

PROBLEMS ENCOUNTERED IN THE TEACHING
OF HOME SCIENCE BY RADIO IN PRIMARY
SCHOOLS IN LANGATA DIVISION, NAIROBI

B Y.

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D E D I C A T I O N

This work is dedicated

to

My parents Melkic Osungu and Clementina Ojunga whose foresight, hardwork and sacrifice secured my education

My loving husband and friend John W. Abong's and my children Florence, Lynnette and Joshua whose unconditional love, unwavering support, patience, tolerance and continuous encouragement were a source of inspiration during this study.

and

All who believe radio broadcasts are useful.

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ABSTRACT

The purpose of this study was to find out the problems encountered in the teaching of Home Science by radio in Primary Schools in Langata Division of Nairobi, Kenya. The design of the research study was a simple survey.

The sample of the study was twelve (12) primary schools that were drawn from twenty (20) primary schools. Primary schools were selected based on the fact that they offer Home Science Radio lessons. The twelve (12) primary schools were randomly selected for the study. The subjects of the study were Home Science teachers from the twelve (12) primary schools and the Producer of Primary Home Science Radio Broadcasts.

To elicit information from the subjects, the researcher used 3 instruments. These were teachers' questionnaire, observation schedule and interview schedule.

The data collected was analysed and the results were presented in tables which depict frequency distribution and percentages of the responses where applicable. The results were also discussed immediately after each item.

The research findings of the study showed that:

- (1) The Primary Home Science teachers were mainly females.
- (2) Support materials for use during radio Broadcasts are hardly received by teachers and this poses a problem.
- (3) The number of pupils in a radio broadcast class was unusually large.
- (4) Most teachers do not supervise home science radio broadcasts.
- (5) The majority of teachers were not aware of the existence of tape copying services at Educational Media Service.
- (6) The majority of schools receive a copy of broadcast timetables.

Some recommendations were made which were expected to be useful in reducing the problems encountered by the Home Science teachers when using the Radio for teaching Home Science in Primary School.

These were:

- (1) In-service courses should be conducted more frequently to enlighten teachers on how to handle

home science radio broadcasts.

- (2) The teachers should avoid combining too large classes such as ninety (90) pupils during radio lessons so as to ensure that effective learning takes place.
- (3) The head teachers of Primary schools should ensure that teachers supervise their classes during radio lessons.
- (4) The Educational Media service should ensure that schools receive broadcast timetables early enough for teachers to synchronise them with their regular school timetables.
- (5) The Educational Media service should make sure that all radio lessons are accompanied by support materials.

These recommendations are not exhaustive, however, it is hoped that they are important.

Finally, an effort was made to give suggestions for further research topics in Radio Broadcasts to schools.

CHAPTER ONE

1.0 EDUCATIONAL RADIO BROADCASTS

1.1 BACKGROUND TO THE PROBLEM

Developing countries including Kenya are being confronted with a serious crisis of growing need for education as school going children continue to increase in number. This, coupled with shortage of teachers, lack of facilities, lack of money and schools which are isolated, have led governments to seek for solutions. Educational leaders and planners have had to try the use of instructional technology such as the radio as a way of trying to cope with the problem.

The radio has been in use in United States of America for a long time. Ruud (1974:13) remarked that in the late eighteenth and early nineteenth centuries, famous persons in United States of America spoke to large audiences in cities and small towns all over the states using the radio. Since the time of its invention, the radio has had a potential role in education. Jamison (1978:13) observed that by the late 1920s and 1930s a number of educational institutions in Europe and America were making extensive use of the radio for educational purposes.

The first regular radio service in Kenya was established in 1928 after the colonial government entered into an agreement with the British East African Broadcasting in 1927. The central aim of the radio service was to entertain, inform and educate the public.

Around 1931, the radio service was aimed at the European and Asian communities in the colony as the target audience. However, some programmes were aired in the afternoon for the Africans as a separate audience. Although every broadcasting programme had a strong element of educating the public, it was deemed necessary that certain specific educational needs were not being adequately met. At that time there were no efforts made in using the radio for teaching purposes.

The unit of school broadcasting in Kenya was established in 1963 as part of the Old Kenya Broadcasting Co-operation. However, in 1965, the Ministry of Education took over the schools' broadcasting service and attached it to the Ministry's Curriculum Development and Research Centre which later merged with Kenya Institute of Education (K.I.E). There is a division in K.I.E which deals with broadcasting and this division is called Educational Media Service (E.M.S.).

On the aims of school broadcasts, a message from the Director of K.I.E contained in broadcasting to schools, Teachers' notes (1984:iv) spells out that the aim is to support or supplement teaching and that E.M.S has to initiate projects in the curriculum, experiment and develop them. The E.M.S has a multiplicity of related functions. Among these are:

- (i) Identification of critical areas within the subject syllabus which require support.
- (ii) Selecting appropriate methods and techniques to be used in radio teaching.
- (iii) Finding the most suitable script-writers, and,
- (iv) Getting the required competent artists to voice the programmes.

The E.M.S. tries to make the broadcast programmes effective by paying particular attention to the following:

(a) Individual Differences

All radio programmes take into account the fact that children differ in age, ability and so on. An attempt is made therefore to try and satisfy each pupil by using a common language, a common pace of delivering the content and even a common pronunciation.

(b) Variety in Presentation

Different techniques are used in presentation such as drama, sound effects, songs and dialogues, all of which are aimed at arousing interest and stimulating the listener.

(c) Radio Time-tables

These are sent to schools at least three (3) weeks before the radio term begins. Time-tables are sent early to schools to give the class teachers sufficient time to study them so that class teachers can choose what they want and organise their class time-tables accordingly.

(d) Notes for Teachers

These are sent in handbook form and they contain full details of all programmes. For instance, they will inform the teacher what to do before the programme comes on air, during the programme and also after the programme has been aired.

(e) Tape Copying Services

The E.M.S operates a tape copying service where taping is done free for schools. When programmes are taped, problems of poor reception and difficulties of fitting the programmes in the school timetables are avoided.

In addition, once a school has a copy of the programme on the tapes, the school can make use of it as often as possible and when it wants.

(f) Other Support Materials

Support materials like posters, pamphlets, maps, charts and diagrams are all prepared and sent to schools by E.M.S. These materials are used together with radio programmes.

Certain claims have been made as to what educational radio can accomplish. Nzioka (1974:8) has stated these as follows:

- (i) The use of Educational Radio opens the possibility of reducing costs which may be particularly important if there is a substantial unmet social demand for education.

- (ii) The availability of radio makes possible the provision of instruction in curriculum areas deemed important but in which existing teachers are untrained.
- (iii) If properly used, radio can be one of the most effective tools for distant teaching and learning, and,
- (iv) Radio offers a unique means to provide opportunities for learning to large numbers of spatially separated learners.

THE DEVELOPMENT OF HOME SCIENCE AS A SUBJECT

Long before Kenya was colonized, various societies in the country had their own indigenous education. Raju (1973:1) observed that:

Traditional education had aimed at fitting children into their society and had taught them love of and respect for their families, clan, tribes, religion and traditions.

The methods used for teaching were folklore and moral stories which were combined with apprenticeship training. Sifuna (1988:2) points out that:

Throughout this education process, great emphasis was put on correct behaviour and respect towards parents, relatives, elders and the general members of the society.

Girls were taught at home by mothers through demonstrations. During such exercises, girls observed the tasks being performed very keenly after which they too performed these tasks. The mothers would correct the girls whenever tasks were not well performed. The kind of education described above is referred to as

Home Economics. Kithinji (1990:1) writing on Home Economics as a profession says that:

Home Economics is a discipline which has undergone a great revolution in definition, academic status, content and scope in many countries of the world. Its definition has evolved over the years from humble beginning of cooking/sewing, house craft, mother care, house wifery, hygiene, domestic science, rural science, domestic economy, household management to broader and more inclusive terms such as Home Science and Home Economics. The subject is called Home Science in Primary and Secondary schools while it is referred to as Home Economics in universities and other institutions of higher learning in Kenya.

