum**.** Most teachers had taught has taught for more than 11 years**.** Number of years a teacher has been in the profession corresponds to the teacher's output. Total enrolment of learners from class 4-8 is 4090 while number of teachers are 217 composed of female at 71% females and 29% male. Majority of the teachers 70.4% are aware about radio broadcast aired by KICD.

According to Hawkrige, (1982) broadcasting is transmission of programmes by different types of distribution. For the consumers to utilize a resource, they must be aware on it existence .Despite the findings indicating high levels of awareness, it contradicts the percentage of listenership which is (30.7%).

Most school have radios. Presence of a radio in a public school is expected because the Ministry of Education by then distributed radio to all public primary schools**.** However other resources like broadcast timetables and teacher guides notes were not available in any of the schools sampled. Majority (90.9%) of the teachers teach more than 21 and 30 lessons per week apart from performing other duties

The two most commonly used power sources are electricity and dry cells. Dry cells are expensive. Schools using dry cells must look for financing. This intensifies the difficulty on sustaining the radios.

Majority of teachers and head teacher have never been in served on use of radio lessons hence unable to harmonize broadcast timetables with the class timetable he or she will have difficulties in utilizing radio lessons. This indicates that many teachers luck the skill of using radio in class KICD therefore need to do a lot of in servicing of teachers. The findings indicates would teachers would like radio lessons to be presented in form of discussions question and answer, explanations and songs but not as lecture and debate.

Problems faced in utilizing radio programmes are lack of dry cells to power radios, luck of resources like radio guides, and timetables .Luck of awareness on existence of radio and teachers not of in-service.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMEDATIONS

5.1 Introduction

This chapter presents summary of findings, discussions, conclusions, recommendations and suggestions on further research based on the study. The main purpose of the study is to investigate factors influencing utilization of educational radio programmes produced by Kenya Institute of Curriculum Development. The study focused on public primary schools in Ruiru Sub- County, Kiambu County. The study is important for it will give information to stakeholders with the hope of take necessary measures towards improving utilization of the radio programmes.

5.2 Summary of Findings

The study come up with the following findings:

The study indicated that most teachers had a training in education at certificate level and above and professional qualification in education.

Majority of headteachers and teachers are aware about radio broadcast and most schools have radios in their schools however they lack other resources such as broadcast timetables and teachers' guide.

Majority of the teachers have a heavy teaching load and are required to handling many pupils, in class asses them at least a twice a week apart from being assigned other duties this make them dissatisfied or indifferent in the use of radio programmes

Many schools are connected to the National Gridline their radios use electricity. However significant number of schools not connected to the National Gridline hence a

using dry cells as source of power. This force schools to incur extra expenses. Lack of cheap and regular source of power in the school affects the utilization of KICD educational radio programmes

Majority of the teachers and head teachers have not been in- serviced in use of radio lessons. Lack of in-servicing of teachers and headteachers on use of radio programmes means they luck pedagogical skills required to utilizing radio programmes.

5.3 Discussions on findings

The discussions on findings are based on

The influence of; teachers' and headteachers' level of awareness ,teachers' workload , power sources and teacher's pedagogical skills on utilization of KICD Educational radio programmes

5.3.1 Level of awareness on utilization of KICD Educational radio programmes

From the findings majority of headteachers and teachers are aware about radio broadcast According to Fullan (1982) 'head teachers, teachers and parents are ill informed about intended changes in school programmes". Therefore communication has to be effective if curriculum implementation is to take place successfully. Many public schools have radios supplied by MOEST through KICD, KIE (1997) monitoring report indicated receivers were supplied to all public primary schools in Kenya

According to Hawkrige, (1982) broadcasting is transmission of programmes by different types of distribution. For the consumers to utilize a resource, they must be aware on it existence. Other resources like broadcast timetables and teacher guides notes are important in assisting utilization of radio programmes. It is KICD's duty to ensure that

timetables, and teachers guide notes are supplied to schools that are not able to access these materials perhaps due to long distances, lack of information or inefficient distribution mechanisms. The teachers are then able to plan and organize for the lesson by having the required learning materials .When these items are in place, the schools are able to incorporate broadcast time table into the school timetable. Despite teachers and headteachers high level of awareness utilization may be constrained by lack of broadcast timetables and teacher's guide.

5.3.2 The influence of teacher's workload on utilization of KICD radio programmes

From the findings most teachers are teaching between 21 and 40 lessons per week in addition to other assigned duties.

