A STUDY OF THE FACTORS THAT AFFECT THE TEACHING AND LEARNING OF HOME SCIENCE IN PRIMARY SCHOOLS IN LANG'ATA DIVISION NAIROBI.

BY

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DECEMBER, 1990.
DECLARATION

This Research Project is my original work and has not been submitted for a degree in any other university.

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14/11/91

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This Research Project has been submitted with my approval as the University Supervisor.

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DEDICATION

Dedicated to my loving husband J.R. Kavilu and my children S. Kyalo, J. Makau, and E. Muthama whose support and words of encouragement were a source of inspiration during this study.
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ABSTRACT

Home Science is a practical subject that is designed to develop knowledge, skills, principles and attitudes which help the learner to relate better to the social economic realities of his/her community and country. Its specific objectives are to give pupils basic knowledge that is useful in promoting the welfare of the family and the home; to better living standards and create awareness and appreciation of the expected standards; to help pupils to acquire skills that are useful to them in adapting themselves to new situations and changes related to the home and the family and to lay a foundation for further learning and vocational training. This study was therefore intended to show the factors that affect the teaching and learning of Home Science in primary schools, hence the achievement of the above objectives. The study dealt with issues related to quality of Home Science teachers in primary schools; the sizes of classes taking Home Science and if teachers manage to pay attention to all pupils; the content of the primary Home Science syllabus and if time allocated is enough to cover it fully; facilities and equipment as to whether they are adequate or not; attitudes of teachers and pupils towards Home Science; the commonly used teaching methods and techniques. Finally it tried to identify the common problems in the teaching and
The study was carried out in Lang'ata Division of Nairobi, Kenya. The research design of the study was a simple survey.

The sample of the study was drawn from ten (10) primary schools that were randomly selected from a population of eighteen (18) primary schools. The subjects of study included Heads of Home Science Departments, Home Science teachers and pupils from the ten (10) primary schools. The teachers were randomly selected from the total population of Home Science teachers in the ten (10) schools under study while the pupils were also randomly selected from standards five (5), six (6) and seven (7) from the same schools.

To elicit information from the subjects, a questionnaire and an attitude scale was administered to each one of them. The heads of Home Science Departments responded to an interview schedule alongside the general questionnaire and attitude scale.
The data collected were then analysed and the results were presented in tabular form as frequency distributions, percentages and averages. The results were also discussed immediately after each item.

The findings of the study showed that:

(1) The Primary Home Science Teachers were adequately trained and thus reflected a sense of duty and competency. In spite of this, they were overloaded with so many periods that they could not teach Home Science effectively.

(2) Facilities and equipment for the teaching of Home Science were inadequate.

(3) The Home Science Syllabus was too wide to be covered effectively within the time allowed.

(4) The sizes of primary school classes were too large for effective teaching.

(5) Time allocated for Home Science teaching and learning was not adequate particularly for practical lessons.

(6) Teachers predominantly used only two teaching methods in teaching Home Science: namely demonstrations and discussions, and generally ignored the other teaching methods.
(7) Attitudes of teachers and pupils towards Home Science teaching and learning were generally positively inclined.

Some recommendations were made by the researcher which were expected to counteract the factors. The researcher felt that,

1. Unqualified teachers should be trained or be in-serviced.
2. Seminars and in-service courses should be organized for both old and new teachers.
3. Male teachers should be encouraged to teach Home Science.
4. Teaching load of all the teachers of Home Science should be reduced so as to give them more free time to be able to prepare, mark, assess and evaluate pupils work.
5. Home Science classes should be reduced by either allocating two teachers to one class or dividing the class into small groups.
6. Schools should organize construction of fully equipped Home Science laboratories/rooms, buy equipment, resource materials and food-stuffs through harambee drives.

These recommendations are not exhaustive however it is hoped that they are important as reflected by this study.
Lastly an effort was made to give suggestions for further research topics in Home Science in primary schools.
CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND TO THE PROBLEM

Long before the Europeans came into Kenya, traditional education that existed played a vital role in the lives of the Africans. This traditional education which was informal in nature, consisted of skills, knowledge, principles, attitudes and practices which were handed down from one generation to another. Raju (1973) points out the aim of that traditional education by saying:

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

One of the main areas of this traditional education was the art of family living which was specifically taught by women. The older women taught the young women and girls how to look after their families, children and the rest of the members of the household. In modern times we refer to this "art of family living within an environment" as Domestic Science, Home Science or Home Economics.

Traditionally the education for family living encompassed the roles of a housewife including: looking
after the whole family, looking for firewood, water and food, looking after the children, the aged and the sick, planting, harvesting, storing grain and so on.

When the Europeans came into Kenya, they brought with them western education which we normally refer to as formal education. Western education interfered with the African traditional education to the extent that the impact is still felt today. Raju expresses this effect by saying:

"With the coming of western education and influence, the African was faced with difficulties, some of which remain unsolved today... Neither the missionaries nor the colonial administration made any real attempt to link African education to African problems."  