Subjects related to Home Science were introduced in Kenya at Kikuyu in 1904. Anderson (1970:27) remarks that Mrs. Watson taught laundry at Kikuyu in 1904. At Tumu Tumum in 1912, Marion Stevenson taught girls activities related to the house. In Western Kenya, the work of Miss Moller at Ng'iyia and that of Miss Appleton of Church Missionary Society (C.M.S.) at Butere are equally well known.

In 1924, the Phelps Stoke Education Commission introduced a new element, that of adapting the curriculum to the local situation. Areas which were emphasized included home life, industry, simple health, agriculture and recreation. The report indicated that industrial education was to focus on the need for better housing, clothing and village industries such as weaving, leather work, basket making.

The first Jeans School and Native Industrial Training Depot were established in Kabete in 1925. These two centres trained the African men and their wives in various activities. For instance, while women were being trained in simple community life, child care and simple health care, men were on the other hand being trained in industrial education. The training was quite informal in the beginning but with time it became formal.

In 1949, the Beecher Report recommended a general expansion in education for Africans and recommended that girls schools' curriculum provide courses in house wifery and hygiene.

Batey (1953:107) noticed that there was need to educate the African women and girls to be able to fit in a world of social change that they are able to participate fully in daily life.

The Ominde Report of 1964 saw the need to provide the type of education that meets the needs of the learners. It recognized the need for vocational element in the curriculum to be taught side by side with the academic element.

Bessey Report (1972:31) observed that certain essential areas like house wifery and cookery were being neglected and that needlework was being emphasised too much. At that time teachers taught those areas which they liked most and ignored some areas since home science was not being examined at that time. The subject matter covered at that time dealt mainly with needlework and since

that time, home science started appearing as a fragmented subject. This trend continued upto mid 1980s when the system of education changed to eight (8) years of primary education, four (4) years of secondary education and four (4) years of university education (8:4:4). With the introduction of 8:4:4, the subject was no longer fragmented as before.

HOME SCIENCE RADIO BROADCASTS

Primary school syllabus, Home Science section (1984:157) states that Home Science is a family centred area of study consisting of foods and nutrition, consumer education, health education and home management. Home Science education attempts to help the individual realize and solve family problems as well as adapt more easily to the changing community and the society as a whole.

The radio is in a position to make Home Science education a success in the following:

- (a) It improves the quality of Home Science education in that certain issues in this subject can be presented in a variety of ways for example through drama, sound effects and so on.
- (b) It provides a means of presenting locally produced material for educational and developmental purposes without requiring costly and complicated distribution channels.

- (c) It helps solve national problems which relate to health and food production therefore resulting in a healthy nation.

In spite of the good intentions of radio programmes, there has been a general concern or suspicion that the schools' radio broadcasts are not giving expected optimum benefits to the target group.

lack of support materials e.g. charts, posters, teachers

Looking at a variety of reports on radio broadcasts for the last few years, there have been indications that teachers actually face certain problems when using the radio for teaching. The Daily Nation (1985:15) highlighted some of these problems which include lack of clarity on the part of the radio teacher coupled with the fact that the programmes are uninteresting.

The Kenya Institute of Education (K.I.E.) Research Report Series (1991:19) revealed that teachers were not receiving support materials on time therefore making it difficult for them to prepare for the radio lessons effectively.

From the foregone points, it appears that Home Science teachers for primary schools are faced with problems when using the radio for teaching the subject and to this end, the researcher sees the need to study these problems. These problems have been manifested in acts

like, not listening to school broadcasts at all, negative attitude by both teachers and pupils towards Home Science radio lessons, lack of interest in radio lessons and so on.

The following is a summary of some of the complaints about radio broadcasts among teachers. These complaints and many more come mainly through seminars, newspapers and research reports.

These are:

- . Lack of support materials e.g. charts, posters, teachers notes, map and so on.
- . Lack of timetables for radio programmes.
- . Learners do not get immediate feedback since radio is a one way channel of communication.
- . Lack of clarity of the radio teacher.
- . Poor pronunciation.
- . Lack of batteries to operate the radios in areas where there is no electricity or when radios are not the type that use electricity.
- . Radio timetables do not synchronise well with the school timetables.
- . Poor radio reception.
- . Lack of training on how to use radio lessons in class.
- . Unusually large classes for radio broadcasts.
- . Teachers are not involved in selecting what is to be taught on radio.

- . Content to be covered is too much thus head-teachers and class-teachers feel that radio lessons are a waste of time.
- . Programmes are not interesting.
- . Radio broadcasts often do not deal with what teachers consider as difficult topics.

From the above, it can be noted that the teaching of home science by radio is affected by numerous factors some of which have already been listed down. The researcher found out that these teachers use the radio for home science teaching and gave recommendations on what could be done to improve radio lessons for home science teaching.

1.2 STATEMENT OF THE PROBLEM

In Kenya's educational system, we find that the radio programmes are integrated into the system. The radio teacher communicates with the target group through the radio. The purpose of this kind of communication is to pass a message to a given target group. In any kind of communication, there are three (3) elements. These elements are: the transmitter of the message, the medium of communication and the receiver of the message. All the three elements must work in harmony otherwise the message will not pass any one point. Distortions or interferences with the passage of the message must be guarded against by both the transmitter and the receiver.

When one wants to communicate with his target group, he would like to know those that he is reaching and those whom he is not reaching. In case he is not reaching some people, he should find out what such people think of his presentations. He can ask himself the following questions, how do these people react to my presentations? What really is the problem? Am I changing their attitudes, beliefs and maybe behaviour? Is there anything I can do to improve this system?

For radio lessons to be effective, the pupils must be reached, they must understand and finally act as required by the radio teacher. Some evidence of difficulties facing educational radio exist in the form of complaints expressed especially by teachers who sit with pupils in the classroom to listen to educational broadcasts. The study set out to:

- (a) Find out problems encountered by Home Science teachers when using the radio.
- (b) Investigate how these problems come about.
- (c) Find out whether there are adequate resources and facilities for school broadcasting in schools.
- (d) Obtain home science teachers' suggestions on ways of improving radio broadcasts.

1.3 SIGNIFICANCE OF THE STUDY

Radio programmes are designed to be used by teachers to enhance their pupils' learning. A lot of time is spent weekly relaying these

programmes over the air. The production and transmission of radio programmes are costly and can only be justified if large numbers of pupils in primary schools will use these facilities.

The study provides suggestions as to the relevance of radio lessons to schools and how problems faced when using the radio for teaching can be solved both at E.M.S. during production and transmission and also at the school level when receiving the programmes.

It is hoped that the study will provide some insight into a number of issues related to the quality of radio broadcast and problems which affect it as a teaching medium.

The study will also be useful to curriculum planners, curriculum implementors, radio teachers and producers of radio lessons in that they will have some base on how to make radio lessons more interesting to the target group.

1.4 RESEARCH QUESTIONS

- (1) Are Home Science radio lessons carried out as stipulated by Kenya Institute of Education's Broadcasts to schools?
- (2) What broadcast materials are sent to schools and are these received on time?
- (3) What problems do teachers face in Home Science teaching by radio?
- (4) Are the teachers in-serviced in the use of Home Science radio lessons?

Some of these questions call for some form of evaluation. Quite clearly, there is need to collect information and provide evidence on the basis on which decisions can be taken about the problems encountered by Home Science teachers when using the radio.

1.5 OBJECTIVES OF THE STUDY

The study was carried out with the following specific objectives in mind:

- (1) To find out the frequency of use of the radio.
- (2) To examine the broadcast materials available for Home Science radio broadcasts.
- (3) To find out whether these support materials are received by the schools on time.
- (4) To examine how classes are organized for radio lessons.
- (5) To find out the number of teachers who have attended in-service course(s).
- (6) To identify topics (areas) in Home Science which are taught by radio.
- (7) To find out the desired changes Home Science teachers would like to see made in Home Science radio broadcasts.