According to Sushila (2004) teachers may be in charge of timetable, curriculum, careers, examinations, discipline and student welfare.

According Cole M. (2008) in United States of America teachers apart from core teaching duty they will also be required do assessments, career appraisal, review for further training, discipline, health, safety, staff meeting, cover for absent teacher, administer public examinations and do administrative work.

Together with the heavy workload teachers have to contend with the large numbers of pupils. Educational radio programmes involves radio teacher given instructions to class teacher and learners to carrying out activities .If the number of pupils are too many free movement is restricted. In the study pupils/teachers ratio stood at 77.1. The ratio is high when compared to countries like Britain 19.9, Poland 10.2, and Kenyan the highest was 46.78 in 2005. (www,index mundi.com).

According to *The EFA Global Monitoring Report, (2007)*.The fewer the number of pupils are teacher handles improves the quality of education hence better performance.

The teachers are also required to assess the learners. The study indicated most teachers assess pupils at least once a week.

According to (Cuff E.C and Payne G.C F 1985) "*The influence is now so strong especially when taken in conjunction with the desire of principals and head teacher for statistics which proves that successful teaching is taking place is necessary for examination success rather than guiding the students towards appreciation of sociology"* The high frequency of assessing learners may lead to a teacher having less time to prepare for radio programmes. The pressure from the schools heads, parents and society to perform well in examinations in addition to the already a heavy teaching workload may make the teacher reluctant to utilize the radio programmes because it would take a lot of his or her time. The findings indicate that majority of teachers are dissatisfied or are indifferent when they learn they are supposed to incorporate radio programmes in their teaching.

The findings are supported by Bishop (1985) who says teachers' skills and attitude count for a great deal in curriculum implementation.

Shiundu and Omulando (1992) pointed out that teachers can only support a curriculum which they understand and accept, without the support the implementation process will not be a successes. From the findings most teachers have a heavy workload which includes teaching and other duties. The very heavy workload makes teachers unwilling

to utilize radio lessons because of feeling that this would add more work to already heavy work-load.

5.3.3 The influence of power supply on utilization of KICD Educational radio programmes.

The findings indicate that the two most commonly used power sources electricity from gridline and dry cells .This is supported by a study done by KICD in 2010 which indicated 38.1% of primary schools used electricity as a source of power while 33.5% used dry cells to run their radios (KICD 2010).

The study indicates many schools are not connected to the National grid line power hence forcing schools to use dry batteries which are very expensive especially if they are using World space radios which are heavy power consumers. Other source of cheap power like winding type radios which are cumbersome and less efficient because must keep winding them to keep volume high. This ended up frustrating the learners who would in turn loose interest in the radio lessons. Other sources is solar power which is only available when there is sunshine.

Rayundu (2005), say in order for the learners to use the radio programs there must be equipment like the radios, speakers, telephone connections and infrastructures like power supply. Regular and efficient power supply is very important for proper utilization of radio programmes. This assertion is supported by Johnson and Huff (2000) they note that lack of power or power cuts may affect the use of radios.

Alola (2012) add that regular power supply in various listening centres should be guaranteed to ensure hitch free educational broadcast.

Schools not connected to the National grid line are forced to use the expensive or less efficient source of power. The more expensive source of power bring about budget constrains to schools who are not allowed to levy charges to learners. This leads to schools abandoning radio programmes. This lead to low utilization of radio programmes. The source of power supply affects utilization of educational radio programmes. Hence the government through its agencies should hasten the connectivity of electricity to school.

5.3.4 The influence of teacher's pedagogical skills on utilization of KICD Educational radio programmes

Pedagogy is the art of teaching. It involves conveying knowledge and skills in way students can understand, remember and apply. Pedagogical skills can then be said to be classroom management skills and content related skills. A good teacher presents information that actively engage the students in the materials they learn and can afterwards apply the knowledge (www.wisegeek.com)

Part of the in-servicing involves showing teachers how to incorporate the radio lessons in their school timetable, schemes of work and lesson plan.

To use radio lessons effectively a teacher need to prepare teaching learning materials in advance, organize the learners in the class, follow instructions and cues from the radio teachers for a success lessons. If a teacher is not in-served he or she will have difficulties in utilizing radio lessons. Therefore in-serve is justified because of increased new knowledge which a teacher must keep abreast to.

Olouch (1982) states one of factors in implementing any curriculum is the in-service training of teachers.

