UNIVERSITY OF NAIROBI

"A STUDY ON CONSTRAINTS IN THE USE OF RADIO PROGRAMMES IN PRIMARY SCHOOLS IN KENYA.

A case study of Thika Municipality."

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A Research project Submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Communication studies, University of Nairobi

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DECLARATION

This Research project is my original work and has not been submitted in any other University for a degree award.

MARY WACHUKA WAMBARIA

8/3/04

This project paper has been submitted for examination with my approval as University Supervisor.

EDWIN NYUTHO

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DEDICATION

This Research paper is dedicated to my children: Njogu, Maina and Wambui.

ACKNOWLEDGEMENTS

My deepest thanks goes to Mr. Edwin Nyutho who supervised this research. His energetic and helpful advice, encouragement, and the many hours he devoted to the improvement of this research paper have been greatly appreciated. Without his effective supervision this study could have been extremely difficult.

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A special acknowledgement goes to my husband, Dominic for his patience and moral support without which I would not have completed my studies.

Finally to the teachers and students of Primary Schools used in this study for their cooperation and contributions.

ABSTRACT

Radio as a teaching and learning device, has been put into use in many countries. In Kenya, no systematic evaluation research appears to have been carried out on the effectiveness of educational radio.

This research paper is a survey study to investigate the constraints, which affect the production and utilization of instructional radio programmes in Primary Schools in Kenya.

In this study, attention is focused on:-

(i) Quality of reception

(ii) Appropriateness of the content, presentation and scheduling of the programmes

(iii) Technical capability of the users and availability of maintenance services.

(iv) Sustainability of schools broadcast.

The study is based on twenty schools in Thika Municipality. During the visits to the sampled schools data was collected from teachers and learners. A Questionnaire was also administered to the producers of the programmes at the Educational Media Services of the Kenya Institute of Education. The Director of the Institute was a key informant and an interview was also conducted which was recorded on tape.

Descriptive statistics were used to analyse both qualitative and quantitative data collected. Data was scrutinized to establish any emerging patterns and summarized according to the objectives of the study.

The study revealed that:-

(i) The quality of reception in the school visited was good where the teachers and students were able to operate the radios

(ii) Very few teachers are able to operate the Worldspace receivers since it is a new technology which is not familiar to them. This was attributed to the fact that the operation manual was difficult to understand. Majority were therefore not able to correctly position the antennae and get the signal. The schools lacked service and repair services for the radios

(iii) The broadcast content is relevant as curriculum support material for those who were able to operate the radio. However the content is lacking support of Teachers guides

(iv) Most presenters are good and fluent, but a few are too fast.

(v) The broadcast timetable conflict with the school time table. The duration of the programmes is considered to be too short.

(vi) Schools broadcast lacks adequate financial resources. Production costs and cost of power for the receivers is a big challenge to its sustainability.

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CHAPTER ONE

INTRODUCTION

1.1 Background

1.1.1 Educational Broadcasting

The rapid and extensive technology changes in man's ability to communicate and transfer information have quite rightly been called a revolution. Over the years we have celebrated the advent of different technologies and their effect on economic and social consequences. But on the worldwide scale it is the medium of radio that has been man's most potent communication innovation since the development of writing. The large scale manufacture of cheap, battery –operated transistor radios has been the breakthrough responsible for putting most of world's people into an international communication network..

Almost from the time radio was invented in the 19th Century, there has been interest in its potential educational role, and by the late 1920s and 1930s a number of educational institutions in Europe and America were making use of the radio Jamison(1978:12)

Distance teaching universities in Spain, Thailand, Sri Lanka, Indonesia, Britain, Israel and Pakistan all use a significant amount of Radio as part of their course provision. Radio has been used in the British Open University for relaying lecturers by Professors (Meed, 1974, Bates et al, 1981). Currently we have use of distance education being offered in Africa through UNISA. Dhanarajan (1998)

In Japan schools broadcasting started in 1933. The then Minister of Education, Genji Matsuda said its purpose was to supplement school instruction through related and new content, to present this to the students in a different manner, to enrich the school curriculum and to awaken the children's interest. Nishimoto (1969)

In other countries in Asia for example Bangladesh, Hong Kong, India & Malaysia educational broadcast programmes exist.

The success of educational radio and television in North America and Western Europe caught the attention of international agencies such as Unesco, and of national agencies providing technical assistance to developing countries. Thus the new educational media, as radio and television were often called in the sixties, were introduced in many developing countries with the assistance of foreign agencies. Hawkridge(1982:26)

Published reports in Nwaerondu et al (1987), confirm Radio has been used extremely as an educational medium in the developing countries in a wide range of subject areas such as:

- Thailand to teach mathematics to school children (Galda, 1984) and for teacher training and other curricula (Faulder, 1984)
- The Dominion Republic, in support of primary education (White, 1976)
- India for rural development (Long, 1984)
- Kenya, in support of correspondence courses (Kinyanjui, 1973)

- Paraguay, to offer primary school instruction (Academy for Education Development, 1979)
- Nigeria for management courses for the agriculture sector (Shears, 1984)
- Mali, for literacy training (Ouane, 1982)

A $ 20 million USAID programme advocates a direct teaching approach through radio that, it claims, offers hope for 100 million children in the poorest nations who cannot attend school (Agency for International Development 1990). The approach is based on the use of Interactive radio instruction (IRI) for teaching core curricular subjects and has been applied in 14 developing countries.Bates(1995)

Educational Broadcasting covers a wide range of activities. It is easier to summarize what is taking place in the use of media in education by looking at education through a categorization into formal and non-formal. Formal programmes are aimed at improving existing educational services,for example, programmes aimed directly at learners or at teachers. Non- formal programmes aim at equalizing or enlarging educational opportunities, for example by reducing inequalities prior to schooling, reducing inadequacies after schooling, new or continuing adult needs, social action programmes and politicizing the masses.

This research will touch on only one of these categorizes that is, formal broadcasting also referred to as schools broadcasting and specifically focus on programmes aimed directly at learners in Primary schools.

According to Jamison (1978) Schools broadcast programmes which are directly aimed at the learners have the following uses:

1. Enrichment that is reinforcement of the content, skills or attitudes that teachers are already committed to imparting to their students through increasing motivation, making the topic interesting and providing a wider or more realistic context.
2. Learning resources in that they provide the learners with access to knowledge and information in a more direct and concrete form. Television and radio can also provide learning resources through the construction of physical models, professionally designed graphics and animation, drama and music and foreign languages spoken in context by native speakers None of those material would otherwise be available in the normal school or college context.
3. Meeting special needs especially where there is shortage of staff particularly in Mathematics and sciences or where trained staff feel they lack sufficient academic qualifications.
4. Direct teaching and curriculum reform.Perhaps the most peculiar use of media in developing countries has been to accomplish a swift reform of a national or territorial system of education. Time is of essence in this sort of project, changes that would ordinarily take fifty to one hundred years, at usual measured pace of education, are projected to be achieved in ten or twenty years Schramm(1977).

5. Direct teaching has been used in the formal school systems of developing countries in three related but slightly different ways such as ;

   - To expand the range of the school system, enabling pupils who would otherwise have had no formal schooling beyond a certain age to continue with schooling.
   - To improve the quality of instruction due to low level of education of teachers, lack of suitable resources like books. An example of such projects was like the Radio mathematics project in Nicaragua, Philippines and Thailand and the English language in Kenya.
   - To reform the national school curriculum in such a way that both the subject matter (content) and the method of teaching are radically changed. Jamison(1978:35)

   Currently, use of radio in schools broadcasting is in use in most African countries for example Mauritius, Ethiopia, Ghana, Uganda and Kenya.

1.1.2 Schools Broadcasting in Kenya

The use of educational radio broadcasting in Kenya dates back to 1928,introduced by the colonial powers who saw some advantage in Mass Communication.

Kenya realized quite soon after independence that more than the conventional approach to education was needed to attain their goals. She appreciated the fact that it would be some time before it could train the required number of teachers to expand, diversify, and improve the quality of education, and recognized that it

was almost impossible to do all that if they depended entirely on the conventional approach.

Hence the idea was accepted that broadcasting could be beneficial in the democratization of education. Kenya saw in broadcasting both the prospect of improving the quality of instruction in schools, and the possibility of reaching those sectors of society which otherwise remained outside the purview of the formal system of education and extension work. Broadcasting brought with it the promise of diversifying input in terms of content and subject matter, and also the potential for increasing the number of languages so as to reach as many people as possible, particularly in non formal education.

In Kenya the use of radio to broadcast schools programmes started in 1961 when the School Broadcasting unit was established under the then Kenya Broadcasting Corporation. In 1965 it was taken over by the Ministry of Education. It was expanded in 1976 into an Educational Media Service (EMS) whose mandate was to produce educational materials as part of multimedia curriculum packages and as elements of projects mounted by other agencies for out-of-school audiences through the then Voice of Kenya(VOK). For that reason it was absorbed into the Kenya Institute of Education (KIE) and currently it is represented in all the panels, which process the curriculum development activities at KIE. It is made up of Radio, Film and TV, Design and print, resources and Engineering sections.

This research is on radio programmes specifically directed to primary schools in support of classroom teaching.

The main functions of the Radio broadcast section are to identify and produce radio programmes on key areas within the school curriculum, difficult areas in the subjects, new teaching methodologies and pertinent issues in the society for example HIV/AIDS and human rights.

It also conducts research to find out the requirements of learners and creating a forum for feedback and providing an efficient channel of communication with teachers and education officials on the new ideas and developments in education. KIE Handbook (1982)

All this is aimed at providing equal teaching and learning opportunities to all the teachers and learners in the whole country.

In 1982, Kenya Institute of Education (KIE) applied for a frequency license to set up UHF link between KIE Educational Media Service studio center and Voice of Kenya (VOK) for the purpose of Educational broadcasting to schools. This was approved and transmission from Kenya Institute of Education to Voice of Kenya (VOK) on 395MHz was to commence on August 1982. The transmitters were installed in EMS studios while receivers were installed at VOK. Unfortunately it was never switched on due to security issues at the time as a result of the coup de tat in 1982.

Schools programmes continued to be transmitted through Voice of Kenya where the continuity announcer would hand deliver the tapes every morning.

The Voice of Kenya was renamed Kenya Broadcasting Corporation (KBC) in 1989 and was granted corporate status and its air time charges went up. Despite the increase of the airtime charges by the Kenya Broadcasting Corporation the Government did not increase it's budgetary allocation to K.I.E. Schools broadcast to enable production and transmission of the programmes. KIE was from then on unable to pay the charges. This resulted in accumulated payment arrears and in 1995 the transmission of schools broadcast was discontinued.

KIE had to look for an alternative mode of transmission through Afrispace Kenya Limited to transmit the programmes through worldspace receivers that use satellite. .KIE/Worldspace agreement (2001) . The agreement was to enter into force on the service start date for five years and renewable for three years period upon mutual agreement. A 24-hour channel is dedicated to schools broadcast.

