A STUDY OF THE METHODS USED BY TEACHERS IN TEACHING HOME SCIENCE IN PRIMARY SCHOOLS IN CENTRAL DIVISION NAIROBI

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BY

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A study of the methods used by
DECLARATION

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

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

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DEDICATION

To my husband and children whom I owe a lot in life.
ACKNOWLEDGEMENTS

This project report was written with the co-operation of many individuals to whom the author owes a great deal of credit and wishes to express sincere appreciation.

Most sincere gratitude goes to Mrs. Kithinji, my lecturer and supervisor for her tireless guidance, patience, and encouragement from the beginning to the end of this study and the course as a whole.

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This research was a survey of teaching methods used in the teaching of Home Science in six primary schools in Nairobi. Since the teaching methods are means by which teachers communicate to the learners, the researcher wanted to investigate a variety of teaching methods used in the teaching of Home Science in primary schools.

The major objectives were to find out (1) the resources and facilities used, (2), the academic and professional qualifications of the teachers, (3), the number of in-serviced teachers and (4) the problems that hinder the use of some teaching methods in Home Science.

The sample was randomly selected so that one school was taken from Category C schools, two school from Category B, two schools from Category A schools and one school from the Assisted Schools. From each school, teachers of classes 4, 5, 6 and 7 responded to the questionnaires distributed. Teachers teaching classes 5 and 6 were also interviewed and observed when teaching.

The results of the study revealed that:

a) The most popular teaching methods were question and answer, demonstration, discussion, lecture
and groupwork. The least methods were use of radio, story telling, dramatization and resource people.

b) The teaching resources and facilities were scarce and in some cases absent. There was no school with a Home Science laboratory. The Kenya Institute of Education (KIE) had not written teachers' and pupils' books for classes 4 and 5. The Institute had only written Teachers' Guide for class 6 and Pupils' Textbook for class 7.

c) About 92% of the teachers had completed secondary school education and that over 62.5% of the teachers had at least a Primary Teacher Certificate (P1).

d) Approximately 88% of the teachers had not received in-service training.

e) Problems encountered were many but the major ones were lack of time as teacher had too many lessons per week, lack of teaching/learning resources, and lack of proper guidance from the K.I.E.
All these problems implied that the teachers were faced with serious problems which call for urgent solutions from the Ministry of Education, K.I.E., Teachers' Service Commission, Home Economists and the Society at large.
CHAPTER ONE

1.1. BACKGROUND OF THE PROBLEM

In the history of education, a great deal of effort has been devoted to the concept of teaching methods. Early educators, like Pestalozzi (1967), Froebel (1974), Montessori (1968), Dewey (1916), gave the concept an indepth analysis and came up with new ideas.

Effectiveness of teaching and learning is determined by the type and quality of teaching methods. Hyman (1970), indicates that to teach a certain thing, a particular way of teaching has to be chosen and that way has significant effect on the entire teaching and learning situation. Many educators emphasize the idea of child-centred approach to education. Dewey (1916), inspired this approach and many other modern ideas on the new role of the teacher as a helper, challenging the learner to discover things for himself.

Before the coming of the missionaries in Kenya, Home Science activities were taught to girls by their mothers at home. The mothers demonstrated the household tasks to girls who observed keenly. Later the girls participated in the activities and their mothers advised them on the best way to handle the tasks.

Subjects related to Home Science as we know them today, were introduced in Kenya in 1904 in Kikuyu.
Anderson (1970) notes that Mrs. Watson taught laundry to Kikuyu girls in Kikuyu in 1904; Marion Steveson taught Home Science related activities at Tumutumu in 1912. Around the same time, Miss Appleton was teaching girls in Western Kenya and Miss Mollar was also equally busy with girls at Ngïya.

Since the attainment of her independence in 1963, Kenya has been confronted with the problems of providing education that is relevant and meaningful to the learners. This is why Kenya's educational system has been undergoing changes to suit the learners' needs and aspirations. The Educational Commission Report (Ominde Report, 1964) has discouraged teachers from using drill teaching methods in primary schools, as the learners are not involved in active learning. Instead teachers are encouraged to use activity methods and to adjust instructions to needs of particular children. The Report of the National Committee on Educational Objectives and Policies (Gacathi Report 1976) has also recommended that teaching methods should emphasize requirements in making education relevant to the day-to-day problems by enabling the learners to observe phenomena of the environment, gather data about them, interpret the data and then use it to solve problems.

Despite the advice by the educators named above, research has shown that teachers in most classroom
situations are controlling, restrictive, inhibiting and do most of the talking. Much of time is spent presenting new ideas by explanations, narration and description. Flander, (1970) found that 70% of the talking in the average primary and secondary classroom is done by the teacher. In a study carried out by Muthwii (1981) in Machakos, it was found out that most teachers spent their time lecturing and asking very few questions. About 80% of the total time of the observation was spent on lecturing by the teacher.

1.2. STATEMENT OF THE PROBLEM

The World Survey of Home and Family Education within Formal Education conducted by United Nations Educational Scientific and Cultural Organization (UNESCO), 1972, found out that the teaching methods currently practised by the teachers of Home Science seemed largely traditional. The report pointed out that the demonstration method was but one technique in a broad range of techniques which may be used. The report continues noting that there is a need to develop amongst teachers of Home Science an awareness of the benefit to children's learning which can result from the adoption of techniques which include experimental or investigation work, team teaching, programmed learning and local survey work.
In Kenya, there has been widespread concern from the public that what is taught in primary schools is inadequate and sometimes irrelevant, as reflected in different Kenyan Educational Reports. A general criticism that has been directed to Home Science is that the syllabus does not correspond with the needs of the learners and that it is different from our cultural heritage.

As mentioned earlier, there is an extreme domination of the teacher on the learners in all areas of education, Ominde Report (1964). There has been a tendency to follow established methods and approach to teaching which are largely expository. The tendency has been the same with Home Science teaching methods. There was a need to examine the methods of teaching currently used by Home Science teachers in order to advise them and to gather documented evidence on the state of Home Science teaching.

The purpose of this study therefore was to investigate the methods of teaching Home Science used by teachers in the Central Division in Nairobi. Descriptions of the existing methods were recorded with the intention of finding out the approach taken in teaching the subject in the New 8-4-4 Education System which was launched in 1984. The main objective of this study was to improve teaching methods of Home Science in Primary Schools in future using the recommendations from this study.
1.3 BASIC QUESTIONS

This research sought to answer the following questions concerning the methods of teaching Home Science in the primary schools in Nairobi.

a) What are the general approaches used by teachers of Home Science in primary schools?

b) What teaching and learning facilities and resources are available and how appropriate are they?

c) Are the teachers academically and professionally qualified to teach Home Science?

d) Is it true that certain factors hinder teachers from using some methods of teaching Home Science?

1.4 OBJECTIVES OF THE STUDY

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

a) To find out the different methods used by the primary teachers teaching Home Science

b) To find out the academic and professional qualifications of the teachers.

c) To identify the resources and facilities available for teaching Home Science in the primary schools.

d) To investigate how appropriate and adequate the available resources and facilities are in the teaching of the subject in different classes.
To identify the difficulties experienced in teaching Home Science in relation to both personal and environmental factors.

To find out the number of teachers who have attended in-service course(s) related to the teaching of Home Science.

1:5 SIGNIFICANCE OF THE STUDY

The study was carried out after five (5) years since the New 8-4-4 Education System was introduced in the country by the Ministry of Education in 1984. It is hoped that the findings from this study will make contribution to both teaching and evaluation aspects of the new programme.

The findings will facilitate decisions that need to be made in relation to teaching methods that are effective in the teaching of Home Science in primary schools in future.

Recommendations will be made in relation to the training of primary school teachers. The findings will also serve as a base for further research into the area of teacher training colleges.

Review of related literature shows that few studies of this type have been done in Kenya particularly Home
Science teaching methods in primary schools. Therefore, there is great need to research in this area.

1:6 LIMITATIONS OF THE STUDY

The study was a survey of methods of teaching used in teaching Home Science in six (6) primary Schools, out of a population of thirty (30) primary schools in Central Division in Nairobi. So the findings are only significant to these six schools studied.

Limited time and funds contributed to the selection of a small sample of twenty four (24) teachers, teaching Home Science. Four teachers were randomly selected from each school, those who were teaching from standard four up to standard seven. Therefore the findings apply only to these teachers teaching the classes studied.

Since six schools used in the study are too few compared with the large number of primary schools in the country, the findings can not be generalized in the whole country.

1:7 BASIC ASSUMPTIONS OF THE STUDY

The researcher based the study on the following assumptions:

a) that the presence of the observer in the classroom would not greatly affect the normal interaction of the teacher
and the student.

b) that the methods used during the study period were the ones used normally by the teacher.

c) that the sample randomly selected would be a fair representation of the whole population, and that tentative conclusive generalizations would be made.

d) that the information filled in the questionnaire would be correct to be able to generalize correctly.

1:8 DEFINITION OF IMPORTANT TERMS

The researcher used the International Dictionary of Education (1977), to define the following terms:

Teaching Methods:
"Standard procedures in the presentation of instructional material and the content of activities". Kiviu, (1983) says that teaching methods include procedures such as lecture, discussion, delivery systems for curriculum such as printed matter, film and audio-tapes, and structures organized for promoting learning such as programmed instructions and independent study.

Teaching Techniques:
"Specific ways of presenting instructional materials or conducting instructional activities".

Teacher-Centred Methods
"Directed Teaching as opposed to student-centred learning".
Child-Centred Education

"Theory or Practice where the pupil, not the knowledge to be covered, is the main focus of attention. Places emphasis on the effective, rather than the cognitive aspects of teaching and learning."
NOTES


    Addison Wesley Co. 1975, pg. 51.

11. S. Muthwii, *A Study of Verbal Classroom Interaction Patterns of selected Sample of Teachers in Machakos District,*  
    M.Ed. project, University of Nairobi, 1981.

    Undertaken by the International Federation for Home Economics, 1972, pg 41.


CHAPTER TWO

2:1 REVIEW OF RELATED LITERATURE

Literature related to this research was reviewed in four areas:

a) Content Organization in Home Science
b) Methods of teaching
c) Teaching Materials
d) Problems encountered in teaching using the methods.

2:2 CONTENT ORGANIZATION IN HOME SCIENCE

Home Science in primary school is a family centred area of study consisting of Foods and Nutrition, Health Education, Clothing and Textiles, Consumer Education and Home Management. Home Management covers the family, childcare, family shelter and its care and laundry work. Home Science Education attempts to help the individual realize and solve family problems as well as adapt more easily to the changing living conditions in the home, community and in the society as a whole.

Home Science is introduced to primary schools in standard four and taught through all classes up to standard eight. It is taught to both boys and girls and is examined as a technical subject in the Kenya Certificate of Primary Education (KCPE) which marks the end of primary school education.
The Schools Council Curriculum Bulletin (1972) gives the reason why it is important to teach Home Science to boys in the primary schools.