1.6 BASIC ASSUMPTIONS OF THE STUDY

- (1) Those teachers who have been in-serviced in Home Science teaching by radio are better in handling radio lessons.
- (2) Few schools listen to Home Science radio lessons.

- (3) Some Home Science teachers would be able to identify problems which lead to less use of radio lessons.
- (4) Given alternative teaching aids, a lot of Home Science teachers would not use radio for their teaching.
- (5) Respondents would provide accurate responses to the questionnaire.
- (6) The information gathered through questionnaire would enable the researcher to make correct generalizations.
- (7) The presence of an observer in the classroom would not greatly affect the way classes are usually organized for Home Science radio broadcasts and the interaction between teacher and pupils.

1.7 SCOPE AND LIMITATIONS OF THE STUDY

The purpose of the study was to identify problems encountered in the teaching of Home Science by radio in primary schools in Langata Division of Nairobi. The study was limited to twelve (12) primary schools out of twenty (20) in Langata Division. A smaller sample was chosen due to limited funds and the short time allocated to the study.

Since the schools used in the study were too few compared to the number of schools in the city, the findings will not be generalized to all schools.

Although radio broadcasts are transmitted for all the subjects in primary schools, the findings of this study will be limited to only home science lessons in primary in Langata Division, Nairobi.

1.8 DEFINITION OF SIGNIFICANT TERMS AND ABBREVIATIONS

K.I.E. (Kenya Institute of Education)

This is a section of the Ministry of Education which deals with curriculum for schools and colleges, prepares teaching and learning materials.

E.M.S. (Educational Media Service)

A department at K.I.E. which deals with school radio broadcasting programmes.

Schools Radio Broadcasts

These are educational broadcasts specifically designed and transmitted for schools by radio.

Target Group

These are the intended audience for the broadcasts and they include teachers and pupils in schools.

Support Materials

These refer to teachers' guidelines about the radio programme or lesson, teachers notes, pupils' pamphlets, charts, posters, maps etc.

Script Writer

This is a specialist in writing script for radio lessons.

Encountered

This means to come into contact with or to meet with something.

Teacher

Refers to a person who guides learning experience of pupils in an educational institution.

Problem

This refers to a matter that is difficult to settle or get a solution to.

Producer

This is a person who produces something and in this case, it will mean a person generally responsible for producing radio programmes.

Educational Technology

This is the application of scientific knowledge about learning and the conditions of learning to improve the effectiveness and efficiency of teaching and training mainly by using technological devices.

In-Service Course

This is any course given to qualified teachers to brief them on developments in the subject area. The course may range from one day to weeks or to months.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

There is limited literature on Home Science Education in Kenya especially literature dealing with the teaching of Home Science by radio. The researches that have been done on radio broadcasts have covered all programmes and have not been limited to a particular subject area like Home Science. However, a general overview of studies done in other countries could be useful in setting appropriate guidelines for the treatment of the topic.

The literature reviewed was in the following sub-headings:

1. Functions and structure of radio programmes.
2. Strengths and weaknesses of radio broadcasts.
3. Preparedness and use of the radio in the classroom.
4. Support materials.
5. Tape copying services.
6. Possible problems encountered when using radio for Home Science teaching.
7. The objectives of Home Science in Primary schools in Kenya.

2.2 FUNCTIONS AND STRUCTURE OF RADIO PROGRAMMES

The radio is now regarded as a common feature in Kenya's educational system. Contributing to the need for the radio in education, Kenya Education Commission Report, Ominde (1964:63) had the following to say:

The radio provides a wonderful means of bringing the outside world into the school in a way never before possible. Other parts of Kenya hitherto remote and almost unknown, come to life over the radio and lessons based on such materials are much more significant than lessons relying solely on the skill and imagination of the teacher.

Commenting on why the radio should be used, the Director of Kenya Institute of Education (1984:iv) stated that:

We admit we cannot cover the syllabus in any given term but we are confident that there are many things we can do using the radio which you will find difficult to do. We can for example, introduce drama into your classroom thus helping to make learning more varied and interesting for your class.

Educational broadcasts are, however, not meant to replace or take over from the classroom teacher. Instead, they are meant to supplement the teacher's work. Schramm (1977:32) writing on a research done in Thailand states that, there is evidence which shows that obviously the radio is not dominating the classroom, it may lead, it may stimulate, but it is far from taking over.

On programme structure, the length of the programme should be considered since young children can only concentrate for a short period. Programmes should have enough incentives to persuade children to keep on listening. Commenting on this issue, Armour (1974:200) states that the considerations that concern producers of broadcast materials are:

- (a) Capture attention.
- (b) Have appropriate information.

- (c) Teacher prepare carefully in advance.
- (d) Voice sufficiently clear and attractive to young listeners.

These are relevant considerations which producers need to address themselves to.

Murry (1967:348) noted that the script-writer constantly must remind himself that he can only appeal to his audience through their ears. Unlike a theatre audience, radio listeners can leave the programme easily without embarrassment to themselves. Long speeches, unless highly dramatic, will tire listeners and they turn off their radio sets.

2.3 STRENGTHS AND WEAKNESSES OF RADIO BROADCASTS

The radio as used for educational purposes has certain strengths. Hall (1970:300) notes that one advantage of the radio is the emotional impact that comes through dramatic presentations or panel discussions. Olaitan and Agusiobo (1981:225), writing on the advantages of the radio noted that most radio teaching programmes are directly related to the school curriculum at specific levels of education. They further add that radios can be powered by both electricity and battery, therefore they can be successfully used in schools in rural areas and for extension work in home economics rural communities. They also say that during a school broadcast, many students in schools with radios are taught by a single teacher.

Wittich (1973:658) adds that radio broadcasts are carefully planned audio learning experiences which represent resources ordinarily beyond those available to local classrooms. He continues to say that lessons are prepared under the supervision of excellent teachers, radio specialists and subject authorities who work directly with professional radio writers. Such cooperation results in a learning resource which effectively anticipates the needs of the pupils and makes the most of the strength of the characteristics of the medium.

Research on instructional radio done in Thailand, Schramm (1977:111) revealed that media like television and radio display what economists call economies of scale when used for large audience, whereas media like film does not. In order to cut down costs when producing radio programmes, the target group should be large in number. Contributing to the same point on economies of scale, Sleeman (1976:189) adds that:

The radio is economical at a time when economy draws attention, it continues to demonstrate the power to hold loyal and sometimes large audiences.

Oucho (1990:3) identified another benefit of radio programmes. He says that the radio keeps a class with upto date ideas which include new innovations, changes in examination systems, educational administration, changes in curriculum, syllabus and changes in subject matter.

Pure radio programmes have their own weaknesses of; programme context, presentation and even studio production.

Contributing to these disadvantages, Olaitan and Agusiobo (1981:225) in their writing identified some disadvantages. They say that a radio broadcast cannot consider individual differences during teaching, this especially affects children with hearing defects. They continue by saying that the radio does not help the children to develop effective clear thinking because, all the children need to do during a broadcast is to listen and make notes. Olaitan and Agusiobo add that the class teacher has no control over the pace of development of a radio lesson.

Hall (1970:300) identified yet another difficulty when using the radio in the classroom. She says that a programme may not be scheduled at a convenient time for live broadcasting. The other disadvantage as identified by Read (1974:198) states that the radio channel is a one-way channel. The listener cannot ask questions as he can with face-to-face speaking channels of communication, nor can the sender check the response to the message by watching for non-verbal signs from the listeners. The sender has no way of knowing at the instant moment whether the message is getting through.

In this study, it was found out that the disadvantages of radio broadcasts are among problems encountered by Home Science teachers when using radio for teaching the subject.

2.4 PREPAREDNESS AND USE OF THE RADIO IN THE CLASSROOM

Radio lessons are broadcast over the radio periodically. It is hoped that the classroom teacher will have prepared his pupils well in advance of the broadcasts. For the teachers to prepare effectively for radio lessons, they need broadcast time-tables which should be received by schools well ahead of broadcast time. Once the time-tables have been received early enough, the teacher is able to choose what he wants and then he can organize his class-time accordingly. A research conducted by Nzioka (1983:122) revealed that a fairly large percentage of teachers do not receive the time-tables early enough. Many schools are therefore faced with the problem of fitting the broadcast time-table in their daily school time-tables and this has led to the radio lessons conflicting with lessons on the daily school time-tables.