In 2001, a pilot study was carried out to transmit schools broadcast through WorldSpace Satellite channel. KIE research report (No.72 ,2001). The Worldspace uses a satellite system which distributes digital audio signals uniformly throughout the country. The digital technology is also capable of data broadcasting. It is capable of delivering web-based educational materials directly to computers in schools. The receiver used for delivering the audio broadcasts can be used to download web-based educational content in schools. The Schools can

also be able to receive video based content via Worldspace receivers onto computers.

Through this project the Government in partnership with Worldspace is supposed to provide 30,000 receivers to all the primary and secondary schools in Kenya.(Ibid)

Currently six districts have already been issued with the receivers namely, Turkana, Isiolo, Teso, Nakuru Municipality, Marsabit and Thika Municipality.

The project has also attracted donor funding from for example Kenya Airways. According to the agreement signed November 2002 between the Government and Kenya Airways, Kenya Airways has pledged to donate Worldspace receivers and solar power panel packs to all schools in North Eastern province of Kenya, which is a semi-arid area.

1.2 STATEMENT OF THE PROBLEM

Educational radio has been employed within a wide variety of instructional design contexts the world over since 1920s.However it has been compounded by internal and external constraints. Jamison(1978). In Kenya very limited research has been done to establish these constraints. Hence the need for research in this area. The research will therefore be guided by the following questions:

1. What constraints hinder effective production and utilization of schools broadcast programmes in Kenyan primary schools.

2. What measures need to be put in place to ensure effective production and utilization of schools broadcast programmes.

These are some of the research questions that will guide collection of information on those factors that hinder effective production and utilization of Radio programmes.

1.3 OBJECTIVES OF THE STUDY

The general aim of this study is to find out the problems teachers, pupils and producers are facing in the production and use of educational Radio programmes.

The study specifically sought to:

1. Find out whether the reception, content, language and presentation and scheduling of the radio programme are appropriate.
2. Find out whether teachers and pupils know how to operate the Radios.
3. Find out whether the schools are able to maintain the radios and sustainability of broadcast,
4. Find out whether there is exchange of ideas between teachers and producers on the programme production and utilization
5. Find out policies that hinder effective production of the programmes.
6. Give recommendations based on the findings.

1.4 JUSTIFICATION OF THE STUDY

Education has been acknowledged as the cornerstone of the development of nations and societies. Kenya is no exception to this rule. The declaration of Free Primary Education in January 2003 was in recognition of education as a basic right of all Kenyan children as articulated, in the recently enacted Children's Act (2001). The declaration also sought to address the Limited progress towards the attainment of Universal Primary Education witnessed in the last decade whose target date is 2005.

At present the Free Primary Education is advocated as a policy and therefore placing education on a priority list. This has led to an increase in school enrolments and therefore the need to address issues such as the provision of adequate teaching/learning materials in support of the existing 17,754 primary schools in Kenya and in any other public institution that may accommodate out-of-school children.

In Kenya various ways of solving education crisis have been sought and tried, one of which has been the use of instructional technology through the radio. Traditional methods of personal instruction alone cannot cope with this increase. New methods and the use of media can be applied to cope with this. Radio can be used not only in the direct instruction of the students, but equally in the mobilization and motivation of both parents and the teachers.

The task force on implementation of free Primary Education set in January 2003 by the Minister of Education acknowledged that while it lasted, the radio broadcast complimented the normal learning programmes at Primary, Secondary and even teacher training levels. Through the radio broadcasts, learners were able to get new information that was not readily available in books. Equally teachers were able to learn new techniques and gain knowledge that helped them to improve their delivery in the classroom.

Television and radio improves learning. Evaluation of communication programmes projects, and experiments have repeatedly shown that radio can teach, it can present new concepts and information (Gaida & Searle, 1980; white, 1976, 1977; Leslie 1978; Jamison & McAnany, 1978; Bryram, Kante & Matenge 1980; Hall & Dodds, 1977; Mc Anany 1976). In this regard, Sweeney and Parlato (1982: 13) concluded that "... radio plays an effective educational role both as the sole medium or in conjunction with print and group support" Durbridge (1980) notes that, compared with print, the human voice can have an informal quality that is not so easily transmitted in academic print. The human voice can be modulated, i.e. it contains variation in pitch, tone, pace, volume and emphasis, and these cues are invariable to the learning process

Comprehensive research carried out by Schramm (1977) and ,the Japanese broadcasting authority (1969) showed that students receiving Television and radio as a supplement to normal teaching scored higher on the various tests used than

students not using the television or radio programmes. This made Schramm conclude; "Used as supplements to classroom teaching, the media of instruction are effective. They work as well as other classroom teaching. Used in the right way, in the right place, for an appropriate purpose, they will improve the classroom experience."

Although Radio has been used in school broadcast in Kenya from 1961, a critical examination of the available research on its use indicates not much evaluation studies have been carried out. This paper sets to research on whether there are challenges that hinder effective production and utilization of Radio broadcasts in Primary schools.

1.5 SIGNIFICANCE OF THE STUDY

In developing countries like Kenya, where both financial and skilled manpower resources are limited, educational technology through mass media like radio would reach a larger audience and assist in providing education for those who cannot go to school. Thus educational technology plays a major role in the power of message design which contributes greatly to the efficiency in education.

The role of educational technology is central to the whole communication process. It is primarily concerned with instructional development and the learning

process itself, which involves every aspect of communication. It also encourages the creating of learning environments and opportunities in which teaching and learning become exciting, challenging and creative activities.

The results of this study, therefore are likely to be useful to those concerned not only with Primary Education but also education in all other levels.

They fall under the following categories:

1. Curriculum/media specialists

   Those are in charge of the whole process of research, development and production of curriculum and curriculum support materials to schools. This touches on instructional materials.

2. Education planners: Those are the policy makers who provide finances for the infrastructure of all education Institutions in the country.

3. Teacher trainers

   This will help in incorporating teaching on use of educational media and technology in teacher training colleges.

4. Communication researchers

   To continue with more research on missing gaps especially in the use of educational technology and changing trends as witnessed in the use of new media like the computer.

1.6 THE SCOPE OF THE STUDY

The study will cover sampled Primary schools in Thika municipality. In each of the sampled schools focused on upper primary students that is standard five, six, seven and eight since all subjects are covered for in the school broadcast timetable.

1.7 DEFINITION OF TERMS

1. Instructional technology is two ways:

   (i) It means the media born of the communication revolution, which can be used for instructional purposes alongside the teacher, text and chalkboard.

   (ii) A systematic way of designing, carrying out and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication and employing a combination of human and non human resources to bring about more effective instruction. Husen et al (1985:1610)

2. Broadcasting

   The term covers the transmission of programmes by several types of distribution systems. The commonest of these, particularly in developing countries, consists of transmitters broadcasting from towers to conventional aerials and receivers for radio and television. In some

countries, educational broadcasters have access to other systems like satellite and micro-wave systems to closed –circuit cable systems. Systems that principally use telephone lines or some form of storage such as tapes or records are not counted as broadcasting

3. Producer

A teacher trained in producing programmes for Television and radio. He/she can also be a script writer. He/she is responsible for co-ordinating the writing, editing, and recording of radio programmes.

4. Script writer

A specialist in writing a script for radio.

CHAPTER 2

LITERATURE REVIEW

2.1 An Overview

Although numerous research studies, writings, discussions and conferences have focused on the use of Radio in various aspects of life there is still more to be done. In a paper presented to an International conference on Evaluation and Research in Educational Television and Radio entitled , `A study in frustration`, Adkins(1976) agrees that research carried out since the early days of radio have never satisfied the needs. Many questions in educational broadcasting are still awaiting research.

In Kenya there is very little published research studies on schools broadcasting. Even though Television and Radio are extensively used for educational purposes the number of people involved in research in this area is very small. There is also very little commissioning of objective research on effectiveness of the programmes. Neither have academicians in Universities shown much interest in carrying out research in this area. A small number of them which are old concentrate on effectiveness in the teaching of specific subject areas. Hence research in this area tends to be scattered, isolated and unrelated.

The main focus of this project is to investigate the factors hindering effective production and use of Radio programmes in Primary Schools. It is assumed that the use of radio in teaching has its own unique features and problems and these problems have been extensively and intensively explored in the present study.

This Literature review focuses on both the developed and developing countries. For purposes of analysis the review of literature on the constraints affecting effective use of radio are looked at from two perspectives.

1. Literature reflecting opinions, suggestions and recommendations which have not been based on scientific research, but which have a risen out of conferences, seminars, reports and general studies. In different parts of the world, Radio has caught the attention of Administrators, teachers, educational organizations and scholars.
2. Literature reporting on scientific or empirical studies in the field. In this way one is able to separate opinions or views from facts and will help the researcher to arrive at accurate, adequate and concrete conclusions.

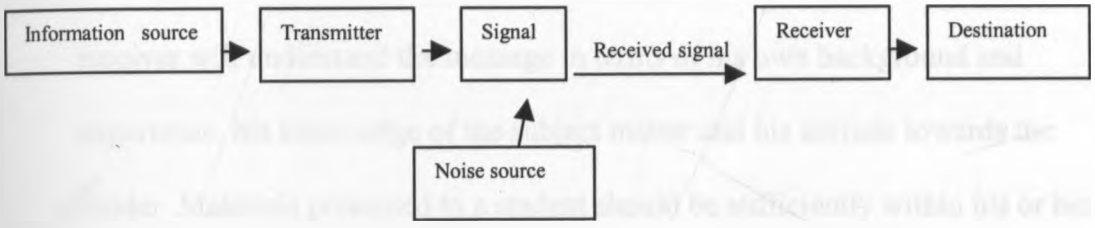
Mass communication research has been carried out from different perspective. Each provides a new point from which to investigate as Harold Lasswell put it, "who says what to whom in which channel with what effect". The basis of this research will be Shannon's communication model, which was later adapted by Schramm.

2.2 Communication model

Instruction is the arrangement of information to produce learning. The transfer of information from a source to a destination is called Communication. Because new learning usually depends on taking in new information, effective instruction cannot take place unless communication takes place. The research therefore want

to find out some of the factors that may interfere with the transfer of information from the source to the destination.

One of the first model of the communication process was developed in 1945 by Claude E. Shannon of the Bell Telephone Laboratories. Heinich (1990). Because of his background and job, Shannon was interested solely in the technical aspects of communication. However, Warren weaver collaborated with Shannon to develop a broader application of this model to other communication problems. The Shannon-weaver model as shown in figure 1 can be used to analyze instructional situations.