"Not to turn the boys into housewives but to make them appreciate the work involved in home making so that they will realize that they also have a contribution to make. To have a basic knowledge of nutrition. To learn to share responsibilities in the home. To explore the man's role in the family life. To prepare them for bachelor days on their own and to enable them to cope with domestic emergencies now and in the future".

UNESCO (1972) says that there is a need to educate boys in Home Science Education as the majority of them will get married in the future. Partnership in marriage involves both partners in a sharing relationship whether be in connection with household tasks, bringing up children, caring for elderly relatives, planning expenditures or establishing priorities with regard to budgeting.

2:3 METHODS OF TEACHING

The main purpose of the study was to look at the methods used in teaching Home Science in six primary schools in Central Division in Nairobi, taking standards four, five, six and seven.
Spafford (1956) says that the teaching job is many sided. Basically the job is that of providing learning experiences which will promote the fullest growth and development of the individual learner. The attainment of the goal of learning Home Science depends upon the way the students and the teacher use the time allocated to the subject. Class and small group discussions, laboratory work, demonstrations, reports, study periods, and field trips represent media through which the learning of the subject may be realized. Teachers can learn to guide a good class discussion to direct laboratory work which results in maximum learning and to use demonstrations and class reports to further economical and effective learning.

Ominde (1964) blamed the drill method of teaching, neglect of activity and pupil participation methods. The report encouraged teachers to adjust instructions to needs of particular children and use of activity methods so as to make education child centred.

Fleck (1968), says that each pupil must experience learning personally and learning takes place to the degree that an individual can discover a personal meaning in a situation or an idea. The teacher then must be certain that activities and ideas are being perceived by the learner in a meaningful manner. The student does
this in many ways, through his/her senses, through the use of language, symbols to communicate by interpreting his environment through his perception and identifying interactions.

Fleck (1968) continues contributing in teaching methods, that in most discussions of the methods, the role of the teacher is highly emphasized, although the involvement of the learner is also very significant. When student involvement is low, educational effectiveness is reduced. In choosing appropriate methods, the teacher must bring to bear her knowledge of human behaviour, group processes, motivation, communication and human relationships. The creative teacher must also recognize her influence on the minds, human qualities, actions, attitudes and personalities of her students.

UNESCO (1972) found out that in terms of the teaching methods currently used in developing countries, (including Kenya) by Home Science teachers, traditional methods predominate. Demonstration method was marked as one of the techniques which may be used. The UNESCO (1972) report noted that there is a need to develop amongst teachers of Home Science an awareness of the benefit to children's learning which can result
from the adoption of techniques which include experimental or investigation work and local survey work.

Schools Council Curriculum Bulletin 4 (1972) observes that there are two schools of thought. One schools of thought is held by those teachers who follow more formal teaching methods to cover a definitely systematized field of knowledge keeping in reserve the projects, visits and the scope for individual work. The other school of thought is followed by some teachers who explore all ways of teaching as they seem appropriate from the first lesson. The teachers aim to teach basic skills in as many aspects of the subject as possible and to concentrate upon linking these, so that they are in no danger of being thought of in isolation. The children do project work either in groups or individually and go to their teachers whose facilities they need.

Schools Council Curriculum Bulletin 4 (1972) quotes a primary school teacher who comments on the methods of teaching she uses in her teaching:

"My main objective as a primary school teacher is to use any aspect of Home Science as a part of project or environmental work in which we are trying to make the children able to be independent and think for themselves. Our aim is to teach our children to
learn. Whatever topic the children follow, they use the library quite freely for reference and there is usually some creative writing that comes out of the work. They go out on visits and they go down to the shops. We feel that when they leave us, they are independent human beings. They can work on their own. They can learn for themselves through experiences and through books".

Another teacher is quoted by the same Bulletin 4 (1972) who prefers to use varied approaches in teaching:

"Young children between the ages of 10 – 13 years old have their specific needs, and I hope through Home Science to help them to gain confidence to be able to cope with new and demanding situations to organize themselves successfully and to work well and co-operate in group activity as well as taking responsibility as individuals".

The Gacathi Report (1976) observes that one of the basic requirements in making education relevant to the day-to-day problems is to enable the students to observe phenomena of the environment, gather data about them, interpret the data and then use it to solve problems. The report suggested that teaching methods should be used to develop the ability to gather data by observations of the environment or by experiment, as well as the ability to draw valid scientific inferences from observed data.

The draft syllabus for P1 Home Science Course (1986) produced by Kenya Institute of Education, states
that Home Science requires a practical approach. Therefore the methods shown should be those that provide direct experience to students or learners. The following are some of the methods which would be useful in providing such experiences if properly utilized:

a) Demonstration: This is absolutely necessary especially when teaching new skills.

b) Lecture and discussion methods combined.

c) Visits

d) Guest speakers

e) Project and Assignment.

Illinois Teacher of Home Economics Publication (1986 - 87) says that oral history is a technique that may be used by Home Science teachers to provide a source of information that integrates concepts from such varied areas such as family life and human development, foods and nutrition, clothing and Textiles, housing interiors and equipment and household management. The purpose here is to present examples of ways in which information gathered in oral history interviews may be used to lecture Home Science concepts. In the interviews with the elderly subjects it becomes clear that these members are intertwined with family experiences. Interviews of this type, when conducted by students provide close contact with an elder that
facilitates understanding of the later years of life, may diminish stereotyping of the elderly by students and allow the elderly person to assist in education of the young by sharing life experiences.

2:4 TEACHING RESOURCES AND FACILITIES

For methods to be used effectively, there is a need for resources and facilities. The resources include books, charts, pictures, materials for teaching and learning needlework, cookery and for cleaning houses. Facilities on the other hand refer to classroom, Home Science laboratory, storage spaces, cold storage, sinks, draining boards, water, electricity and funds available.

Fleck (1968) says that the most important facility to a learner of any grade of Home Science is a happy home. She advises Home Science teachers that they can use the following resources:

- Curriculum guide, books, periodicals
- Pamphlets on curriculum development
- Workshops, refresher courses in curriculum development and lectures
- By authorities at professional meetings.

Fleck (1968) comments on the effective use of instruction resources, that they give gesture and variety to the daily work of learners and teachers.
Resources should be selected to fit learners and learning situations. Resources can be used to introduce, motivate, review, challenge, analyse and summarise. Examples of instructional resources are displays as teaching aids, bulletin boards, charts and posters, chalkboard, flannel boards, magnetic board, flipcharts, models, mock ups, and dioramas (three dimensional displays).

Schools Council Curriculum Bulletin 4 (1972) notes that the provision of suitable books and teaching aids is essential as is the advance preparation of teaching materials with children of different abilities. Less able children will need more exact guidance to the sources of the information they want. The Bulletin says the following about the teaching materials and facilities;

"The radio provides a wonderful means of bringing the outside world into the school in a way never before possible. Radio is of course not a substitute for a teacher. The teacher who looks upon it as an excuse for relaxing is misusing school radio and neglecting his/her opportunities. But used as a teaching aid, as a body of material to be discussed in a classroom, it constitutes a considerable reinforcement of the teacher's illustrative material and may prove to have special value for supplementing the resources of teachers with limited basic education."
UNESCO (1972) remarks that effective learning depends on the children and teachers having access to books and equipment in conditions which enable curiosity aroused, interest sustained, work carried out and objectives achieved.

An increased share of resources of finance and equipment must be made available to teacher training colleges and teachers' centres to familiarize teachers during both initial and in-service courses with aids and methods available to support and courses related to the needs of pupils. There is pressing urgency to make such aids available to teachers in schools on a much more generous scale.

The same UNESCO (1972) notes that in the matter of teaching aids there is conspicuous need expressed for an increase in the supply of both the hardware and the software of educational technology by many African developing countries. The most pressing need is for films, and filmstrips with the means of projection. Another urgent need is for teaching materials and textbooks written in the local language and suited to the needs of the region.

Kenya Institute of Education (1986) advises on resources for Home Science that the community should
be fully utilized to provide both human and material resources, example guest speakers, demonstration houses, materials for improvisation and local health centres. Learning resource centres should be used to prepare teaching/learning resources.

Speaking at the closing session of Home Science seminar, the Chief Inspector of Schools in the Ministry of Higher Education, Mr. Mbiti (1982) called on the teachers to be professionally up to date. He asked Home Science specialists including the University of Nairobi lecturers to publish relevant materials on the subject. He said that most of the textbooks used in the country had no local orientation. Some local Home Science Educationists have written a few textbooks for primary school use.

2:5 PROBLEMS ENCOUNTERED IN TEACHING HOME SCIENCE USING THE METHODS

Spafford (1956) comments on the teaching profession as observed by some people:

"Teaching had been thought of as dull and teachers as people to be pitied. Teaching has been dull sometimes, and teachers frequently have been people to be pitied, but not more so than lawyers or doctors, merchants or farmers or people in any vocation who were not finding fulfilment and lasting joy in their work. Home Science teaching dealing with the problems of personal and home living offers an opportunity far beyond that given to teachers in other field".
Ominde Report (1964) noted that the educational setbacks could have been due to general deterioration in the qualifications of primary school teachers. Therefore the report recommended the following:

"We have suggested improvement in the physical environment of education that can make it easier for a teacher to teach. Suggestion that untrained teachers to be trained, trained teachers to attend refresher courses. The fact is that the most important reform of all is still lacking. Not until our education is truly child centred will these difficulties of approach finally be overcome".

UNESCO (1972) found out that Home Science teachers, especially those in developing countries needed to be upgraded for teaching at higher educational levels, their knowledge needed to be upgraded and their pedagogical skills improved. Their governments were asked to make available the resources necessary to establish or to extend inservice training courses and that to release Home Science teachers from their teaching commitments on a more generous scale than at present in order to attend courses in inservice training.

Mbiti (1982) asked Home Science teachers in a seminar to avoid routine teaching methods. He cautioned teachers against the dangers of routine which rendered a teacher professionally "dead". He said that inservice
courses are designed to keep teachers professionally up to date and that they must be regarded as an opportunity to revitalize professional techniques and to update one's knowledge of the subject one teaches.

Ng'eno (1980) challenged college Principals to produce, the best teachers so that children could acquire the best education. The minister said that his ministry was studying the possibility of restructuring the training programme in such a way that methodology and other professional studies are taught for one year followed by practical teaching for one year before examination. He also added that the Basic Education Ministry would revise the fifteen (15) week inservice course for the untrained teachers from the following year.

Muhoya (1977) also observed the importance of refresher courses for teachers when he urged that such courses were of vital importance to keep them well informed with modern teaching methods.

UNESCO (1972) noted the importance of availability of resources and facilities for the teaching of Home Science. UNESCO recommended that governments should
ensure priority was given to the creation of facilities/resources for the teaching of Home Science in new schemes of building and in extensions to existing premises with particular references to the provision of practice-rooms, small but fully equipped for teaching Home Science, and ordinary classrooms for teaching of the subject.

UNESCO (1972) also observed that the two major obstacles encountered in introducing needed teaching methods and teaching aids were those of familiarity with the methods and shortage of finance to buy the aids.