To help in further preparation for radio broadcasts, teachers also need a handbook which contains full details of the programmes. These handbooks tell the teachers what to do with their classes, how to do it and how to make full use of the lessons. The Kenya Institute of Education Research Report series (1991:22) revealed that relevant teachers notes were lacking in all the schools visited.

Far from the above preparations, the classroom teacher is expected to arrange the classroom properly. Dale (1969:282) stressed this point by asking the following question:

Is the classroom well arranged for learning by listening?

Dale further indicates that overcrowding should be avoided and that the programme should be received in usual learning setting (classroom) and not in a show place (auditorium).

It is important that the classroom teacher guides pupils to respond to the radio teacher in time so that learning will be effective.

The findings of the study showed that lack of time-tables, notes for teachers and adequate space leads to problems when using radio for Home Science teaching.

2.5 SUPPORT MATERIALS

To be able to support the efforts of the radio teacher, the classroom teacher needs support materials. The need for support materials goes along with the Chinese saying:

When I hear I forget

When I see I remember

When I do I understand.

A research carried out by Nguchu (1981:24) revealed that there is need for more support materials for teaching Home Science by radio since only a few of these are available in schools. The materials that relate to the purpose of the programme should be at hand like maps, charts and demonstration materials. In addition, preliminary questions should be written on the chalkboard early enough.

In this study, it was found out that lack of support materials are among problems encountered by Home Science teachers when teaching the subject by radio.

2.6 TAPE COPYING SERVICES

Since air time is very expensive, limited and controlled by many factors, the schools cannot benefit much from radio broadcasts unless the programmes are repeated. Hall (1970:30) indicates that the programmes may not be scheduled at a convenient time for live broadcasting. To alleviate this problem, K.I.E . operates a free tape copying service for schools. All the schools have to do is to send an empty cassette plus a list of programmes which they want taped for them. Kenya Institute of Education will then tape the programmes and send them to schools free of charge. A message from the Director of K.I.E. (1984:iv) states that,

All the programmes are available on request. Taped programmes enable the teacher to use the programmes much more effectively than the broadcast on radio. The teacher can plan his lesson well and use the material when he needs it.

The findings of the study showed that teachers are aware of the existence of free tape copying services at K.I.E.

2.7 POSSIBLE PROBLEMS ENCOUNTERED WHEN TEACHING HOME SCIENCE BY RADIO

For the radio to be used effectively for teaching Home Science the pupils must be reached. In addition, whatever is conveyed by the radio

teacher must be understood and consequently, pupils need to act as required by the radio teacher. Quite often, these three elements are missing in a radio broadcast.

During the Kenya Institute of Education in-service course for primary teachers held in Marsabit in 1979, the teachers raised complaints that radio lessons were not effective due to poor reception. A research done by K.I.E. (1991:19) confirmed this point by saying that 77.4% of the 512 teachers interviewed reported poor sound reception.

Pronunciation can also be a serious blockage to communication and especially to understanding. An observation made by Senda Wa Kwayera (1985:15) indicates that some of the announcers, although previously good, have today, slurred speech making listening difficult if not annoying.

Far from the above, more problems have also been recorded for instance, a research done by Nzioka (1984:70-120) showed that radios are available but:

- (a) There are no batteries to operate them.
- (b) Schools with more streams could not listen otherwise they had to be combined which in itself creates discomfort and noise.
- (c) Radio lessons conflict with daily class time-table in most schools.
- (d) There is lack of broadcast support materials.

Research done by K.I.E. (1991:19) when evaluating the effectiveness of school broadcasting in Kenya revealed that broadcasts were not listened to due to the fact that the syllabi are too broad to allow for the use of school broadcasts. Thirty five percent of the 512 teachers interviewed reported that radios are faulty while seventy percent of the teachers complained that broadcasting time-tables do not match school time-tables.

The study found out that the problems discussed above are faced by teachers when teaching Home Science by radio in primary schools.

2.8 THE OBJECTIVES OF HOME SCIENCE IN PRIMARY SCHOOLS IN KENYA

The areas of study in Home Science consists of foods and nutrition, consumer education, health education, clothing and textiles and home management.

There are five broad objectives of Home Science discipline although there are specific objectives for each topic as outline in the syllabus (1984:140). These broad objectives are:

1. To give pupils basic knowledge useful in promoting the welfare of the home and family and setting standards for community living.
2. To prepare pupils to achieve and maintain better standards of living and create awareness and appreciation of the expected standards.
3. To help pupils acquire skills to adapt themselves to new situations and changes related to home and family living in a developing country such as ours.

4. To train pupils to appreciate their own culture in relation to other cultures.
5. To lay a foundation for further learning and vocational training.

The objectives give educational planners and implementors the direction necessary for appropriate development of the country's educational system. Regarding what area is taught by radio, Nguchu (1981:7) points out that Home Science being mainly a practical subject requires care in selecting the material to go into the radio. She continues to say that radio programmes are only confined to areas that are theoretical and it is hoped that the practical bits are emphasised by the classroom teacher.

In this study, it was found out how the areas taught by radio in Home Science are selected, who selects them and which areas these are.

Chapter three deals with the methodology that the researcher used to collect data.

CHAPTER THREE

METHODOLOGY AND DATA COLLECTION

3.0 INTRODUCTION

The study took the form of a survey design. The area of study covered only twelve (12) of the twenty (20) primary schools in Langata Division in Nairobi.

3.1 SAMPLING TECHNIQUES USED

The population of the study consisted of twenty (20) primary schools in Langata Division in Nairobi. Primary schools were selected based on the fact that they offer Home Science Radio lessons. Twelve (12) primary schools were then randomly selected for the study.

The sample under study did not include private schools, special schools or units for disabled children.

From each of the twelve (12) primary schools randomly selected for the study, three (3) teachers teaching Home Science in upper primary (standard 4, 5, 6, 7, 8) responded to teachers' questionnaires.

A total of thirty six (36) Home Science teachers from the selected primary schools responded to the questionnaire.

Pre-testing of the teachers' questionnaire was done in two (2) primary schools in the same area. This was to facilitate for changes and

modification of questions, for improvement of the instruments and procedures for the actual collection of data for the study. These schools were not used in the study.

3.2 INSTRUMENTS USED

The researcher used 3 instruments in the study:

- (a) Teachers' questionnaire.
- (b) Observation schedule.
- (c) Interview schedule.

3.3 THE TEACHERS' QUESTIONNAIRE

The questionnaire consisted of 3 parts:

Part One: This dealt with general or routine information or personal data such as sex, academic and professional qualifications.

Part Two: It dealt with the main aspects of the research on radio as used for Home Science teaching. Some questions were yes/no, others were multiple choice, some which had one or several responses.

Part Three: This consisted of one open-ended question which allowed teachers to express themselves briefly on ways of improving Home Science radio programmes.

3.4 OBSERVATION SCHEDULE

The researcher observed Home Science radio programmes in session.

Observation was made on:

- (a) Whether the teachers supervise the class during the broadcast.
- (b) How the classes are organized for listening to Home Science radio lessons.
- (c) Whether classes are combined during the programme.
- (d) The number of listeners at a sitting.
- (e) Whether the teachers introduce the lessons to the class before the broadcast period.
- (f) Whether teachers prepare lesson notes for the educational broadcasts.
- (g) Whether there are follow-up activities after the Home Science broadcasts.

3.5 THE INTERVIEW SCHEDULE

The producer of primary Home Science Programmes at Educational Media Service (E.M.S) was asked questions which rotated around the following areas:

- (a) Who selects Home Science topics (areas) to be aired?
- (b) Who writes the scripts for Home Science broadcasts?
- (c) How do primary schools get their radio sets?
- (d) How is broadcast time table decided upon?
- (e) How are support materials sent to school?
- (f) Are Home Science practical areas broadcast by the radio?
- (g) Are there ways of getting feedback from Home Science teachers on radio programmes?