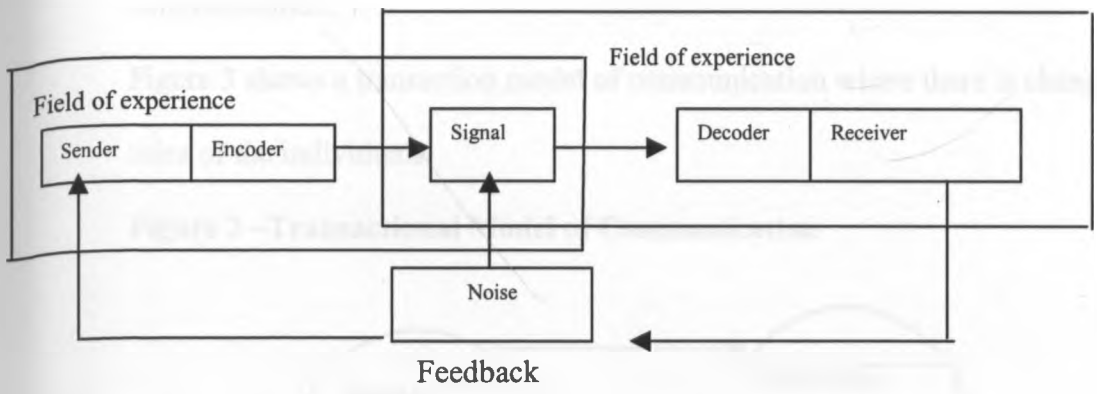


- **Figure 1 Shannon-Weaver model**

According to Shannon`s model a message such as in Science, *The composition of blood*, is selected by an information source. That message is then incorporated by the transmitter into a signal. The signal could be spoken words, a drawing on a chalkboard, or printed materials. The signal is then received by the receiver's ears or eyes and transformed in to a message reaching the destination, for example a student's mind. Acting on the signal as it is being transmitted are various distorting factors that Shannon called "noise". In this example noise could be background sounds.

The Schramm's adaptation of Shannon model incorporates Shannon's concern with the technical aspects of communication, but its central concern is with communication, reception and interpretation of meaningful symbols. This is at the heart of instruction. As a classroom teacher for example one would prepare students for an instructional radio programme through a preliminary discussion of the content of the programme and later plan for follow up activities to help in reinforcing the programme and extend the range of what has been learnt from the programme. Shannon argues that pictures in our heads cannot be transmitted until they have been encoded into language common to both the sender and receiver, message must also be decoded if communication is to take place at all. The receiver will understand the message in terms of his own background and experience, his knowledge of the subject matter and his attitude towards the sender .Materials presented to a student should be sufficiently within his or her field of experience so that he or she can learn what needs to be learned, but enough outside the field of experience to challenge and extend that field. How far the instruction can extend beyond the student's field of experience before confusion sets in depends on many factors. Perhaps the most important of these is the ability of the student. Feedback will help to ascertain whether instruction has been successful or unsuccessful. It is necessary to incorporate a feedback in the model in order to make the communication a 2-way process.

Figure 2 shows Schramm's adaptation of the Shannon model.



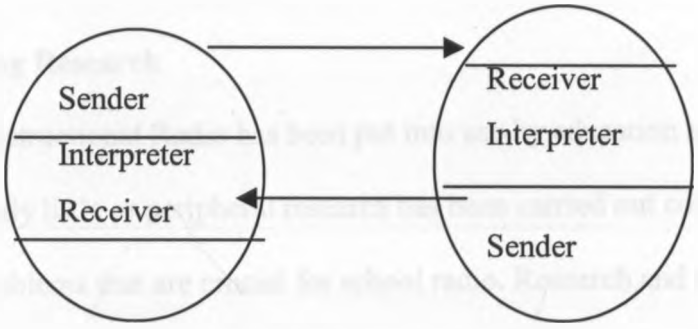
- **Figure 2 – Schramm's adaptation of Shannon model**

Communication is an interpretive transaction between or among individuals. The sender of a message encodes it according to his or her skill and knowledge (field of experience), and the receiver decodes it according to his or her field of experience. In the feedback process, the receiver (student) does more than decode the message. He or she must also encode his or her interpretation of the signal for relay back to the sender (teacher) who, in turn, must decode it. In effect the receiver becomes sender and the sender becomes the receiver. And both interpret the message according to their fields of experience. It is very important that you must decode your students' feedback signals according to their interpretation of instructional content which may or may not be the same as yours, and which will very likely differ from student to student. The teacher decodes the feedback signal to determine the effectiveness of communication and to take remedial measures. Ideally, feedback should be continuous and promptly analysed but in practice intermittent feedback may suffice. Good feedback contributes to the togetherness

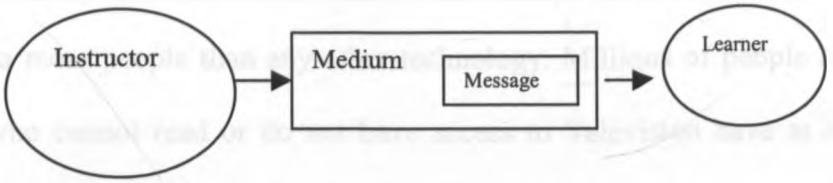
that is, exchange, participation and interaction so crucial to meaningful communication.

Figure 3 shows a transaction model of communication where there is changing roles of the individuals.

Figure 3 –Transactional Model of Communication



It is also important to note that in any instructional situation there is a message to be communicated. The message is usually the subject content. Media (medium for singular) are carriers of information between a source and a receiver. They are instructional media when they are used to carry messages intended to change behaviour. There is a strong relationship between the message and medium just as Mcluhan said the "Medium is the message". (Figure 4)



- **Figure 4 : Medium carries the message**

2.3 The Existing Research

Although instructional Radio has been put into use by education systems in many countries only little or peripheral research has been carried out concerning those research problems that are crucial for school radio. Research and evaluation in Kenya Thompson (1976) in the field of educational radio and television has been spasmodic where producers carry out testing and evaluation of new materials. Jamison (1978) confirms this by saying:

"Though there is substantial past history in the use of instructional radio, few studies of its effectiveness exist. A number that do exist were, however, carefully done and they indicate that instructional radio, supplemented with appropriate printed material, is about as effective as traditional instruction and can be used to teach most subjects as effectively as a live classroom instructor or instructional Television. Due to the limited number and scope of good evaluations now available and the potential economic significance of instructional radio for developing countries, much more research both survey and experimental is highly desirable Jamison(1978:13)

Radio has various advantages over other technologies used in education. It is accessible to more people than any other technology. Millions of people around the world who cannot read or do not have access to Television have at least a radio set. In developed countries, almost all households have at least one radio set (UNESCO, 1986). In the United Kingdom, 99% of all Open University students had a radio suitable for receiving the University's transmissions. Even in many developing countries, access to radio is widespread, and increasing year by year. Bates(1995)

One problem of access is ensuring that students are able to listen when the programmes are actually broadcast. Research carried out in the British Open University (Grundin 1981 in Bates :1995) found that even when a programme was broadcast at the optimum time, the maximum number of students able to listen at that particular time was never more than two-thirds. There were always students who were unable to listen at any particular time, because they were at work, traveling to or from work or had other unavoidable commitments that prevented them from listening. The solution was solved by having a repeat of the transmissions and it enabled 90 % of students to be able to listen to the programmes.

Despite these difficulties, radio is generally and extremely accessible technology for teaching and can reach target groups such as the illiterate and very poor people, better than other technologies.(Ibid:1995)

Perhaps one of the greatest advantages is that it is an easy and familiar technology for most people. No special skills are required to operate a radio set and even people with low levels of literacy can learn from radio. Nevertheless, there is some evidence that there are listening skills that need to be developed, if students are to get the most from radio as an instructional medium.

One of the main weaknesses with radio is the difficulty of two-way communication between the teacher and the learners. In theory, Phone-in radio programmes provided an opportunity for interactivity between students and the teacher, but the level of interactivity and participation rates are often low, when this format is used.

Radio also has an immediacy. Messages can get to the furthest parts of the country just as the event is happening and that the events are reported to the listeners as they are seen. The programmes can be transmitted to large number very quickly, often within 24 hours. It can be invaluable when correction or last minute changes of plan are necessary. For example when Britain was hit by major hurricane in 1988, and many roads were blocked and rail services disrupted the Open University used Radio to inform students about alternative examination arrangements. Bates(1995:147). Other advantages of radio are that it is portable and flexible in that it overcomes the barriers of space and time and has an emotional impact in that it brings dramatic feelings to the listeners.

Although other medium like Television and recently computers are becoming available even to low income countries, the constraints of cost and technical training for them will leave radio dominant in these countries for a long time. In formal education among the various technologies of instruction now being used around the world, ranging from programmed instruction booklets to colour television and computers, radio emerges as one of the most economical. Although research shows that students learn effectively from any medium, if it is used properly and material well-structured Schramm (1977) there are striking differences in cost among media. Computer assisted instruction cost 10 to 50 times as much as instructional television, which itself costs 3 to 10 times as much as instructional radio.

The financial implications and relative value of radio compared to Television are general concerns for the use of broadcasting in developing countries Bates (1984). Radio, can operate on low powered, low-cost batteries. There are still many developing countries where the Television signals cover only the main urban areas. Whereas medium and short wave radio transmitters usually give national coverage, it is to the poor, rural areas where television does not reach which have inadequate educational provision and therefore require schools broadcast. Television production, maintenance and distribution all require great numbers of staff than radio and Television carries a greater risk than radio of breakdown and failure. It is also extremely expensive to provide television sets for schools on a national basis, particularly if local generators have to be supplied where there is no mains electricity. Ibid (1995)

We conclude from the above lines of argument that radio should generally be the medium of choice of low-income countries if an electronic medium is to be used at all.

Andrew Moemeka acknowledges although radio has consistently proved the most feasible medium in poor and highly illiterate communities as compared to Television and newspaper it has inherent disabilities, and its use in education faces certain difficulties. There is the technical problem of transmitter coverage and the quality of reception signals.

There are the problems of appropriate human and adequate financial resources, and the production problem of quality and suitability of content materials. There is the difficulty of choosing the appropriate programme strategy to adopt. And there are the organizational problems caused by the usual do – it – alone approaches of broadcasters, educators and institutional agencies responsible for education, which must for once be coordinated. One limiting factor perhaps self-made to the success of radio in education locally is the shot-in – the – dark approach to programming which leaves the target audience "forgotten", while programmes are being planned, "remembered" just before the programmes go on the air, and "forgotten" again as soon as the programmes have been broadcast. This problem raises the issues of feedback, interaction and proximity of radio stations and producers to the consuming audience.Moemeka(1981:35)

Ramothea, L (1982) on a study of Assessment of the effectiveness of the schools Education broadcasting in Lesotho Junior Secondary found out that if the producers of the schools radio broadcasts, do not ask the teachers to select and suggest topics to be included in the broadcasts then the radio broadcasts will not always tackle topics/areas in which teachers generally have problems.
The broadcast office did most of the programmes selection of topics, writing of radio scripts and transmission

Andrew Moemeka noted the teachers attitude in Nigeria as a factor inhibiting effective use of instructional radio. The teachers who are supposed to guide the students while they are listening to the radio programmes are not trained to do so, and neither is the use of media in education a serious part of the course of training for teachers in the country. It is therefore not surprising that the good intentions of the schools Broadcast unit in producing the programmes are misunderstood by the majority of teachers, and they remain unconcerned about the programmes, which were meant to supplement their own efforts Moemeka (1981:48)

Moemeka contends that instructional Radio operates on the principle of co-operation and guided listening. When one or both of these elements is missing it cannot be operated successfully.

