SCHOOL BASED FACTORS THAT INFLUENCE THE USE OF RADIO EDUCATIONAL BROADCASTS IN CLASSROOM LEARNING IN WESTLANDS SUB- COUNTY NAIROBI COUNTY

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DECLARATION

I declare that this research project is my original work and has not been presented for a degree in any other University.

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E55/79255/2012

This research project is submitted for examination with our approval as University supervisors.

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DEDICATION

I dedicate this research project tomy loving mother who always encouraged me and kept calling to find out how far I had gone and understood whenever I missed out on important family functions. Also to my other family members and friends for their love, prayers, understanding and moral support that encouraged me to keep on. This would not have been possible without your support. May God bless you mightily!

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ABBREVIATIONS AND ACCRONAMES

ICT –Instructional Communications Technology

NESP- National Education Sector Plan, previously KESSP- Kenya Education Sector Support Programme

KICD – Kenya Institute of Curriculum Development

SSPS – Statistical Package of Social Sciences

TV – Television

UNESCO – United Nations Educational, Scientific and Cultural Organization

EFA – Education For All

MDG – Millennium Development Goals

ABSTRACT

The radio has been used in many countries all over the world as an instructional media. In Kenya, the Ministry of Education Science and Technology through the Kenya Institute of Curriculum Development has worked very hard to develop radio educational broadcasts to be used as instructional media in Kenyan schools. This research study sought to establish the school based factors that influence the use of Radio Educational Broadcasts in the Primary Schools in Westlands Sub-county, Nairobi County. This study had the following objectives: to determine teachers usage of radio educational broadcasts in the teaching/learning process in the classroom in the primary schools of Westlands sub-county ; to determine the availability of broadcast support materials for teachers' use during broadcast to primary schools in Westlands Sub County: to ascertain the extent to which teachers in the primary schools in Westlands have enough information and skills on the use of radio educational broadcasts in classroom teaching, to assess the radio drawbacks that influence the use of radio in teaching and learning in the primary schools of Westlands Sub-county. The use of questionnaires was employed where eight (8) schools were sampled from the twenty five (25) primary schools in Westlands sub county Nairobi County. Qualitative and quantitative research was used. Data was analyzed by descriptive statistics facilitated by the use of SPSS. The study established that the primary schools of Westlands have access to the radio broadcasts though not widely used. Most schools did not use the radio broadcasts in the classroom any more. Most pupils claimed that they had not listened to radio broadcasts while others had listened once. They did not therefore know how to operate the radio receivers. Most schools did not have support materials but had few radio receivers. Teachers did not have enough knowledge and skills on the use of educational broadcasts. KICD no longer organized seminars and workshops for teachers to enlighten them on the use of radio broadcasts. Current KICD broadcasts were not available even at the Kenya Institute of Curriculum Development. The most recent timetable was for 2014.The Government did not provide funds for purchase of radio transistors or for broadcast support materials for teachers. Many radio transistors in schools were not in good condition. The study therefore recommends that all schools embrace radio broadcast in teaching. The Government should provide broadcast support materials and radio receivers the same way they provide text books and find ways for maintenance and repair to make the programme sustainable. The ICT curriculum should be implemented in all schools and teachers colleges to help teachers acquire appropriate knowledge and skills on use of broadcasts. The KICD should monitor the programme closely to find out the needs of the learners and teachers and discover ways to make the programme more effective. They should also organize seminars and workshops to enlighten teachers.

CHAPTER ONE

INTRODUCTION

1.1 Background to Study

Education has been recognized as a means of improving social economic development. It is therefore an important aspect in the development of any country. The Government of Kenya continues to invest heavily in the Education sector. This high level of expenditure reflects the priorities and commitments of the Government to its citizens.The main objectives of the provision of Education according to the Ministry of Education Science and Technology (Medium Term Plan II, 2013-2018) is to increase access and participation, to reduce high cost of Education to households, improve management capacities and accountability in learning institutions. These issues can be addressed through the use of Information Communication Technology (ICT). The radio is one such medium of communication technology.

The Radio is one of the cheapest and most common medium that can be effectively used in classroom instruction anywhere in the world. According to KIE monitoring report number 98, the radio is a powerful mass media used in Education for disseminating information, imparting instruction and giving entertainment (Kenya Institute of Curriculum Development, 2011). The radio is useful in both developed and developing countries. It spreads information to a greater group of population thereby saving time, energy, money and manpower in an effective way (Das, 2013). The radio is simple, cheap and

readily available to most of the population since almost everyone can afford it even the poorest. It is the most universal medium. It jumps poverty and illiteracy barriers. An ordinary radio can be used to carry information to any place. A radio needs very little for maintenance. It speaks to an individual and also to a large population at the same time. Every listener feels like the broadcast is meant for them alone. When listened to in a group, all listening thinks the message is directed towards them. Every listener takes the broadcast as very intimate to them. The radio is portable and accessible and this makes it able to find space anywhere either in school, field, or study room. All these make it very suitable even for the poor communities. Every school can at least afford a small radio which can be used in classroom teaching and learning.According to Das (2013), the radio is a blind man's medium meant for ears only. This means that students only need hearing ability to use the radio. Many refer to the radio as the stage for the mind. This is because it can be listened to simultaneously along with other work like reading. According to (Bosch, 1997; in IIEP 2004), Interactive Radio Instruction broadcasts consistently result in significantly greater learning gains among learners exposed to them than learners in control groups. Radio broadcasts play a big role in improving equity through the reduction of social barriers in education. These includes the empowerment of girls to enable them achieve education like boys and overcome cultural practices that oppress them and deny them opportunities. They also help improve the achievement of rural learners so that they have equal opportunities with urban learners. In this way they help narrow the equity gaps.

The use of radio lessons motivates the learners if they are used in such a way as to stimulate learning (Bates, 1984). It helps to stimulate the imagination of the learner making the learning process very interesting. According to Russell, Molenda and Smaldino (2002), radio technology is of great value and is recommended to increase and improve learners' imagination and listening skills because it relies on a single sense which is, listening only. The radio as a channel of communication extends the range of the original message in terms of time and space. It does not demand the actual presence of the communicator. Such, are the extending media. Mass media are basically extending media.

According to the Dakar framework for action, strategy, (2000)Information Communication Technologies (ICT) must be harnessed to support EFA goals at an affordable cost. These technologies have great potential for knowledge dissemination, effective learning and the development of more efficient education services. This potential will not be realized unless the new technologies serve rather than drive the implementation of education strategies. To be effective especially in developing countries, ICTs should be combined with more traditional technologies such as books and radios and be more extensively applied to the training of teachers.Since many countries have not succeeded in meeting the EFA goals and the MDGs by 2015, UNESCO emphasizes the utilization of ICTs in their realization.

According to Nyutho (2007) the use of the radio improves educational quality and relevance, lower educational costs and improves access to educational inputs particularly to disadvantaged groups. The radio is popular, available

and relatively cheap. This makes it a convenient and practical medium for use in learning programmes. It is a persuasive and portable medium that is capable of reaching a wide geographic audience at very low production costs and with proven educational results because it attracts the senses.

In India, a major educational radio broadcast was commissioned in the year 1937 in Delhi Calcutta, madras and in Bombay (Vyas, 2002). This radio broadcast targeted school pupils and students. These initial radio broadcasts did not follow the stipulated school curriculum but emphasized on values that pupils were intended to acquire. They were made favorable for students with time. Other educational programmes were later developed for various educational levels with modifications.

At first, America and Europe welcomed the radio with hope for its pedagogical value. The radio was seen as having the power to bring the world to the classroom. Radio broadcasts were viewed as 'schools of the air' (Williams and Nicholas, 2004). At the beginning of the twentieth century, many educational stations received licenses in order to produce classroom broadcasts. Broadcasts were produced by educational institutions and by private institutions for profit broadcasters (Casey, 2008). National networks produced educational programmes in line with traditional school subjects. Radio allowed teachers and pupils to engage in the production of programmes. Parents supplied the schools with radio receivers and this encouraged local engagement in the implementation of educational radio broadcasts. Special

educational programmes were organized between 1920s and 1930s in Scandinavian countries and Britain.

In the United Kingdom, Radio educational broadcast was taken up just two years after starting of broadcasting in 1922 with initiation of British Broadcasting Company. The Educational radio was controlled by an Educational Council. The first school broadcast was given by Sir Walford Davis (Das, 2013).

According to the Ministry of Education (MOEST) Japan(1965), Educational television programmes in Japan are delivered by several networks such as NHK(Nippon HosoKyokal). NHK delivers as many as one hundred weekly programmes on science, Social Studies, English, Music, technical skills, domestic arts, morals etc, for viewing in the schools. It prepares a number of such educational programmes as language lessons, with the help of which pupils learn at their own homes. It is believed that the radio in Japan plays a supplementary role in enriching the knowledge of classroom teachers. It is clear that in Japan the use of Television in education has developed from the use of radio educational broadcasts.

According to a KIE (1999) research report Series No. 65, Broadcast to schools in Kenya, began in 1963 and in 1976 it was upgraded into an Educational Media Service (EMS) and moved to the Kenya Institute of Education. This was a national strategy of improving the standards of education and to widen access to education, to improve teacher qualification and to extend educational opportunities beyond the school through distance learning and teaching so that

large number of people both young and old in urban as well as rural, and especially the nomadic communities and other disadvantaged groups could take part in the programmes. The radio was also recommended and used in schools where no alternative form of education exists and to motivate students to learn so that the probability for students dropping out of schools before completion could be reduced or diminished.

Kenya has realized the importance of embracing technology in learning and has made tremendous steps towards integrating it in Education (Gacicio and Kamotho, 2011). The Kenya Institute of curriculum Development therefore continues to research into the needs of learners, develop and transmit educational radio broadcasts. It has also produced television programmes. All these air subjects in the curriculum in all levels of education, including events such as Drama and music festivals, National Students Science Congress and other activities scheduled by the ministry of education.New technologies have since been used which have greater impact than the earlier ones because they have more important attributes. They are interactive and allow learners to communicate with them as if communicating to another person. A mixture of technologies has been integrated combining video, audio, data manipulation and management. This enables the ability to store, organize, retrieve, manipulate and display information very quickly.

According to a KIE(2011) Research Report No.98, the training of production and technical staff made the programme very expensive and the Government could not manage to continue financing the programme. In 1995, radio

broadcasts were discontinued due to the high costs of production and transmission faced by the Government.

Recently the use of radio broadcasts was revived and the World Bank funded the space radio. After the introduction of free primary education in 2003, many schools experienced very high enrollments which contributed to very high school populations. Some schools have over a hundred pupils per class with only one teacher. The large populations have a huge impact on the deterioration of the inadequate physical facilities, teaching and learning resources and qualified teachers (Odera, 2006). This is because no additions or replacements were made after the high enrollments were experienced.

To meet the challenges of free primary education, the Kenyan Government recently introduced World Space radio broadcasts to schools to supplement and improve classroom teachers' work and the quality of education at a distance. The educational channel will enable the Government to provide expanded high quality transmission through the schools broadcasting programmes (Former President MwaiKibaki, 2010). With this kind of observation and criticism of free primary education, a study was carried out to bring out the contribution of World Space radio in improving the quality of teaching and learning at a distance in primary schools in Kenya. The findings showed that students learning from radio lessons and teachers also benefited from well researched programmes that help to improve their teaching.

The Government through the Kenya institute of curriculum development has heavily invested in the radio programme. However, it is clear from various

studies that many schools do not use the programme, yet it is not clear why many do not make use of it. If these resources are not made use of, this will be a real waste of Government revenue. The benefits that would be derived from the educational broadcasts override the costs and it would be unfortunate if all these are put to waste.

1.2 Statement of the Problem

The Kenya Institute of Curriculum Development (KICD) has over time invested heavily on educational radio broadcasts. This has over the years developed into the use of new technology which is a combination of a mixture of technologies such as audio, visual, print, etc. The use of Instructional Communications Technology (ICT) was introduced to ensure access to quality education even to the most marginalized and pastoralist communities and to complement the traditional teaching and learning methods. This makes learning exciting and enriching. These programmes are also meant to supplement where there are inadequate numbers of teachers. The main radio and TV stations in corroboration with KICD also air programmed broadcasts into an annual school timetable to be used in schools with the radio and television. A research study carried out by Odera (2006) to find out the contribution of space radio in improving the quality of Primary Education in Kenya showed that students learnt from radio lessons and teachers also benefited from the well-researched programmes that helped to improve their teaching. Teachers also benefited from the programmes when teaching new subjects they were not trained in or they are not exposed to. However, a lot of

research has shown that the broadcasts have not been put to proper use. In Kenya for instance, there has not been uniformity in the use of radio broadcasts. According to a monitoring report conducted by KICD in 2011, levels of listening to the KICD broadcasts were not satisfactory. This has been carried out largely by individual schools with occasional support from the private sector. Literature reveals that only a few of teachers fully exploit the opportunities offered by the use of instructional media (Gesci, 2009; Zhao and Cziko, 2001). A gap exists as to why teachers do not consider the use of radio broadcast lessons even though they exhibit such important advantages. This study intends to find outthe school based factors influencing the use of radio educational broadcasts by the teachers in the teaching /learning process in the primary schools of Westlands Sub- County, Nairobi County.

1.3 The Purpose of the Study

The purpose of this study was to find out the school basedfactors influencing the use of radio educational broadcasts in the classroom learning, in the Primary Schools of Westlands Sub-county, Nairobi County.