3.6 DATA COLLECTION PROCEDURE

The researcher visited the Kenya Institute of Education (K.I.E) to interview the producer of Home Science programme. The first visit was spent on making appointment while the second was for the interview.

The researcher also visited each school personally. The first visit was spent on finding out those schools which use Home Science radio broadcasts, randomly selected the respondents and made appointments. The second visit involved distributing questionnaires. The third visit involved observation of the radio lessons in progress and collecting the questionnaires.

Chapter four will deal with the analysis of data collected. Descriptive statistics will be used in the analysis and the findings will be presented in tables of frequency distributions and percentages. The findings will be discussed.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.0 INTRODUCTION

The objective of this study was to find out problems encountered in the teaching of Home Science by Radio in Primary Schools in Langata Division of Nairobi.

To collect data on these problems, the researcher used 3 instruments namely:

- (a) Teachers' questionnaire
- (b) Observation schedule
- (c) Interview schedule

This chapter deals with data analysis, presentation, and interpretation of the findings obtained in the study. To present this data, the researcher has used tables which depict frequency distributions and percentages of these responses where applicable. Data interpretation is followed by a discussion after each table.

4.1 TEACHER RELATED VARIABLES

Information concerning Home Science teachers' sex, age, academic and professional qualifications,

training and experience which are presented below are some aspects which are expected to contribute to problems teachers encounter when using the radio for home science teaching.

4.1.1 Sex of Home Science Teachers

This item was intended to find out if Home Science subject is taught by both male and female teachers as expected.

The researcher was aware that all students in Primary Teacher Training Colleges are trained to teach all subjects.

Table IV.1: Showing Sex of Home Science Teachers

SEX	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Female	36	100
Male	0	0
TOTAL	36	100

As shown in Table IV.1, all teachers (100%) involved in this study were females. This finding

indicates that the subject is dominated by women teachers. Male teachers, though trained alongside with the female teachers to teach the subject hardly teach it. It is generally assumed that Home Science is a subject meant for women and can be taught by any female teacher.

4.1.2 Academic Qualification

This item was intended to find out the academic status of Home Science teachers. Teachers' academic qualifications was an important factor in proper Management of home science radio broadcast lessons.

Table IV.2: Showing the Highest Academic Qualifications of Home Science Teachers

EDUCATIONAL LEVEL	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Primary Level (K.A.P.E., K.P.E., K.C.P.E.)	0	0
Kenya Junior Secondary Education (K.J.S.E.)	2	5.6
Secondary Level (E.A.C.E., K.C.E., K.C.S.E)	34	94.4
Advanced Secondary Level (K.A.C.E., E.A.A.C.E.)	0	0
TOTAL	36	100

All the teachers who participated in this study have acquired Secondary education. This puts the untrained teacher at a better position as far as the knowledge of content covered by radio in Primary schools is concerned.

4.1.3 Professional Qualification (training)

The purpose of this item was to find information about Home Science teachers' professional qualifications. It is generally assumed that the ability to handle Home Science radio lessons depends on the qualifications the teacher has received in the profession.

Table IV.3: Showing Professional Qualification of Home Science Teachers

QUALIFICATION	NO. OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Primary Teacher Four (P4)	0	0
Primary Teacher Three (P3)	0	0
Primary Teacher Two (P2)	5	13.9
Primary Teacher One (P1)	29	80.5
Secondary Teacher One (S1)	0	0
Untrained Teacher (UT)	2	5.6
TOTAL	36	100

Table IV.3 shows that 13.9% of the Home Science teachers were P2's, 80.5% were P1's and 5.6% were untrained teachers. This figure depicts that the largest number of Home Science Primary school teachers are professionally qualified. The findings show that only a small number of the participants (5.6%) in the study had not received any form of training in teaching.

4.1.4 Teaching Experience of Teachers

Teachers are the implementors of the radio broadcasts. To do this, they need to have the ability and skill that comes through practice and experience. The table below shows the teaching experience of the teachers in the study.

Table IV.4: Showing the Teaching Experience of Home Science Teachers

DURATION	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Less than one year	0	0
1-3 years	2	5.6
4-6 years	4	11.1
7-9 years	9	25.0
Over 10 years	21	58.3
TOTAL	36	100

As the above table shows, most of the respondents (58.3%) have been teaching for more than 10 years. Twenty five percent (25%) of the teachers have a teaching experience of between 7 - 9 years. Eleven point one percent (11.1%) have a teaching experience of between 4 - 6 years while 5.6% have a teaching experience of between 1 - 3 years.

The findings indicate that most of the respondents were experienced teachers who were able to tell whether radio broadcasts are useful to them or not.

4.1.5 Length of Teaching in the Present School

This item was intended to find out how long the Home Science teachers have been teaching Home Science in their present schools. It is believed that the teachers who teach for a long time in a particular school stabilize and develop ways of acquiring radio broadcast materials.

Table IV.5: Showing Length of Teaching in the Present School

DURATION	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Less than 1 year	4	11.1
1-3 Years	6	16.7
4-6 years	8	22.2
7-9 years and above	18	50
TOTAL	36	100

Table IV.5 shows that 11.1% of the Home Science teachers have taught in their present schools for less than 1 year. Those who had taught for 1-3 years were 16.7%. Those who had taught for 4-6 years were 22.2% while 50% of the teachers had taught in their present schools from 7-9 years and above.

These findings indicate that half of the teachers in the study have been in their present schools for long enough to be able to acquire the support materials needed for home science radio broadcasts.

4.2 CONTENT OF THE SUBJECT AND RADIO TEACHER

4.2.1 Respondents' awareness of the existence of Radio Broadcast for schools

The researcher found out that all the teachers (100%) in the twelve schools used in the study are aware of the existence of radio broadcast for schools.

Going by the responses of the teachers, the results are very encouraging as far as the use of radio broadcast are concerned. This is because teachers know that radio broadcasts exist and can therefore take a decision to utilize them.

4.2.2 Availability of radios in schools

In each of the twelve (12) schools visited, all the teachers (100%) indicated that the school has a radio set. Since availability of the radio is considered a very important factor for the use of broadcast to schools, these schools can utilize broadcasts since they have radio sets.

4.2.3 Providing for the radio lesson on school Timetable

With regard to the school timetable providing for the radio lesson, all the teachers indicated that the schools provide for the radio lesson on the timetable.

This fact is important in that there will be no conflict between radio lessons and lessons on the daily class timetables.

4.2.4 The number of Radio lessons a class listens to per week

The responses of the teachers indicated that a large proportion (86%) of their classes listened to one (1) radio lesson per week. Only a small number of respondents (14%) said that their classes listened to two (2) radio lessons per week.

From the above results, one can note that the number of radio broadcasts utilized are too few and this can lead to lack of proper utilization of radio broadcasts to schools.

4.2.5 Clarity of radio broadcasts

Clarity of radio broadcast can be attributed to several factors. Among these factors are pronunciation and poor radio reception. Pronunciation may be attributed to the presenter(-) of the radio lesson. Poor radio reception may be due to the type of radio used, its condition, the teachers skill in operating the radio, the position of the radio and the condition of batteries at the time of use.

Responding to the question on whether the radio teacher's pronunciation is clear, 90% of the teachers said that the pronunciation is always clear while only 10% said the pronunciation is sometimes clear. One can conveniently say that pupils find radio lessons audible since the radio teacher's pronunciation is clear.

The item on whether broadcast lessons are always clear was intended to find out whether there are poor radio receptions. Since all teachers recorded a clear reception, one can attribute this aspect to the fact that all these schools are near the source of Radio broadcasts.

4.2.6 Reason for using educational broadcasts

As far as this item was concerned, over half of the respondents (70%) showed that educational broadcasts supplement their lessons. Those who indicated that they use educational broadcast because the Ministry of Education likes them were 5% while one quarter (25%) of the respondents indicated that they use broadcasts because the students like to listen to the programmes. Though teachers have varied reasons for listening to broadcasts, a vast majority recognize the fact that radio broadcasts are meant to supplement the teachers lessons.