Shiundu and Omulando (1992) support the argument, they states that in-serve education is important since it helps expose practicing teacher with the latest innovation in curriculum in the subject one is teaching. In-servicing is training of teachers on how to handle an aspect of curriculum while they are still in the field. If a teacher is not in-served he or she will have difficulties in utilizing radio lessons.

The way radio programmes are presented is a factor that can attract consumers to use them. Majority of teachers said they would like the following pedagogical skills brought clearly in presenting the content, discussions, question and answer, explanations, and songs. The methods used should encourage active participation and involvements of learners in planned activities to bring about positive behavior change.

KIE (2008) states methods chosen should encourage active participation and involvement of the learners and among the learners themselves. The teacher should take into consideration development ages, background and circumstance of children.

Nunan (1998) and Cohen et al (2000), support that teachers who are interested in day-to-day aspect of teaching should be more interested in the methodological considerations.

Capel et al (1996) advance for learner centered methodology in teaching.

From the findings majority of the teachers and headteachers have never been in served, on the use of radio lessons .This indicates that many teachers luck the skill of using radio in class KICD therefore need to do a lot of in servicing of teachers.

5.4 Conclusion of the study

The researcher drew following conclusion from the study:

The level of awareness does not affect utilization of KICD radio programmes.

Teacher's workload affects utilization of radio programmes,

Source of power affects utilization radio programmes,

Teacher's pedagogical skills affects utilization of radio programmes

5.5 Recommendations from the study

The study identified three crucial factors that determines utilization of educational radio programmes. It is recommended that:

1) KICD should make a deliberate effort to in-service teachers on pedagogical skills which are prerequisite for better utilization of educational radio programmes and supply broadcast resources on time.
2) Ministry of Education Science and Technology should pressurize Government agency responsible for connections electricity to public primary schools hasten the process.
3) Ministry of Education Science and Technology through its agency The Teachers Service Commission should employ more teachers to lessen the teachers' workload.

5.6 Suggestions for further research

The study only covered public primary schools in Ruiru sub-county .The researcher recommend that further research be conducted in the following areas:

1) Influence of other broadcast resources like broadcast timetables and teachers, guide on Utilization of educational radio programmes
2) Effectiveness of radio programmes as a method of delivering content to learners.

REFERENCES

Akyurek, F. (2005).A Model *Proposal for Educational Television Programs*. Turkish Online Allan and Bacon Incorporated London.

Alola B.k (2012) Educational BROADCAST IN Nigeria a historical perspective. Journal of Communication and Culture VOL 3 NO.2

Bandura,A (1974).Behavior theory and models of Man. American Psychology. Harper and Row: New York.

Bishop, G. (1994).Curriculum development.The Macmillan Press Ltd,London

Borg, R.W and Gall, M.D. (1989).Educational Research: an Introduction, New York Longman Inc.

Burton, P (1981).Television and Radio in United Kingdom Published by MacMillan Press Ltd.

Johnson and Huff (2000) the challenge of providing effective support to distance learners Christchurch College of Education, New Zealand

Croncbach L.J. (1951) coefficient alpha and internal structure of tests. Vol. 16 No 3

Chaudhery, S. S.(1996).Current trends, Methods and Technologies in Distance Education for Primary school teachers. Vancouver.

Couch, L. (1997). Digital and Analog Communication Systems, Upper Saddle River, NJ: Prentice-Hall quoted at http://www.telecommunications.msu.edu

Cuff, E.C. Paayne,C.F(1985) Criss in Curriculum, London Donver NH Crown Helm

Creative research system.

Facts Kenya pupil teacher ratio (www,index mundi.com) United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

Gachuhi, D. and Matiru,B.(**1989**).**Handbook for designing and writing distance education materials** Published by Deutsche Bonn, Federal Republic of Germany .

Dikshit, H. P. (2002). *Preface to study "Radio Vision (Multimedia through Digital radio)*: UNESCO, Paris

Galda, K. (March 1984), Learning Math by radio. *Media in Education and Development 17* (1)4042.

Gardner, and Hatch. (1989) Multiple Theory of Intelligences, New York: Basic Books. The second edition published in Britain by Fontana Press

Gay L.R (1992) *Educational Research Competences for analysis and application,* 5th Edition New York: Macmillan Publishers

Government of Kenya, (2007) Kenya Vision 2030. The Popular Version. Nairobi: Government Printers.