K.I.E. (1986) observed that Home Science is a very demanding subject both in time and energy, therefore it requires dedication, patience and initiative. Proper facilities and basic equipment are essential for the effective coverage of the syllabus. It is therefore necessary that the teacher be creative to be able to improve when necessary.

Fleck (1968) reckons that children in primary classes are generally enthusiastic, curious, expansive and outgoing. Their interest span is short, eye-finger-muscle co-ordination is poor, and their behaviour is uneven. They may be mature one
moment and childish the next. The range of physical development is great.

Schools Council Curriculum Bulletin 4 (1972) notes that Home Science teachers are usually faced with mixed ability groups even in schools which favour streaming. Unstreamed classes will contain a wide range of intelligence so different teaching methods are required in both cases. Application of different teaching methods assures that no one is bored and that no one is unable to keep up. Flexibility is always important. As one teacher wrote:

"It is difficult to lay down any hard and fast rules because so much depends on the age, ability and aptitude of the class being taught, the mood of the class and the weather".

The teacher cannot provide everyone with all information they need in a group work situation, lecture or discussion method.

Limited teaching time is another problem. In primary schools, there are three lessons per week in which each lesson is of thirty five minutes duration. This limited time restricts not only the content but also the methods of teaching. Single lessons are usually used for theory work but the time is too short to
integrate theory and practical work which is more educationally sound.

Schools Council Curriculum Bulletin 4 (1972) comments on the position of Home Science lesson at odd times in the day or some days in the week as a problem. For example, last period on Friday afternoon or teaching just before lunch when the children are too hungry unless the class is doing practical cookery.

Distribution of the subject is also a problem. There should be one single lesson for theory and two double lessons for practical work taught continuously. Unfortunately, this is not the case in many primary schools.

Too much content, that is, wide syllabus to be covered is also a problem because teachers avoid group discussions which take too much of the needed time.

Another problem of poor parents as quoted by the Schools Council Curriculum Bulletin 4 (1972) from a teacher:
"I have found that girls in the less able groups stay away on a housecraft day because they know that they cannot afford it and they do not want to confess in front of everybody else that they have not got the money".

In the same Bulletin 4 (1972) a chief education officer wrote:

"One school did comment that Home Science did seem to have particular problems because of lack of co-operation on the part of the inability of parents or the inability of the parents to pay for either cookery or needlework. I should perhaps add that this school is situated in what is the poorest area in the city as regards stability of home life".

Some teachers are blamed for assuming that pupils are not ready for or capable of groupwork, projects, discovery methods until they reach the age of fourteen or fifteen. More damage may be done by underestimating them. If the work is too difficult this will soon became apparent and can be immediately adjusted before confidence is lost.

Work that is too easy may lead to loss of interest and attention and therefore to poor work, the cause of which may not be easy to diagnose.

Chapter three deals with the methodology, that is, the procedure the researcher followed to collect the information needed for the study.
NOTES

1. Schools Council Curriculum Bulletin 4, (SCCB4)
   Home Economics Teaching, Evans/Methuen
   Educational, 1972 pg. 31

2. United Nations Education Scientific and Cultural
   Organization (UNESCO) World Survey
   of Home and Family Education Within
   Formal Education, undertaken by the
   International Federation for Home
   Economics, 1972, pg. 48.

3. I. Spafford, Fundamentals in Teaching Home Economics
   New York John Wiley & Sons, Inc.
   London: Cheyman & Hall, Limited

4. S.H. Ominde, Kenya Educational Commision Report
   Part I. Government of Kenya,
   1964, pg. 62.

5. H. Fleck, Towards Better Teaching of Home
   Economics. MacMillan Co. New York,
   1968, pg. 89.

6. Ibid, Pg. 41

7. UNESCO, 1972, pg. 46.
8. Ibid, pg. 46


10. Ibid, Pg. 18.

11. Ibid pg. 21.


16. Ibid, Pg. 29.

17. SCCB4 Home Economics Teaching, Evans/ Methuen Educational, 1972, Pg. 92.
18. UNESCO, 1972, Pg. 64

19. Ibid Pg. 46.


24. UNESCO, 1972, Pg. 71


27. G.E. Muhoya, The Coast Provincial Education Officer; Observes the Importance of Refresher Courses, Standard, 17th April, 1977.

28. UNESCO, 1972, Pg. 61.

29. Ibid, Pg. 71.


32. SCCB4 Home Economics Teaching; Evans/Methuen Educational, 1972, Pg. 92.

33. Ibid, Pg. 99

34. Ibid, Pg. 99

35. Ibid, Pg. 99
CHAPTER THREE

METHODOLOGY

DESIGN, VENUE AND PROCEDURE OF THE STUDY

3:0 INTRODUCTION

The foundation of this study has been laid down in the preceding chapters. Chapter One looked at the background of the problem, the objectives and the significance of the study. Chapter Two covered the review of the related literature. This chapter explains the procedure used for data collection, the population description, the sampling techniques, the tools used during the study, the administration of the tools to the respondents and the plan for data analysis. The study was a survey design and only descriptive statistics such as frequency tables and percentages were used in data analysis as will be seen in Chapter Four.

3:1 POPULATION DESCRIPTION AND SAMPLING TECHNIQUES USED

The population of this study consisted of all primary schools in Central Division in Nairobi which had standard one through to eight. A school was excluded from the study if it did not go up to standard eight. The population also excluded the Special Schools and Units for Mentally Handicapped children.

It is from the population of thirty (30) schools that six (6) schools were selected on the basis of
one school from class C category, one school from category of Assisted schools, two schools from Category B, and two schools from category A schools. Category A schools are the schools with the least educational facilities and resources whereas, category C has the most educational facilities and resources. Category B schools in the colonial era were for Asian children. These schools have better facilities than Category A schools. Assisted schools are managed by private communities but the Kenya Government assists the schools by paying the teachers' salaries. The resources and the facilities in assisted schools depend on the interest the sponsoring community has in the curriculum taught in the school.

Random sampling was used to select the one school from Category C schools. One school from Assisted schools, two schools from Category B, and two schools from Category B, and the schools from Category A schools. The researcher used the list of primary schools obtained from the City Education Officer. Then she wrote the four different lists of schools according to their categories, numbering each school. She then wrote each number on a piece of paper for schools in one category. The pieces of papers were folded and put in a container which was shaken after which, one paper was picked and the number in the paper gave the name of the school that was used for the study. For the category B and A, two papers
instead of one were picked to give the two schools for the study.

Of the six schools randomly chosen, only the teachers for standards 4, 5, 6 and 7, were subjects of the study. In schools with a single stream all the four teachers were taken as subjects, but in case of double and treble streams, the teachers were randomly selected by blind folding using the picking method. The teachers were asked to pick papers prepared by the researcher and one who got a 'yes' was to participate.

The total number of respondents was twenty four (24) and all of them responded to a questionnaire. Out of the population sample, twelve (12) of them were interviewed and their classes observed during actual classroom teaching. The teachers who were interviewed and observed had to be selected keeping the two classes (standards 5 and 6) in mind. This means that from each school, two teachers were interviewed and observed. The interview and observation were used to countercheck data collected using the questionnaire.

3.2 INSTRUMENTS OR TOOLS USED

Three types of instruments were used for the study namely:
a) Questionnaire
b) Interview Schedule
c) Classroom Observation Schedule

a) **Questionnaire**: The questionnaire was found appropriate to enable respondents to give private and confidential information as well as express their honest views. The questionnaire was divided into five sections as follows:

i) Subject details
ii) Professional training
iii) Resources and facilities
iv) Methods of teaching
v) Problems encountered in using the teaching methods.

Some of the questions in the questionnaire were multiple choice from which one or several responses could be made. Others were YES/NO questions, while others were open-ended to allow teachers to express themselves clearly so as to clarify issues related to Home Science. To ensure that honest responses were obtained, the respondents were not supposed to write their names in the questionnaire. In total there are forty one (41) items in the questionnaire. (A copy of the questionnaire appears in Appendix I)
b) **Interview Schedule:** This was a fourteen item instrument developed in line with the objectives of the study, so as to counter-check the information collected through the questionnaire.

Only twelve (12) teachers out of the twenty four (24) who responded to the questionnaire were interviewed. Random sampling was used keeping in mind that out of the six schools, two teachers, one teaching standard five and the other standard six were interviewed. (Interview schedule can be found in Appendix II).

c) **Classroom Observation Schedule:** This was observation of actual classroom teaching. Like the interview, the observation was to give more information as well as to check data collected from the questionnaire. Twelve teachers out of twenty four teachers who responded to the questionnaire were observed teaching Home Science. Those teachers interviewed were the same as those observed.

The observation schedule consisted of interns related to those covered by the questionnaire and the interview (Observation schedule is in Appendix III)

3:3 **ADMINISTRATION OF TOOLS**

The Course Co-ordinator gave the researcher a letter to be forwarded to the Nairobi City Education Officer
seeking for permission to carry out the research using the Central Division Schools. The City Education Officer then granted a written permission to the researcher for the study. The letter requested the Headteachers of Central Division Schools to allow the researcher to use their schools for the study. (Copies of the letter appear in Appendix IV and V).

The questionnaires were given to the respondents by the researcher and were given one week to fill them. After a week the researcher went to the schools to collect the questionnaires and to make arrangements to interview and to observe some of the teachers teaching.

The interview and observation were done by the researcher herself as she visited the sample schools. Teachers were informed of the visit to their classes so that the researcher could be able to arrange when to see each teacher. This meant that the researcher had to visit a school and arrange when she could see lesson to avoid any inconvenience both to the pupils, teachers and the researcher.

3:4 DATA ANALYSIS PLAN

After data had been obtained the researcher dealt with items in the instruments and tabulated those
that could be tabulated. The analysis was under the five sections of the questionnaire. Tallying was done first to check the number of respondents to each variable as per the table and these were then converted into percentages. After each table, the researcher wrote a brief discussion basing all arguments on the information on the table excluding personal opinion.

Chapter four deals with the data analysis and the interpretation of the data collected by the research instruments. Tables will be drawn to display the information clearly.
CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF DATA

4:0 INTRODUCTION

In this chapter the researcher analysed and discussed the results related to the research questions. The findings from both the questionnaire, interview and observation were analysed together where they gave similar information. Descriptive statistics were used, that is, frequency tables and percentages. From the data analysis, interpretation was made in form of discussion of each tabulated data.

4:1 COMMENTS ON THE SUBJECTS

The researcher intended to find out some personal details from the subjects which were considered useful for the study. The useful information concerned sex, age and academic qualifications.

Sex of Home Science Teachers

Sex of Home Science teachers was regarded as important because the researcher was aware that all students (males and females) in primary Teachers Colleges are trained to teach Home Science.

Table 4:1 Showing sex of Home Science Teachers

<table>
<thead>
<tr>
<th>Sex</th>
<th>Number of Teachers</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>M</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4:1 shows that all the teachers who participated in the study were females. The findings that all the teachers teaching Home Science were females explains the fact that the subject has been dominated by women teachers since it was introduced in formal education during the pre-independence years. Although recently male teachers have been trained to teach the subject in primary schools, they hardly teach it after graduation because they assume that female teachers are better in the subject than them.