He observes that teachers write the scripts, not to contribute towards the improvement of teaching as a profession and of learning as a process, but to earn extra income. This script writing is seen, not as part of the total schools broadcast project, but as an appendage to it.

A well co-ordinated co-operation between broadcasting authorities, educational agencies, the schools Broadcast Unit and Nigerian Union of Teachers would have produced a better picture of schools broadcasting in the country. Guided listening is almost completely absent in Nigeria. Many schools do not have any period for schools broadcast programmes. Those who do see such period as extra relaxation time for themselves; they do not feel bound to take the broadcasts. Even in the few places where these broadcasts are listened to, the pupils are left on their own . When teachers who are supposed to set examples ignore the broadcasts, the reaction of their students can well be predicted.

In a study to assess how schools in Lagos make use of the schools broadcast programmes, it was found that an overwhelming majority of teachers (92%) do not use the broadcasts. 53% of the students do not listen to them; and of those who do listen, less then 30% classified the broadcasts as helpful. If the situation is as bad as this in schools in the capital which usually has the best in services and facilities, then it cannot be any better in schools in the provinces or in the rural areas where signal distortions do not encourage listening to radio .(Ibid:49)

Wambutta (1992) study on problems encountered in teaching Home Science to Primary schools in Langata through radio found out that 86% of the lessons are not supervised by the teachers.

Nzioka , G (1981) study on factors affecting learning by Radio in Nigeria clearly revealed that none of the schools visited uses radio. The non-use of radio for learning has been attributed to lack of interest among officers of the Ministry of Education concerned with radio broadcasts. Such lack of interest has been revealed by the Ministry's inability to supply much needed support materials to schools, failure on the part of the Ministry to inform the schools what facilities are available for radio broadcasts such as tape copying services, and failure to involve teachers in deciding the topics to be taught on radio. But more fundamental is the fact that the Ministry with full knowledge that signal for educational broadcasts is never received in Oyo state, has made no effort to alleviate the problem

In this connection the Ministry could have informed schools about tape copying services and encouraged them to request for taped programmes for use in class.

Nor has apathy towards educational broadcasts confined itself to the Ministry level. Indeed it has permeated down the ladder to the school level. The majority of primary school needs interviewed displayed lack of interest in educational broadcasts.

A close examination of some of the reasons given by school heads for not using educational broadcasts reveal that part of the cause of lack of interest is the poor performance by the branch of the Ministry of Education concerned with educational programmes. A complaint such as lack of broadcast timetables is a genuine one.

But apart from the poor performance by the branch of the Ministry responsible for educational broadcasts, school heads have also performed badly with regard to the whole programme of educational radio. They have equally displayed lack of interest in educational broadcasts and their sense of responsibility stands to be questioned. For example, it sounds rather naive for school heads to say that schools have no money to buy batteries to operate the radios or that there is no security in the schools and therefore the radios are kept at home. Such petty excuses serve only to expose lack of interest. If top leadership both at the Ministry level and school level is not committed to the success of school broadcasts, it will be difficult for the teachers who sit in class with pupils to feel motivated to utilize educational programmes.Nzioka(1981)

In a paper presented in a conference on Educational Broadcasting another challenge noted is overcoming the perceptions and fear of the classroom teacher. Use of Technology in teaching may be viewed by some as denying them total control of the teaching and learning environment. Others may see it as a threat to their employment. Therefore serious steps have to be put in place if schools broadcast is to succeed .Dhanarajan(1998)

A problem in the use of radio in teaching is that most teachers do not prepare lesson plans for radio programmes and also their pupils. An evaluation study on effectiveness of Radio programmes in teaching English in Kenya , found that 48% of the teachers observed prepared children for the radio lesson through introduction while the rest 52% started their lesson without introduction. It is clear that pupils in these classes did not know what the radio teacher was going to talk about. 74% of the teachers observed had not covered the new language patterns that were to be taken by the radio teacher, so they were going to meet them for the first time Onyango(1982:28)

Language used by the radio teacher could also affect learning. A study on effectiveness of Radio programme in science teaching in Uganda found that 48% of the teachers stated that the language level did not suit the learners and some pupils tend to lose trend of the lesson because the radio teacher speaks fast. Walugere(1983)

Most radio projects are constrained by politics surrounding it simply because radio is a mass medium and can reach a large numbers of people with its message and it is therefore a lucrative business.

In one of Kenya's newspaper (Daily Nation June 2003), a writer questioned the plan to beam Schools broadcast through Worldspace and the reports that a politician was preparing to start a radio station to broadcast school

programmes.According to the writer satellite radio should not be hired at a cost and parents made to buy new radio sets and bear maintenance when there is a cheaper underused state owned Kenya Broadcasting Corporation which aired the programmes in the past.

According to Jamison, many countries tightly control their radio and Television stations for reasons such as:

(i) These media are often the first targets of coups d'etat.

(ii) The radio projects may command a good deal of money and there is a political struggle over their control.

(iii) Radio projects may have a certain amount of prestige connected with them in some countries, and political parties that are competing for power often seek control and hope to gain political favour if the projects proves successful.

(iv) The political-power holders are often very suspicious of any attempt to organize, mobilize, or even communicate with a large mass of the rural poor. The danger of politicization is that the Government will intervene or close down the project. Another very important constraint is the political will of the government to carry out a radio development project. No matter how attractive a radio strategy might be for achieving certain goals, if the political leadership fails to support the goals and their achievement, then the project will have difficulty succeeding. Jamison(1978:120)

On the same note Elihu et al (1977) admits political, economic and cultural constraints within which broadcasting operates.

Financial constraints affect almost all elements of the schools broadcast systems from production to utilization of the programmes. Teaching by Television or radio requires large amounts of production and transmission time. Self-financing projects spend most of the time fundraising and their success depends on the financiers while publicly financed projects have to wait for budgets to be approved by the Government. Rogers et al (1977) review of India's radio forum project reports that a serious problem was its lack of funding for field personnel. Even when there is dependency on International aid agencies, such as the World Bank and the United Nations Development programme on educational broadcasting projects finance is a major problem especially when the foreign assistance has ended Bates(1984).

It has often proved difficult for the developing countries to maintain a high standard of teaching and to integrate the projects into the main education system. The running costs of such projects like provision of pupils' worksheets, teachers manuals, transport costs, salaries of production, technical and administrative staff , the cost of TV or radio receivers and maintenance and replacement of equipment are rarely covered by foreign aid. Running costs for one years operation alone can far exceed the total of foreign aid. The national government then has to find large amounts of money, skilled manpower and administrative effort to continue such projects and several countries have found it impossible to maintain adequate

services over a long period. Many of the projects(for instance in Niger, Nicaragua and SITE in India) have only gone up to pilot stage. Ibid (1984)

An almost universal problem facing radio projects is making sure that printed materials arrive on time to be properly coordinated with the radio message.
An evaluation of the effectiveness of Radio programmes in teaching English language in Kenya Onganga (1982) found that only 18% of the 50 teachers got teachers guides in time to organize efficient work with them. The rest 82% either got them late or never got them at all.
A pilot study report on the broadcast to schools through World space satellite KIE (2001) noted that although the content is relevant it lacked support of "Teachers Guides".

Staffing is a major problem affecting production of quality programmes. A workshop organized by Unesco (1970) for six African countries of producers of school Radio Broadcasts noted that most members of each educational broadcasting unit have been drawn from the teaching force. Though they were experienced teachers they had no experience on Broadcasting. Most relied on training on the job while others supplemented theirs with on – the- job crash training programmes both at home and abroad. Only a few can boast of formal professional training as broadcasters. Although lack of local training facilities may have contributed to this, in Kenya where they exist, the schools broadcasting section has not yet made use of it in having its new recruits trained here. There is

therefore scarcity of well-trained and experienced programme producers and they have to depend on outside instructors, teachers and artists who are by no means readily available. Even when they are found, they have neither the readiness, nor the time to try out and then modify and re-modify the material and presentation of the programmes once they are made. In most cases the producer ends up re-writing the script thus doing dual roles of scripting and producing. And the fact that they have to be paid either per programme from the very narrow budget within which the schools broadcasting units have to operate makes the problem ever more acute.Miles (1973:178)

Institutional permanency lacks in most of educational broadcasting houses. Apart from the Ethiopia Educational Mass Media Centre, which has its own transmission facilities, others like Kenya, Uganda, Tanzania and Zambia are an amalgam of several bureaucracies, a Ministry of Information or Education. Their success depends to a large extent on the cooperation of these institutions. Ibid (1973)

Difficulties of signal strength often hinder good reception. KIE Pilot study report of World space broadcast to schools (2001) noted that it took sometime for the antennae to pick the signal, which they felt was not very easy to get. They also required long aerial extension cables so that they can easily install the antennae permanently. Disruptions by tall trees and buildings in the neighborhood was cited as one of the hindrances affecting reception in some schools.

Another problem identified in the report was the movements involved in getting the receiver from one listening room to another. Some state the problems encountered in setting them again for the next class as:-

(i) Time being consumed hence the class finds that the broadcast lesson has already began.

(ii) Positioning of the antennae to receive the signal was also consuming time. In a particular school, it was found that the teachers had to have a ladder always at hand so as to put the antennae at the top of the roof.

(iii) The receiver is prone to damage when being moved. It can fall and break.

(iv) The antennae can also be interfered with or damaged by learners when they are playing depending on where it is placed.

The issue of ideology is important in any formal school curriculum. All radio communication has a content and that content reflects basic values and beliefs. Therefore use of appropriate examples is very important. For example studies done in Namibia on school radio programme for Radio Owambo on a programme called "Otundi yosh Ingilisa" (English by Radio) for std 3 used stories which are ideologically urban oriented with a message of socializing the pupils in urban life, of driving cars on the streets, visiting shopping centers and urban crimes and how to prevent them. The contradiction here lies in the fact that the stories set up in urban areas are read to pupils of whom about 80% are in rural area schools and who have never had a chance of seeing street lights or going to

shopping centers in cars. This does raise the questions of comprehensibility. How would the pupils be able to understand the stories since they are set up in abstractions as far as their own experiences are concerned? They tend to create an imaginary better life in urban areas thus undermining rural values. Amupala et al (1989:41)

A report on workshop on Distance Education held at KIE (1986) noted that Researching for the content to cut across all levels is a challenge. It calls for a lot of sifting and screening to meet needs of individual differences. There is ever changing concepts and practices in most subjects and some of these changes may occur even as the programme is being recorded or broadcast. Pupils may require more music, rhymes and content especially if they are exam oriented. Creating effects is difficult, for example simulation on farms, factories and markets and for the producer to maintain interest and keep the student active throughout is a difficult task. Some may switch off radio and do other things.
Language level must cut across all levels. Otherwise a difficult language will leave your audience wondering and pondering the meaning of words, instead of concentrating on the content.