1.4 Objectives of the Study

This study sought to achieve the following objectives;

1. To determine teachersusageof radio educational broadcasts in the teaching/learning process in the classroom in the primary schools of Westlands sub-county

2. To determine availability of broadcast support materials for teachers use, during radio broadcast lessons, in primary schools in Westlands Sub County.

3. To ascertain the extent to which teachers in primary schools of Westlands are equipped with information and skills on the use of radio educational broadcasts in classroom teaching.

4. To assess the radio drawbacks that influences the use of radio in teaching and learning in the primary schools of Westlands Sub-county.

1.5 Research Questions

1. To what extent do teachers inthe primary schools of Westlands Sub-county use radio educational broadcasts in the teaching learning process in the classroom?

2. What support materials are available for teachers to use during radio broadcasts, to primary schools in Westlands Sub County?

3. How well are teachers of Westlands primary schools equipped with information and skills on the use of radio educational broadcasts in classroom learning?

4. What are the radio drawbacks that influence the use of radio in teaching and learning in the primary schools of Westland s Sub-county?

1.6 Significance of the Study

The research findings of this study may be useful to the ministry of education in enhancing effective and sustainable interventions that will improve teacher's efficiency in their teaching role through the use of radio educational broadcasts.

The Kenya Institute of Curriculum Development may use the findings of the study to identify some of the gaps that exist between the production of their hard work and how it is put to the right use. This will help them make the right adjustments especially in regard to giving information and sensitizing teachers and the whole public about the importance of the use of their programmes. This can be done by organizing workshops for teachers and empowering them on how to acquire the resources of the radio programmes and make use of the KICD school timetable for the aired broadcasts.

The research findings may also help teachers discover the usefulness of the radio programmes in classroom teaching and how they would add variety to the teaching and learning process and make the teachers work easier and interesting. The teachers handling new subjects that they have not studied or experienced teaching in the past will also realize they can get a lot of help from the radio programmes.

1.7 Limitations of the Study

Limitations are conditions beyond the control of the researcher that places restrictions on the conclusion of the study and other situations (Best and Kahn, 1998). The main limitation of this study was that the study was carried out in only one sub-county in Westlands Nairobi County, which is an urban setting. The findings may be unique to the geographical setting and may only be generalized to learning institutions in other areas with caution.

This study sought to assess the school based factors that influence the use of radio educational broadcasts in classroom teaching and learning. The researcher had no control on respondents' unwillingness to respond to the research questions.

1.8 Delimitations of the Study

Geographically, the proposed study restricted itself to the public primary schools of Westlands sub- County Nairobi County. It is limited to public schools because education is more standardized as compared to private schools. Some of the Primary Schools of Westlandshave a unique academic potential due to their connectivity by tarmac, electricity and their location. The respondents are head teachers, teachers and pupils leaving other equally important stakeholders.

1.9 Assumptions of the Study

The study had the following basic assumptions;

i) That the respondents would cooperate and give valid and reliable answers to the questions put forth.

ii) That the respondents are aware of the radio education broadcasts prepared by the Kenya Institute of Curriculum Development (KICD).

1.10 Definition of Significant Terms

Radio Broadcast

Radio Broadcasting is a one way wireless transmission over radio waves intended to reach a wide audience. It can also be done through cable radio, local wire television networks, satellite radio, and internet radio through streaming media on the internet.

Satellites

They are artificial objects which have been intentionally placed into orbit. They are used for many purposes such as communication, navigation etc.

Transmission

It is the process of taking the sound you generate in the studio, turning it into radio waves, and sending it into the air.

Utilization

To put a certain resource into proper use.To find a profitable and practical use for something.

World Space Radio

It is a satellite radio provider that offers its digital satellite audio, data and multimedia services internationally.

1.11 Organization of the Study

This study is organized into five chapters. The first chapter is on introduction. Introduction covers background to the study, statement of the problem, purpose of the study, objective of the study, research questions, significance of the study, limitations of the study, delimitation of the study, assumptions of the study, definitions of significant terms and organization of the study. The second chapteris a review ofrelated literature, theoretical framework, conceptual framework and summary of the chapter. Chapter three discusses research methodology, which includes research design, target population, sample and sampling procedures, research instruments, data collection procedures and analysis technique. Chapter four gives the analysis, presentation and interpretation of the data collected during the study. Chapter five gives the summary of findings, conclusions and recommendationsof the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This review of related literature presents findings of other researchers who carried out their own research on similar studies and relates it to the present day. The purpose of this review of related literature was to establish the subject matter and the theoretical framework that was used as a foundation for this study. It also helps to identify and articulate the knowledge gaps, thus ensuring that the study was not replicating the existing knowledge. Sources of this literature review included books, journals, publications and literature from the internet.

2.1.1 An overview on the use of Radio Broadcastsin learning

It is evident that a lot of research focusing on the radio has been done but many questions have been left unanswered. According to Adkins (2006) in his study entitled, "A study in frustration," he agrees that research carried out since the early days of the radio have never satisfied the needs. Though the radio has been in use for a very long time, it has not yet been put to use as expected and the resources provided by the Government remain under utilized. The main focus of this study was to find out the school based factors that influencethe use of radio educational broadcasts in primary schools. The Ministry of Education through the KICD has heavily invested in the programme and a lot of resources used to produce the broadcasts which are

aired during the school calendar. As Lasswell (2015) would put it in his communication model; who says what, in which channel, to whom, with what effect? This shows the importance of the communication process.

In educational instruction, information is arranged systematically to bring about learning. Communication is the transfer of information from the source to a destination. Woods (2004) defines communication as, the systematic process in which individuals interact with and through symbols to create and interpret meaning. Communication as a process means that it is ongoing. Systematic means that it involves a group of interrelated parts and each part affects the other. The information to be communicated, the sender, the media and the respondent are all very important for communication to be effective. Media are the carriers of information between the encoder and the respondent. They are the instructional media when used to carry information that is intended to change behavior. There is a strong relationship between the message and the medium as McLuhan (1964) would put it,' the medium is the message'. The medium is embedded in the message. It influences how the message is perceived. This shows the importance of providing education in a variety of relevant media.

2.2 Use of radio educational broadcasts in learning and teaching in schools

According to a research carried out by Odera (2006), 40% of the teachers who responded reported that they listened to the radio broadcasts with the pupils at the same time. From Odera's study, it is evident that teachers neither prepared

the lessons nor the learners for the lessons before hand to ensure they benefitted from it during the broadcast. In this case it is probable that most of the learners were not able to associate with the broadcast materials and therefore it was a waste of time and resource. From the teachers who responded, 10% said they were planning to introduce radio lessons in teaching and learning. This means that they had not yet started. Another 10% of the teachers said they did not plan to use radio lessons. They probably did not think the broadcasts were effective in teaching. Yet another 40% had not listened to the school broadcasts. From this study, it is evident that only few teachers used the radio broadcasts in teaching. Even those who do, use them wrongly because they don't listen or plan their use beforehand but take them to class without knowing what is in them. Of all the schools sampled, 50% of them did not have radio broadcast materials. This means that radio lessons were not being made use of in all of these schools rendering the whole programme waste Government revenue. It is therefore important to find out why these resources are not put to use.

2.3 Availability of radio educational broadcast resources/support materials in schools

According to Haworth and Hopkins (2009) the effects of radio will with time be far reaching. There were high hopes as the educational radio was initiated. It was intended to bridge the gap that would enable everyone to acquire quality education. However, there were several impediments facing the educational radio to its widespread adoption in Educational systems. One of

the main impediments was the availability of radio transmitters and receivers. Many homes had receivers but only a few schools were well equipped. According to Haworth and Hopkins (2009), a survey carried out in 1941 showed that only 55% of Ohio schools were equipped with radio transmitters. The radio receivers of the time were bulky, large console units and this made their portability and mobility very difficult. It was difficult to carry them from one place to another. They were mainly stationary and could not be moved from one class to another. They housed heavy vacuum tubes and other electronics.

According to a research carried out by Odera (2006), only 50% of the head teachers said they had provided their teachers with radios and support materials and school broadcast time table. Another 40% of them indicated that they had provided suitable classrooms but had not purchased radio sets and other support materials.

2.4 Teachers' knowledge and skills on use of radio educational broadcasts in schools

According to Haworth and Hopkins (2009), Teachers and learners needed to be prepared to interact with the content of the radio programme. The teachers needed to be trained on how to operate the receivers in order to make use of the broadcast materials effectively. According to an evaluation pilot study carried out by KIE in 2001, very few teachers were able to operate the receivers in most of the schools. Some teachers found it difficult to operate the receivers due to; lack of knowledge on the use of receivers, operational

manual being difficult to understand or interpret. There were assumptions that the receivers are delicate and would breakdown easily and lack of exposure to all the utilities of the receivers. From this pilot study, it was evident that schools lacked skills and technical back up to operate, service and repair receivers. This is because the World Space digital receiver is a new technology whose maintainability and reliability should be established.

The pilot study (KIE, 2001) emphasized that the radio broadcasts do not replace the teacher, but the teacher should be able to introduce the lesson before the broadcast and conclude after the broadcast. The broadcasts are meant to support and not to replace the teacher and therefore cannot take the whole duration of the lesson.

2.5 Radio drawbacks that limit the use of radio in teaching and learning in primary schools

2.5.1 Radio drawbacks

According to Odera (2006) though radio as a tool is relatively cheap and affordable for many schools and broadcasts are transmitted to all parts of Kenya, it has some shortcomings which hinder its full potential as an effective medium of instruction in the schools.According to Thomas (2001) radio is a one way communication medium whereby interaction with listeners is minimal. For this reason, a radio broadcast instructor cannot gauge his listeners' prior knowledge and attitudes which are critical to learning. This is because the radio instructor is not in direct contact with the learners and cannot get direct feedback from them. For a radio broadcast to be effective,

the class teacher would have to listen to the broadcast prior to the lesson, prepare and then pre-teach so that learners can follow and benefit from it during the broadcast. If this is not done, then most of the learners may not benefit from it. In addition, Odera, (2006) discovered that the radio could not offer personal contact unlike the class teacher. She argues that radio lessons could not account for the presence of the listeners or whether they were listening or not. She felt that the radio could not take care of individual differences of learners in the class. The broadcast assumed that every pupil had the same understanding or was at the same level to be able to understand everything including slow learners and the hearing impaired. Many teachers feel that a face to face discussion is better than a radio broadcast because it allows for immediate feedback, where learners are able to answer questions and the teacher gives explanations while measuring the learners understanding. However, if radio programmes are to be used effectively, the teachers' role must be spelt out clearly (Satyanarayana&Sesharatnam,2000). The class teacher has to prepare for the lesson appropriately and supplement the radio teacher by receiving the pupils' responses and maintaining discipline in the classroom. This way the radio lesson becomes effective.

2.5.2 Lack of funds

According to a report by the Ministry of Education Science and technology (2005) operating costs of radio programmes are incurred for the equipment and District software and supplies. Historically, the districts and in fact schools have had the most difficulty in obtaining disposable funds for these

purposes. Lack of funds endangers the sustainability of educational electronic media. The project was estimated to cost Kshs120million for a five year period.According to KIE (2011) Research Series No. 98, in 1992, the Voice of Kenya (VoK) transformed to Kenya Broadcasting Corporation(KBC) and obtained corporate status .This led into termination of the broadcast due to high cost of transmission. In 2007, the broadcast was again transmitted through KBC collaborating with the Ministry of Education (MOE). This made broadcasts available through ordinary radio transistors. This made reception completely free. This means that the issue of funds is not there anymore.

2.5.3 Licensing

According to a report by the Ministry of Education (2005) in India, despite the success of community radio in involving women in participatory activities, a major obstacle to its development is the licensing hurdle caused by the fact that the Indian Government has yet to provide a legal framework for community radio.

2.5.4 Lack of accountability

The issue of accountability is an important one in education. Many educational institutions were initially provided with radio educational broadcasts receivers and other support materials that teachers need to use. For this to be a success, proper planning by teachers has to be done. It is possible that in some institutions, some of these resources have never been made use of. According to a report by Kurrien (2008) on; National Policy on ICT, due to lack of accountability in the system, only 30% of teachers turned on the radio

regularly to access the broadcasts. About 20% are likely to have turned it on sporadically, and 50% rarely or not at all. Though large numbers were indeed reached, the greater potential of access to teaching and learning through radio is entirely dependent on the accountability of teachers to press the radio button regularly.

2.5.5 Sustainability

According to Kurrien (2008), IRI's global experience in sustainability reveals that where radio projects have been externally funded, only about half continue to be operational after funding ceases and this is in spite of unambiguous learning gains. Improved quality of teaching and learning does not necessarily ensure sustainability. Sustainability is always brought about by structural, managerial, financial and political factors that need to be put in place at the inception of the project. These factors help to ensure that after the donors or the financiers of the project have gone away, the project continues to run, thus ensuring sustainability.