4.2.7 Support materials

Support materials such as teachers' notes, pupils' pamphlets, wall charts and so on are required in order to facilitate learning by radio lessons. To be useful, support materials should be received in advance of the radio lesson. The study shows that all the teachers (100%) in the schools visited NEVER receive support materials. This means that the teachers together with their pupils sit in their classrooms without any prior knowledge of the topic to be aired. The teachers are in no way better prepared than their pupils since they all start at the same level. A question posed by class pupils to the teacher may not be answered since the teacher will not have made any prior preparations. Besides, the teacher will not have made any preparations to be done before, during and after radio broadcasts.

The researcher found out that support materials are written too late by K.I.E. and are at times not distributed at all.

4.2.8 Broadcast timetables

Radio Broadcast timetables are very necessary if teachers have to plan for radio properly. With the help of broadcast timetables, teachers are able to

fit radio lessons on school timetables therefore avoiding conflicts between the two. Two items were used here. The first item was intended to find out how often teachers receive broadcast timetables while the second item was intended to find out when broadcast timetables are received by teachers.

Table IV.6: Showing how often and when broadcast timetables are received

VARIABLES	NO. OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Always	30	83.3
Sometimes late	6	16.7
Never	0	0
TOTAL	36	100
Always before broadcast term begins	18	50
Always after broadcast term has begun	9	25
Sometimes after broadcast term has begun	9	25
TOTAL	36	100

Table IV.6 shows that the majority of teachers (83.3%) always receive the broadcast timetable,

while only a few (16.7%) sometimes receive a copy of the broadcasts timetables. Half of the respondents (50%) indicated that they receive timetables always before broadcast term begins, 25% said they receive the timetables always after broadcast term has begun while 25% said they receive the timetables sometimes after broadcast term has begun.

The findings show quite clearly that there are schools which do not receive copies of the broadcast timetables in good time. The teachers may therefore not be able to fit radio broadcast timetable on the school timetable.

4.2.9 Radio teaching captures pupils' attention

The researcher found out that 28% of the respondents indicated that the radio teacher always captures pupils' attention while 61% said the radio teacher sometimes captures pupils' attention. Only 1% said the radio teacher never captures pupils' attention.

The success of teaching by radio partly depends on the pupils' attentiveness to the broadcasts. Since only a small percentage of the teachers said radio teacher never captures pupils' attention, one can say that pupils are able to benefit from radio broadcasts most of the time.

4.2.10 Rating the broadcasts

The purpose of this item was to find out how teachers rate the broadcast of the lesson their classes listen to. It is generally assumed that the higher the teachers rate the broadcasts, the more frequent their classes will listen to these broadcasts.

Table IV.7 : Showing teachers rating the broadcasts

RATING	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Very useful	27	75
Fairly useful	8	22.2
Not useful	1	2.8
TOTAL	36	100

A glance at table IV.7 reveals that only 2.8% of the teachers feel the broadcast of the lesson are not useful. Seventy five percent (75%) of the teachers said radio lessons are very useful, while 22.2% of the teachers said radio lessons are fairly useful.

Since the majority of teachers indicated that radio lessons are useful to their classes, these teachers

can sell the same idea to their pupils. This may result in most pupils liking the radio lessons.

4.2.11 How teachers treat the topics covered by radio broadcasts

Radio lessons are meant to encourage the retention of information among pupils. To be able to maximise retention, the classroom teachers need to stress the main points raised in the radio lessons to the class pupils.

Table IV.8: Showing how teachers treat the topic covered by radio broadcast

VARIABLES	NO. OF TEACHERS	PERCENTAGES OF TEACHERS (%)
Teach the topic before radio broadcast	19	52.8
Teach the topic after the radio broadcast	10	27.8
Neither teach before nor after broadcast	6	16.7
Only revise important points from the broadcast	1	2.7
TOTAL	36	100

This table shows that the teachers who teach the topic before the radio broadcasts are 52.8%. Slightly over twenty seven percent of the respondents teach the topic after the radio broadcast. Sixteen point seven percent (16.7%) said they neither teach before nor after the radio broadcast. Only 2.7% of the respondents said they only revise important points from the broadcasts.

In spite of the above differences in the ways teachers treat broadcast topics, the majority of the teachers are out to ensure that maximum retention of what is taught takes place.

4.2.12 Respondents' awareness of the existence of tape copying services at E.M.S. and whether they requested for the service

An attempt was made to investigate whether teachers are aware of the existence of tape copying service at E.M.S.. Twenty six percent (26%) said they were aware while 74% indicated that they were not aware of the existence of such services.

Asked whether they requested for the radio lessons to be taped for them from E.M.S., 75% of the teachers said they had never asked for the lessons to be taped for them while 25% said they do.

There are times when a school is not able to listen to live radio broadcasts. At the same time, a teacher may wish to repeat a programme for the class. In all these cases, one is normally expected to request E.M.S. for a taped copy of the programme. The results show that most of the teachers are not aware that these services exist and besides, they do not even request for these services. It would appear therefore that information about tape copying services is not well known by the teachers.

4.2.13 Disturbance by noise from next room during Radio lessons

Learning by radio requires the ability to listen without being disturbed or distracted. Neighbouring classes in a school is one source of disturbance.

Table IV.9: Showing disturbance by noise from next class during radio lessons

DISTURBANCE BY NOISE	NUMBER OF TEACHERS	PERCENTAGE OF TEACHERS (%)
Always	8	22.2
Sometimes	8	22.2
Never	20	55.6
TOTAL	36	100

Table IV.9 shows 22.2% of the teachers are always disturbed by noise from the next class, 22.2% are disturbed only sometimes while the 55.5% are NEVER disturbed by noise from the next class.

The results indicate that only a small percentage of the teachers said their classes are always disturbed by noise from the neighbouring class. An equally small number of the teachers said their classes are disturbed only sometimes while more than half of the teachers said their classes are NEVER disturbed.

4.2.14 Teachers trained on how to use Radio

Broadcasts in class

In-servicing of teachers is an important aspect if pupils and teachers are to reap the most out of radio broadcasts. While in-servicing should be carried out regularly to all teachers handling radio broadcasts, the study revealed that only 39% of the teachers have received such training while 61% of the teachers have never attended in-service training at all. This investigation however shows that the majority of teachers are not trained on how to use radio broadcasts in their classes.

4.2.15 Supervision of the class during broadcasts

Observation results revealed that the majority of classes (86%) are not supervised during the broadcasts while only 14% had teachers supervising the radio lessons. This means that maximum benefit is not being made out of the radio broadcasts since the classes are left unattended.

4.4.16 How classes are organized for listening to radio broadcasts and the number of listeners at a sitting

The researcher observed that the classes for Home Science radio lessons were unusually large. In all the schools visited, two (2) or more classes are combined in one class. For each radio broadcast lesson, there were at least 90 pupils. Such a large class is difficult to handle and pupils are uncomfortable. It is therefore doubtful whether such radio lessons can be beneficial to the learners in such a crowded situation.

4.2.17 Follow up activities and preparing teachers' notes

Teachers in the schools visited do not prepare lesson notes for the broadcast lessons. All the teachers

in the study indicated that they do not introduce the lessons to the class before the broadcast period. This could be because teachers do not know which programmes are being aired.

The researcher found out that 25% of the teachers made follow-up activities to their classes. The only follow-up activities observed were summary of the main points covered in broadcast lessons. Seventy five percent (75%) of the cases did not have any follow-up activities.

4.2.18 Selection of topics in Home Science to be aired and how practical areas are treated by radio broadcasts

The topics in home science to be aired are selected by home science panel members. The panel members consist of: the primary home science curriculum developer, the home science media specialist, the primary home science inspector, and a practising teacher usually selected from Teacher Training Colleges. The panel consists of between 10-15 people. It is these members who select and split the home science topics into series.