For example according to the KIE Pilot study (2001) 5% of the students stated that the content was too advanced especially for rural schools. Some had technical words that were difficult *to* pronounce or spell.

The suitability of the content depends on the presentation. If it is not clear, fluent or too high for the students it affects their learning. In the KIE /World space Pilot study report although most of the presenters are good and fluent a few have mother tongue interference and others pronounce words incorrectly. Ramothea (1982) on effectiveness of schools Broadcast in Lesotho found out that a large majority of the students 96% were not happy with the radio instructor because he/she sometimes spoke so fast that it was difficult to follow well.Ramothea (1982:23)

The problem of financing face both the private and public owed projects. The private ones will spend most of their time fund raising, while the public financial projects must wait for budgets to be approved by other agencies. For example in the KIE/World space pilot sustainability of the broadcast was considered very important. When asked whether the schools can afford to pay the subscription fee, 86% of the head teachers stated that they could not afford.

Apart from the subscription fee, the cost of the dry cells which most schools use is high and the schools lacked skill and technical know-how to operate, service and repair the receivers. Onganga (1982) study on effectiveness of radio programmes in teaching English found that many schools do not take radio programmes simply because they cannot buy the batteries. Only 40% of the teachers get batteries whenever they need them. 60% may get them only occasionally or never at all.

Another problem noted was that most schools were double stream, had more than 50 pupils per class and only one radio. It is evident that if more than 100 pupils are parked in one classroom for a radio lesson, many of them would not take it seriously, hence the programme may not be properly utilized. Such a congested classroom is not suitable for radio lesson. Onyango(1982:27)

Scheduling is another challenge facing schools broadcast. A study on the role of classroom teacher in using Swahili language Instructional programme Chimerah (1982) found that although the teachers used to make use of broadcasts some years back they decided to drop them since they were always on the air at some odd time when their time indicated some lesson other than Swahili. This also applied to other subjects.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes research design and methodology. Aspects covered include the study site, sampling procedure, sources of data used, description of survey instrument and data analysis.

3.2 Design

A Survey design was used. The research was descriptive in nature. It investigated and identifies the problems experienced in using instructional radio and the means by which such problems could be overcome are explored. The administrative policies are also examined and how they affect the programmes.

3.3 The study site

The study site is Thika Municipality 40 Kilometres from the capital city, Nairobi. It was purposively selected for several reasons. First, it was among the first regions which originally benefited from the donation of the new technology, Worldspace receivers to use in schools broadcast. Secondly the region is characterized by diversity in the number and type of schools thus was able to generate ample, varied and comparative information. This is because Thika Municipality, has both private and public schools. Some of the schools are located right at the town center while others are found in the outskirts which has

characteristics of rural environment. Other schools are located in the congested slum areas without power mains.

Lastly the nearness to the capital city enabled the researcher to maximize the limited financial resources and time.

Thika Municipality has over 40 primary schools .

3.4 Sampling procedure

To collect representative information with acceptable accuracy and within the shortest time and limited budget the study utilized cluster and purposive sampling. According to Nachmias and Nachmias (1996) cluster sampling involves first selecting larger groups called clusters and then selecting the sampling units from the clusters. In this study, the first stage cluster sampling involved purposive selection of districts which have been issued with radios and therefore are able to receive schools broadcast. Thika Municipality was selected.

A second stage sampling was employed by randomly selecting twenty schools in the Municipality from the sampling frame provided by the Education office at Thika. In each of the twenty sampled schools, the researcher focused on students and teachers of Std. 5,6, 7 and 8. It was also purposive sampling because the researcher selected units that were representative or typical of the population for example schools in urban areas where there are facilities and those in "slum areas" so as to have reasonably firm basis of inferring that the problems apply to the full range of schools. A total of 120 teachers and 200 students were

given Questionnaires to fill. Ten producers of instructional radio programs at KIE filled another questionnaire.

In addition purposive sampling was employed to identify key informant who was the Director of Kenya Institute of Education where the Schools broadcast is located.

3.5 Techniques of Data collection

The study utilized both primary and secondary data. Primary data was collected using questionnaires from students, teachers and key informant. Secondary data was used as a review of Literature to inform the study on the nature of the research problem in Kenya and other developing countries.

To collect data the following instruments were used:

(i) Questionnaire for teachers to seek information on:

(a) Quality of reception.

(b) Quality of content

(c) Quality of presentation

(d) Availability of radio lesson notes.

(e) Whether broadcast lessons are easily fitted into the school timetable.

(f) Whether they have training on how to use radio broadcasts in class.

(g) Whether they have problems in operating the receivers

(h) how they maintain the radio sets.(see Appendix A)

(ii) Questionarre for the learners seeking information on:

(a) Quality of content

(b) Level of language

(c) Quality of presentation

(d) Quality of reception

(e) Level of comprehension(see Appendix B)

(iii) Questionarre for the producers seeking information on:

(a) Whether they are trained on radio production.

(b) Whether they involve the teachers in the preparation of radio programmes.

(c) Whether they inservice teachers on use of radio lessons.(see Appendix C)

The study included a close examination of the various admininistrative policies on radio broadcast. The Director of Kenya Institute of Education was therefore interviewed. The interview was recorded on audio tape for analysis and for future reference (See Appendix D) It sought information on the following;

(a) Why schools broadcast was stopped through KBC

(b) Policy issues that constraint production of radio programmes.

(c) Suggestion on solutions towards the problems.

The Questionnaires were pre-tested. The pre-test enabled the researcher to administer the questionnaire with confidence to the larger sample. The pre-tested schools did not participate in the real testing later.

3.6 Data Analysis

Data was analyzed according to the objectives of the study. The researcher manually coded the data and entered them into the computer for analysis using the statistical package for social sciences (spss) programme. Descriptive statistics were used to present the findings.

CHAPTER FOUR

4.0 ANALYSIS, FINDINGS & INTERPRETATION

4.1 Introduction

The findings of the study are discussed under the following sub-titles:-

(i) Characteristics of schools and respondents.

(ii) Quality of reception

(iii) Technical capability of users

(iv) Use of radio in teaching and learning.

(v) Appropriateness of content, language presentation, and scheduling of the programme.

(vi) Maintenance of radio receivers

(vii) Feedback of programmes

(viii) Constraints in the production of radio programmes

4.2 Characteristics of schools and respondents

Types of schools

Table 1 shows the type of schools that participated in the study.

As indicated majority of schools visited were public.

Table 1: Type of schools visited.

Type	Number of schools N = 20	Percentage %
Public	13	65
Private	7	35

Number of streams per class in a school

Out of the 20 schools visited 13 (65%) were single stream while 7 (35%) were double streams. All the schools had one Worldspace receiver.

Respondents

Teachers

One hundred and twenty (120) teachers teaching middle and upper Primary classes responded to a questionnaire.

Learners

A total of 200 pupils participated 110 (55%) were male while 90 (45%) were female. They were drawn from Std 5 40 (20%) Std six 40 (20%) Std 7 60 (30%) and Std 8 60 (30%).

Producers

A total of 10 programmes producers working at the Educational Media Service, Kenya Institute of Education filled a Questionarre.

Director K.I.E

An interview of the Director KIE was carried out by the researcher.

4.3 Quality of reception of the programmes

Effective broadcast to schools is dependent on the quality of reception. It is important therefore that the reception is very clear and available to facilitate the learning process. Table 2 shows the responses from teachers and learners on whether they are able to receive KIE Broadcast.

Table 2: Ability to receive the broadcast

Responses	**Teachers N = 120**		**Learners N = 200**	
	F	%	F	%
Yes	25	20.8	48	24
No	90	75	152	76
No response	5	4.7	-	

According to table 2, 90 (75%) of the teachers and 152 (76%) of the learners indicated that their schools were not able to receive the broadcast. Asked why they were not able to receive they attributed this to their inability to operate the receivers which use new technology. They therefore could not position the antennae properly to get the signal, which was not very easy to get.

Only 25 (20.8%) of the teachers and 48 (24%) of the learners indicated that the reception was good in their schools.

They also required long aerial extension cables so that they could permanently install the antennae.

Some indicated that the reception was also difficult to get when it was raining. However, those who were able to set the antennae to get the signal indicated that the sound from the receivers was clear.

4.4 Technical capability of the users

The successful use of the Worldspace receivers to air educational programmes to schools depends on the capability of the users who are the teachers and students on whether they are able to operate it. The Worldspace receivers technology is new to all the users. Asked whether they were able to operate they gave responses indicated in table 3.

Table 3: Ability to operate receivers

Responses	**Teachers N = 120**		**Pupils N = 200**	
	F	%	F	%
Yes	30	25	25	12.5
No	90	75	175	87.5

Majority of the teachers 90 (75%) and pupils 175 (87.5%) indicated that they were not able to operate the receivers. 30 (25%) of the teachers and 25 (12.5%) of learners indicated they were able to operate. Even those who said they were able indicated that it took them a lot of time to operate it. It was important to establish why they were unable and they cited the following reasons;

- They had not been in-serviced on the operation of the receivers. Although the headteacher in each school who collected the receiver from KIE had been

inducted on how to operate it they were not able to teach other teachers and pupils. They indicated the difficulty in setting up the antennae and mastering the use of the buttons on the receiver.

- Although the receivers had accompanying operation manuals the teachers commented they were too complicated and difficult to understand.
- Majority of the teachers and learners were not using the receivers as they were unable to operate them.

The teachers suggested ways in which they can be assisted in the use of the receivers. Their suggestions were as follows:-

- In-service more teachers on use of receivers
- To provide a more simplified operation manual.
- To provide a more user friendly antennae
- KIE to provide technical staff to assist in operation
- To receive schools broadcast through ordinary radios

4.5 Use of Radio in teaching and learning

The radio programmes can only be helpful if teachers and learners utilized them. Asked whether they were using the programmes in teaching, 120 teachers who participated in the research only 34 (28%) of them used the radio in teaching and only 50 (25%) of the students had listened to radio lessons. The results are given in table 4.

TABLE 4 - Use of radio for teaching and learning.