2.6 Summary of the Literature Review

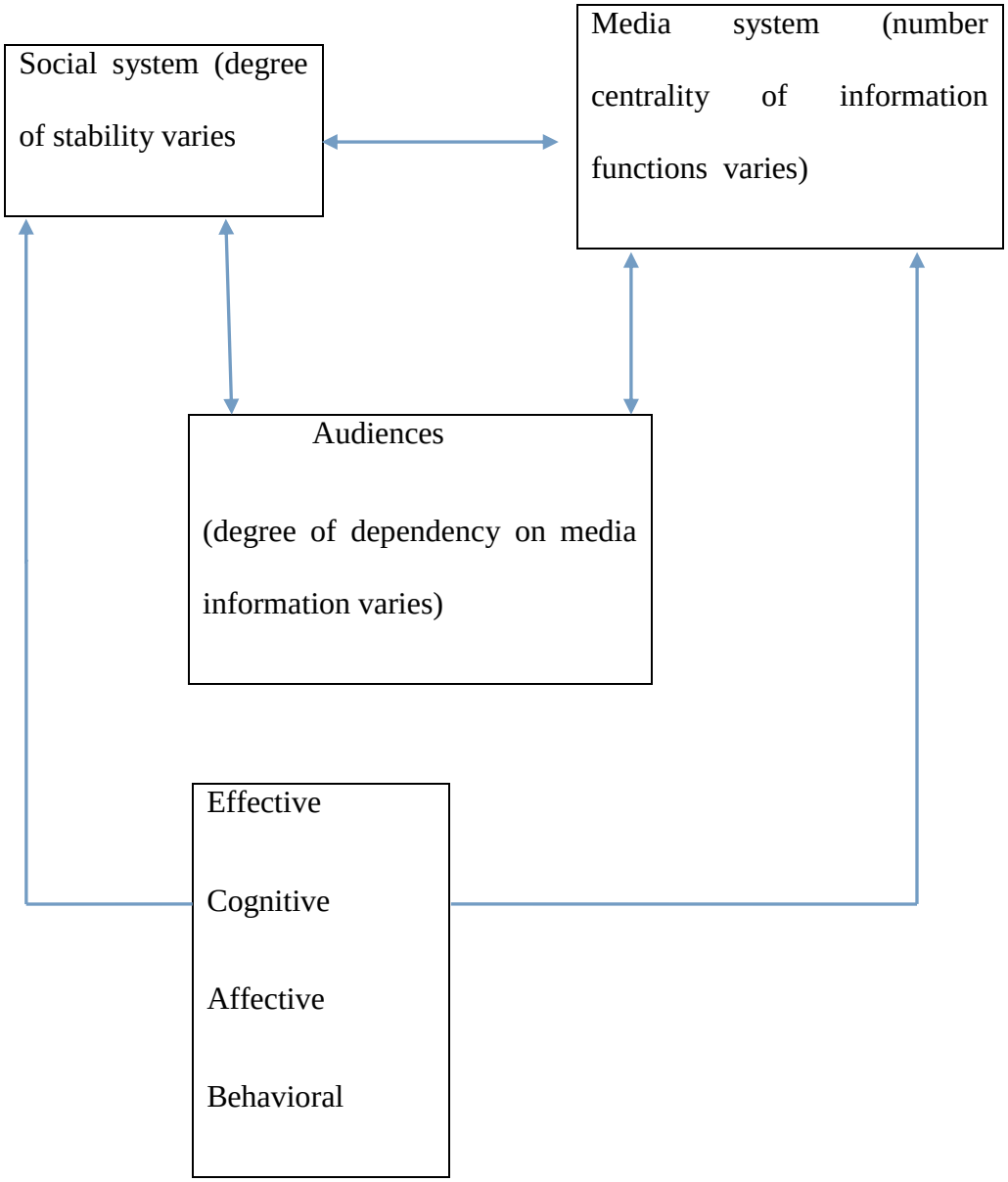
This summary of the relevant reviewed literature is an assessment of the school based factors that influence the use of the radio educational broadcastsin primary schools in Kenya. The researchsought to establish the availability and status of radio instructional materials,professional training on the use of radio broadcast materials by the teaching staff in primary schools and the radio drawbacks that influence the use of radio broadcasts. From the literature reviewed, there exists a knowledge gap and the researcher has tried

to fill it by trying to find out the school based factors influencing theuse of radio educational broadcasts in primary schools in Kenya. These factors are as discussed in this chapter with literature from other authors.

2.7 Theoretical Framework

This research study is informed by the dependency theory, which is also known as media system dependency theory. It was initially proposed by Sandra Ball-Rokeach (1976). This theory developed from the communication discipline. It proposes an integral relationship among audiences, media and the larger social system. It predicts that you depend on media information to meet certain needs and achieve certain goals such as advocacy for business and social concern, entertainment and giving information (education) whereby people choose what to read and watch based on what they already believe in. We don't depend on all media equally but certain factors influence the degree of media dependency. We normally depend more on media that meet a variety of needs than one that meet one need or just a few. The more alternatives an individual has for gratifying needs, the less dependent he/she will become on any single medium. The number of functional alternatives is not only a matter of individual choice or psychological traits but also of availability of certain media. These make the radio a better choice for all in education in Kenya because it is available, relatively cheap and can gratify various needs at the same time.

Fig 2.1 Conceptual Model



2.8 Conceptual Framework

In this conceptual framework, the use of radio educational broadcasts is dependent on the teachers' usage of radio educational broadcasts,availability of radio broadcast resources, teachers' skills and information on use of broadcasts and the radio drawbacks which influence use of the broadcasts which are the independent variables.

Fig 2.2 Conceptual Framework

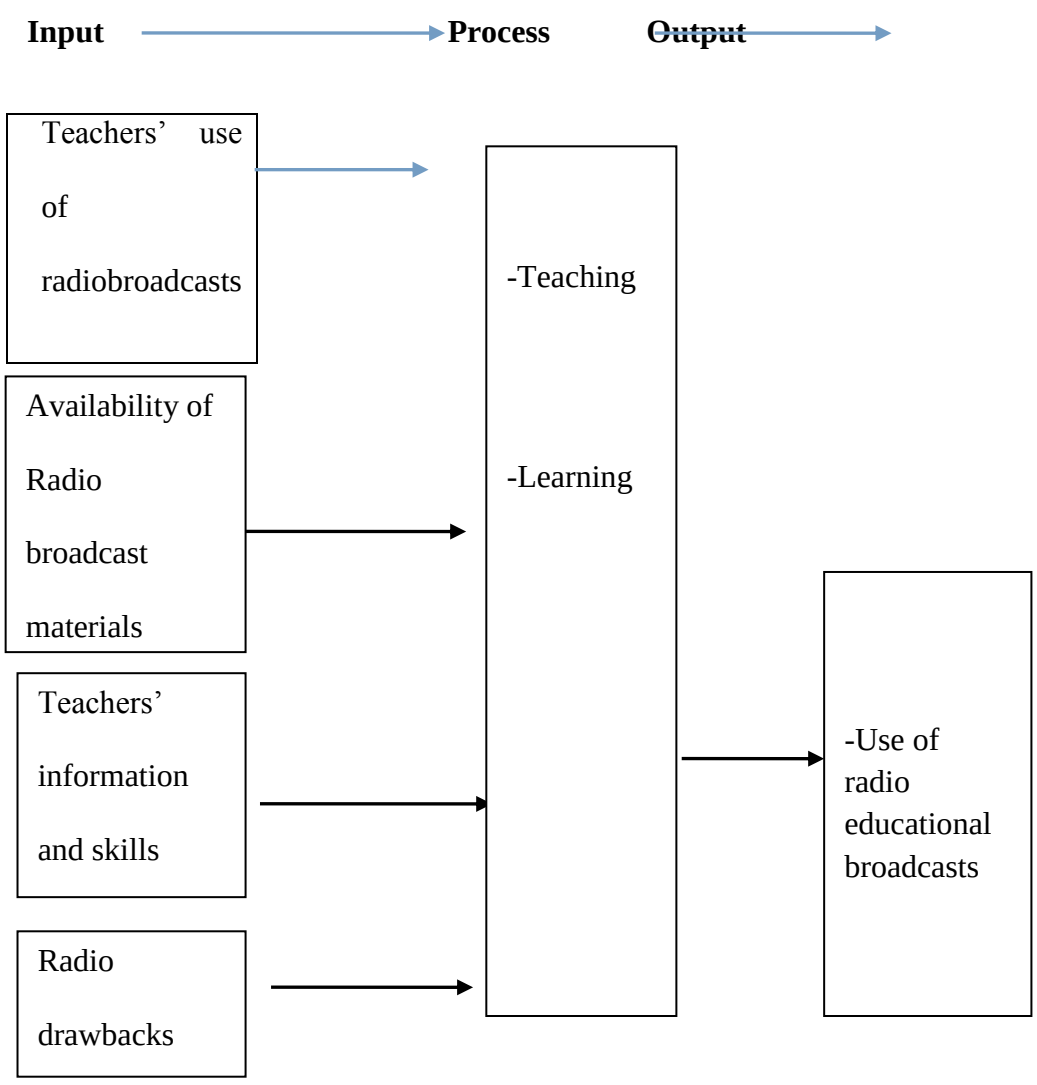


Fig 2.2.Author (2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter was meant to analyze the research methodology that was used in the study in terms of research design, target population, sample size, sampling procedures, research instruments, validity and reliability of the instruments, data collection procedure and data analysis techniques.

3.2 Research Design

Mugenda and Mugenda (2003) defines research designs as an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. This study used the descriptive survey design. Descriptive survey design is the involvement, measurement, classification, comparison and interpretation of data. Orodho(2003) and Kombo(2006) define descriptive survey design as a method of collecting information by administering questionnaires to a sample of individuals in order to secure evidence concerning all existing situations and comparing the present conditions for the next cause of action.

3.3 Target Population

The Westland Sub-county in Nairobi County has twenty five (25) public primary schools that constitute the target population of this study. The target population constitutes twenty five(25) head teachers, about five hundred and

fifty (550) teachers, and two thousand eight hundred and fifty two (2852) class eight pupils from the twenty five public primary schools of Westlands sub-county.Class eight pupils were selected because they were in a better position to answer questions than pupils in lower classes.

3.4 Sampling Size and Procedure

Sampling means selecting a given number of subjects from a target population. According to Kombo and Tromp (2005) purposive sampling is where the researcher successfully targets a group of participants believed to be reliable. The study purposively targeted public primary schools of Westlands sub- county, Nairobi County. School principals of the eight sampled primary schools were also selected purposively. Simple random sampling was used to select 55 (10%) teachers who were respondents in the study. Stratified random sampling was used to select 124 (10%) class eight (8) pupils.

3.5 Sample Size

From the 25 public primary schools, simple random sampling of thirty percent (30%) were used to select 8 (eight) schools used in the study. A sample of eight(30%), of the school principals wereselected purposively. The 8 (30%)sampled schools have around 1240 pupils since someschools are single, double and three streamed, somewith huge class populations of over eighty (80) pupils. A sample of 124 (10%) from this population were selected for the study.

Table 3.1 Sampling frame categories

Category	population	sample school	sample size	(%)
Principals	25	8	8	30
Teachers	550	8	55	10
Students	1240	8	124	10
Total	**1815**	**8**	**187**	**10**

3.6 Research Instruments

This study used both empirical and qualitative data collection approaches. Data was collected from the primary schools using three sets of questionnaires. An observation check list was used to confirm some facts on the questionnaires. The questionnaires were divided into two sections.The first section covered demographic information, while the second section covered availability and use of radio educational broadcasts in primary schools and the factors that affect their use. Both open and close ended questions were used. Close ended questions limit the respondent to yes /no responses. Open ended questions allow the respondent to give in depth responses to the subject of study.Matrix, contingency and behavioral questions wereused.

3.7 Validity of the Instruments

According to Kombo an dTromp (2006), this represents the degree to which a test measures what it is supposed to measure. Validity is the ability of an instrument to produce findings that are in agreement with theoretical or

conceptual values (Amin, 2005). To enhance validity of the research instruments, the researcher researched into instruments appraised by the two supervisors who are the authorities in this area. To ensure that the items in the questionnaires covered all the areas, instruments were prepared in close consultation with the supervisors. All the questionnaires were structured in simple language to facilitate easy understanding.

3.8 Instruments Reliability

Kombo and Tromp (2006) define reliability as a measure of how consistent results from a test are. An instrument is reliable when it can measure variables accurately and consistently and obtain the same results under the same conditions over a period of time. To test reliability of the instruments, test re-test technique was used. The test re-test method involved administering the same instruments twice to the same group of subjects. The second administration was done after a week. After the two tests were administered, the Pearson's product- moment correlation was computed to determine the two tests correlation. The formula for determining the correlation is given below;

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2]\,[n(\sum y^2) - (\sum y)^2]}}$$

X= scores of the first test for each respondent

Y= score of the second test for each respondent

R = correlation coefficient of the scores in the two sets

n= number of respondents

After computation, a correlation coefficient of 0.75 was obtained. According to Mugenda and Mugenda (2003), if r is closer to 1, then the research tools are regarded as accurate. O.75 is closer to 1 and therefore the tools are accurate.

3.9 Data Collection Procedures

Permission to carry out the research study was obtained from the National Commission for Science, Technology and Innovation and sort clearance from the County Commissioner and the County Director of Education and the school principals. The researcher visited selected schools and administered the questionnaires to the head teachers, teachers and pupils. The respondents were assured of strict confidentiality in dealing with their responses. Head teachers were administered personally on agreed dates and werecollected immediately they completed. Pupils' questionnaires were administered by the researcher accompanied by the class teacher.