Hausman, C. Messere F and Benoit P. (2007).Modern Radio Production7thEdition, published by Thomson Wadsworth

Jaminson, D. and McAnany. E. (1973) Radio for Education and Development, Baverly Hills, CA, Sage Pubs

Chaudhary,S.S. (1996): Current Trends Methods and Technologies in Distance Education for Primary School Teachers , a working paper for Common Wealth of Learning , Vancouver

Fullan,M.G.& Miles,M.B.(1992).*Getting reforms Right. What works and what does not* USA:Philadlphia Delta

Kathari C.R. (2003) Research Methodology Methods and techniques. New Age International Publisher limited New Delhi.

Kerlinger, F. (1986).Foundations of Behavioral Research, 3rd edition. Rinchart Hort and Winston Inc.

KICD (2013) Report on Monitoring of KICD Radio Programmes, KICD, Research Report Series No. 111, Kenya

KICD (2012) Audio -visuals sale ledger: KICD *Ledger no.13*.unpublished

KIE (2010), Report on monitoring of the Kenya Institute of Education Kenya, *Research Report Series No 97,* Kenya

KIE, (2008). Report on the Monitoring of KIE Broadcast to Schools through KBC *Research Report Series No 88*, Kenya

KIE (2005) Report on monitoring of the Kenya Institute of Education Kenya, *Research Report Series No 78,* Kenya

KIE (1999), Evaluation of modes of transmitting Educational Programmes to schools in Kenya, *Research Report Series No 65,* Kenya

Kimbui S.K (2011) Implementation of Lifeskill Education Curriculum in public primary schools in Ruiru District, Kenyatta University (unpublished thesis)

Kombo, D.K, and Tromp, L.A (2006) Proposal and Thesis writing an Introduction, Pauline Publication,Africa.

McBride, R. (1996) Teacher Education Policy, Rout ledger Falmer; Taylor and Faranis Group

McLeish, R. (1999). *Radio Production: A Manual for Broadcasters*, Fourth Edition. Oxford

McQuail, D. (2000). *Mass Media and Communications*, London: Arnold

McQuall, D. (1970). "Television and Education" (Ed. J.D.Halloran).The Effect of Mass Communication, Panther Modern Society, London, UK.

Ministry of Education Science and Technology (2005). *A Policy Framework for Education Training and Research:* Sessional Paper No. 1 of 2005.*Kenya*

MOEST, (2006-2011). MOEST strategic Plan

Mugenda and Mugenda (2003).Research Methods, Qualitative and Quantitative Approach ACTS Nairobi, Kenya.

Muller, J. (1985) Radio for Literacy.A Reader on the Use of Radio in Literacy Programmes. Bonn, Germany: German Foundation for International Development.

Oluoch, G.P. (1982) *Essentials of Curriculum Development*. Elimu Bookshop Ltd, Nairobi.

OKumbe,J.A (1998).Educational Management Theory and Practice, University of Nairobi Press.

Orodho, J.A (2004) Techniques of writing Research Proposal and Report in Educational and Social Sciences, 2008 Edition Kanesya HP Enterprise Maseno.

Rayundu, C.S., 2005). Media in communication management, Himalaya Publishing House

Republic of Kenya (2006) Ministry of Education strategic Plan 2006-2011 Government Press

Republic of Kenya (2003). *Free Primary Education: Every Child in School.* Nairobi. Government Printers

Republic of Kenya (1964). Kenya Education Commission. Nairobi: Government Printers

Richard n. Tucker (1986): The integration of media into the curriculum London Kogan Page.Rowntree,D.(1990) Teaching Through Self instruction London: Kogan Page

Shiundu 1. S. and Omulando S. 1. (1992). *Curriculum Theory and Practice in Kenya.* Oxford University Press

Sifuna, D.N. (1990). *Development of education in Africa: the Kenyan Experience*, Nairobi: Initiatives Ltd.

Skinner,B.F (1938) *The behavior of organisms*. New York: D. Appleton-Century Co. Technology Journal

Striebel, M. J. (1986). A critical analysis of the use of computers in education.

Sushila B (2004) Management and evaluation of schools Oxford University Press.

The EFA Global Monitoring Report, 49 2007

Wango G. (2009) School Admiration and Management; Quality assurance and standard in schools. Published by The Jomo Kenyatta Foundation

Wiersma W. (1985) Research Methods in Education, an Introduction 3rd edition Allan and Bacon Incorporated London.