Responses	Teachers N = 120		Learners N =200	
		%		%
Those who use	34	28	50	25
Those who do not use	86	72	150	75

Since majority of the teachers and students were not using the radio for teaching and learning respectively this prompted the researcher to conduct a verbal interview with the schools headteachers to find out why radio was not used. The responses are given in table 5.Main reasons given for non-use of radio were as follows:

- 12(60%) of the headteachers attributed this to difficulty in operating the receiver thus not able to get the signal.
- 10(50%) of the headteachers indicated that radio lessons were not integrated in the school timetable.
- 13(65%) indicated that they could not use radio lessons because they had no teachers' notes to guide them on content of broadcast and preparation before broadcast.
- 10(50%) indicated that they could not keep the radio in school due to security problems. In most schools the receivers were kept at the headteachers houses and it was cumbersome to be transporting it to school every morning as majority of them were not housed on the school compound.

TABLE 5 - Reasons for not using radio

Reasons for not the using the radio	No of headteachers = 20	
	F	%
Not able to get the signal/Have difficult in operating	12	60
Radio lessons not accommodated on school timetable	10	50
No current broadcast timetable	6	30
Lack of radio teachers guide	13	65
No storage/ security in school for receivers	10	50
Expensive to maintain with dry cells/No Electricity	5	25
Radio broke down	1	5
Radio aerial stolen	1	5
No electric sockets in class	1	5
Not aware of existence of broadcast	1	5

❖ ***Multiple responses were given***

4.6 Appropriateness of content, language and presentation

The suitability and appropriateness of school broadcast is determined by the content produced, the scheduling of broadcasts to the schools and how these programmes are presented.

4.6.1 Suitability of content

To establish suitability of the content the responses of the thirty four teachers who had used them in teaching, 14 (41%) indicated the quality was very good while 15 (44%) indicated it was good, 4 (12%) indicated it was fair, none indicated it was poor and 2 (6%) did not respond. The fifty learners who had listened to the broadcast were asked whether the radio lessons helped them to understand the subject, 42 (84%) indicated they were helpful while 8 (16%) indicated they were not helpful. 41 (82%) of the learners also indicated the content was adequate

whereas 9 (18%) indicated the content was not adequate. The fifty learners indicated that they had listened to all the subjects on broadcast that is English, Mathematics, Kiswahili, Science, Geography, History and Civics (GHC), Religious Education, AIDS Education and guidance and Counselling programmes.

4.6.2 Logical flow of content

Responses of whether there was logical flow of content from the fifty teachers and thirty four learners is given on table 6. 28 (82%) and 46 (92%) of the teachers and learners respectively indicated that there is logical flow of broadcast programmes while 3 (8.8%) and 4 (8%) of teachers and learners respectively indicated there is no logical flow of content.

Table 6 - Logical flow of content

Responses	**No. of teacher = 34**	**%**	**No. of learners = 50**	**%**
Yes	28	82	46	92
No	3	88	4	8
No response	3	88	-	-

4.6.3 Language of the programmes

The responses from the thirty four teachers and fifty learners on whether the language used in the broadcast programmes was appropriate was as follows: 28(82%) of the teachers indicated it was appropriate, 4 (11%) indicated not appropriate while 2 (5%) did not respond. 47 (94%) of learners indicated

language was appropriate and easy to understand while 3 (6%) indicated language was not easy to understand.

4.6.4 Presentation of the programmes

Responses were sought on the quality of the voice of presenters, pace and fluency of the presentation. The results are given in Table 7,8 and 9.

Majority of the respondents 26 (76%) of the teachers and 35 (70%) of the learners indicated the presenters voices were good or very good. None of the teachers indicated the voice was poor and only 2% of learners indicated voices were poor. 24 (70%) of teachers and 20 (40%) of learners indicated the pace of presenters were moderate, while 20 (40%) of learners indicated they were very fast. Comments given on presentation were:-

- The pauses between questions and answers is not enough for pupils to respond for example GHC.
- Some voices of the radio pupils were too deep.

  The teachers suggested that the pace should be slower to help cater for the slow learners.

Table 7: Quality of Voice of Presenters

Responses	Teachers N = 34		Learners N = 50	
	F	%	F	%
Very good	10	29.4	18	36
Good	16	47	17	34
Fair	5	14.7	14	28
Poor	-	-	1	2
No Response	3	8.8	-	-

Table 8: Pace of Presenters

Responses	Teachers N = 34		Learners N = 50	
	F	%	F	%
Too fast	4	12	20	40
Fast	4	12	10	20
Moderate	24	70	20	40
Slow	-	-	-	-
No response	2	6	-	-

Table 9: Fluency of presenters

Responses	Teachers N = 34		Pupils N = 50	
	F	%	F	%
Fluent	32	94	32	64
Not fluent	-	-	14	28
No response	2	6	4	8

4.7.5 Need for more radio lessons

Asked whether they would like more of the lessons broadcast 47 (98%) of the learners indicated Yes. They gave the following reasons:-

- The programmes are interesting for example guidance and counselling.
- They are educative – They give deeper explanations of content.
- Cover content not covered in class.
- Helps them to understand better than when then the classroom is teaching.
- Helps them to revise for exams because they provide answers to Questions given.
- The programmes contain interesting stories and good music.

4.8 Teacher's preparation for the broadcast lessons

To derive maximum benefit from the radio lessons teachers preparation and involvement of the learners is very important. Table 10 indicates responses on whether teachers prepare the learners for broadcast and whether there is any follow – up after broadcast.

Table 10: Teachers Preparation

Responses	**Teachers N = 34%**		**Learners N = 50%**	
	F	%	F	%
Those who prepare	19	58	41	82
Those who do not prepare	13	37	9	18
No response	2	5	-	-

Although 41 (82%) of the learners indicated their teachers prepared them for the broadcast 13(37%) of the teachers indicated they are not able to effectively prepare the learners. The teachers singled out lack of current teachers notes on what to expect in the programme as the main reason. In all the schools visited none of the teachers had current notes on school broadcast.

Asked to give how the teachers prepare them for the broadcast lessons the learners gave the following ways:-

- Organised seating arrangement.
- Teachers told the students to have their pens and notebooks ready and to write down main points from the broadcast.
- Learners were told to listen attentively.
- Teacher gave learners confidence
- Teacher discussed the radio lesson after the listening and gave extra exercises on topic covered.

4.9 Scheduling

For schools to be able to follow the broadcast, a timetable of the programmes for the broadcast should be availed to them. The time given for a primary school broadcast lesson is 20 minutes in all the subjects. (see timetable in appendix E). The broadcast timetable should also be able to be accommodated on the school time table and the lessons have to be on time.

29 (85%) of the teachers who used the radio lessons in teaching indicated that the lessons come on time. Out of the 120 teachers only 29 (24%) indicated that the

broadcast lesson is accommodated on school timetable. The low number is attributed to majority not using the radio lessons in teaching.

They cited the following problems on timing;

- Broadcast timetable conflicting with school timetable.
- Most schools had not received the current broadcast timetable.
- Broadcast lesson takes shorter time (20 minutes) while the normal classroom lessons for upper primary take 35 minutes.
- Some topics in the broadcast conflict with teachers schemes of work, hence topics that had not been taught are aired.
- Some of the radio lessons fall between lesson time for two different subjects.

The teachers suggested the following for improvement:

- Broadcast timetable to be sent to the schools at the beginning of the term so that it can be incorporated when preparing the school timetable.
- To prepare longer radio programmes in line with the Ministry of Education time allocation for each subject.
- Programmes to follow the syllabus and the schemes of work used by the teachers.

4.11 Maintenance of the Receivers

As indicated earlier Worldspace receivers are a new technology. Although 18(90%) of the receivers in the twenty schools visited were in good condition this was not a guarantee that they were able to maintain them, taking into

consideration majority were still under utilized because of inability to operate. 10% of the receivers were not in good working condition. In one school the headteacher reported that the local electronics technician could not find the spare part of the broken part. The headteachers suggested that KIE and Worldspace Ltd identify one local technician who can repair the radios.

4.12 Powering of receivers

The cost of powering the receivers was one reason that hindered some schools not to use the receivers. The teachers were asked to identify their sources of power. Table 11 shows that sources of power. Six schools were not connected to Electricity and were depending on dry cells. They indicated that the six ordinary dry cells used in the receivers lasted for only two days. Even those with Electricity indicated that not all the classes had electric sockets.

Table 11: Sources of power

Sources of power	Number of schools N = 20	%
Electricity	17	85
Dry cells	10	50
Solar	-	-

❖ **Some schools gave multiple responses**

Although none of the schools used solar as the source of power for their receivers they suggested that it could be more cost effective to use it than electricity or dry cells.

4.12 Training of Producers

All the staff who produce educational radio programmes at KIE are teachers by profession. 7 (70%) indicated that they have been trained in radio production. 3 (30%) of them had not received any training at all in production and even some of those trained, the training lasted for less than 4 weeks. However despite the short period of training 8 (80%) indicated that the short courses were relevant and helpful.

4.13 Teachers involvement in the production of radio programmes

To make sure that the programmes are appropriate to the level of the learners it is important to involve the implementers who are the teachers. It also helps in to gain acceptance of the programmes from the teachers. When producers were asked whether they involve the teachers 9 (90%) of the producers indicated that they involve the teachers in the writing, editing and voicing of the programmes. But when asked whether they were involved in production of the programmes none of the teachers who participated in the research was involved. The reason could have probably been that the subject panel is made of about twenty schools who are constituted with at least a representative from every province in the country.

4.14 Feedback on the programmes

To establish whether the content, presentation and scheduling of the programmes is appropriate continuous feedback by the producers is important.

5 (50%) of the producers indicated that they get adequate feedback whereas 5 (50%) indicated they do not get adequate feedback from the teachers and pupils.

Asked how often they get the feedback their responses are given on Table 12

6 (60%) indicated sometimes 2 (20%) indicated regularly and 2 (20%) indicated they never get it at all.

Table 12: Frequency of feedback on the programmes

	Number of producers N = 20	**%**
Sometimes	6	60
Regularly	2	20
Never	2	20

They indicated feedback is got through such ways as: Writing to the Director, KIE and personally visiting KIE to air their views. Others ways were through giving their suggestions during the field visits by KIE officers.

On responding to how they utilize the feedback the producers give the following:

- To improve on the weak areas
- To edit the content to incorporate the suggestions
- To improve on the consequent programmes

4.15 Constraints encountered in production of radio programmes

The study sought information from the producers on constraints and challenges that limited effective production of radio programmes. Key constraints identified included:-

Lack of adequate finance, difficult to retain experienced writers and artists to write and voice the programmes respectively and lack of training on production. These constraints are presented in Table 13.

Table 13: Constraints in production of Radio programmes.

Constraints	**N = 10 Frequecncy**	**%**
Lack of adequate finances	10	100
Difficult to retain writers/artists	6	60
Lack of training on production	3	30
Lack of feedback from field	2	20
Time factor	1	10
Internal Budgets take long to be approved	5	50

❖ Multiple responses were allowed.