3.10 Data Analysis Techniques

Data analysis techniques are statistical methods used to analyze data so that it could be interpreted. The researcher used tallying, coding, scheme and code sheet in analyzing data collected. The data was thencoded and entered into the computer and the data analyzed and facilitated by use of Statistical Package of

Social Sciences (SPSS). Calculations of frequency distribution and percentages were done. Data was presented in descriptive statistics and results in form of frequencies and percentages. In case of qualitative data analysis, the questions were analyzed thematically and presented in direct quotes or according to the emerging themes (Orodho, 2012). The findings were analyzed in graphs and tables.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter is a documentation of the results on the research that sought to find outthe school based factors that influence the use of radio educational broadcasts in the classroom learning, in the Primary Schools in Westland's Sub-county, Nairobi County. Data was analyzed using descriptive tools, findings interpreted with frequencies and percentages while presentation was done using tables. Data findings were then linked with the researcher's opinion as well as the existing body of knowledge for an elaborate interpretation and discussion. The chapter was organized in sections beginning with presentation of demographic information and subsequent sections have been organized following the research objectives.

4.2 Response /Return Rate

In order to accomplish the collection of data that was analyzed to answer research questions, 124questionnaires were administered to pupils learning in primary schools in Westlands. In response, 122 questionnaires representing 81.33% return rate were duly filled and returned for analysis. Out of 55 questionnaires administered to the teachers, 52 were filled and returned for analysis. The 8 questionnaires administered to the head teachers were all filled and duly returned for analysis. A response of 81.33% rate wasseen to be sufficient and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a

rate of 60% is good and a response rate of 70% and over is excellent. This commendable response rate was due to extra efforts made by the researcher in requesting the respondent to fill in the questionnaires as she waited and also personal calls and visits to remind the respondentswho preferred to fill later, to fill-in and return the questionnaires. The chapter covers demographic information and the findings are based on the objectives.

4.3 Demographic Data of the respondents

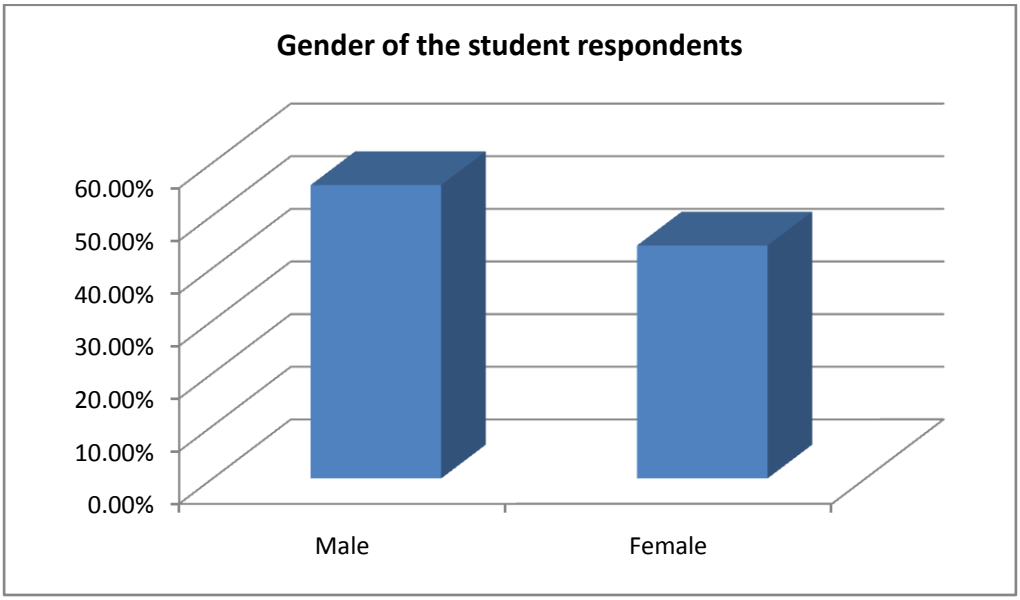
4.3.1 Pupils demographics

The study sought to establish the gender distribution of the pupil participants. The results are in the Table 4.1.

Table 4.1: Distribution of students by gender

Gender of the respondents	Frequency	percentage
Male	68	55.74
Female	54	44.26
Total	122	100.0

Figure 4.1 Gender of the student respondents



The findings show that the male respondents were 55.74% while female respondents were 44.26%. More male pupils may have been selected because of their better performance or their higher confidence levels which make them volunteer more than the female pupils.

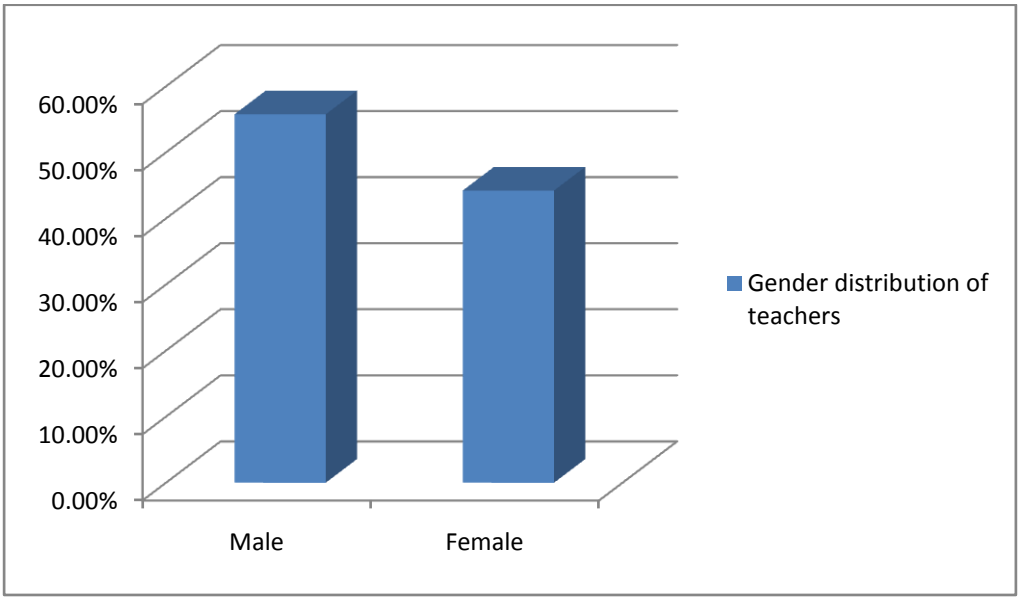
4.3.2 Distribution of teachers by gender

The study sought to investigate the gender distribution of teachers. The results are in Table 4.2.

Table 4.2 **Gender distribution of teachers**

Gender of the respondents	**Frequency**	**percentage**
Male	29	55.77
Female	23	44.23
Total	52	100.0

Figure 4.2: Gender distribution of teachers



These findings show that the majority of the teacher participants were male representing 55.77% while the female teachers' participants were 44.23%. This may be because most heads of departments are male which makes it easier for the head teachers to call on them because they are efficient in their work

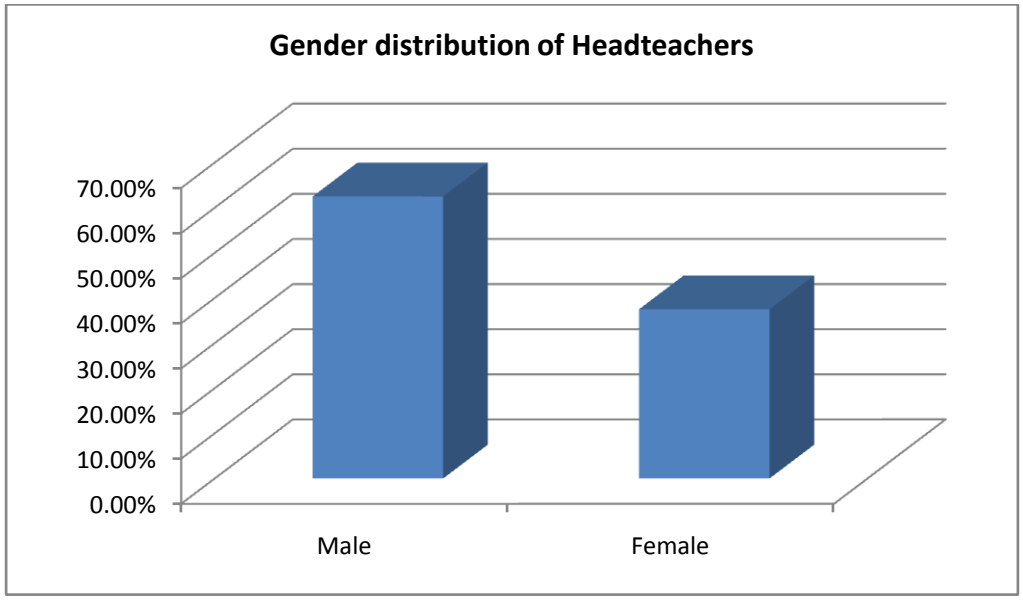
4.3.3: Distribution of the head teachers by gender

The study sought to find out the gender distribution of head teachers. The results are in the Table 4.3.

Table 4.3 **Gender distribution of head teachers**

Gender of the respondents	Frequency	percentage
Male	5	62.50
Female	3	37.50
Total	8	100.0

Figure4.3 Gender distribution of head teachers



The findings revealed that the majority of the head teachers were male, who were 5 out of eight (62.50%), while females were 3 out of eight (37.50%). This shows that male teachers are more aggressive than female teachers and have therefore sought more promotions than the female teachers.

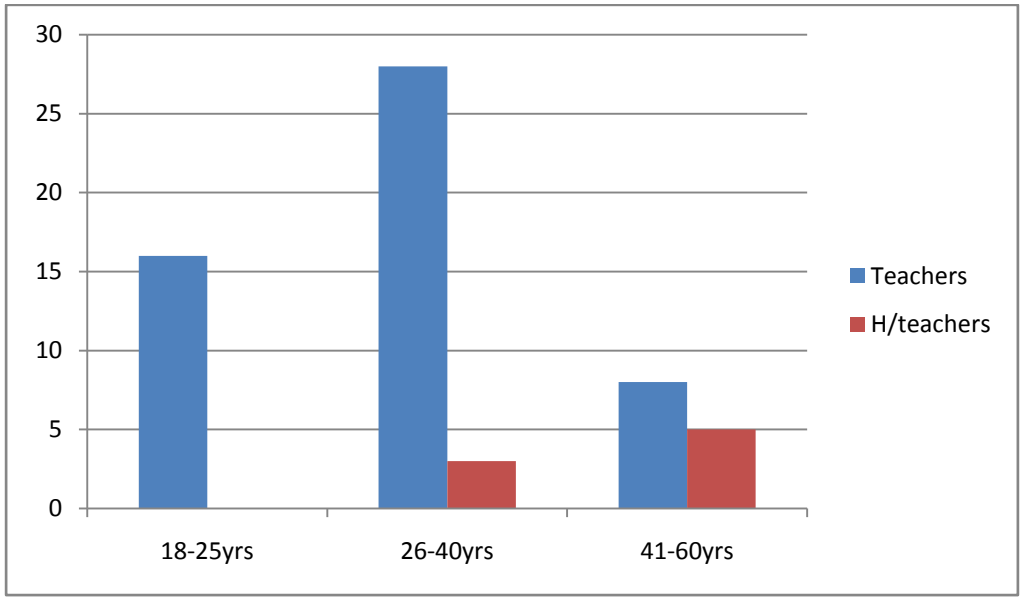
4.3.4: Age category of teachers and head teachers

The study sought to find out the age category of the teachers and head teachers who participated in the study. This was thought to be pertinent in determining the productivity, energy, skills in terms of radio technology. The results are in the Table 4.4.

Table 4.4 **Age category of teachers and head teachers**

Age category	Frequency of Teachers (%)		Frequency of H/T (%)	
18-25 years	16	29.09	0	0
26-40 years	28	52.73	3	37.50
41-60 years	8	18.18	5	62.50
Total	52	100.0	8	100.0

Figure 4.4: Age category of head teachers and teachers



The findings show that the majority of the teachers' age category was between 26-40 years of age, while majority of head teacherswere between the age of 41-60 which constituted 52.73% and 62.50% respectively. Those teachers and head teachers who were in the category of 41-60 had 18.18% and 62.5% respectively. Those whose age category was 18-25 years had 29.09 % and 0% respectively. This indicates that the teachers had average age of between 26-40 years and head teachers between 41-60 years and therefore had appropriate skills and energy for higher productivity of the use of radio

broadcasts.However, some of the head teachers were quite elderly and may therefore not be very keen on the use of technology.