APPENDICES

Appendix A: Transmittal letter

John K. Weru
P.O Box30231-00100
Nairobi,
13.10.2014.

Dear respondent

…….

……..

Re Data collection

I am a student at University of Nairobi, pursuing Masters Degree in Distance Education. I am carrying out research project entitled **"**Factors Influencing Utilization of Educational Radio Programmes Produced by Kenya Institute of Curriculum Development: A Case of Public Primary Schools in Ruiru District, Kiambu County".

Since January 2007 Kenya Institute of Curriculum Development (KICD) formerly Kenya Institute of Education (KIE) has been broadcasting educational programmes to schools through the Kenya Broadcasting Corporation (KBC) during the school terms and school holidays.

I have identified your school for data collection. The information given will be treated with strict confidentiality and will only be used for academic purpose. Any assistance given will be appreciated**.**

Yours faithfully

John K. Weru

Appendix B:

Questionnaire for Teachers

This questionnaire consists of parts A and B. Kindly respond honestly to all the items in the questionnaire by ticking appropriately or filling in the blank spaces. The questionnaire is intended to help collect information on factors affecting the utilization of Kenya Institute of Curriculum Development educational radio programmes. The information you provide will be treated with confidence and used only for purposes of the study.

PART A

Demographic Information

1 Name of the

school……(optional)

Division……

2 What is your gender: Male ( ) Female ( )

3 What is your Age bracket: 20-30 years ( ) 31- 49years ( ) 50 years and above( )

4 Teaching experience: 1-5years ( ) 6-10 years ( ) 11-15years ( )16-20years ( )

21 years and above ( )

7 What is your highest professional qualification? (Tick appropriately)

a. S1 ( )

b. Pl ( )

c. P2 ( )

d. Diploma in Education ( )

e. Graduate Teacher ( )

Others (specify)……

8 What is your teaching subject?

Mathematics ( )

Science ( )

English ( )

Religious education ( )

Kiswahili ( )

PART B

Research Data

9 How many lessons do you teach in a

week……..

10 List down other duties you are assigned apart from teaching

……..

…….

11 Are you aware of radio broadcast aired by KICD to schools broadcasted through English service of Kenya broadcasting Corporation?

Yes ( ) No ( )

12 Have you been in-serviced on utilization of radio programmes?

Yes ( ) No ( )

If yes to question 12, how do you rate the in-servicing you underwent?

(i)Very useful ( ) ii) Useful ( ) iii) Not useful ( )

13 What type of a radio do you use in the school?

World space receiver ( ) Ordinary Radios ( )

Other (specify)…….

14 What is the power source for the radio your school is using?

a Dry cells (batteries) ( ) How many Dry cells? ……..

b Solar ( )

c Electricity ( )

d Car Battery ( )

e Winding/Free play ( )

Any other power source (specify) ……

15 Is the power source regular Yes ( ) No ( )

If no to question number 15 why is the power source not require?

.....

16 Does the school administration support the use of radio programmes in your school? Yes ( ) No ( )

a. If your answer question 16 is yes, state how admistration support use of radio programmes.

b. If answer to question 16 is no what support would you require from the school? .....

17 Have your school harmonized the school timetable with the radio broadcast timetable

Yes ( ) NO ( )

If no to question 17 please explain

…….

18 How did you learn that you are supposed to incorporate radio broadcast programmes in your schemes of work and lesson plan?

(a) Told by the head teacher ( )

(b) Told by other teachers. ( )

(c) During in-service courses by KICD. ( )

(e) Advertisements in the me ( )

(f) Teachers' forums like KNUT meetings

(Any other way (specify)…….....

19 Please circle the number that best describe your feeling when you received the information that you are supposed to use radio programmes in teaching

i. strongly dissatisfied

ii. dissatisfied

iii. neutral

iv. satisfied

v. extremely satisfied

When you received the information that you are supposed to use radio programmes in teaching

i ii iii iv x

20 If you answer to question 19 is strongly dissatisfied or dissatisfied please explain

……..

21 what teaching skills would you want include in the radio programmes (You can tick more than one)

a) Discussion ( )

b) Drama /Demonstration /Role play ( )

c) Question and Answer ( )

d) Debate ( )

e) Lecture ( )

f) Storytelling. ( )

g) Resource Person. ( )

h) Explanation ( )

(i) Songs ( )

22 How do you rate the content presented in the radio programmes to your learners

Difficult ( ) appropriate ( ) easy ( )

other (specify)……..