According to the responses all producers singled out finances as the major constraints. It actually contributed to other listed constraints as:-

- Limited funds and are therefore not able to pay the writers and artists according to market rates and on good time. This also limits the producers chances in getting real life experiences in their programming thus using limited production techniques.

- The process of budget approval takes long and thus proposals cannot go through on time. This is due to internal bureaucracy procedures. This is likely to be as a result of delayed and inadequate finances from the exchequer.
- Not able to monitor the programmes and get feedback from the field because of limited funds.
- High labour turnover of professional artists due to competitive and attractive remunerations in the media world and hence producers keep on training new artists to voice the programmes. It is also difficult to identify good and reliable teachers to write the scripts.

  Others constraints are ;
- Time factor – The production process consumes time because the programmes requires thorough research and wide reading.
- Lack of training in production on the side of producers

The producers suggested the following solutions:

- Provide enough funds for the production.
- Internal budget proposal approval procedure to be streamlined.
- Better and prompt payment of script writers and artists.
- Provide funds for regular monitoring and evaluating of the programmes.

4.16 Key Informant

The Director, of KIE was the key informant. He gave the following as administrative constraints on the programmes:

- Infrastructure –There are two different ministries involved in the production and transmission of radio programmes that is, the Ministry of Education, Science and Technology is involved with production while the Ministry of Information and Broadcasting transmitted the programmes. This means the transmission cost is subject to revision which the Ministry of Education may not be in control of. For example when KBC the only public broadcasting station in the country changed its status to parastatal in 1989 it revised it's air time cost to commercial rates therefore school broadcast costs went up to Ksh 11 million per term amounting to Ksh. 33 million per year as compared to Ksh 2.5 million per term or Ksh. 7.5 million per year previously.
- Schools broadcast is financed through exchequer, which has limited resources, thus when the airtime went up KIE was not able to pay. This led to discontinuation of schools broadcast through KBC in 1995.
- Cost of providing receivers to schools is high. Majority of the schools are more than single stream thus one receiver is not enough.
- Even when the receivers are provided there is the problem of storage due to insecurity.
- Powering the receivers is too expensive because most of the schools are not connected with electricity and rely on dry cells. Parents cannot finance them because schools are not supposed to collect levies from parents since the Government policy of free primary Education started in January 2003.
- In places where the signal distribution is not good providing radio cassettes becomes even more expensive because they require more power to run them.

- Areas where there is poor signal like the Arid and Semi- arid lands (ASAL) are also economically disadvantaged if the broadcast is through KBC.
- It is also difficult to retain experienced production staff after training because remuneration is not attractive. Some easily get absorbed in the growing media market.

He gave the following suggestions to the problems:

- There should be more improved infrastructure to make sure that the signal reaches all parts of the country if public broadcasting station is to be used.
- Provision of an educational channel provided for in the communication policy to cater for schools broadcasting. Adequate finances for schools broadcast should also be budgeted for in the exchequer.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter has three parts. The first part summarizes the study findings, conclusions are presented in the second part while part three focuses on issues that emerged from the study and makes recommendations on what needs to be done.

5.1 SUMMARY OF FINDINGS

This study was designed to investigate the constraints that hinder effective production and utilization of instructional radio programmes in primary schools in Thika Municipality. The variables that were investigated were among others availability of radio receivers in schools, and their working conditions, acceptability of signal for educational broadcast, appropriateness of the content, presentation and scheduling, availability of broadcast support materials for teachers, professional competence of producers and availability of funds for schools broadcast.

To facilitate the investigation three Questionaires were designed and administered personally by the researcher. Teachers and learners Questionnaires administered on teachers and learners of primary five, six, seven and eight. A third questionnaire to producers of radio programmes in Kenya Institute of Education,

Educational Media Service. An interview was conducted on one key informat, the Director of Kenya Institute of Education.

A total of 120 teachers and 200 learners were interviewed in the twenty sampled schools in Thika municipality. As it turned out not all were able to use schools broadcast programmes .

Out of 120 teachers only 34 had utilized the schools broadcast programmes and therefore were not able to respond to items 4, 5 and 8 on the questionnaire. These items were on presentation, content, whether they prepare students for broadcast, and whether the lessons always come on scheduled time.

Out of 200 learners only 50 had listened to the Radio lessons, There were therefore not able to respond to item 4 and 5 on the Questionnaire which Investigated on presentation and content.

Respondents who could not respond to parts of the Questionnaire on content, presentation and scheduling had one reason in common that is non- use of radio in teaching and learning due to inability to operate the receiver and to get the signal. Although Worldspace receiver uses new technology which is not very familiar to the respondents and they are therefore not able to operate it also displays lack of interest on the teachers in learning how to operate it. Other problems attributed to non-use of radio were lack of the broadcast Timetable, Teachers Notes etc.

Apart from constraints expressed by the teachers and learners, the producers too have difficulties in producing those programmes which range from lack of professional training on production, finances to meet cost of production and monitoring and evaluation of the programmes and hence cannot maintain script writers and artists.

All these factors both in the school and at the Educational Media Service have affected effective performance of schools broadcast.

5.2 CONCLUSIONS

From the results of the study, the following conclusions are made:-

(i) The quality of reception of the receivers is good in schools where the students and learners are able to operate them.

(ii) Very few teachers and learners are able to operate the receivers in most of the schools. Schools lack broadcast skills and technical back up to operate, service and repair receivers.

(iii) The broadcast content is relevant as curriculum support materials. However, the content is lacking, support of "Teachers Guides".

(iv) Although most presenters are good and fluent some are too fast.

(v) The broadcast timetable conflict with the school timetable

(vi) The duration of the programmes is too short.

(vii) Schools broadcast is limited by financial inability both on the cost of production and maintaining the receivers.

5.3 RECOMMENDATIONS

Based on the study findings, a number of recommendations can be made :

5.3.1 Technical capability of the users

One of the basic criteria in selecting reception equipment is ease of operation. Is the equipment simple and easy to operate?

Throughout the research, respondents stressed the need and importance of training on how to operate the receivers especially so because they have a new technology which is not familiar. KIE and Worldspace should therefore, organize for modalities for training teachers in the use of the receivers. This can be done through in-serving of teachers at the district level. The operators manuals that accompany the receivers should also be simplified. Alternatively different models of receivers can be used which are easier to operate. Field tests should first be carried out to come up with the right model before they are produced en mass.

5.3.2 Broadcast support materials

KIE should device an efficient system of supplying Teachers' Guides and broadcast timetable to schools in good time. The materials can be distributed from the District Education officers or they can be linked and transported during the maintenance and evaluation visits. Learning resource centers (LRC) can also serve as distribution points.

5.3.3 Presentation of programmes

All presenters should be well vetted by an audio committee to ensure that high quality of presentation of programmes is maintained.

5.3.4 Sustainabililty of the Broadcast

KIE should carry out a study to establish the most cost effective source of power so that schools can afford to listen to the programmes. A fund should be established where solar systems can be installed in the schools in combination with storage batteries. This can help to reduce the cost.

Funds should also be availed to cater for production and monitoring and evaluation of the programmes.

5.3.4 Maintenance of Receivers

Some regular system of inspection and repair for reception equipment has to be devised, which emphasizes the principle of preventive maintenance. One solution is to subcontract maintenance to local suppliers. Another one would be for KIE to organize its own maintanance teams, operating on a regional basis and adopting a routine schedule of visits by its technical staff. This can be combined with delivery of other materials like teachers' notes and pupils pamplets, or stocks of tapes, cassettes and other materials. During this cycle, all equipment will be inspected in the schools and other educational institutions at stated intervals, basic repairs carried out on the spot and equipment, which is seriously defective taken

away for repair. Well-equipped electronic workshop should be established at KIE for the repairs.

It is useful to instruct teachers, especially technical and science teachers on maintenance and repair of minor defects.

5.3.5 Teacher training on utilization of radio programmes

The quality of equipment and its reception are important, but utilization of the programmes also depends on attitudes and confidence of teachers to the media. KIE should therefore conduct surveys to find out user requirements and pilot programmes may be produced and listened to a group of students and teachers before regular production is commenced. This will help in pre-testing the materials to assure the quality of the radio message or the printed material. Seminars and workshops should be organized to analyse the success or failure of a series.

Public relations approach, should be directed to the teachers, students and even parents and general public to gain acceptance of the programmes. At the same time, there is far more to involvement than public relations. It can extend to participation in the production processes where teachers and students participate through discussions, dramatization and experiments. Utilization training should be a unit of all full time courses for teacher training colleges if the media are to become accepted in the classroom. Unless a teacher understands how and why a

mass medium is used, and is confident that he can handle it without looking foolish in front of students, he or she will not avoid using media in the classroom.

5.3.6 Evaluation of the programmes

The Radio section requires to organize and design appropriate means of evaluating the current programmes through formative and summative evaluation finding out whether they are achieving the objectives they are intended to and suggestions of possible changes. This can lead to enrichment and improvements in the system. Evaluation techniques for example surveys, performance testing, direct observation and content analysis can be used. During evaluation feedback will be received on the quality of reception, the content, language and presentation of the programmes.

5.3.7 Training of producers

Training is one of the most significant needs in educational media planning. Newly recruited teachers should be offered basic in-house training at the Educational Media Service. Further specialized training can be offered in regional and international training institutes for producers who have been working with educational media for some time.

Training should not be regarded as a one time activity but should be a continuing, life – long process. As techniques alter, so personnel need updating and refresher courses should therefore be offered. It is also likely that staff will change their roles several times in a life time and will need retraining and reorientation

courses. Therefore training should be handled as a planning activity in its own right.

5.3.8 Future Studies

This study and its findings are by no means exhaustive. It has opened many avenues for research and experimentation.

Future studies should have a larger sample from more districts especially from the Arid and semi arid areas (ASAL) for example Turkana, Marsabit and Teso as the sampled , Thika municipality is comparatively economically well-off. This will probably find more problems peculiar to such regions. There is also need to further explore the factors influencing teachers attitudes towards schools broadcast. More study can be done to evaluate the effectiveness of Radio programmes.

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APPENDIX "A"

QUESTIONNAIRE FOR TEACHERS

1. Background Information.

(i) Name of school .....

(i) Class Teaching .....

(iii)The number of streams .....

2. Reception

(a) Do you have a World space radio set receiver.

Yes ☐

No ☐

If yes how many?

.....

.....

.....

(b) Is your school able to receive KIE Broadcast?

If yes how

.....

.....

.....

(i) Yes ☐

(ii) No ☐

If NO why?

.....

.....

.....

(c) Sound from the receiver.

(i) Very clear ☐

(ii) Just Clear ☐

(iii) Not clear ☐

Comment on the reception

.....

.....

.....