**Age of Home Science Teachers**

Age of the teachers was relevant to the study because the old teachers were assumed to have been trained in teacher-centred teaching methods whereas the young teachers have been recently trained in child-centred methods.

**Table 4:2 Showing Age of Home Science Teachers**

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 – 30</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td>31 – 40</td>
<td>14</td>
<td>58.3</td>
</tr>
<tr>
<td>41 – 45</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>46 – 50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Over 50</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
The results above show the age of teachers who were teaching Home Science during the study. The majority (58.3%) of the teachers were in the age range between 31 - 40 years, followed by 33.3% of teachers between 20 - 30 years. The rest or 8.4% of the teachers were in the 41 - 45 and over age group.

The observation that the majority of the participants were between 31 - 40 years of age indicated that most of them were experienced and should have gained a variety of teaching skills over the years. The eight (8) young teachers between 20 - 30 years old formed a group that was expected to be enthusiastic to use the new teaching skills acquired in teacher training colleges in teaching Home Science. This young group could also benefit by asking for help (in case of problems) from the older experienced teachers.

Academic Qualifications of Home Science Teachers

The researcher considered the academic qualifications of teachers important because teachers with high academic qualifications were expected to be aware of a variety of teaching methods. The results of data analysis on teachers qualifications are tabulated on the following table.
Table 4:3 shows the highest academic qualifications of Home Science teachers.

<table>
<thead>
<tr>
<th>Academic Qualifications</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAPE/KPE/CPE</td>
<td>2</td>
<td>8.3%</td>
</tr>
<tr>
<td>KJSE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CSC/EACE/KCE</td>
<td>22</td>
<td>91.7%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>24</td>
<td>100%</td>
</tr>
</tbody>
</table>

**KEY**

KAPE: Kenya African Preliminary Examination
KPE: Kenya Preliminary Examination
CPE: Certificate of Primary Education
KJSE: Kenya Junior Secondary Examination
CSC: Cambridge School Certificate
EACE: East African Certificate of Education
KCE: Kenya Certificate of Education

Table 4:3 reveals that 91.7% of teachers had successfully completed four years of secondary school education (CSC/EACE/KCE). Only a small proportion of 8.3% of teachers had received primary school education that is KAPE/KPE/CPE.

Through interview and observation the researcher realized that the teachers had a good command of English language to be able to communicate easily.
with the researcher and the pupils. This eloquence was due to the secondary school education as well as their practice in teaching.

4:2 PROFESSIONAL QUALIFICATIONS

Trained teachers were expected to possess professional skills which included use of different teaching methods in the teaching profession.

Table 4:4 Professional Qualifications of Home Science Teachers

<table>
<thead>
<tr>
<th>Professional Qualifications</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untrained</td>
<td>2</td>
<td>8.3</td>
</tr>
<tr>
<td>P4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>P3</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>P2</td>
<td>6</td>
<td>25.0</td>
</tr>
<tr>
<td>P1</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>S1</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Key
S1: Secondary School Teacher One (1)
P1: Primary Teacher, grade one (1)
P2: Primary Teacher, grade two (2)
P3: Primary Teacher, grade three (3)

P4: Primary Teacher, grade four (4)

Untrained teacher: A teacher who has not been professionally trained in a Teacher Training College.

NB.

The bigger the number next to letter P, the lower the academic qualification of a teacher.

The above table represents the professional qualifications of Home Science teachers. The data shows that 50% of all teachers were P1s, 25% P2s, 12.5% S1s, one or 4.2% was a P3, and 8.3% represented untrained teachers. There were no P4 teachers in the sample.

The high professional quality of teachers, that is, S1s and P1s compose 62.5% and this explains why most of the children learning in Nairobi Primary schools pass the National Primary Examination (KCPE) well to proceed with secondary school education.

Through discussions with the teachers, the researcher understood that the Nairobi City Education Office at present employs primary school teachers with at least a P1 Teachers' Certificate, and that explains why the majority of the teachers were P1s.
Length of Service of Both Trained and Untrained Teachers

Teachers, who had long service in the teaching career were expected to have used a number of teaching methods. Even untrained teachers over the years, should have learned some teaching methods.

Table 4:5 Showing the Teaching Experience of Both Trained and Untrained Teachers

<table>
<thead>
<tr>
<th>Category</th>
<th>Years</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained</td>
<td>Less than 1</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>1 - 3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4- 5</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>More than 5</td>
<td>20</td>
<td>83.3</td>
</tr>
<tr>
<td>Untrained</td>
<td>Less than 1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1 - 3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>4 - 5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>More than 5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

From the Table 4:4 it was noted that 91.7% of the respondents selected for this study were professionally trained teachers and that only a small percentage was untrained. The table further shows that 83.3% of the teachers had taught for more than five (5) years, 4.2% had taught between 4 - 5 years and another 4.2% had taught for less than one year.
untrained teachers had taught for 1 - 3 years.

This information suggests that since over three quarters of the subjects (83.3%) had gained experience over a period of more than 5 years, the teachers should be aware of a variety of teaching methods.

Number of Years that the Teachers had taught Home Science

Since Home Science was not a compulsory subject before the introduction of the 8-4-4 Education Programme, it was felt necessary to check the number of years the teachers had taught the subject.

Table 4:6 Showing Number of Years that the Teachers had Taught Home Science

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1</td>
<td>2</td>
<td>8.3</td>
</tr>
<tr>
<td>1 - 2</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td>3 - 6</td>
<td>9</td>
<td>37.7</td>
</tr>
<tr>
<td>Over 7</td>
<td>5</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table it can be noted that 8.3% of the teachers had taught Home Science for less than a year, 33.3%
between 1 - 2 years, 37.5% between 3 - 6 years and 20.8% had taught for over 7 years.

In total 58.3% of the teachers had taught the subject over 3 years whereas 41.6% had taught the subject for less than two years. The information in the table indicates that a substantial group of teachers had experience in teaching the subject.

Number of Teachers who studied Home Science in Various Levels of Education

The researcher expected teachers who had acquired formal knowledge in Home Science from the three levels of education (primary, secondary and college) to be conversant both in content and methodology of the subject.

Table 4:7 Showing Number of Teachers who Studied Home Science in Various Levels of Education

<table>
<thead>
<tr>
<th>Levels of Education</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary/Secondary/College</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td>Primary/Secondary</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>Primary/College</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>Secondary/College</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Primary</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>Secondary</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>College</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>
Data analysis in Table 4:7 reflects that 62.5% of the teachers were taught Home Science in teacher training colleges unlike 37.6% of the teachers who were not trained to teach Home Science although they were teaching the subject.

This finding indicates that although 62.5% of the teachers were professionally trained in teaching the subject, and were expected to be aware of a variety of teaching methods, a large number or 37.6% of the teachers handling the subject did not have any professional training. This group of teachers was not likely to be aware of the relevant teaching methods, and techniques used in the teaching of Home Science.

Attendance of In-Service Course in Home Science

In-service courses are important for re-training the old teachers and for reminding new teachers of the new teaching methods and techniques to use in the teaching profession.

Table 4:8 Attendance of In-Service Course in Home Science

<table>
<thead>
<tr>
<th>Category of Teachers</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Serviced</td>
<td>3</td>
<td>12.5</td>
</tr>
<tr>
<td>Non-Serviced</td>
<td>21</td>
<td>87.5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4:8 shows clearly the number of teachers who had attended in-service courses in Home Science. More than three quarters (87.5%) of the teachers had never attended any in-service course. Those who had attended the courses (12.5%) reported that the attendance was irregular and not as often as they would have liked. It was only one teacher who reported that she had attended in-service course two times. The other two teachers had only attended once.

Through discussion with the teachers, the researcher learnt that in-service courses were not organized by the Kenya Institute of Education nor the Inspectorate, but were conducted by the Nairobi City Education Office at the Nairobi Teachers Centre.

When asked about the usefulness of the in-service courses, the three teachers who had attended in-service courses reported that the courses were very useful because they were taught how to draft paper patterns for sewing the articles they were supposed to help the pupils make in the classroom. The researcher was informed that the teachers were shown how to make some visual aids relevant to the topics they were supposed to teach in schools. The teachers valued the in-service course because they had a chance of meeting teachers from other
schools to discuss and exchange ideas on how to teach Home Science and to solve problems related to the subject.

4.3 RESOURCE AND FACILITIES

The researcher was aware of the shortage of resources and facilities due to the increased number of pupils in Nairobi Schools. This section deals with the facilities and resources which were found in the six schools used for the study.
## Table 4: Average Number of Pupils Per Class and Total Number of Home Science Equipment Per School and Ratio of Pupils Per Equipment in Each School

<table>
<thead>
<tr>
<th>Categories of Schools</th>
<th>Number of Pupils Per Class</th>
<th>Number of Needlework Equipment</th>
<th>Number of Laundry Equipment</th>
<th>Number of Cookery Equipment</th>
<th>Number of Cleaning Equipment</th>
<th>Total Number Of Equipment</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>52</td>
<td>15</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>39</td>
<td>3:4</td>
</tr>
<tr>
<td>Assisted</td>
<td>39</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>12</td>
<td>1:3</td>
</tr>
<tr>
<td>School B1</td>
<td>45</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>01</td>
<td>1:50</td>
</tr>
<tr>
<td>School B2</td>
<td>38</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>19</td>
<td>35</td>
<td>9:10</td>
</tr>
<tr>
<td>School A1</td>
<td>42</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>17</td>
<td>2:5</td>
</tr>
<tr>
<td>School A2</td>
<td>41</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>02</td>
<td>1:20</td>
</tr>
</tbody>
</table>
Table 4:9 shows the available resources in the six schools studied. The information in the table includes the categories of the schools, the average number of pupils per class in each school, number of needlework, laundrywork, cookery and cleaning equipment in each school, the total number of Home Science equipment and the ratio in terms of average number of pupils per total equipment.

At a glance, the data shows that all the schools are generally poorly equipped with Home Science resources. It is only one school (the category B2) which had the highest ratio of equipment to the number of pupils per class of 9:10 that is, ten (10) pupils were sharing nine (9) pieces of equipment. The category C school was next with a ratio of 3:4. The worst hit school was school B1 with a ratio of 1:50 which meant that fifty (50) pupils shared among themselves one (1) piece of equipment. This information indicated that although the school was supposed to have better resources than category A schools, the schools had practically no Home Science resources.

Through discussions with the teachers interviewed and those observed, the researcher understood that the schools were not financially able to buy Home Science resources. The parents through the call of 'Cost Sharing' by the Government, are supposed to provide all the materials used
for learning practical aspects of Home Science. However, the researcher learned that the pupils of category A schools hardly learn any practical Home Science experiences because their parents are economically poor. Therefore, they are not able to provide their children with cookery ingredients, cloths for needlework or other materials and small equipment that are needed for learning practical work in Home Science.