23 Comment about the radio presenters who present the radio programmes

Too fast ( ) audible( ) too slow ( ) appealing ( )

Other (specify)……..

24 How are the instructions given to the class teacher and pupils by the radio teacher?

a) Clear and easy to follow ( ) b Not clear ( )

any other way……

25 How is the average number of pupils in the class you teach?

.....

26 Are learners able to carry out activities given by the radio teacher?

Yes ( ) No ( )

If No give reason why not……...

27 How frequent do you asses your learner?

Once a week ( ) twice a week ( ) once a month ( )

any other……...

28 Do you as a teacher encounter any problem when utilizing radio programmes?

Yes ( ) No ( )

If yes state the problems

……

……

29 What measures as a teacher do you employ to solve the problems?

……..

.....

30 Suggest how utilization of educational radio programmes can be improved……

……

…….....

THANK YOU

Appendix C:

Questionnaire for head teachers

Introduction

This questionnaire consists of parts A and B. Kindly respond honestly to all the items in the questionnaire by ticking appropriately or filling in the blank spaces. The questionnaire is intended to help collect information on factors affecting the utilization of Kenya Institute of Curriculum Development educational radio programmes. The information you provide will be treated with confidence and used only for purposes of the study.

PART A

Demographic Information

1 Name of the school……

2 In which division is the school? .....

4 What is the enrollment of the school from clases 4-8? Boys …….. (b) Girls …..

5 What is your gender? Male ( ) Female ( )

6 What is your highest academic qualifications……

7 What are your highest professional qualifications……

8 What is the number of teachers in the school? Male…….female……

PART B

Research Data

9 Does your school have a radio? Yes ( ) No ( ).If yes what type of radio do your school use? World space radio ( ) Ordinary radio ( ) any other (specify)……

10 If yes to question 9 where do you get power to run the radio e.g. solar power……

11 Is the power supply regular? Yes ( ) No ( )

If no how do you utilize the radio programmes?

Please explain……..

12 Have you been in-serviced on utilization of radio programmes?

Yes () No ( )

If yes how is the training helping you in supervising your teachers on the utilization of the radio programmes? .....

13 How many teachers have been in-serviced on use of radio broadcast in your school?

14 Do you attend head teachers' meetings e.g KEPSHA Yes ( ) No ( )

If yes are you informed about KICD radio broadcast to school?

Yes ( ) No ( )

15 Have you ever heard or seen an advertisement on KICD radio broadcast?

Yes ( ) No ( )

If yes where? Internet ( ) radio ( ), T.V ( )

Any other (specify)……

16 What teaching *I* learning resources does the school have for use in radio programmes……

17 How can you rate the availability teaching/learning radio programmes resources?

(i) Adequate ( ) (ii) somehow adequate ( ) ii) inadequate ( )

18 Have your school harmonized the school timetable with the broadcast timetable

Yes ( ) No ( )

If no please explain……

19 Are teachers in your school utilizing KICD radio programmes

Yes ( ) No ( )

If no why are they not using? ……

20 How frequent do your learners access radio programmes?

Once a week ( ) twice a week ( ) once a month ( ) any other……

21 How would you rate the attitude of pupil's towards radio broadcast lessons?

They like them very much ( ) they like them ( ) they don't like the ( )

Please explain you answer……

22 Have teachers reported to you any problems they are experiencing in use of radio programmes

Yes ( ) No ( )

If yes what measures if any have you taken to address these problems?

.....

23 Do you encounter any problems when going about your responsibilities in supervising the use of radio broadcast in the school? Yes ( ) No ( )