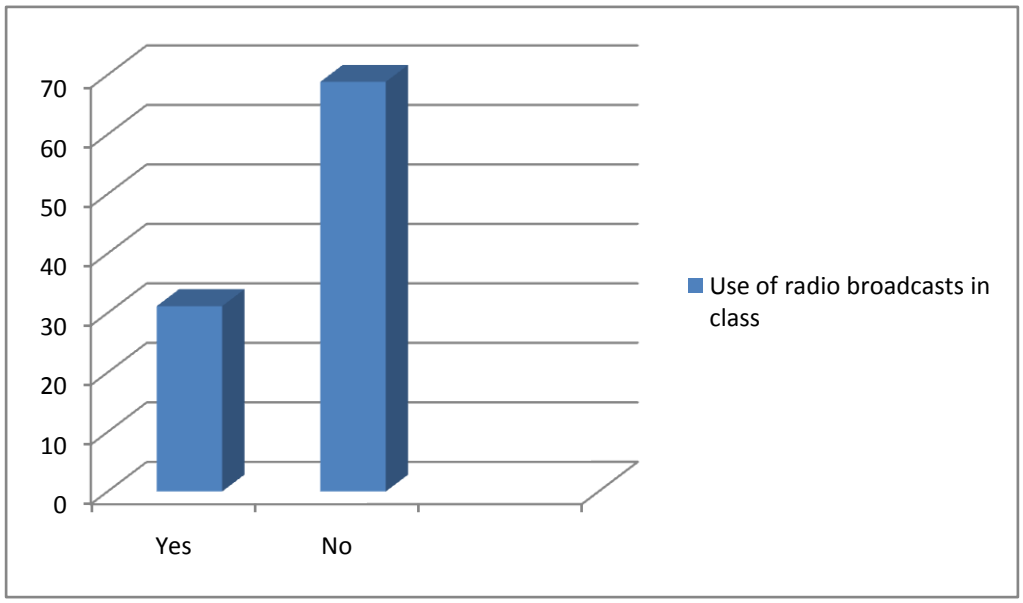
4.4 Use radio educational broadcasts in the teaching learning process in the classroom

The study sought to investigate whether the pupils had listened to the radio broadcast in the classroom and whether teachers used the broadcasts in teaching. The results are in the Table 4.5.

Table 4.5: Radio broadcasts in the classroom during learning.

Use of Radio	Frequency	percentage (%)
Yes	38	31.15
No	84	68.85
Total	122	100.0

Figure 4.5: Use of radio broadcast in classroom learning



Out of the participants, only 31.15% admitted that they had listened to radio broadcasts in class during learning. The remaining 68.85% said that they had never listened to radio broadcasts during classroom learning. These findings revealed thatthough some of the pupils in schools had radio receivers and even knew how to operate them, they did not use them in classroom learning. The findings further suggested that only few pupils in Westlands learnt in classroom with the aid of radio broadcasts. Most of the students who said that they had never listened to radio broadcasts during classroom learning argued that this was so because of lack of radio receivers in the school. Others said that though the radio receivers were present, the presentation was not clear. The rest attributed the lack of use of radio broadcasts in classroom learning to their inability to operate radio receivers. According to an evaluation pilot study carried out by KIE in 2001, very few teachers were able to operate the receivers in most of the schools. Some teachers found it difficult to operate the receivers due to; lack of knowledge on the use of receivers, operational manuals being difficult to understand or interpret. There were assumptions that the receivers are delicate and would breakdown easily and lack of exposure to all the utilities of the receivers. From this pilot study, it was evident that schools lacked skills and technical back up to operate, service and repair receivers.

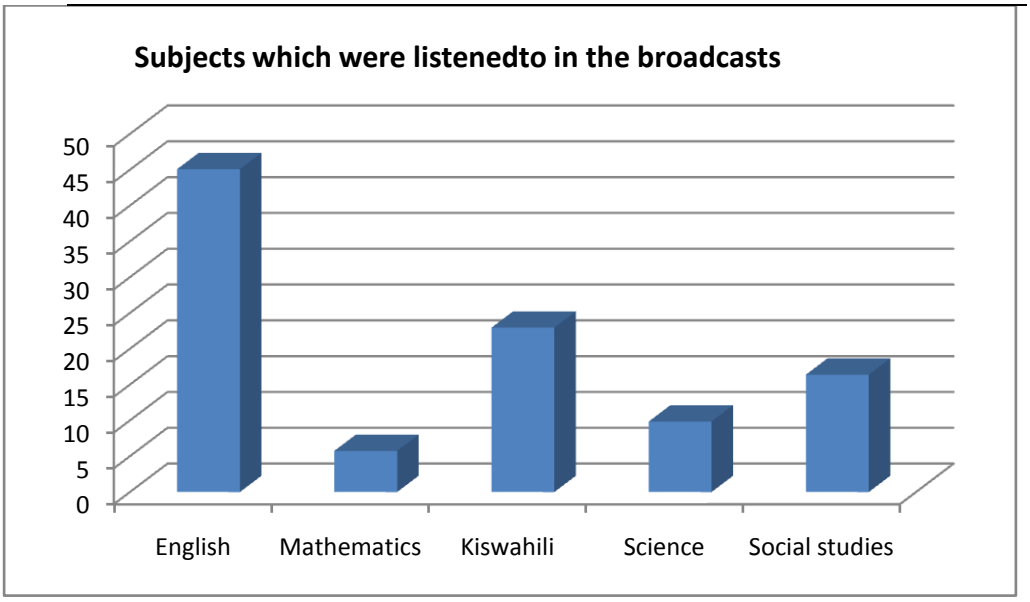
4.4.1: Subjects for which radio broadcasts were listened to

The study sought to find out the subjects in which learners had listened to broadcasts. The results are in the Table4.6.

Table 4.6: Subjects for which radio broadcastswere listened to.

Use of Radio (%)	Frequency	percentage
English	55	45.08
Mathematics	7	5.74
Kiswahili	28	22.98
Science	12	9.84
Social Studies	20	16.39
Total	**122**	**100.0**

Figure 4.6: Subjects for which broadcasts were listened to



The findings indicated that out of the five subjects, English was the most broadcasted during classroom learning (45.08%), followed by Kiswahili (22.95%) then Social Studies (16.39%). Mathematics was the least

broadcasted subject in classroom learning (5.74%) followed by Science (9.84%). Many of the respondents claimed that mathematics radio presenters were too fast and did not give room for learners to participate fully in the lesson. They also argued that they did not develop a flow from one topic to another for the learners to build on since they jumped from one topic to another. This made the mathematics radio broadcasts unpopular to both teachers and pupils

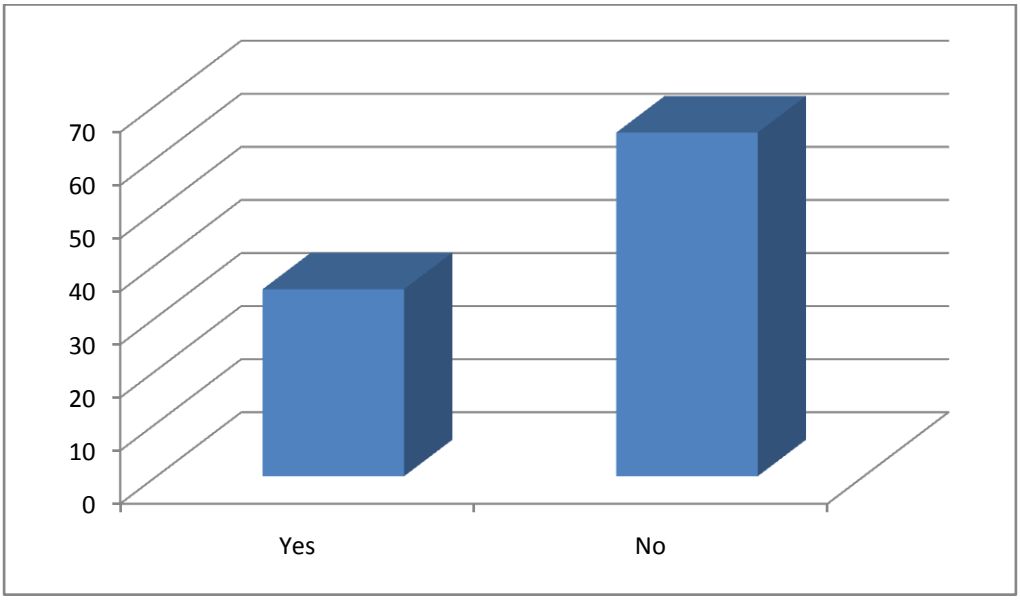
4.4.2: Clarity of the presentation

The study sought to investigate the clarity of the presentation through radio broadcast. The results are in the Table 4.7.

Table 4.7 Clarity of the presentation

Clarity of presentation	**Frequency**	**percentage (%)**
Yes 4335.25		
No	79	64.75
Total 122	100.0	

Figure 4.7: Clarity of the presentation



Out of 122 participants, only 43(35.25%) agreed that the presentation was clear, while 79 participants (64.75%), said that the presentation was not clear. This indicates that the teachers may not have prepared their lessons appropriately beforehand which made most of the learners unable to interact fully with the broadcast materials because they were not prepared for it prior to the lesson. During preparation, the teacher would have discovered the level of the learners and therefore help them interact fully.

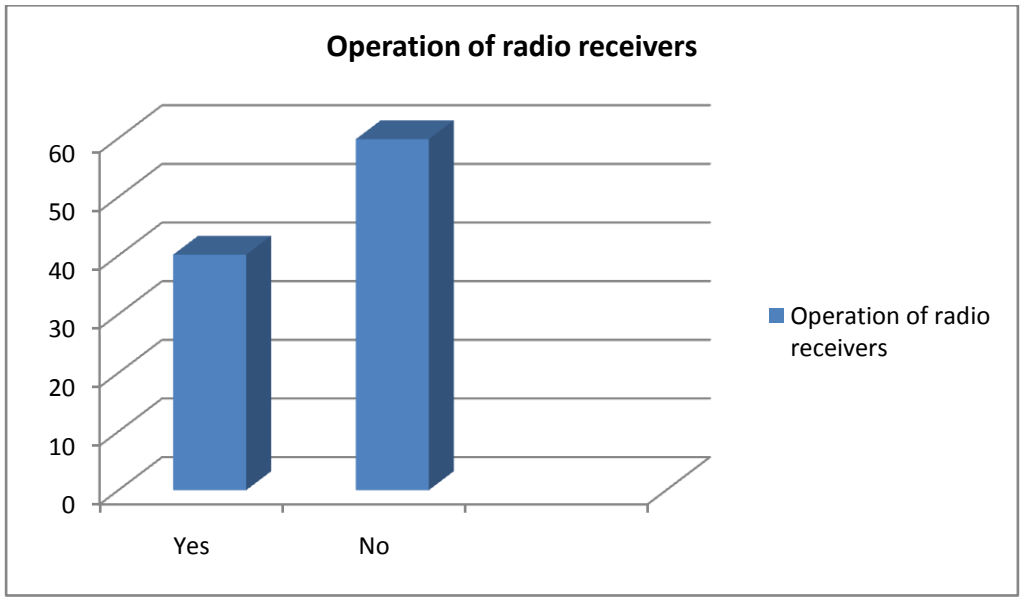
4.4.3: Ability of learners to operate the radio receivers

The study sought to find out whether the pupils knew how to operate radio receivers. The results are in the Table 4.8

Table 4.8: Ability of learners to operate radio receivers

Operation of R. receiver	Frequency	percentage (%)
Yes	49	40.16
No	73	59.84
Total	122	100.0

Figure 4.8: Operation of radio receivers



The majority of pupil participants (59.84%) stated that they did not know how to operate the radio receiver. Only 40.16% agreed that they knew how to operate radio receivers. This finding indicates that majority of students in primary schools in Westlands have little knowledge on operating radio receivers because they never had an opportunity to operate them. The few who had the knowhow said they had observed their parents operate radios at

home and hence they were sure they would do the same at school. On the other hand, pupil participants who did not know how to operate radio receivers asserted that they had never come across anyone operating them. This finding is in agreement with Haworth and Hopkins (2009),' teachers and learners needed to be prepared to interact with the content of the radio programme. The teachers needed to be trained on how to operate the receivers in order to make use of the broadcast materials effective. According to an evaluation pilot study carried out by KIE in 2001, very few teachers were able to operate the receivers in most of the schools. Some teachers found it difficult to operate the receivers due to; lack of knowledge on the use of receivers, operational manual being difficult to understand or interpret. There were assumptions that the receivers are delicate and would breakdown easily and lack of exposure to all the utilities of the receivers. From this pilot study, it was evident that schools lacked skills and technical back up to operate, service and repair receivers.

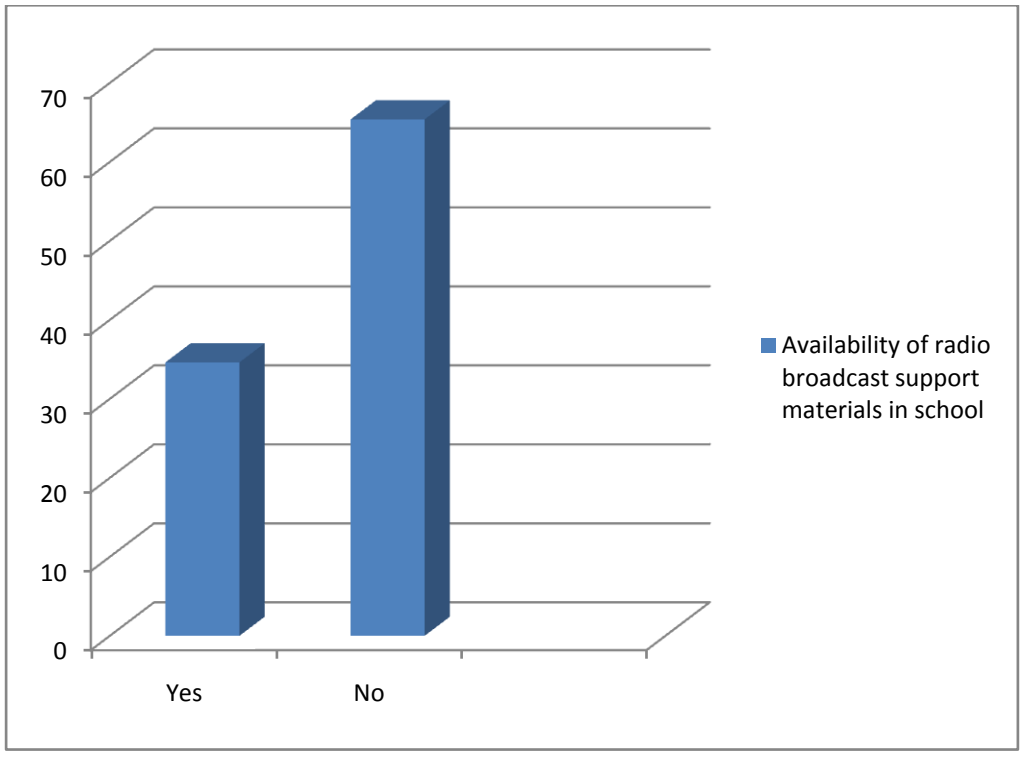
4.5: Availability of support materials for teachers

The study sought to find out whether support materials are available for teachers to use during radio broadcasts. The findings are as in the Table 4.9.