K.I.E. Books used in Teaching Home Science in Primary Schools

Since K.I.E. takes the responsibility of planning and developing the curriculum followed by all primary schools in the country, the Institute should also take the challenge of writing books of all subjects relevent to different classes to be used by both teachers and pupils.
Table 4: 10 Showing A List of KIE Books Used in Teaching Home Science in Primary Schools

<table>
<thead>
<tr>
<th>Categories Of Schools</th>
<th>Classes</th>
<th>Teachers' Guide</th>
<th>Pupils' Books</th>
<th>Quantity of Teaching Guide</th>
<th>Quantity of Pupils' Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Assisted</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>Home Science</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For Std. 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School B1</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
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<td>none</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teachers' Guide for Std. 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>Home Science</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>for Std. 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categories Of Schools</td>
<td>Classes</td>
<td>Teachers' Guide</td>
<td>Pupils' Books</td>
<td>Quantity of Teachers' Guide</td>
<td>Quantity of Pupils' Book</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>----------------</td>
<td>---------------</td>
<td>-----------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>School B2</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Home Science Teachers' Guide for Std. 6</td>
<td>None</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>Home Science for Std. 7</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>School A1</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Home Science Teachers' Guide for Std. 6</td>
<td>none</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>Home Science for Std. 7</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>School A2</td>
<td>4</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>none</td>
<td>none</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Home Science for Std. 6</td>
<td>none</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>none</td>
<td>Home Science for Std. 7</td>
<td>0</td>
<td>Not indicated</td>
</tr>
</tbody>
</table>
Table 4:10 shows a list of K.I.E. books used in teaching Home Science in primary schools. As the table shows, there were no books produced by K.I.E. to teach classes 4 and 5. There was a Teachers' Guide for class 6 but there were no pupils' text books. The K.I.E. had prepared a pupils' book for class 7 without a Teachers' Guide.

This table shows that classes 4 and 5 teachers were not guided by K.I.E. both in content and in methodology. The researcher learnt from the teachers that they were desperate as they had little or no guidance from K.I.E. on the teaching of Home Science. So the teachers had no choice but to use other Home Science Text-books written by individual educationists while waiting for teaching materials from K.I.E.

The class 6 teachers criticised the Home Science Teachers' Guide for lacking professional sequence. They gave an example of cooking methods where steaming was planned to be taught before the boiling method. The teachers suggested that simple methods should be taught before complex ones. The teachers also suggested that Teachers' Guide for class 7 should have been prepared before the Pupils' book so that they were aware of the teaching methods to use while teaching the units in the pupils' book.
It can also be seen from the table that the Category C schools did not have Teachers' Guide for class 6, nor the Pupils' book for class 7 although Categories B and A had them. The researcher learnt from the teachers of this school that they were not aware that there were such books from the K.I.E. The Assisted school also did not have the Teachers' Guide for class 6. Asked by the researcher why she did not have the copy, the teacher reported that she was not aware that there was a copy of that type.

It can be deduced from the data that Home Science subject was taught under very difficult conditions where the teachers were left with no alternative by K.I.E but to use any alternative teaching materials that they thought had some useful information for the pupils.

Home Science Laboratories

Laboratories are vital for disciplines which require practice of skills by the learners. Home Science is one of those subjects that expect learners to learn by doing. Due to large amount of money spent in construction of Home Science laboratories few schools have been able to complete them.
Table 4:11 Showing Primary Schools with or Without Home Science Laboratories

<table>
<thead>
<tr>
<th>Categories of School</th>
<th>With Lab.</th>
<th>Without Lab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Assisted</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>School B1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>School B2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>School A1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>School A2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

The table reveals that none of the 6 schools had a Home Science laboratory. The researcher was surprised not to find a Home Science laboratory even in Category C school as the school is among the best in Nairobi. However, a building under construction which was to be a Home Science laboratory after completion was seen. The other five schools did not appear to be building Home Science laboratories.

This unfortunate finding suggests that Home Science was not taught effectively as it was carried out in
ordinary classrooms which were used for teaching other subjects. A Home Science laboratory is the most important facility for teaching especially the practical skills.

4.4. TEACHING METHODS USED BY TEACHERS TEACHING HOME SCIENCE

Teachers tend to use the teaching methods they are most familiar with. Resources and facilities available in schools also determine the type of teaching methods to be used.

Table 4.12 Percentage of Home Science Teachers Trained In Various Methods of Teaching Home Science

<table>
<thead>
<tr>
<th>Methods</th>
<th>Number of Teachers</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>R 17</td>
<td>70.8</td>
</tr>
<tr>
<td></td>
<td>-R 7</td>
<td>29.2</td>
</tr>
<tr>
<td>Discussion</td>
<td>R 18</td>
<td>75.0</td>
</tr>
<tr>
<td></td>
<td>-R 6</td>
<td>25.0</td>
</tr>
<tr>
<td>Demonstration</td>
<td>R 19</td>
<td>79.2</td>
</tr>
<tr>
<td></td>
<td>-R 5</td>
<td>20.8</td>
</tr>
<tr>
<td>Groupwork</td>
<td>R 17</td>
<td>70.8</td>
</tr>
<tr>
<td></td>
<td>-R 7</td>
<td>29.2</td>
</tr>
<tr>
<td>Question and Answer</td>
<td>R 19</td>
<td>79.2</td>
</tr>
<tr>
<td></td>
<td>-R 5</td>
<td>20.8</td>
</tr>
<tr>
<td>Dramatization</td>
<td>R 6</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>-R 18</td>
<td>75.0</td>
</tr>
<tr>
<td>Resource People</td>
<td>-R 16</td>
<td>66.7</td>
</tr>
<tr>
<td>Project/Assignment</td>
<td>R 16</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>-R 8</td>
<td>33.3</td>
</tr>
<tr>
<td>Story Telling</td>
<td>R 3</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>-R 21</td>
<td>87.5</td>
</tr>
<tr>
<td>Radio</td>
<td>R 3</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>-R 21</td>
<td>87.5</td>
</tr>
</tbody>
</table>

Key: R = Response, -R = No Response
From the table, methods mentioned by 25% of the teachers and above have been accepted as the ones teachers were trained in, and the one below 25% have been considered as those methods teachers have not been trained in. Most trained teachers claimed to have been taught how to use demonstration (79.2%) question and answer (79.2%), discussion (75%) groupwork (70.8%) project or assignment (66.7%), resource people (33.3%) and dramatization (25%). The two teaching methods which fell below (25%) were story telling and radio (12.5%). The symbol R indicates the number of teachers who responded and -R means the number of teachers who did not respond.

Information in this table suggests that although Table 4:5 indicated that 91.7% of the teachers were trained, story telling and radio teaching methods were not taught to them and that was why 87% of the teachers in Table 4:12 gave negative responses to the two unfamiliar methods.

Teaching Methods ranked in order of their Difficulty in Use

The researcher intended to investigate from the teachers the teaching methods they found difficult to use, therefore they were asked to rank them in order of their difficulty.
Table 4:13 Home Science Teaching Methods Ranked in Order of their Difficulty In Use

<table>
<thead>
<tr>
<th>Methods</th>
<th>Most Difficulty 1 - 4</th>
<th>Fairly Difficulty 5 - 7</th>
<th>Least Difficulty 8 - 10</th>
<th>Rank Of Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N  %</td>
<td>N  %</td>
<td>N  %</td>
<td></td>
</tr>
<tr>
<td>Lecture</td>
<td>10 41.7</td>
<td>8 33.3</td>
<td>6 25.0</td>
<td>6</td>
</tr>
<tr>
<td>Discussion</td>
<td>8 33.3</td>
<td>2 08.3</td>
<td>14 58.3</td>
<td>7</td>
</tr>
<tr>
<td>Demonstration</td>
<td>3 12.5</td>
<td>7 29.2</td>
<td>14 58.3</td>
<td>10</td>
</tr>
<tr>
<td>Groupwork</td>
<td>7 29.2</td>
<td>10 41.7</td>
<td>7 29.2</td>
<td>8</td>
</tr>
<tr>
<td>Question and Answer</td>
<td>4 16.7</td>
<td>11 45.8</td>
<td>9 37.5</td>
<td>9</td>
</tr>
<tr>
<td>Dramatization</td>
<td>11 45.8</td>
<td>9 37.5</td>
<td>3 12.5</td>
<td>4</td>
</tr>
<tr>
<td>Resource People</td>
<td>15 62.5</td>
<td>5 20.8</td>
<td>3 12.5</td>
<td>1</td>
</tr>
<tr>
<td>Project/Assignment</td>
<td>13 54.2</td>
<td>9 37.5</td>
<td>2 08.3</td>
<td>3</td>
</tr>
<tr>
<td>Story Telling</td>
<td>15 62.5</td>
<td>4 16.7</td>
<td>4 16.7</td>
<td>2</td>
</tr>
<tr>
<td>Radio</td>
<td>12 50.0</td>
<td>6 25.0</td>
<td>4 16.7</td>
<td>5</td>
</tr>
</tbody>
</table>

Key
- R = Response
- R = No Response
Results show that the most difficult methods are those ranked first, second, third, and fourth, while the fairly difficult ones are ranked fifth, sixth, and seventh. Those ranked eighth, ninth, and tenth were considered to be least difficult. The majority (62.5%) and 54.2% found it difficult to make use of the resource people, story telling, and project/assignment methods in the teaching of Home Science. The fairly difficult methods were question and answer (45.8%), group work (41.7%), dramatization and project/assignment (37.5%), and lecture (33.3%). The methods which were found least difficult were discussion and demonstration each with a 58.3% response, question and answer (37.5%), group work (29.2%), and lecture (25%).

Through discussions, the researcher learnt from the teachers that they were unaware of how they could use resource people, story telling, and project/assignment as teaching methods in Home Science.

The data in Table 4:13 suggests that the teachers found the use of resource people and story telling teaching methods difficult thus they excluded them from their teaching.

The ranking of the methods showed that the teachers were not conversant with all the methods of teaching Home Science. The methods ranked 1-4, resource people
story telling, project/assignment, and dramatization were the most difficult. The fairly difficult methods ranked 5 - 7 were radio, lecture and discussion. Those found to be least difficult and listed 8 - 10 were groupwork, question and answer, and demonstration.