Radio broadcasts mainly concentrate on the theory

parts and it is hoped that the classroom teachers would tackle the practical areas.

4.2.19 Script Writers

Scripts are written by tutors from teachers training colleges (T.T.C.s) and a few teachers from primary schools. This is because these two categories of people are able to identify topics which can be aired.

4.2.20 How primary schools get their radio sets

The primary schools are supposed to buy their radio sets or cassette recorders. The radios and cassette recorders are serviced by K.I.E. free of charge. All that the schools are required to do is to buy spare parts if the spare parts are needed.

4.2.21 Ways of getting feedback from Home Science teachers on radio programmes

Teachers and pupils are encouraged to write to K.I.E. reacting to the radio programmes. Kenya Institute of Education also do some follow-up activities to find out problems teachers and pupils face when using radio broadcasts.

4.3 Open-ended Response

Teachers were asked to give suggestions on how Home Science radio programmes would be improved. These suggestions would be useful in enhancing the quality of home science radio broadcasts in primary schools.

4.3.1 Teachers' suggestions on how home science radio programmes can be improved

The teachers cited the following as some of the ways of improving home science radio programmes.

- (a) Make broadcast materials available.

The majority of teachers said that such materials should be sent to the schools early enough to enable teachers to prepare for radio broadcasts ahead of time.

- (b) Allow some few minutes in-between the lessons to enable one to transfer the radio from one class to the next. Currently the programmes are aired in a continuous manner without any allowance for the transfer of radio from one class to the next.

- (c) Inform teachers on programmes changes so that they can prepare their classes in advance.

- (d) Head Teachers should avail radios and ensure that the radios are repaired when out of order.
- (e) The Educational Media service should send timetables to all schools early enough for their inclusion on regular school timetables.

4.4 SUMMARY

The data analysed, presented and interpreted in this chapter dealt with the following aspects of this study:

- (1) The quality of teachers teaching Home Science.
- (2) The teachers' reactions to the questionnaire.
- (3) The response of the Producer of Primary Home Science to interview questions.
- (4) Observations made by the researcher on preparations made by the teacher before, during and after radio broadcasts.

It was possible for the researcher to make observations, interpretations, and to draw generalizations on the items under analysis.

This chapter readily led to the summary of findings, conclusions and recommendations presented in Chapter Five.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS, CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 SUMMARY OF FINDINGS

From the data analysis carried out in chapter four, various factors were portrayed as contributing to problems encountered in the teaching of home science by radio in Primary schools in Langata Division of Nairobi. The study yielded several findings.

The research findings showed that all home science teachers who participated in the study were females. This finding indicated that the subject is dominated by women teachers. Male teachers, though trained to teach the subject hardly do it. This means therefore that only the female teachers are left with the task of handling home science radio lessons.

With regard to teaching experience, it was found that most of the respondents were experienced teachers and are therefore able to evaluate the usefulness of radio broadcasts.

It was found that the majority of schools receive a copy of the broadcast timetable in good time to

enable the teacher to incorporate it in the school timetables. This would avoid conflicts between school timetable and broadcast timetable..

All teachers in the study are aware of the existence of radio broadcasts for schools.

A few of the teachers supervise home science radio lessons while the majority do not.

It was found out that most of the teachers handle unusually large classes. This leads to overcrowding and sometimes noise which makes listening to radio broadcasts difficult.

The majority of teachers are not aware of the existence of tape copying services at E.M.S.. At the same time only a small proportion of the respondents request for the radio programmes to be taped for them.

5.3 CONCLUSIONS

The research findings have revealed a number of important factors pertaining to problems encountered in the teaching of home science by radio in Primary schools in Langata Division of Nairobi. The findings showed that:

- (a) Teachers have favourable attitude towards learning by radio
- (b) The radio is a useful teaching/learning device since the primary schools listen to the radio broadcasts.

- (c) Radio broadcasts can be very successful if given support by both the teachers and radio programme makers. Such support and commitment will reduce problems currently being faced.

5.3 RECOMMENDATIONS

From the results of the study, the following recommendations are presented:

- (1) In-service courses should be conducted more frequently to enlighten teachers on how to better handle home science radio broadcasts.
- (2) The head teachers of primary schools should ensure that teachers supervise their classes during radio lessons.
- (3) The teachers should avoid combining unusually large classes during radio lessons so as to ensure that effective learning takes place.
- (4) The Educational Media Service should keep teachers informed of the services available to the teachers, for example, the free tape copying services.
- (5) The Educational Media Service should make sure that all radio lessons are accompanied by support materials. These support materials should be sent

to schools before broadcast term commences.

- (6) The Educational Media Service should ensure that schools receive broadcast timetables early enough for teachers to synchronise them with their regular school timetables.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

- (a) A replica of this study should be carried out in other divisions of Nairobi Province using a wider sample in order to draw more solid conclusions.
- (b) A similar research should be conducted in rural areas.
- (c) Further research should be carried out in other subjects.

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APPENDIX ATEACHERS' QUESTIONNAIRE

The purpose of this questionnaire is to obtain information on Educational Radio Broadcasts in Home Science. The information obtained will enable the researcher and teachers to understand more about the nature and scope of Home Science Broadcasts in schools. Such information will be used to enhance the quality of broadcasts. Your co-operation in this exercise is therefore very important.

Do not write your name. Indicate your responses by ticking (✓) in the space provided. Where appropriate, fill in the blanks provided.

PART ONE:PERSONAL DATA

1. Sex

- (a) Male ()
 (b) Female ()

2. Your highest academic qualification:

- (a) Certificate of Primary Education
 (K.A.P.E., K.P.E., K.C.P.E.) ()
 (b) Kenya Junior Secondary Education
 (K.J.S.E.) ()
 (c) Form IV (E.A.C.E., K.C.E., K.C.S.E) ()

- (d) Form VI (E.A.A.C.E., K.A.C.E.) ()
- (e) Bachelors Degree ()
- (f) Masters Degree ()
- (g) Other (Specify)..... ()

3. Your highest professional qualification (training).

- (a) Primary Teacher Four (P₄) ()
- (b) Primary Teacher Three (P₃) ()
- (c) Primary Teacher Two (P₂) ()
- (d) Primary Teacher One (P₁) ()
- (e) Secondary Teacher One (S₁) ()
- (f) Approved Teacher (A.T.) ()
- (g) Untrained Teacher (U.T.) ()
- (h) Other (Specify)..... ()

4. Age (in years)

- Under 20 ()
- 20 - 30 ()
- 31 - 40 ()
- Over 40 ()

5. Teaching experience in years

- Less than one ()
- 1 - 3 ()
- 4 - 6 ()

- 7 - 9 ()
- Over 10 ()
6. How long have you taught in your present school?
- (a) Yes
- Less than 1 year ()
- 1 - 3 ()
- 4 - 6 ()
- 7 - 9 years and above ()

PART TWO: CONTENT OF THE SUBJECT AND RADIO TEACHER

7. Are you aware of the existence of radio broadcasts for schools?
- (a) Yes ()
- (b) No ()
8. Do you have a radio set in your school?
- (a) Yes ()
- (b) No ()
9. If you have a set, does the school timetable provide for the radio lesson?
- (a) Yes ()
- (b) No ()

10. How many Home Science radio lessons a week does your class listen to? _____
11. Are the broadcast lessons always clear?
- (a) Yes ()
- (b) No ()
- (c) Sometimes ()
12. Why do you use educational broadcasts?
- (a) Because they suppliment my lessons ()
- (b) Beacuse the Ministry of Education likes them ()
- (c) Because the students like to listen to the programmes ()
13. If the educational broadcasts are not being used, why are they not?
- (a) There is no radio in the school ()
- (b) The radio lessons conflict with other lessons on the timetable ()
- (c) There are no support materials ()
- (d) The radic is out of order ()
- (e) There are no batteries in the radio ()