Table 4.9: Availability of support materials for teachers

Provision of R. Broadcast	Frequency	percentage (%)
Yes	18	34.62
No	34	65.38
Total	52	100.0

Figure 4.9: Availability of support materials for teachers



The findings reveal that most schools do not provide radio broadcast materials. Out of 52 teacher participants who participated, only 18(34.62%) had their schools provide support materials. While the majority of the teacher's respondents 65% stated that there schools did not provide radio broadcast

support materials. This indicates that most primary schools in Westlands do not provide radio broadcast support materials. Those that have them are those that have kept the materials that were given during the pilot study by World Space in 2001

4.5.1: Availability of teachers to manage radio broadcast lessons.

The study sought to establish whether there are enough teachers to manage radio broadcast lessons. The results are in the Table 4.10.

Table 4.10 Availability of teachers to manage radio broadcast lessons.

Adequacy of teachers	Frequency	percentage (%)
Agree	1	12.5
Disagree	7	87.5
Total	8	100.0

Out of 8 head teachers, 7 (87.5 %.) stated that the teachers were not enough to cater adequately for the large classes in Primary schools. Only 1(12.5%) head teacher was of the contrary opinion. This indicates that there are inadequate teachers due to the high class populations, tohandle radio lessons efficiently. If the Kenya Institute of Curriculum Development had sensitized teachers efficiently on the use of radio broadcasts, this would have helped to resolve the problem of inadequate teachers.

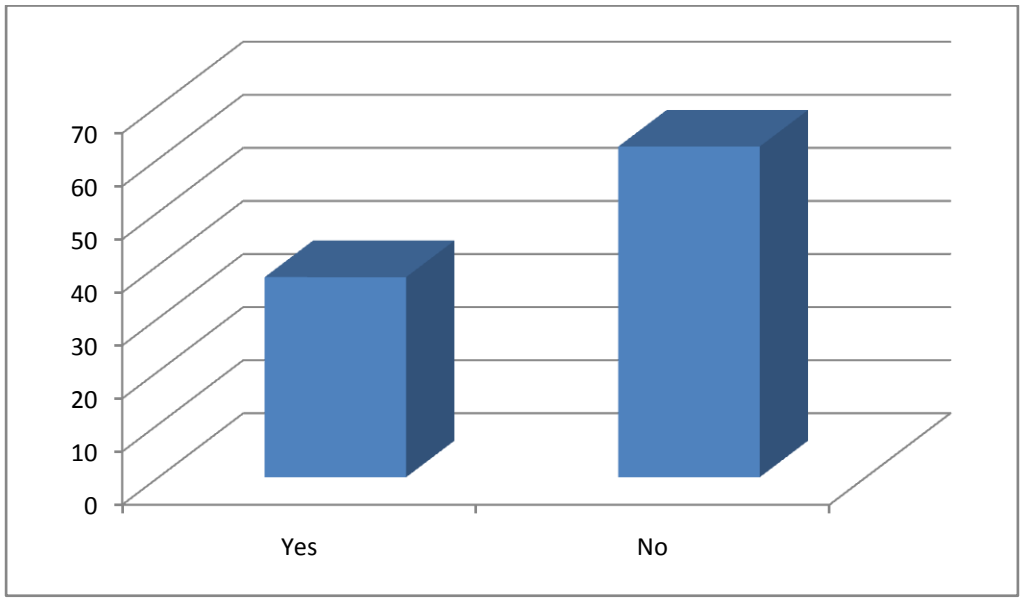
4.5.2 Availability of radio receivers in schools

The study sought to find out whether there were radio receivers in schools. The findings are as in the Table 4.11.

Table 4.11: Availability of radio receivers in schools

Availability of	Frequency	percentage (%)
Yes	46	37.70
No	76	62.30
Total	122	100.0

Figure 4.10: Availability of radio receivers



The findings show that there are few radio receivers in the school. The majority of the student respondents (62.30%) said that there were no radio

receivers in the schools. Only 37.70% agreed that there were radio receivers in their schools. This implies that the radio is not in use in most schools in Westland. This finding is consistent with the report of Kurrien (2008), IRI's global experience on sustainability which reveals that where radio projects have been externally funded, only about half continue to be operational after funding ceases and this is in spite of unambiguous learning gains.

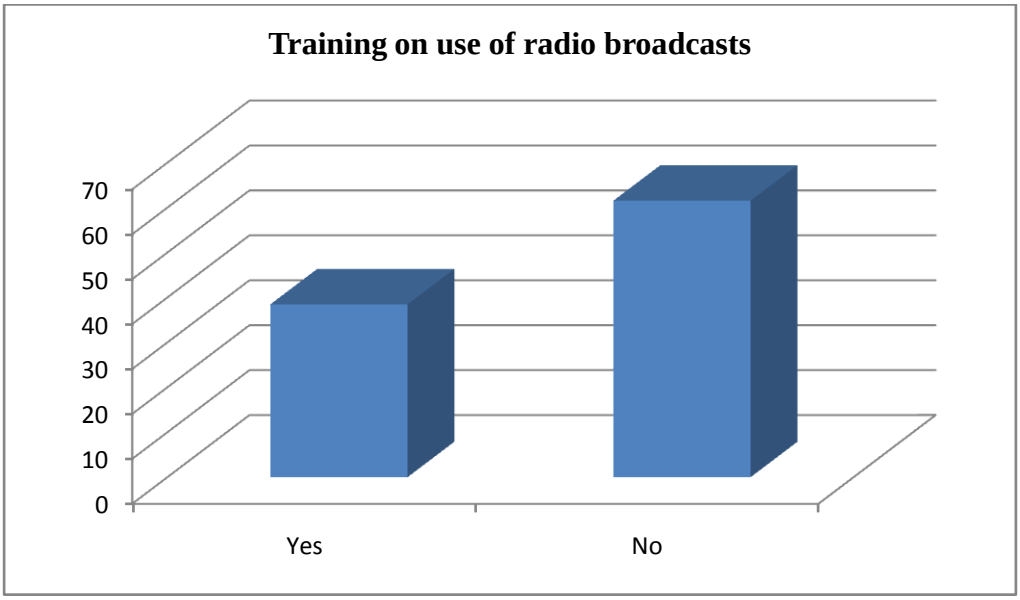
4.6: Teachers' knowledge and skills on the use of radio broadcasts

The study sought to investigate whether teachers had any training on the use of radio broadcast. The results are in the Table 4.12.

Table 4.12: Teachers' knowledge and skills on the use of radio educational broadcasts.

Attending training	Frequency	percentage (%)
Yes	20	38.46
No	32	61.54
Total	52	100.0

Figure 4.11: Training on the use of radio broadcasts



Out of 52 teachers participants, 32(61.54%) stated that they had never gone for any training on the use of radio broadcast. Only 20 (28.46%) agreed that they had gone for training for use of radio broadcast. This reveals that the majority of the teachers do not have knowledge on the use of radio broadcast. Even the teachers with skills on the use of radio in learning had attended seminars by KICD many years ago and there has not been any follow up for a very long time. They also feel that they do not have up-to-date knowledge on how to use modern radio broadcasts. This is because the Kenya Institute of Curriculum Development has not organized workshops to train teachers lately as they used to do.

4.6.1: Students benefits from the radio broadcasts.

The study sort to find out whether the radio broadcasts benefitted students. The results are in the Table 4.13.

Table 4.13 Students benefits from the radio broadcasts.

Do students benefit	Frequency	percentage (%)
Agree	48	92.31
Disagree	4	7.69
Total	52	100.0

The majority of the teachers (92.31%) agreed that radio broadcasting is of value to the students, and they all agreed that students learnt from listening to radio broadcasts since it helped develop their listening and creative skills.

They mentioned that the programme was motivating to learners since content was presented in a different way and therefore added variety to the learning process. Additionally, teachers reiterated that programmes were well researched into, and added some content which is not in the textbooks (e.g. more information on awareness of diseases like HIV/AIDS). Only 4 teachers (7.69%) stated that radio lessons did not benefit the students. These findings reveal that radio broadcasting is of benefit to both the learners and the teachers if proper preparation is done before the lesson.

4.7Radio drawbacks that influence the use of radio in teaching and learning

The study sought to establish the radio drawbacks that influence the use of radio in teaching and learning in primary schools. It was understood that the radio has some drawbacks that make it unfavorable during learning.

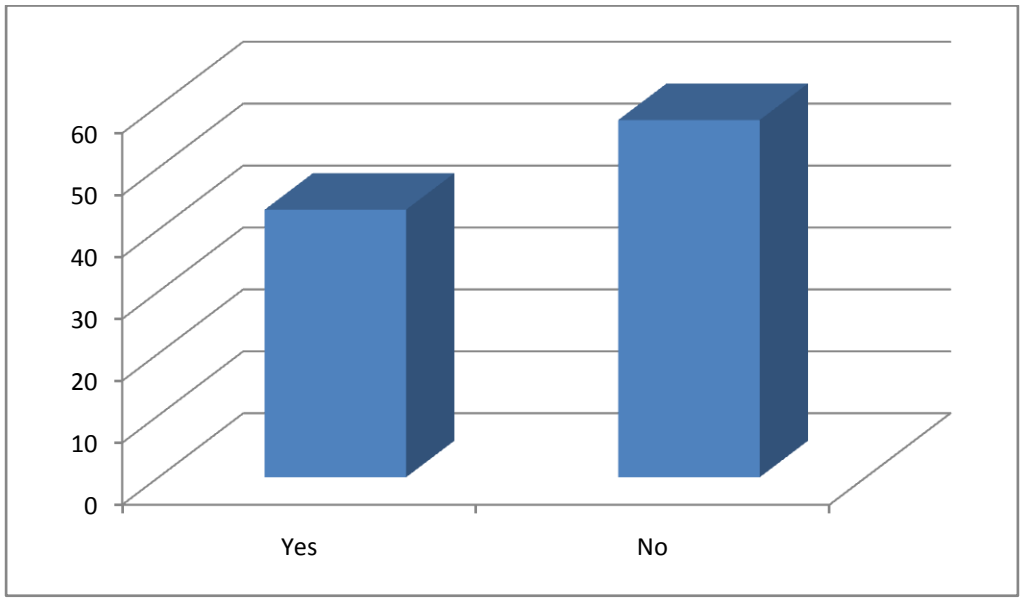
4.7.1 Availability of KICD radio broadcast timetable

The study sought to find out whether there were radio broadcast timetables in schools. The results are in the Table4.14.

Table 4.14: Availability of the KICD radio broadcast timetable.

Use of KICD T/Table	Frequency	percentage (%)
Yes	22	43.21
No	30	57.69
Total	52	100.0

Figure4.12: Availability of the KICD radio broadcast timetable



Out of 52 teacher participants, 22(43.21%) agreed that the KICD broadcast time tables were available even though they were for the year 2014. The

majority of the participants 30(57. 69%) stated that there were no KICD radio broadcast timetables in their schools. This showed that radio broadcasts were not available in many schools. The KICD had not produced broadcast timetable for this year because of lack of funds. Schools did not therefore have them.

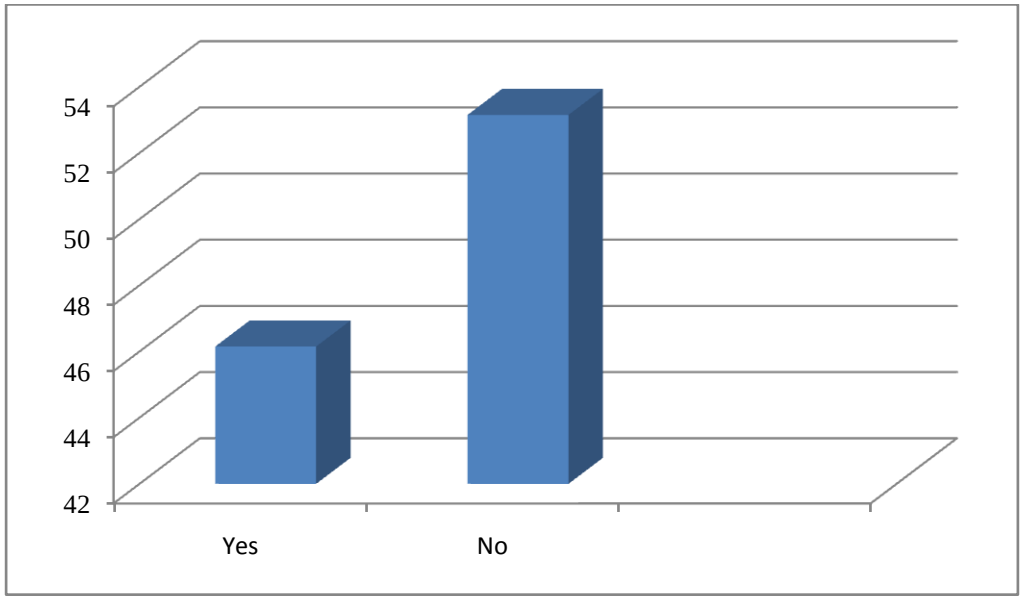
4.7.2: Preparation of the radio broadcast lesson beforehand.