**Frequency in Using Teaching Methods in the Teaching of Home Science**

Teachers use teaching methods which they feel more familiar with and which are suitable for the available resources and facilities.
Table 4:14 Teachers Frequency In Using Teaching Methods in Home Science Teaching

<table>
<thead>
<tr>
<th>Methods</th>
<th>Quite Often N</th>
<th>%</th>
<th>Sometimes N</th>
<th>%</th>
<th>Rarely N</th>
<th>%</th>
<th>Never N</th>
<th>%</th>
<th>Rank of Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>R 5 20.8</td>
<td>7 29.2</td>
<td>3 12.5</td>
<td>5 20.8</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 4 16.7</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>R 8 33.3</td>
<td>14 58.3</td>
<td>0 0</td>
<td>0 0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 2 08.3</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration</td>
<td>R 13 54.2</td>
<td>7 29.2</td>
<td>2 08.3</td>
<td>1 04.2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 1 04.2</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groupwork</td>
<td>R 5 20.8</td>
<td>14 58.3</td>
<td>4 16.7</td>
<td>0 0</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 1 04.2</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question and</td>
<td>R 13 54.2</td>
<td>10 41.7</td>
<td>1 04.2</td>
<td>0 0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Answer</td>
<td>-R 0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dramatization</td>
<td>R 0 0</td>
<td>4 16.7</td>
<td>4 16.7</td>
<td>12 50.0</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 4 16.7</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource</td>
<td>R 0 0</td>
<td>4 16.7</td>
<td>5 20.8</td>
<td>10 41.7</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People</td>
<td>-R 5 20.8</td>
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<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project/</td>
<td>R 3 12.5</td>
<td>11 45.8</td>
<td>4 16.7</td>
<td>2 08.3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment</td>
<td>-R 4 16.7</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Story Telling</td>
<td>R 0 0</td>
<td>3 12.5</td>
<td>5 20.8</td>
<td>11 45.8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 5 20.8</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>R 1 04.2</td>
<td>3 12.5</td>
<td>3 12.5</td>
<td>14 58.3</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-R 3 12.5</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key:
- R = Response
- R' = No Response
Table 4:14 is closely related to Tables 4:12 and 4:13. Table 4:14 indicates that the methods which were used quite often were question and answer (54.2%) which was responded to by all subjects, followed by demonstration (54.2%) with one subject not responding. The methods which were used sometimes were groupwork and discussion each scoring 58.3%, and project/assignment scoring 45.8%. The methods which were never used were radio (58.3%) dramatization (50%), story telling (45.8%), and resource people (41.7%).

The researcher found out that the methods which were frequently used were question and answer, demonstration, and discussion. The least popular methods were radio, story telling and dramatization.

The table shows that the methods which were frequently used by the teachers were those they were trained in such as demonstration, question and answer, discussion and the methods not trained in such as use of radio, story telling, dramatization, were the same methods not frequently used in the teaching of Home Science.
The activities to teach different classes are selected from scheme of work which is prepared at the beginning of each school term. If the teachers are not guided by the K.I.E. in the selection of the activities then they tend to teach the activities that they are more conversant with.
<table>
<thead>
<tr>
<th>Activities</th>
<th>Most Frequent 1 - 3</th>
<th>Fairly Frequent 4 - 6</th>
<th>Least Frequent 7 - 8</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>R 12 50.0</td>
<td>3 12.5</td>
<td>0 0</td>
<td>1</td>
</tr>
<tr>
<td>-R</td>
<td>9 37.5</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Question and Answer</td>
<td>R 9 37.5</td>
<td>5 20.8</td>
<td>1 04.2</td>
<td>3</td>
</tr>
<tr>
<td>-R</td>
<td>9 37.5</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Demonstration</td>
<td>R 9 37.5</td>
<td>20.8</td>
<td>2 08.3</td>
<td>2</td>
</tr>
<tr>
<td>-R</td>
<td>8 33.3</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Groupwork</td>
<td>R 7 29.2</td>
<td>4 16.7</td>
<td>2 08.3</td>
<td>5</td>
</tr>
<tr>
<td>-R</td>
<td>11 45.8</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Project/Assignment</td>
<td>R 4 16.7</td>
<td>6 25.0</td>
<td>1 04.2</td>
<td>7</td>
</tr>
<tr>
<td>-R</td>
<td>13 54.2</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Practical Work</td>
<td>R 8 33.3</td>
<td>2 08.3</td>
<td>1 04.2</td>
<td>4</td>
</tr>
<tr>
<td>-R</td>
<td>13 54.2</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Writing Notes</td>
<td>R 7 29.2</td>
<td>3 12.5</td>
<td>0 0</td>
<td>6</td>
</tr>
<tr>
<td>-R</td>
<td>14 58.3</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>R 0 0</td>
<td>2 08.3</td>
<td>3 12.5</td>
<td>8</td>
</tr>
<tr>
<td>-R</td>
<td>19 79.2</td>
<td>0 0</td>
<td>0 0</td>
<td></td>
</tr>
</tbody>
</table>

Key
- R - Response
- R - Non Response
Table 4:15 displays the frequency of different activities teachers gave to pupils in Home Science lessons.

Results revealed that discussion (50%), question and answer (37.5%), and demonstration (37.5%) were the most frequent activities, followed by practical work (33.3%), groupwork (29.2%), and writing notes (29.2%). The least frequent activities were project/assignment and reading.

Although the activities usually given to the pupils are child-centred, the researcher learned from the teachers that most of the pupils in a class did not benefit from them. For example, during discussion only very few outspoken pupils would be involved actively while the withdrawn pupils, the majority, would be quiet and idle. Girls were blamed for not being free to discuss some topics in front of the boys.

Demonstration activity was not also used to the advantage of the majority of the pupils because most of the pupils especially those in category A Schools did not have materials to practice the skills demonstrated to them by the teacher. Therefore these pupils forget easily what the teachers demonstrate.
Practical work was the least activity benefitting the pupils especially those of category A Schools. The researcher learned from the teachers that most of the pupils in these schools did not have practical materials for learning Home Science practical skills. While a few of the pupils worked on their articles, most of the pupils did work related to other subjects such as Mathematics, English, General Science or any other subject in the primary school curriculum.

Demonstration, and practical work teaching activities in category C school were effective because all the pupils were provided with Home Science materials. The researcher learned that each pupil was provided with a pair of scissors, thread, pins and sewing needles for her or his Home Science practical work.

4:5 PROBLEMS ENCOUNTERED IN USING TEACHING METHODS IN TEACHING OF HOME SCIENCE

Problems encountered by teachers in the teaching of Home Science can be both personal and environmental. Examples of personal problems are lack of content and adequate training, failure in attending in-service courses, lack of interest in the subject and teaching too many lessons to have enough time to plan for different teaching methods. Some of the environmental problems are lack of
resources and facilities such as textbooks, (for both teachers and pupils) Home Science laboratories, and practical materials for the pupils.

Table 4:16 Showing Classes Taught by Teachers Teaching Home Science

<table>
<thead>
<tr>
<th>Classes</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Primary 1 - 3</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>Upper Primary 4,5,6,7,8</td>
<td>22</td>
<td>92.7</td>
</tr>
<tr>
<td>Both Lower and Upper Primary</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown above, 91.7% of the teachers were teaching Upper Primary classes while 4.2% taught Lower Primary classes and another 4.2% taught both Lower and Upper Primary classes.

A discussion with the teachers and the researcher's observation revealed that the teachers were overworked with a minimum number of forty periods (40) per week.
The researcher also learned that most of the teachers were teaching five (5) different subjects in the same class or in different classes. Most of the teachers taught two different classes while a few taught in one class or three different classes. The teachers had to prepare all the subjects and as such there was very little time to prepare their Home Science lessons thoroughly using the methods that require a lot of the preparations before actual teaching like, resource people, story telling, project/assignment, dramatization as shown in Table 4:13.

Table 4:16 also shows that most of the teachers were teaching Upper Primary where the content of all subjects, including Home Science, is more detailed than in the Lower Primary classes. Tables 4:9, 4:10, 4:11 showed that Home Science teaching was disadvantaged by the lack of equipment, Teachers, and Pupils, textbooks, and Home Science laboratories. Lack of these important resource handicapped the teachers more in using the various teaching methods in the teaching of the subject

Home Science being Examinable in KCPE

Although Home Science has been examined in the National Examination of Kenya Certificate of Primary Education (KCPE) since 1985, a few teachers still feel that the subject should not be examined but should be
taught because of its relevance to students' life as it was the case in the old educational system.

**Table 4:17 Showing Teachers in Favour and Against Home Science Being Examinable in KCPE**

<table>
<thead>
<tr>
<th>Categories of Teachers</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Those in favour</td>
<td>19</td>
<td>79.2</td>
</tr>
<tr>
<td>Those Against</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

The data in Table 4:17 shows that more than three quarters (79.2%) of the respondents were in favour of Home Science being examinable in the Kenya Certificate of Primary Education (KCPE). Those in favour of it felt that it was relevant to life situations for both boys and girls.

The researcher learnt from the teachers that most of the boys were interested in the subject and that some of them produced better products than the girls. Most teachers appreciated the healthy competition that there was between the two sexes in the subject.

The few teachers who were against the subject being examinable in KCPE blamed the lack of resources
and facilities as being the main hindrance in teaching the subject. It was not surprising for the researcher to note that these teachers were teaching in Category A schools.

**Ranking of Subjects in Order of Teachers' Preference in Teaching Them**

The researcher intended to investigate from the teachers whether teaching of Home Science was popular in Primary schools.
Table 4:18 Ranking of Various Subjects in Order of Teachers' Preference In Teaching Them

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Highly Popular (1 - 4)</th>
<th>Fairly Popular (5 - 8)</th>
<th>Least Popular (9 - 12)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>English</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>79.2</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Kiswahili</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>25.0</td>
<td>5</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Mother Tongue</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>16.7</td>
<td>6</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Religious Education</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>50.0</td>
<td>10</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Home Science</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>58.3</td>
<td>8</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Business Education</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>20.8</td>
<td>9</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Art/Craft</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>08.3</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Music</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>04.2</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Physical Education</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>12.5</td>
<td>10</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Agriculture</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>20.8</td>
<td>14</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>58.3</td>
<td>10</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
<tr>
<td>Geography History</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>33.3</td>
<td>7</td>
<td>29.2</td>
</tr>
<tr>
<td></td>
<td>-R</td>
<td></td>
<td>1</td>
<td>04.2</td>
</tr>
</tbody>
</table>

Key: R = Response, -R = No Response
Table 4:18 shows the ranking of the various subjects in the primary school curriculum arranged according to the preference the teacher had for them. This information was based on the respondents' experience in their teaching career. Out of the twelve subjects, Home Science was ranked third with English and Mathematics taking the first and second positions respectively.

A discussion with the teachers revealed some reasons why Home Science ranked third among the highly popular subjects. Some of the reasons were:

a) Since the teachers were all females and that they were taught the subject either in primary, secondary or college levels of education (Table 4:17) they felt competent in handling the content especially that which did not demand practical work.

b) Most pupils found the subject interesting thus making it easier to teach.

c) Those topics which required practical teaching gave the teachers a chance to plan lessons for other subjects as most of the pupils did not have practical materials to work on.
d) Teachers in Category C school preferred to teach the subject because they did not have to talk too much while the pupils were busy doing their practical work.