3. Operation

(a) Are you able to operate the receiver?

Yes ☐

No ☐

If No please give reasons

.....

.....

.....

4. Content

(a) Have you been using KIE broadcast programmes in your teaching?

Yes ☐

No ☐

If No please state why?

.....

.....

(b) How would you rate quality of production of teaching material?

Very good ☐

Good ☐

Fair ☐

Poor ☐

Comment on your answer

.....

.....

.....

(c) Is the language used easy for the learners to understand?

Yes ☐

No ☐

If no why

.....

.....

.....

(d) Is there logical flow of content?

Yes ☐

No ☐

Comment

.....

.....

.....

5. Presentation

(a) How was the voice of the presenters?

(i) Very good ☐

(ii) Good ☐

(iii) Fair ☐

(iv) Poor ☐

(b) How was the pace of the presenters.

(i) too fast ☐

(ii) fast ☐

(iii) moderate ☐

(iv) slow ☐

(c) Were the presenters fluent.?

Yes ☐

No ☐

(d) Give any other comments on the presentation.

.....

.....

.....

6. Teachers preparation

(a) Do you have current Notes on the radio programmes.

Yes ☐

No ☐

(b) Do you prepare the students before broadcast.

Yes ☐

No ☐

If Yes what kind of preparation?

.....

.....

.....

(c) Are you in any way involved in the preparation of the radio programmes ?

Yes ☐

No ☐

If Yes how?

.....

.....

7. **Maintenance**

(a) Is the school radio in good working condition

Yes ☐

No ☐

a. Who repairs the radio?

.....

(c) How long does it take to repair the radio when it is not working?

(i) A few days ☐

(ii) A week ☐

(iii) More than a week ☐

(iv) Several months ☐

(v) Is never repaired at all ☐

Comment on repairing

.....

.....

.....

(d) What is the source of power for your receiver(s)?

Electricity ☐

Solar ☐

Dry Cells ☐

Others specify .....

What problems do you face in powering your receiver (s)?

.....

.....

8. Scheduling

(a) Do the lessons always come on scheduled time?

Yes ☐

No ☐

Comment

.....

.....

.....

(b) Does the school timetable provide for the radio lesson?

Yes ☐

No ☐

Give any other comments on timing

.....

.....

.....

Mention any problems you have experienced in schools Radio programmes.

.....

.....

.....

Give suggestions for improvement of radio programmes

.....

.....

.....

APPENDIX "B"

QUESTIONNAIRE FOR LEARNERS

Please answer the following questions by putting a tick against the answer that is appropriate or filling the spaces provided.

1. Background Information

Name of school .....

(a) Male ☐ Female ☐

(b) Class .....

(c) Number of streams .....

2. Reception

(a) Is your school able to receive the Broadcast programmes?

(i) Yes ☐

(ii) No ☐

(b) Was the sound clear

(i) Yes ☐

(ii) No ☐

If No why?

.....

(d) Give any other comments on the reception.

.....

3. Operation

Are you able to operate the receiver?

Yes ☐

No ☐

If No give reasons?

.....

4. Content

(a) Have you listened to KIE Broadcast programmes?

(i) Yes ☐

(ii) No ☐

If NO why?

.....

(b) Did the lessons help you to understand the subject.

(i) Yes ☐

(ii) No ☐

(c) What subjects did you attend Radio lessons.

(i) English ☐

(ii) Maths ☐

(iii) Kiswahili ☐

(iv) Science ☐

(v) Religious Education ☐

(vi) GHC ☐

(vii) Aids ☐

(viii) Guidance & Counseling ☐

(d) Is the content adequate?

(i) Yes ☐

(ii) No ☐

Comment

.....

(e) Is there logical flow of content

(i) Yes ☐

(ii) No ☐

If No please give reasons

.....

(f) Did the Radio lesson stimulate discussion?

Yes ☐

No ☐

Comment

.....

(g) Was there any preparation before or follow-up after the Radio lesson by your teacher.

Yes ☐

No ☐

If Yes How?

.....

(h) Would you like to have more of your lessons broadcast.

Yes ☐

No ☐

Comment

.....

(i) Is the language used in the programmes easy to understand?

Yes ☐

No ☐

If No please give examples

.....

5. Presentation

(a) How was the voice of the presenters ?.

(ii) Very good ☐

(iii) Good ☐

(iv) Fair ☐

(v) Poor ☐

(c) How was the pace of the presenter ?

(i) Yes ☐

(ii) No ☐

(d) Was the presenter fluent?.

(i) too fast ☐

(ii) fast ☐

(iii) moderat ☐

(iv) slow ☐

(e) Give any other comments on the presenters.

.....

.....

.....

6. Mention any problems you have experienced with the schools broadcast programmes.

.....

(i) Give suggestions for improvement of radio programmes.

.....

APPENDIX "C"

QUESTIONNAIRE FOR THE PRODUCERS

Kindly answer the following Questions by putting a tick against the answer that is appropriate or by filling the spaces provided.

1. Are you a teacher by profession?

   (a) Yes ☐

   (b) No ☐

2. Have you had any training in educational radio production?

   (a) Yes ☐

   (b) No ☐

3. Where did you receive the training?

   (a) Locally ☐

   (b) abroad ☐

4. How long was the training?

   (a) 3 – 6 months ☐

   (b) 1 year ☐

Others specify_____

5. Was the training relevant to your job?

   (a) Yes ☐

   (b) No ☐

If No please give reasons

_____

_____

6. Are the teachers involved in the production of the radio programmes?

(a) Yes ☐

(b) No ☐

If yes how?

---

7. Do you train teachers on use of radio programmes in their teaching?

Yes ☐

No ☐

8. Do you get adequate feedback on your programmes from schools?

Yes ☐

No ☐

In which way?

---

9. How often do you get feedback?

Sometimes ☐

Regularly ☐

Never ☐

10. How do you utilize the feedback.

.....

.....

11. What problems have you encountered in the production of Radio programmes?

.....

.....

.....

12. Please Suggest solutions to these problems.

.....

APPENDIX "D"

Mary Wambaria
P O Box 30231
NAIROBI

20th August 2003

The Director
Kenya Institute of Education
P O Box 30231
NAIROBI

Dear Sir

REF: CONSTRAINTS OF USING INSTRUCTIONAL RADIO IN PRIMARYSCHOOLS.

The above named topic is the subject of my research for MA communication studies at the school of Journalism Nairobi University. I am therefore requesting for an interview with you on the challenges facing production and use of radio programmes. Your observations findings and expectations about the challenges will be of immense use to the findings of my project.
Attached please find guiding questions on this.

Thank you very much for your cooperation.

Yours faithfully

MARY WAMBARIA

QUESTIONS FOR THE DIRECTOR
KENYA INSTITUTE OF EDUCATION

1. What is your view about the application of Radio programmes in Primary schools in Kenya?
2. What led to discontinuation of schools broadcast by KBC?
3. What are the policy issues that favour or act as constraints to use of instructional Radio in Kenya at present.
4. What plans have been put in place to address the constraints?
5. Comment on a clear Public broadcasting policy which could protect inclusion of broadcasting to schools on national airwaves.

APPENDIX "E"

KENYA INSTITUTE OF EDUCATION

RADIO BROADCAST TIME TABLE

JANUARY – DECEMBER 2003

TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
8-00 - 8.25	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
8..25 - 8.45	ENGLISH STD 8	MATHS STD 7	ENGLISH STD 6	MATHS STD 8	ENGLISH STD 7	POETRY (Music of Poetry) FORM 3 & 4	AIDS EDUC PRIMARY **(R)**
8.45 - 9.00	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
9.00 - 9.20	MATHS FORM 4	POETRY FORM 3 & 4 (Introduction to East African poetry)	ENGLISH LANGUAGE FORM 3 & 4	MATHS FORM 3	FASIHI FORM 3 & 4 (Kilio cha Haki)	LITERATURE (Aminata) FORM 4**(R)**	GUIDANCE AND COUNSELLING SECONDARY **(R)**
9.20 – 9.55	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
9.55 - 10.15	KISWAHILI STD 8	KISWAHILI STD 7	MATHS STD 6	KISWAHILI STD 6	SCIENCE REVISION STD 8	FASIHI FORM 3 & 4 (Kilio cha Haki) **R**	ORAL LITERATURE (Short Forms)
10.15 -10.30	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
10.30 - 10.50	KISWAHILI FORM 3 LUGHA	PHYSICS REVISION FORM 4	CHEMISTRY FORM 3 & 4	BIOLOGY FORM 3 & 4	SOCIAL STUDIES STD 5	POETRY FORM 3 & 4 (Attachment to the Sun)	AIDS EDUCATION SECONDARY **(R)**
10.50 - 11.35	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
11.35 - 11.55	SCIENCE STD 7	LITERATURE FORM 3 (A man of the People - Pidgin Trans)	MUSIC FORM 3 & 4	ORAL HEALTH PRIMARY	I.R.E. STD 7	ORAL NARRATIVES FORM 3 & 4	FASIHI (Kiu) **R** FORM 3 & 4
11.55 - 12.10	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
12.10 - 12.30	GEOGRAPHY FORM 4	AGRICULTURE FORM 4	ENGLISH STD 5	MATHS STD. 5	POST BOX PRIMARY	ORAL POETRY FORM 3 & 4	FASIHI FORM 4 SIKU NJEMA
12.30 - 2.05	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
2.05 - 2.25	GHC REVISION STD8	GHC STD 7	GHC STD 6	CRE REVISION STD 8	I.R.E STD 8	FASIHI FORM 4 AMEZIDI	LITERATURE (A Man of the People – Pigdin English)
2.25 - 2.40	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
2.40 - 3.00	CRE FORM 4	LITERATURE (Encounters From Africa) FORM 4	LITERATURE (A Man of the People) FORM 4	KISWAHILI STD 5	AIDS EDUC PRIMARY	CAREER INFORMATION FORM 3 & 4(R)	INSERVICE TO TEACHERS
3.00 - 3.15	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
3.15 - 3.35	FASIHI FORM 4 SIKU NJEMA	FASIHI (Kiu) FORM 3 & 4	GUIDANCE & COUNSELLING IN SECONDARY	AIDS EDUC SECONDARY	HISTORY & GOVT. FORM 4	TRADITIONS & PEOPLES OF KENYA FOR GENERAL PUBLIC	AIDS EDUCATION (General Public)
3.35 – 3.45	EDUCATIONAL NEWS AND ANNOUNCEMENTS						
3.45 – 4.05	French for Beginners	BUSINESS STUDIES FORM 4	LITERATURE (Aminata)	FASIHI FORM 4 AMEZIDI	CAREER INFORMATION FORM 3 & 4	French for beginners (R)	RELIGIOUS MUSIC/ PROGRAMMES
4.05 – 4.25	EDUCATIONAL HIGHLIGHTS – FOR THE NEXT DAY						