The study sought to find out whether teachers prepared radio broadcast lessons beforehand. Results are in the Table4.15

Table4.15:Preparation of radio lessons beforehand.

Preparation of R lessons	Frequency	percentage (%)
Yes 24 46.15		
No 28 53.85		
Total	52	100.0

Figure 4.13 Preparation of radio broadcast lessons before hand



It was established that only 46.15% of teachers prepared for their radio broadcast lessons. 53.85% stated that they did not prepare for radio lessonsbeforehand. Therefore, this poses a challenge on the use of radio broadcast in primary schools. These findings are in agreement with Odera (2006), who in his study established that 40% of the teachers who responded reported that they listened to the radio broadcasts with the pupils at the same time. This means that they neither prepared for the lessons nor prepared the learners for the lesson before hand to ensure they benefitted from it during the broadcast. This implies that most of the learners were not able to associate with the broadcast materials and therefore it was a waste of time and resource. Orodho, (2006) further pointed out that 10% of the teachers who responded said they were planning to introduce radio lessons in teaching and learning. This means that they had not yet started. 10% of the teachers who responded said they did not plan to use radio lessons. They probably did not think the

broadcasts were effective in teaching. According tothe Ministry of Education Science and technology (2005), lesson preparation is important and every teacher is expected to prepare before the lesson.

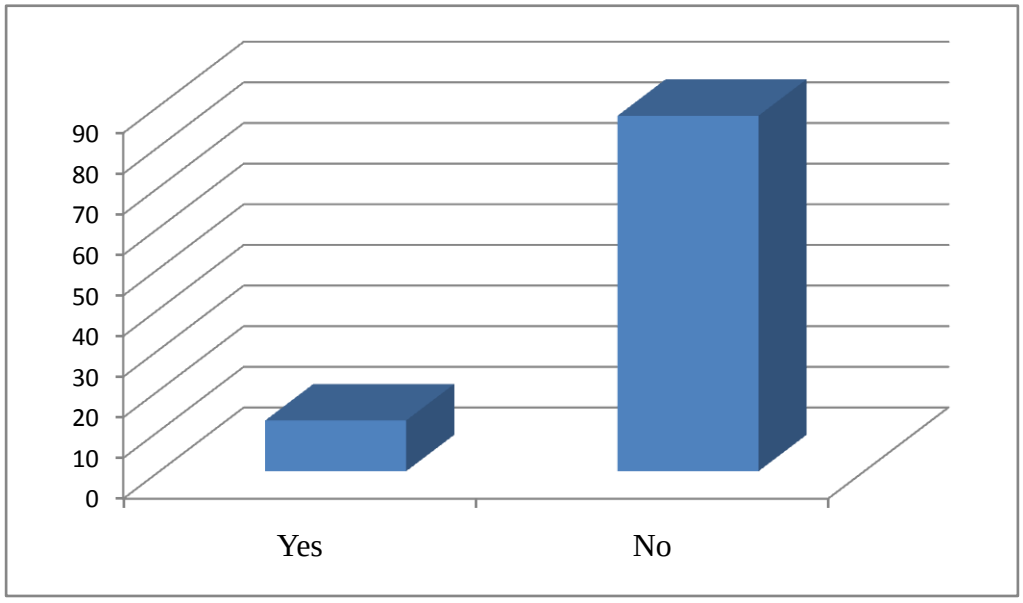
4.7.3Availability of funds for management of radio broadcast lessons.

The study soughtto find out whether there were funds availed by the Government to manage radio broadcast lessons. The results are in the Table 4.16.

Table 4.16: Availability of funds for management of radio broadcast lessons.

Availability of funds	Frequency	percentage (%)
Yes	1	12.50
No	7	87.50
Total	8	100.0

Figure 4.14: Provision of funds for management of radio broadcast



The findings reveal that the funds are not allocated to the schools in order to manage radio broadcasting system. 87.50% of the head teachers stated that they were not provided with the funds from the government to help them manage the radio technology. Only 12.50 % head teachers representing one out of eight was of the contrary opinion. He has organized with the parent teachers association to ensure that radio lessons continue to be taught in his school. These findings are consistent with a report by the Ministry of Education Science and technology (2005), operating costs of radio programmes are incurred for the equipment and District software and supplies. Historically, the districts and in fact schools have had the most difficulty in obtaining disposable funds for these purposes. Lack of funds endangers the sustainability of educational electronic media. The project was estimated to cost Kshs120million for a five year period.

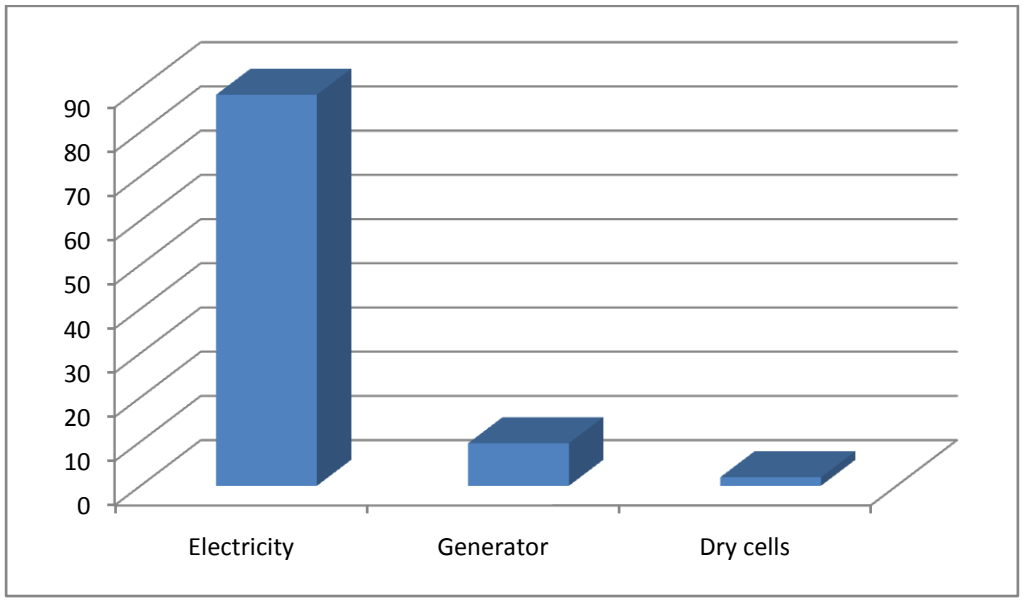
4.7.4: The source of power

The study sought to find out the source of power used in schools for radio broadcast lessons. The results are in the Table 4.17.

Table 4.17: The source of power for the use of radio broadcasts in schools.

Source of power	Frequency	percentage (%)
Electricity	46	88.46
Generator	5	9.62
Dry cells	1	1.92
Total	52	100.0

Figure4.15: Source of power for the use of radio



The findings show that most schools used electricity as a source of power in radio broadcasting. 88.45% of the teacher participants stated that they used electricity, 9. 62% used generator, and 1.92% used dry cells. This revealedthat

most schools in Westlands have electricity as source of power. Therefore power shortage cannot be said to be a challenge in the use of radio broadcast.

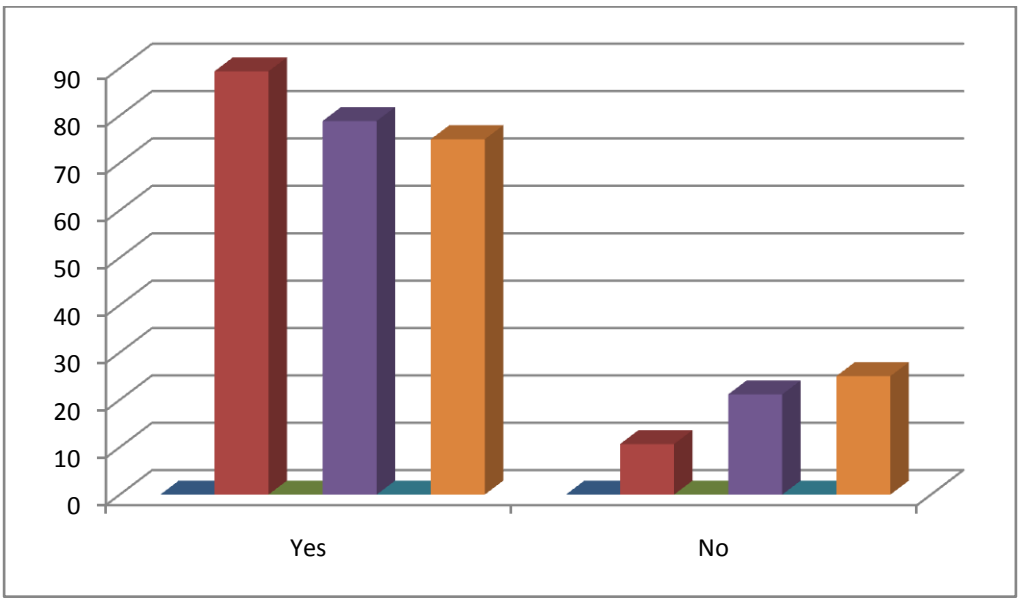
4.7.5: Shortage of radio receivers

The study sought to find out whether lack of radio receivers was a challenge in the use of radio broadcast in learning. The results are in the Table 4.18.

Table 4.18: Shortage of radio receivers

Broadcast	F. pupils	(%)	F. Teachers	(%)	F H/T	(%)
Yes	109	89.34	41	78.85	6	75.0
No	13	10.66	11	21.15	2	25.0
Total	122	100.0	52	100.0	8	100.0

Figure 4.16: Shortage of radio receivers



The findings show that 89.34% of the pupil participants stated that they would like to have more radio broadcasts. Only 10.66% said otherwise. Out of the teacher participants, 78.85% agreed that they would like to have more radio broadcasts, with only 21.15% objecting the need to have more radio broadcasts. Similarly, 75% of the principal participants supported the need to have more radio broadcasts. However, 25% of the principal participants said that they would not like to have more radio broadcasts. These findings therefore indicated that majority of all the participants would like to have more radio broadcasts. This further point out that the schools which have embraced the use of radio broadcast have gained in terms of teaching and learning efficiency.

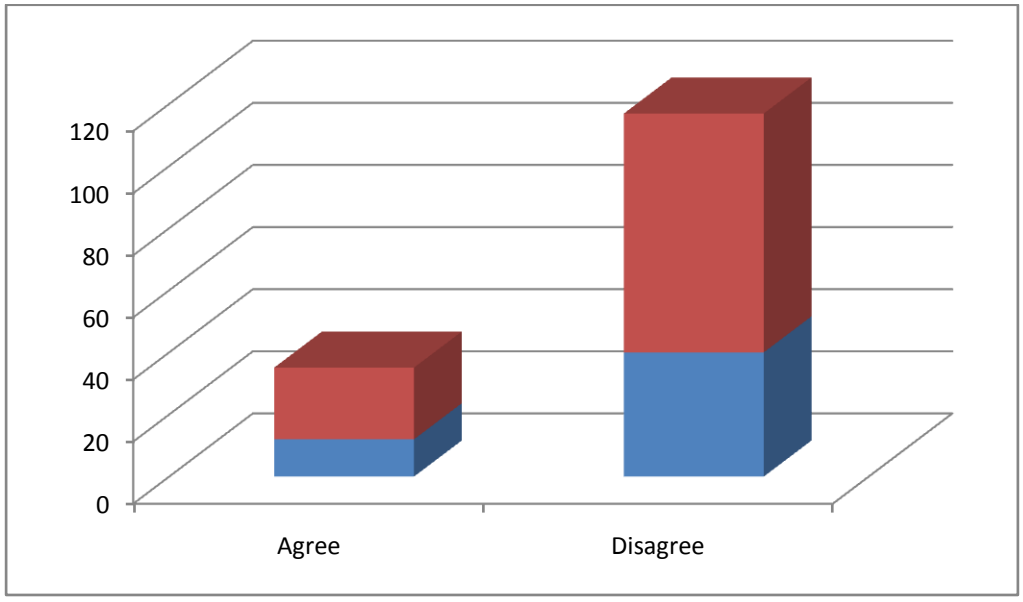
4.7.6: Ability to use the broadcasts

The study sought to find out whether teachers had the ability to use radio broadcasts. The results are in the Table 4.19

Table4.19:Ability to use broadcasts.