4:6 SUGGESTIONS MADE BY TEACHERS TEACHING HOME SCIENCE ON HOW TO IMPROVE THE TEACHING OF THE SUBJECT

Both groups of teachers, for and against examining Home Science in KCPE (Table 4:17) made suggestions on how to improve the teaching of Home Science. The minority who did not want Home Science to be examined also supported the teaching of the subject in all primary schools in the country. All the teachers then looked forward for the future improvement in the subject which required the following suggestions:-

a) Home Science laboratories to be built in all primary schools to enhance the teaching of both theory and practical aspects of the subject.

b) K.I.E. and the Inspectorate section of the Ministry of Education to be fully involved in the preparation of the teaching materials for the subject.

c) To involve highly educated manpower in the preparation of the teaching materials (including University and Diploma college manpower).
d) Better systems of distributing teaching materials to all schools so that there would be harmony both in content and methodology of the subject.

e) Regular in-service courses and seminar to be held frequently. Experts should be invited by K.I.E. by the Teachers Centres to highlight techniques of using different teaching methods. Making of simple improvised teaching aids could also be demonstrated to the teachers.

f) The Ministry of Education should train more Primary school teachers so that two teachers are allocated to a class instead of one teacher per class as it is the case now. This allocation would enable the teachers to have more time for teaching Home Science using a variety of teaching methods.

The last chapter, chapter five, contains the summary, the recommendations and the suggestions for the further study of this research.
5.0  INTRODUCTION

In the preceding chapters, the following aspects of the study were covered: the introduction, the review of related literature, the methodology as well as the presentation and analysis of data. This chapter contains the summary (conclusion), the recommendations and suggestions for further study.

The data obtained from the respondents was analysed to generate answers to the following research questions:

a) What are the general approaches (teaching methods) used by teachers of Home Science in Primary schools?

b) What teaching and learning facilities and resources are available and how appropriate are they?

c) Are the teachers academically and professionally qualified to teach Home Science?

d) Is it true that certain factors hinder teachers from using some methods of teaching Home Science?

5.1  SUMMARY OF FINDINGS

The findings were summarised in an effort to achieve the study objectives which were formulated on the same basis as the study questions.
Academic and Professional Qualifications of the Teachers

The subjects were found to be of a high academic and professional calibre. The teachers who had completed four years of secondary school education constituted 91.7% of the sample (Table 4:3). Table 4:7 showed that 54.2% of the teachers had been taught Home Science in secondary schools implying that the majority of the subjects had acquired more advanced Home Science knowledge to be competent to handle the subject at primary school level.

Table 4:7 showed that 62.5% of the teachers were trained to teach the subject confirming that most of the teachers were suitable to teach in primary schools. Table 4:6 indicated that 58.3% of the teachers had taught Home Science for over three years. This finding confirmed that most of the subjects were experienced in the career as well as in the teaching of the subject.

Table 4:8 revealed that 87.5% of the teachers were not in-serviced since they graduated from teacher training colleges. Table 4:7 showed that 37% of the teachers were not trained to teach Home Science and yet they were teaching the subject.

It can be concluded that although most teachers had high academic and professional qualifications still a large majority of the teachers had not attended any
in-service courses since they started their teaching career. This drawback is of great importance as far as their quality of teaching the subject is concerned because it means that the teachers have not been receiving any new information regarding the content and methodology of the subject from the experts in the subject. The other handicap if that some teachers (37.5%) were teaching Home Science without any professional training in the subject. This is serious because the teachers have been inadequate to handle the methodology part of the subject with competence.

Besides their academic and professional qualifications, the teachers need to attend in-service courses regularly so that they are kept well informed in a variety of teaching methods which they can employ in teaching the subject.

Resources and Facilities Available for Teaching Home Science

The resources and facilities discussed in the study were Home Science equipment, Teachers' and Pupils' books and Home Science laboratories.

As far as the Home Science equipment was concerned, most of the schools were poorly equipped in a variety of Home Science apparatus. Table 4:9 showed the ratio of pupils per equipment in each school but it was only two schools which had acceptable ratio while the other
four were poorly furnished. The data showed that the schools were in a desperate situation as teachers and the pupils could not teach and learn practical skills of the subject because of the shortage of the essential tools.

After observation, the researcher concluded that Home Science practical lessons were not advantageous to the majority of the class. Three quarters of the pupils, since they were not provided with the practical materials, were not able to practise what the teacher demonstrated to the few pupils who were able to afford the required practical resources. Instead, the pupils kept themselves busy working in other subjects which did not require practical resources.

On the side of the Teachers and Pupils' books, the situation was pathetic. Table 4:10 showed a list of Kenya Institute of Education (KIE) books used in the teaching of Home Science in primary schools. The data showed that KIE had not written books for the teachers and pupils of classes four and five. The Institute had only written a Teachers' Guide for class six and a Pupils' book for class seven.

The study also revealed that there was no school with a Home Science laboratory. Lack of laboratories
handicapped greatly acquisition of practical skills by the pupils and also use of a variety of teaching methods by the teachers.

The conclusion is that the teachers lacked Home Science equipment, the laboratories and the text books for teachers and for pupils. Lack of the resources and facilities discouraged the use of efficient teaching methods. More resources and facilities need to be provided to all primary schools to ensure application of a variety of teaching methods in the instruction of Home Science.

Teaching Methods Used by Teachers in Teaching of Home Science

From the methods that teachers claimed to use more frequently and also found them to be less difficult, one concludes that teachers had not been trained in all the teaching methods of Home Science (Tables 4:12, 4:13, and 4:14). Table 4:15 showed the activities given to pupils in Home Science in order of frequency in use, were mostly discussion, demonstration and question and answer. These activities were not varied enough to have exposed the pupils to a wide educational scope. Activities such as individual or group practical work, project/assignment, use of resource people and radio would have led to the development of an inquiry mind in the pupils.

To improve the quality of teaching methods, the teachers should regularly attend in-service courses so
that they are kept well informed of the new methods and techniques which are unique in the subject.

Factors that Hinder Teachers From Using a Variety Of Teaching Methods

The teachers were faced with certain problems that prevented them from performing their duties effectively. Such as the following:

a) The teachers were overworked by having one teacher per class. This made it very difficult for the teachers to prepare their lessons thoroughly and carry out research, so as to find out more information about the subject regarding the methodology.

b) Shortage of Home Science equipment to be used for teaching theory and practical skills of the subject.

c) Lack of Home Science laboratories in the school thus discouraging proper teachers' demonstrations and individual or groupwork by the pupils.

d) Shortage of Teachers' and Pupils' textbooks from K.I.E.

e) The content to be covered by each class was too much to be covered in the allocated time set for the subject (three periods per week). The wide
syllabus to be taught prevented use of teaching methods which called for longer preparations.

f) Lack of training and in-service courses on how to teach Home Science using a variety of teaching methods.

These factors certainly hindered the teaching of Home Science in the study. This means that once regular in-service courses are organised on how to teach the subject, and the necessary facilities and resources are provided, the teachers will not have reason to rank the frequency of teaching methods in order of their use as they did in the study.

5:2 RECOMMENDATIONS

The findings and conclusions reached in this study could have far reaching implications for the Home Science teaching in the Kenya schools. It was found out that teachers were not familiar with most of the child centred teaching methods due to the personal and environmental problems they were facing.

The success of teaching Home Science requires that, serious attention be given to certain aspects in the curriculum by the personnel concerned. Some of the issues to be looked into are:
a) The Ministry of Education should ensure the training of Home Science teachers in the child-centred teaching methods in pre-service and in-service courses. The in-service courses should be both residential and non-residential. The residential ones should be held during the school holidays when the teachers can come together and reside in the training colleges situated in different parts of the country.

The non-residential courses can be organised during the school terms. A few teachers can be selected to attend the course for one day or a week. For the in-service courses to be more effective, the people chosen should be experts in the teaching of Home Science, using inquiry teaching methods.

b) Kenya Institute of Education (KIE) personnel, the District Education Officers, parents and the public at large, should work together to ensure that the immediate demands of the subject (such as, adequate instructional materials, teaching load and funds) are catered for. Educators, Home economists and teachers, should be encouraged to write Home Science reference and text-books.

Parents on the other hand, should be informed
on the importance of providing their children with recommended Home Science books. The Ministry of Education should protect parents against exploitation by certain writers who write hurriedly without much to contribute to the children's education. As for the workload, the Ministry of Education and the Teachers' Service Commission should look into it and give at least two teachers to handle each class of upper primary school. This will give the teachers more time to go out and collect relevant information about the subject.

c) The Ministry of Education, the Inspectorate section, and the Kenya Institute of Education Home Science personnel, should be encouraged to visit the schools more often to carry out evaluation for diagnostic purposes. This will help in ensuring that the newly introduced Home Science syllabus in the 8-4-4 Education System takes root like all the other subjects in the primary school curriculum.

5:3 SUGGESTIONS FOR FURTHER RESEARCH

a) Since the study was limited in scope in that, it was confined to the six primary schools in Central Division in Nairobi, further and related studies
are recommended in other districts and provinces with a view of establishing the extent the present findings and similar ones can be generated throughout the country.

b) An investigation should be made to determine the attitudes of the teachers and the pupils towards the methods of teaching Home Science.

c) Further research should be done comparing the teaching methods of Home Science and Science/Agriculture since the two disciplines need application of practical skills in laboratories.
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15. Ng'eno, J. Challenges College Principles to Produce the Best Teachers, Daily Nation, Nairobi, 24th Nov. 1980.


1. The purpose of the study is to find out the methods used by teachers in the teaching of Home science in primary schools.

2. You can greatly contribute towards the accomplishment of the goal by being honest and giving individual answers without discussing with colleagues.

3. The information obtained will be used exclusively confidentially.

4. The questionnaire is divided into five (5) sections:
   a) Subject details
   b) Professional training
   c) Resources and facilities
   d) Methods of teaching
   e) Problems encountered in using the teaching methods.

5. Please answer all the questions in all the sections by ticking or filling in the appropriate answer. Tick (✓)
SUBJECT DETAILS

1. a) Name of your school
   
   b) Your sex
      (i) Male
      (ii) Female
   
   c) Your age
      (i) 20 - 30 years
      (ii) 31 - 40 years
      (iii) 41 - 45 years
      (iv) 46 - 50 years
      (v) Over 50 years
   
   d) What is your highest academic qualification?
      (i) KAPE/KPE/CPE
      (ii) KJSE
      (iii) CSC/EACE/KCE
      (iv) Other, specify
   
   e) Which classes do you teach?
      (i) Lower primary
          (standards 1,2,3)
      (ii) Upper primary
          (standards 4,5,6,7,8)
      (iii) Both upper and lower primary
2. **PROFESSIONAL TRAINING**

a) What is your highest professional qualification?

(i) Untrained ( )
(ii) P4 ( )
(iii) P3 ( )
(iv) P2 ( )
(v) P1 ( )
(vi) S1 ( )
(vii) Other, specify _______________________

b) How long have you taught as untrained teacher?

(i) Less than one year ( )
(ii) 1 - 3 years ( )
(iii) 4 - 5 years ( )
(iv) More than 5 years ( )

c) How long have you served as a trained teacher?

(i) Less than one year ( )
(ii) 1 - 3 years ( )
(iii) 4 - 5 years ( )
(iv) More than 5 years ( )

d) For how long have you been teaching Home Science? (Consider your teaching even
before the subject became examinable)

(i) Less than one year
(ii) 1 - 2 years
(iii) 3 - 6 years
(iv) More than seven years

(e) State whether you were taught Home Science in the following levels of education:

(i) Primary education level
(ii) Secondary education level
(iii) Higher education level
(iv) College level

(f) Have you ever attended any in-service course in Home Science?