14. Do you always receive support materials (teacher's notes, pupils' pamphlets, wall charts etc) for the radio lesson?
- (a) Always ()
- (b) Sometimes ()
- (c) Never ()
15. Do you always receive the support materials in advance of the broadcasts?
- (a) Always ()
- (b) Sometimes ()
- (c) Never ()
16. Do you always receive a copy of the broadcast timetable?
- (a) Always ()
- (b) Sometimes ()
- (c) Never ()
17. Do you always receive the broadcast timetable before the broadcast term begins?
- (a) Always before broadcast term begins ()
- (b) Always after broadcast term has begun ()

(c) Sometimes after broadcast term
has began ()

18. Does any of the radio lessons conflict
with another lesson on the class time-
table?

(a) Yes ()

(b) No ()

19. Is the radio teacher's pronunciation clear?

(a) Always clear ()

(b) Sometimes ()

(c) Never clear ()

20. Does the radio teacher always capture
the attention of your pupils throughout
the lesson?

(a) Always ()

(b) Sometimes ()

(c) Never ()

21. How do you rate the broadcast of the lesson
your class listens to?

- (c) Sometimes after broadcast term
has began ()
18. Does any of the radio lessons conflict with another lesson on the class timetable?
- (a) Yes ()
- (b) No ()
19. Is the radio teacher's pronunciation clear
- (a) Always clear ()
- (b) Sometimes ()
- (c) Never clear ()
20. Does the radio teacher always capture the attention of your pupils throughout the lesson?
- (a) Always ()
- (b) Sometimes ()
- (c) Never ()
21. How do you rate the broadcast of the lesson your class listens to?

- (a) Very useful ()
- (b) Fairly useful ()
- (c) Not useful ()

22. How do you treat the topics covered by radio broadcast?

- (a) Teach the topic before the radio broadcasts ()
- (b) Teach the topic after the radio broadcast ()
- (c) Do neither (a) nor (b) ()
- (d) Only revise important points from the broadcast ()

23. Are the radio notes for teachers adequate?

- (a) Yes ()
- (b) No ()

24. How do you find radio materials and activities?

- (a) Radio notes are clear and full of information ()
- (b) Radio activities are suggested by the radio teacher are not possible to finish within the time given ()

- (c) Content of the radio material is
 'inappropriate to the pupils'
 maturation level. ()
- (d) Methods of asking question on the
 radio lessons are not good. ()
- (e) Other (Specify):.....
25. Are you aware that you can get radio lessons
 taped on a cassette from Educational Media
 Service (E.M.S.) in K.I.E. to play for your
 class when you want to?
- (a) Yes ()
- (b) No ()
26. Do you ever ask for radio lessons to be
 taped for you from the E.M.S.?
- (a) Yes ()
- (b) No ()
27. Does noise from the next class disturb your
 pupils when listening to radio lessons?
- (a) Always ()
- (b) Sometimes ()
- (c) Never ()

28. Have you ever received any training on how to use radio broadcasts in class?

- (a) Yes ()
 (b) No ()

29. How would you rate the pronunciation of the radio teacher?

- (a) It is always clear ()
 (b) It is sometimes clear ()
 (c) It is never clear ()

PART III

30. Please write briefly your suggestions on how Home Science radio programmes can be improved. Include any points that may have been omitted in the questionnaire-----

THE END.

THANK YOU VERY MUCH FOR YOUR CO-OPERATION.

APPENDIX BTHE INTERVIEW SCHEDULE FOR THE PRODUCER OF PRIMARY HOME
SCIENCE PROGRAMME.

The producer to answer and discuss around these questions.

1. Sex Male () Female ()
2. What are your highest academic and professional training?
Academic training
Professional training
3. Who selects topics (area) in Home Science to be aired?
4. How are practical areas treated by radio broadcasts?
5. Who writes the scripts?
6. How do primary schools get their radio sets?
7. How is broadcast timetable decided upon?
8. How are support materials sent to schools?
9. Are there ways of getting feedback from home science teachers on radio programmes?

END

THANK YOU VERY MUCH FOR YOUR CO-OPERATION.

APPENDIX COBSERVATION SCHEDULE

Observation to be made:

1. Whether the teachers supervise the class during the broadcast.
 2. How the classes are organized for listening to Home Science radio lessons.
 3. Whether classes are combined during the programme.
 4. Whether teachers prepare lesson notes for the educational broadcasts.
 5. Whether the teachers introduce the lessons to the class before the broadcast period.
 6. Whether there are follow-up activities after the Home Science broadcasts.
 7. The number of listeners at a sitting.
 8. Any other important observation.
-



KENYATTA UNIVERSITY

FACULTY OF EDUCATION

DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY

Our Ref:

P.O. Box 43844
Nairobi, KENYA.
Tel. 810901/12

Your Ref:

30.7.92.

Date

INTRODUCTORY NOTE FOR THE RESEARCH PROJECT.

M.ED. (PTE) II COURSE - 1992

STUDENT'S NAME ROSE A. WAMBUTTA REG. NO E55/8226/90


The above named is our post-graduate student undertaking a Master's programme at this university. In the final year of the programme, it is the practice of this University for Masters Students to produce a piece of research project work as a partial fulfilment of the degree.

It is in this regard that I request you to assist and encourage this student in carrying out project work of the title:

PROBLEMS ENCOUNTERED IN THE TEACHING OF HOME SCIENCE
BY RADIO IN PRIMARY SCHOOLS IN LANGATA DIVISION IN
NAIROBI PROVINCE

Thanking you in advance,

Yours faithfully,


DEPARTMENT OF EDUCATIONAL
COMMUNICATION & TECHNOLOGY

Dr. Twoli N.W.
COURSE CO-ORDINATOR, DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY

TNW/enk.

OFFICE OF THE PRESIDENT
PROVINCIAL ADMINISTRATION AND INTERNAL SECURITY - BOX 30510 NAIROBI.

Ref. OP/13/001/22C.221/3.....

21st. September.....1992

The Secretary,
National Council for Science and Technology,
P.O. Box 30623, School
NAIROBI.

RESEARCH AUTHORISATION.

APPLICANT(~~s~~) Mrs. Rose A. Wambutta.....

The above named has been authorised to conduct research on
Problems encountered in the teaching of home science by Radio in....
primary schools in Langata Division, Nairobi Province
.....
Nairobi.....

As indicated on the application form, this research will be conducted in
.....
.....

For a period ending December 1992.....

Under the Standing Research Clearance awarded to Kenyan Universities/
Public Institutions.

I herewith enclose copies of ~~his~~/her application for record purpose.

~~His~~/She has also been notified that we will need a minimum of two
copies of ~~his~~/her research findings at the expiry of the project.

N/B
The researcher will
visit those schools
mentioned by Mrs.
Ombungi.

J. W. Mugo
J.W. MUGO (MRS)
for. PERMANENT SECRETARY/ADMINISTRATION.

J. W. Mugo
23/9

c.c. Chairman, Applicant
Department of Educational Mrs. R.A. Wambutta
communication and Technology
D. C Nairobi

NAIROBI CITY COMMISSION
EDUCATION DEPARTMENT

REF: GL/NC/141/VOL.III/41

25th September 1992

- The Headteacher
- *Toi Primary School
- *Kibera " "
- *Kongoni " "
- *Mbagathi Road Primary School
- *Jamhuri " "
- *Ngong Forest " "
- *Shadrack Kimalel " "
- *Khalsa South " "
- Ngei " "
- *Ndururu " "
- *Kawangware " "
- NAIROBI


Dear Sir/Madam,

Mrs. Rose Adhiambo Wambutta has the permission from the office of the President permit No. OP/13/001/22C 221/2 of 21st September 1992 and from this office to carry out a reasearch in your school. The permit expire in December 1992.

The title of the research is "Problems encountered in the teaching of home Science by Radio in primary schools".

Please do ensure that this research is done during the most convenient time.

Yours faithfully,


 J.W. Ndungu
 Ag. Asst. Chief Adviser to Schools
 FOR: CITY EDUCATION OFFICER

C.C.
 Divisional Adviser Langata/Lagoretti
 Rose A. Wambutta
 Kenyatta University
 P.O. Box 43844
NAIROBI

JWN/pkk

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