If yes what are the problems……

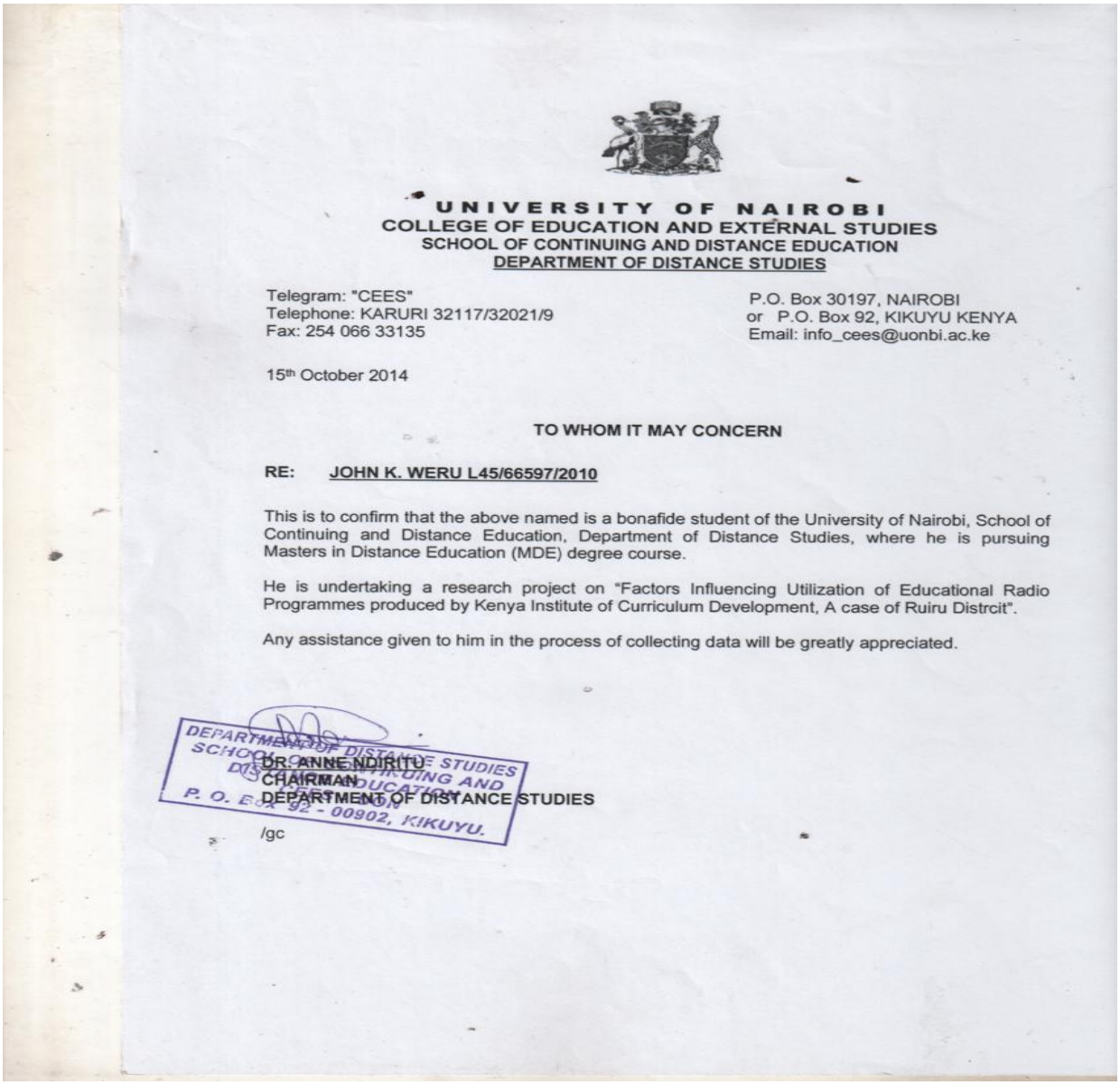
24 Suggest ways in which the use of radio broadcast in teaching may be improved

……

……..

THANK YOU.

Appendix F: University letter of introduction



UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF DISTANCE STUDIES

Telegram: "CEES"
Telephone: KARURI 32117/32021/9
Fax: 254 066 33135

P.O. Box 30197, NAIROBI
or P.O. Box 92, KIKUYU KENYA
Email: info_cees@uonbi.ac.ke

15th October 2014

TO WHOM IT MAY CONCERN

RE: JOHN K. WERU L45/66597/2010

This is to confirm that the above named is a bonafide student of the University of Nairobi, School of Continuing and Distance Education, Department of Distance Studies, where he is pursuing Masters in Distance Education (MDE) degree course.

He is undertaking a research project on "Factors Influencing Utilization of Educational Radio Programmes produced by Kenya Institute of Curriculum Development, A case of Ruiru Distrcit".

Any assistance given to him in the process of collecting data will be greatly appreciated.

DEPARTMENT OF DISTANCE STUDIES SCHOOL OF CONTINUING AND DISTANCE EDUCATION P. O. Box 92 - 00902, KIKUYU.

DR. ANNE NDIRITU
CHAIRMAN
DEPARTMENT OF DISTANCE STUDIES

/gc