Yes ( ) or No ( )

(g) Were the methods of teaching Home Science discussed in the in-service course you attended?

Yes ( ) or No ( )

(h) How often have you attended such in-service courses in your profession?

(i) Always ( )
(ii) Sometimes ( )
(iii) Rarely
(iv) Never

1) Were the in-service course(s) you attended in methods of teaching Home Science,
   (i) very useful? ( )
   (ii) Useful? ( )
   (iii) A waste of time? ( )

Explain ----------------------------------------

j) How can the in-service courses be made more useful? ----------------------------------------

k) Indicate how often the following teaching methods were used in teaching Home Science during your teacher training

<table>
<thead>
<tr>
<th>Methods</th>
<th>Quite Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Discussion</td>
<td></td>
<td></td>
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<tr>
<td>(iii) Demonstration</td>
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<tr>
<td>(iv) Groupwork</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(v) Question + Answer</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

...cont.
<table>
<thead>
<tr>
<th>Methods</th>
<th>Quite often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>(vi) Dramatization</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(vii) Resource People</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(viii) Projects/Assignment</td>
<td></td>
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<tr>
<td>(ix) Story Telling</td>
<td></td>
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<tr>
<td>(x) Radio</td>
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</tbody>
</table>

k) Should Home Science be examinable in the Kenya Certificate Primary of Education (KCPE)?

Yes ( ) or No ( )

1) If you were given the following subjects to choose from, which one would you like to teach?
   Rank them from 1 - 12 in the brackets according to your preference: Write (1) against your first choice, (2) against the second choice and so on;

   (i) English ( )
   (ii) Kiswahili ( )
   (iii) Mother tongue ( )
iv) Religious Education ( )
(v) Home Science ( )
(vi) Art and Craft ( )
(vii) Music ( )
(viii) Physical Education (P.E.) ( )
(ix) Agriculture ( )
(x) Mathematics ( )
(xi) Geography, History + Civics (combined course GHC) ( )
(xii) Business Education ( )

m) Explain your order -------------------------------------
-----------------------------------------------
-----------------------------------------------
-----------------------------------------------

RESOURCES AND FACILITIES

a) How many pupils are in your Home Science class?
Class No ___________________

b) Do you teach Home Science in the usual classroom or in a Home Science laboratory?

Yes ( ) or No ( )

d) If the above answer is (No), please explain
-----------------------------------------------
-----------------------------------------------
-----------------------------------------------
e) In the table below, please fill in the type of equipment and its quantity in your school that you usually use in the teaching of Home Science:

|----------------------|-----|------------------------|-----|-------------------|-----|-------------------|-----|

f) How many tables and chairs are there in the Home Science laboratory or in the classroom (if there is no laboratory)

No. of tables

No. of chairs
g) Do you have enough classroom or laboratory space while teaching?

Yes ( ) or No ( )

h) Who is responsible for buying the teaching materials used in the teaching of the subject?

(i) The school ( )
(ii) The parents ( )
(iii) Both School and parents ( )

i) List some K.I.E. Book materials which you receive for pupils and teachers.

<table>
<thead>
<tr>
<th>Title per class</th>
<th>Name of Book</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pupils book for Std. 4</td>
<td>Teachers' Guide for Std. 4</td>
<td></td>
</tr>
<tr>
<td>2. Pupils' book for std. 5</td>
<td>Teachers' Guide for std. 5</td>
<td></td>
</tr>
<tr>
<td>3. Pupils book for std. 6</td>
<td>Teachers' Guide for std. 6</td>
<td></td>
</tr>
<tr>
<td>4. Pupils book for std. 7</td>
<td>Teachers' Guide for Std. 7</td>
<td></td>
</tr>
</tbody>
</table>
4. **OTHER RESOURCES AND FACILITIES**

a) Do you have a library in your school?

Yes ( ) or No ( )

b) If the answer is Yes, then are there some Home Science books?

Yes ( ) or No ( )

c) If the answer is Yes, are the books written by African writers?

Yes ( ) or No ( )

d) Do you have a cupboard or a wardrobe for storing Home Science materials?

Yes ( ) or No ( )

e) Do you have sinks with draining boards?

Yes ( ) or No ( )

f) Do you have a full length mirror?

Yes ( ) or No ( )
g) Do you have lockers and drawers for storage purpose?

Yes ( ) or No ( )

h) Are the available learning materials

(i) Very useful? ( )
(ii) Useful? ( )
(iii) Not useful? ( )
5. METHODS OF TEACHING HOME SCIENCE

a) How frequently do you use the following methods in the teaching Home Science? Tick the appropriate column.

<table>
<thead>
<tr>
<th>Method</th>
<th>Quite Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>lecture</td>
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<tr>
<td>Discussion</td>
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<tr>
<td>Demonstration</td>
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</tr>
<tr>
<td>Groupwork</td>
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</tr>
<tr>
<td>Question + Answer</td>
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</tr>
<tr>
<td>Dramatization</td>
<td></td>
<td></td>
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<tr>
<td>Resource People</td>
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<td></td>
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</tr>
<tr>
<td>Projects/Assignments</td>
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<tr>
<td>Story Telling</td>
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</tr>
<tr>
<td>Radio</td>
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</tr>
</tbody>
</table>
b) List the main learning activities you give to the pupils during the Home Science lesson, beginning with the most frequent in that order.

(i) ________________________________
(ii) ________________________________
(iii) ________________________________
(iv) ________________________________
(v) ________________________________
(vi) ________________________________
(vii) ________________________________
(viii) ________________________________

c) Rank the following methods of teaching Home Science in order of difficulty in use: Write (1) against the most difficult method (2) against the second and so on thus ending with the method that you find least difficult to apply in Home Science lesson.

(i) Lecture ( )
(ii) Discussion ( )
(iii) Demonstration ( )
(iv) Groupwork ( )
(v) Question + Answer ( )
(vi) Dramatization
(vii) Resource people
(viii) Projects/Assignment
(ix) Story telling
(x) Radio

6. PROBLEMS ENCOUNTERED BY HOME SCIENCE TEACHER IN USING THE METHODS

a) List any other problem you have noticed concerning the methods of teaching.

(i) About the content taught

(ii) About the teaching aids (resources and facilities)

(iii) About the pupils (consider both girls and boys)

(iv) About the parents
(v) About the boys

(vi) About the funds

(vii) About time allocated to teach the subject

b). Kindly add any other suggestions or comments that you think would express any other feeling towards the teaching of Home Science in the primary school or suggest any improvement which would help in the teaching of the course.

Thank you very much for your cooperation.
APPENDIX II

INTERVIEW SCHEDULE

To answer and discuss around these questions:

1. a) Name of school ________________________
   
   b) Sex: Male ( ) Female ( )

2. a) Which classes do you teach?
   
   Std. 1, 2, 3, 4, 5, 6, 7, 8,
   
   b) Which subjects do you teach in these classes?

<table>
<thead>
<tr>
<th>Classes</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std. 1</td>
<td></td>
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<tr>
<td>&quot; 2</td>
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<tr>
<td>&quot; 3</td>
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<td>&quot; 4</td>
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<td>&quot; 5</td>
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<td>&quot; 6</td>
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<tr>
<td>&quot; 7</td>
<td></td>
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<tr>
<td>&quot; 8</td>
<td></td>
</tr>
</tbody>
</table>

3. a) Are you a trained teacher?

   Yes ( ) or No ( )
   
   b) What are your highest academic and professional qualification?

   (i) Academic ( )
   
   (ii) Professional ( )
c) Have you attended any in-service course in Home Science?

Yes ( ) or No ( )

d) Who organised it? ____________________________

e) What do you feel about the in-service courses you have attended as far as Home Science teaching is concerned?

______________________________

______________________________

______________________________

______________________________

f) Do you feel that the training you received in college exposed you to a variety of teaching methods?

Yes ( ) or No ( )

g) What methods do you normally use when teaching?

(i) ____________________________

(ii) ____________________________

(iii) ____________________________

(iv) ____________________________
h) What hinders you from using all the methods of teaching the course?


i) What can you say about the resources and facilities?

(i) Text books ______________________

(ii) Teachers' Guides ________________

(iii) Charts _________________________

(iv) Funds __________________________

(v) Others

j) Anything you have to say as far as Home Science is concerned in relation to:

(i) Teaching methods

(ii) Training of teachers

(iii) In-service courses

(iv) Problems using the methods.

Thank you very much.
APPENDIX III

OBSERVATION SCHEDULE

1. a) Name of School ____________________________
   b) Class __________________
   c) No. of pupils __________
   d) Absent _______ Present _______

2. Methods used in teaching Home Science

   (i) Lecture
   (ii) Discussion
   (iii) Demonstration
   (iv) Group work
   (v) Question and Answer
   (vi) Dramatization
   (vii) Resource people
   (viii) Projects/Assignment
   (ix) Story telling
   (x) Radio

3. Resources and Facilities available

   (i) Number of tables
   (ii) Number of Chairs
   (iii) Number of pupils' books
   (iv) Number of Teachers' guides
   (v) Number of cookers
(vi) Number of sufurias
(vii) Number of frying pans
(viii) Number of basins/buckets
(ix) Number of sewing machines
(x) Number of scissors
(xi) Number of tapemeasures
(xii) " " brooms
(xiii) " " irons etc.
(xiv) Specify others ________________________________

4. Pupils participation by way of

(i) Listening
(ii) Discussing
(iii) Individual work after demonstration
(iv) Asking questions
(v) Answering questions
(vi) writing
(vii) Drawing
(viii) Dramatizing
(ix) Story telling.
The Headmaster,

Dear Sir,

RE: ASSISTANCE TO COLLECT SOME DATA FOR M.ED. (PTE) RESEARCH

MR/MISS/MRS. DORCAS W. MALE

is a bonafide student of KENYATTA UNIVERSITY doing his/her M.Ed. (PTE). As a part fulfilment of the course, he/she is supposed to carry out a small scale research project. So, please assist him/her, in a way you can, in collecting information.

Please rest assured that the information given will be used only for educational purpose.

Thank you for your help in anticipation.

Project Supervisor
Faculty of Education
Kenyatta University.

Prof. M.M. Patel
Course Co-ordinator
M.Ed. (PTE) Programme

MMF/sf
GL/NC/141/VOL.II/103  7th June, 1988

The Headteachers,
Central Division Schools,
NAIROBI

Dear Sirs/Madam,

PERMISSION TO CARRY OUT RESEARCH
DORCAS W. MALE

This is to inform you that Mrs. Male who is a bonafide student of Kenyatta University has been given permission to carry out a research for her M.E.D (PTE) Course.

This permission is granted with the understanding that Mrs. Male will submit a copy of her findings for our records and necessary action.

You are requested to make the necessary arrangements such that the work is done during the most convenient time.

Yours faithfully,

J. W. Mungu
Ag. Asst. Chief Adviser to Schools
for: CITY EDUCATION OFFICER, NAIROBI

JWN/ENG
cc. D.A. (C)