Usage of live broadcast	Frequency	Percentage (%)
Agree	12	23.08
Disagree	40	76.92
Total	52	100.0

Figure4.17: Ability to use radio broadcasts



Majority of teachers 76.92% stated that they were not able to use live broadcast due to transmission breakdown and lack of adequate time. Only 23.08 % of the teachers stated that they knew how to use live radio broadcast. This refers to the problem of lack of training on the radio usage. When asked to further mention other problems they face in radio lessons, the majority cited that they had problems in fitting the broadcast timetable with the school timetable. This indicates that the KICD time table if availableis not strictly used and followed. The school administration should therefore ensure that when the school timetable is done at the beginning of the term, includes the radio broadcast timetable

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSION AND RECCOMENDATIONS

5.1 Summary of the findings

The study sought to find out the school based factors influencing the use of radio educational broadcasts in the classroom learning, in the Primary Schools of Westlands Sub-county, Nairobi County. The questionnaire return rate was sufficient whereby out of 124questionnaires administered to pupils, 122 were returned representing 81.33% return rate, while 55 questionnaires administered to the teachers, 52 were filled and returned for analysis, and 8 questionnaires administered to the head teachers were all filled and returned.

The first objective of the study sought to determine teachersusage of radio educational broadcasts in the teaching/learning process in the classroom in the primary schools of Westlands sub-county. It was established that majority of the pupils had not listened to the radio broadcasts in the classroom, since only 31.15% said they had listened to the radio broadcasts. English was the most listened subjects by the students with 45.08%. Also, the majority of the pupils indicated that the presentation was not clear. Additionally, it was established that the majority of the students did not know how to operate radio receivers.

The second objective sought to determinethe availability of support materials for teachers to use, during radio broadcast lessons, in primary schools in Westlands Sub County. It was established that only few schools had support

materials for teachers to use during broadcast lessons. Also, few schools said they had radio receivers. In some schools they were not available for the pupils and teachers use during radio broadcast lessons.

The third objective sought to ascertain the extent to which teachers in primary schools of Westlands are equipped with information and skills on the use of radio educational broadcasts in classroom teaching. It was established that teachers did not have enough information and skills on radio broadcast because the majority had never been given opportunity to attend training on the use of radio broadcast.

The final objective sought to find out the radio drawbacks that influence the use of radio in teaching and learning in the primary schools of Westlands Sub-county. It was established that there was lack of current KICD curriculum time tables in the schools and also lack of radio lesson preparation by teachers. Majority of the teachers who used radio broadcasts in teaching did not prepare for the radio lessons. Shortage of funds that could be used in maintenance and purchase of radio receivers and repair the damaged ones was cited in many schools as a major problem. Most of the available radio receivers were not in good working condition. In addition, the majority of the participants cited shortage of radio receivers.

5.2 Conclusions

It was established that radio broadcast lessons have not been embraced in most primary schools in Westlands. Most schools did not have the radio broadcast receivers. Some claimed that up to the year 2012, radio broadcasts were used

in learning but not anymore.Many claimed that The Kenya Institute of curriculum development was no longer as prompt as they once were in the preparation of the broadcast timetable and did not anymore monitor the programme as closely as they used to. Since the broadcasts were not being used, most of the radios were not in good condition to use in learning and teaching. The majority of the pupils had not used and therefore did not know how to operate radio receivers. Lack of financial support was cited as a major challenge in radio broadcasting. The majority of the respondents cited that they had few radio receivers. Teachers were not being taken for training on the use of radio educational broadcasts. Therefore, they did not have adequate skills and up to date information on how to use radio broadcasts in teaching and the availability of new broadcast resources. Current KICD time table was not available for use in all schools. Those that had a timetable were using for the year 2014. From the study, it is clear that most of the objectives were attained. Only a few such as the need for funds to run the programme in schools has been overtaken by time since the ministry of education has taken care of it.

5.3 Recommendations

The study gives the following recommendations;

5.3.1The use of radio educational broadcasts

The Kenya Institute of Curriculum Development should monitor and evaluate the radio programme closely in order to find out the needs of the learners and teachers and discover ways to make the programme more efficient and

effective. This will also help solve problems they encounter in the use of the radio in the classroom.

The ministry of Education Science and Technology should ensure that the medium termplan goals on Education and Training, 2013-2018 are implemented.These are on integrating ICT into teaching and learning and enhancing quality and relevance of Education.

The gap between production of resources and use should be minimized.

5.3.2 Availability of radio broadcast support materials for teachers

Radio broadcasts support materials should be made available to all teachers in schools to guide them on how to handle the radio lessons. These radio resources will help the teachers to appropriately prepare for the lesson and also to prepare the learners before the lesson so that they can interact with the broadcast materials and follow through the lesson and benefit from the radio broadcast content.

5.3.3 Teachers knowledge and skills on the use of radio educational broadcasts

The available curriculum on ICT in schools and teachers colleges should be implemented in order to prepare teachers to be well versed with the same when they come to the classroom. This will ensure that all teachers have the necessary knowledge and skills. KICD should also come up with a curriculum to empower teachers who are already in the field, organized in form of seminars and workshops. These seminars should be organized at KICD or any location found convenient in all parts of the country. This will equip teachers with knowledge and skills necessary in the use of media in education

5.3.4 Radio drawbacks influencing the use of radio educational broadcasts

The study sought to find out the radio drawbacks that influence the use of radio educational broadcasts.

5.3.4.1 Radio drawbacks

The radio is considered a one way medium which does not give room for feedback. However, proper planning of the lessons before hand by teachers can help resolve this challenge. The class teacher complements the broadcast teacher in receiving the learners' responses and preparing them for the lesson before hand. This helps them interact comfortably with broadcast materials. Teachers should therefore plan broadcast lessons before hand and prepare learners appropriately so that they can benefit from it.

5.3.4.2 Lack of funds

The government should allocate financial support to schools in order to ensure that all schools have radio receivers and also put in place mechanism for maintenance and repair. This will ensure that the radio receivers remain in good working conditions and will also enable the school administration to purchase enough radios for use in the schools according to the number of streams in a school.

5.3.4.3 Licensing

The Kenyan Government through the Ministry of Education took over the financing of the radio educational broadcast with the support of some organizations. For this reason, licensing is not a big problem in Kenya.

However, lack of the use of educational radio broadcasts makes it a waste of resource, since the government has heavily invested in it. Schools should therefore make use of the resources. The Ministry of Education through the Kenya Institute of Curriculum Development should monitor and ensure their use.

5.3.4.4 Lack of accountability

In order to resolve the issue of accountability, the school administration and teachers have to play their part in ensuring that the resources available are made use of in the learning process. Lesson preparation of radio broadcast lessons should be done appropriately. The KICD should ensure that the materials they produce are made use of.

The KICD should provide timely and up to date timetables for radio broadcasts lessons.

5.3.4.5 Sustainability

Radio broad lessons do not have to use the bulky, old complicated radio receivers that were donated to schools by the world space radio to some schools. A small radio is enough and able to receive the broadcast efficiently in class. Therefore, schools do not have to wait for funds from the government but can find ways to mobilize for funds to buy a cheap radio for use in the classroom. This will help make the programme sustainable.

5.4 Suggestion for further Research

This research study is not exhaustive, but opens up avenues for more research and experimentation. More studies should involve more districts from the rural areas and more especially from the arid and semi- arid areas such as those in

regions far away from Nairobi, and find ways to make the radio broadcasts effectively used all over the country. It would also be important to research into factor influencing teachers' attitudes towards radio broadcasts. It would also be important to carry out monitoring and evaluation on the effectiveness of radio programmes.

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APPENDIX I: LETTER TO THE PRINCIPAL

Catherine W. Wairimu

P.O Box 67551

Nairobi

15th May 2015

To The Principal,

…….

…….

…….

REF: AN ASSESSMENT OF THE USE OF RADIO EDUCATIONAL BROADCASTS IN LEARNING IN PRIMARY SCHOOLS IN WESTLANDS SUB COUNTY.

I am a master's student of the University of Nairobi, conducting a study on the above stated topic. Your school has been identified and chosen to participate in the study. I am hereby requesting your assistance when collecting data in the school. You are kindly requested to take part in the study. In order to ensure utmost confidentiality do not write your name anywhere in this questionnaire. Thanks in advance,

Yours Faithfully,

Catherine W Wairimu

APPENDIX II: QUESTIONNAIRE FOR THE HEADTEACHERS

This is a self-administered questionnaire. Your answers will be treated with utmost confidentiality only for educational purposes. Kindly answer the questions adequately.

BACKGROUND INFORMATION

1. Name of school----------

TRAINING

2. Have you had any training on the use of radio broadcasts?

   Yes ☐

   No ☐

3. Do your teachers have any training on the use of the radio educational broadcasts materials?

   Yes ☐

   No ☐

RESOURCES

4. Is your school equipped with the necessary radio educational broadcast materials?

   Yes ☐

   No ☐

5. How many radio receivers are available in the school?

   _____

6. Are they easy to operate by all teachers?

   Yes ☐

   No ☐

   If no give reasons----------

7. Is it easy to move them from one class to another?

   Yes ☐

   No ☐

8. Are the teachers' radios broadcast support materials available to the school for all the teachers?

   Yes ☐

   No ☐

9. Is the KICD radio educational broadcast timetable available in your school?

   Yes ☐

   No ☐

10. Does the school timetable distribution of lessons match with the KICD radio educational broadcast timetable?

    Yes ☐

    No ☐

11. Is there someone who can repair the radio when not in good condition?

    Yes ☐

    No ☐

USE

12. Is the school able to receive the radio broadcast programmes?

Yes ☐

No ☐

13. Is the sound clear?

Yes ☐

No ☐

Any comment----------

14. Do teachers use the radio educational broadcasts during the teaching /learning process?

Yes ☐

No ☐

15. What problems has the school encountered in the use of radio broadcasts? ----------

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APPENDIX III: QUESTIONNAIRE FOR TEACHERS

BACKGROUND INFORMATION

1. Name of your school----------
2. Class taught----------
3. Number of streams----------

TRAINING

4. Have you had any training on the use of radio educational broadcasts in teaching?

   Yes ☐

   No ☐

RESOURCES

5. Are there radio receivers in your school?

   Yes ☐

   No ☐

   If yes how many? ----------

6. Has the school provided radio broadcast support material for teachers use in teaching?

   Yes ☐

   No ☐

7. Does the school have the KICD radio broadcast timetable?

   Yes ☐

   No ☐

CONTENT

8. Is the school able to receive the KICD radio broadcasts?

   Yes ☐

   No ☐

9. How would you evaluatethe quality of radio instructional materials?

   Very good ☐

   Good ☐

   Fair ☐

   Bad ☐

   Comment----------

10. Is the language used in the radio broadcasts easy for learners to understand?

    Yes ☐

    No ☐

    If No, why? ----------

11. Is the flow of content logical?

    Yes ☐

    No ☐

    Comment----------

12. How is the voice of the radio presenters?

    Clear ☐

    Not clear ☐

13. Give any comments on the presentation. ----------

    ----

14. Are the presenters fluent?

Yes ☐

No ☐

USE

15. Have you been using the KICD radio broadcasts in your teaching?

Yes ☐

No ☐

If No, why? ----------

16. How is the quality of production?

Very good ☐

Good ☐

Fair ☐

Poor ☐

Comment----------

17. Are the broadcasts as scheduled in the timetable?

Yes ☐

No ☐

PREPARATION

18. Do you prepare radio lessons before hand?

Yes ☐

No ☐

19. Do you prepare the pupils before the broadcasts and follow up after the broadcasts?

    Yes ☐

    No ☐

    Comment ----------

POWER

20. What is the source of power for the use of radio broadcasts in your school?

    Electricity ☐

    Generator ☐

    Dry cells ☐

    Any other----------

21. What do you think can be done to improve the radio broadcasts? -------

    ----

APPENDIX IV: QUESTIONNAIRE FOR PUPILS

BACKGROUND INFORMATION

1. Name of school----------
2. Male ☐ Female ☐
3. Number of steams in the school----------

RECEPTION

4. Is the school able to receive the radio broadcasts?

   Yes ☐

   No ☐

5. Is the presentation clear?

   Yes ☐

   No ☐

6. If NO, why? ----------
7. Are you able to operate the radio receiver?

   Yes ☐

   NO ☐

8. Comment----------

USE

9. Have you listened to the radio broadcasts in class during learning?

   Yes ☐

   No ☐

   If No, why? ----------

CONTENT

10. Did you understand the subject content?

Yes ☐

No ☐

11. For which subject did you listen to the broadcast?

English ☐ Science ☐

Mathematics ☐ Social studies ☐

Kiswahili ☐

12. Was the content clear?

Yes ☐

No ☐

If No, why? ----------

13. Is the language easy to understand?

Yes ☐

No ☐

ATTITUDE

14. Would you like to have more radio broadcasts?

Yes ☐

No ☐

15. Was the voice of the presenters clear?

Yes ☐

No ☐

16. How was the pace of the presenter?

Fast ☐

Moderate ☐

17. Give suggestions for improvement----------

APPENDIX V: WORK PLAN

	Nov	Jan	Feb	March	April	May	June	July
Topic selection								
Concept paper writing								
Concept paper presentation								
Proposal paper writing								
Proposal paper defense								
Data collection								
Data analysis								
Project report writing								
Project binding								
Project submission								

APPENDIX VI: RESEARCH BUDGET

	Item description	Quantity/No	Unit cost in Kshs	Total cost in Kshs
1	Commuting to library for literature review	10 days	200	2000
2	Browsing and printing	200 pages	15	3000
3	Typing and printing of proposal	40pages	30	1200
4	Purchase stationary e.g. pens, erasers, pencils, and scientific calculator	Assorted		3500
5	Printing of data collected	30*20 pages	20	12000
6	Transport with the study area for supervision/ monitoring	10days	200	2000
7	Printing and binding of research proposal	60*5pages	5	1500
8	Contingencies		5000	5000
	Grand Total			40100