A good example of one of the problems that the Africans still face today that is linked to western education is attached to the foods and nutrition content that our schools teach. Mbae (1984) noted that most of the dishes in cookery are western oriented. She also found out that most of the subject matter that is taught in schools concerning Home Management is influenced by western ideas such as methods of cleaning, furnishing houses and cooking food. All these topics have a lot of western ideas and influence.
Home Science related activities in Kenya were introduced by the wives of missionaries around 1904 at Kikuyu. According to Anderson 1970, records show that some notable individuals were concerned about education for home-living of African women and girls in the early 1900s. These individuals included Marion Stevenson whose work started in 1912 at Tumu Tumu. Miss Moller worked at Ng'iya, Western Province at the same time.

By about 1925 the colonial government had noted that African women education and especially Domestic Science was lagging behind. Due to this, education of African women and girls needed to be improved.

In an Advisory Committee on Native Education in British Tropical Africa in 1925, suggestions were made on how African education of women and girls was to be tackled. It was noted that although an awareness to educate the African women and girls was paramount, some problems affected its development. Some of these problems included:

1. Lack of qualified teachers and
2. Resistance of African women to change.
By 1926 the Jeanes School and the Native Industrial Training Depot at Kabete had been opened. These two centres served as centres to train African men and their wives in different forms of education. For example, while the men were being trained in industrial education, the women were being trained in simple community life, child care and simple health care. This training was informal but with time it became formal.

By 1934, the Domestic Science syllabus that existed in the primary and intermediate schools was revised. Most of the subject matter that was covered dealt with needlework. The reason for this was that, many schools did not have facilities for the other areas of Home Science and since that time, Home Science started to appear as a fragmented subject. When it was eventually introduced to secondary schools, it had the same feature of fragmentation and this has affected its development very much. Due to this feature, many primary schools that offered Home Science during the years before Kenya's independence, managed to have facilities for the area they were offering. For example, if a school used to offer needlework, then it had only equipment for needlework. This trend continued up to mid 1980s. When the system of education was changed from seven years of primary education, four years of secondary education, two years
of higher education and three years of university education (7:4:2:3), to eight years of primary education, four years of secondary education and four years of university education (8:4:4), Home Science was no longer fragmented. The above change called for more equipment and facilities to meet the demands of the different subject areas. At present many primary schools are finding it very difficult to acquire the necessary equipment because they are faced with political and socio-economic constraints.

In its initial introduction to Kenya, Home Science placed certain demands on the learner which still have an impact on him/her. These include:

1. The desire for the learner to abandon her/his lifestyle such as eating habits, and dressing.

2. The learner had to come in contact with new equipment and materials which never existed in the African homes before. Some of this equipment is never made its way into the African homes and teachers still teach about it in the schools. Some of the examples include modern cookers and electrical appliances.
3. The learner was expected to equip himself or herself with skills, principles, and attitudes that had no direct bearing with the African culture. This aspect has created a feeling of resentment and negative attitudes towards Home Science in general. These attitudes are still felt in the primary schools and have directly or indirectly contributed to the slow acceptability of Home Science as a subject.

4. Home Science is practical oriented and therefore, schools offering any area of the subject needed to be well-equipped with the necessary resource materials, textbooks, facilities and the personnel to do the teaching job. All the above listed items have been missing in many primary schools and where they are available, they are only found in small numbers.

5. Currently there has been an awareness that most of the aspects of family life education that were taught at home have been taken over by the school. Girls are no longer taught entirely by their mothers. Teachers play the part of parents and therefore for effective teaching of Home
Science, the teacher must be well prepared through a formal training and must be the kind of a teacher who will act as a parent. She must be understanding and mature enough to deal with boys and girls in the primary schools. Lack of proper training for the teachers may be a major factor that might affect the teaching and learning of the subject.

Home Science is a unique discipline since it:

1. requires the integration of other disciplines like physics, biology, art and design, agriculture, and so on.

2. requires the learner to apply the acquired knowledge, skills, principles and practices directly to real life situations.

3. requires the learner to develop useful ideas and improve his own standards of living and that of his immediate family.

4. requires the learner to be able to make intelligent decisions concerning all aspects of family life.
Tate (1961) states that Home Science stands for:

"The ideal home life today unhampered by the traditions of the past".5

Home Science should therefore be looked at as an important subject. People should aim at providing the necessary requirements to try and improve it. Home Science deals with the problem of strengthening the family in the world of today since both men and women learn it to become better family members.

Home Science is no longer presented as a fragmented body but as one body of knowledge that embraces several broad areas that are related; namely: foods and nutrition; clothing and textiles; child-care; consumer education; home management, health education, and guidance and counselling. Taken as a composite, Tate (1961), indicates that they:

"... provide the foundations for good health, satisfying and successful living, psychological balance, and good management which are so essential for the development of the whole personality".6

Home Science in the syllabuses for Kenya Primary Schools is geared towards the same direction as is stated above by Tate. The Home Science syllabuses for Primary Schools,
(1986) outline the aim of the subject by saying:

"... it 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".7

Since the introduction of the 8:4:4 system of education in 1985, Home Science was made compulsory to both boys and girls. It was also made examinable at the end of the 8 years of primary cycle. Previously Home Science was not examinable or compulsory to both boys and girls except the years between 1953 and 1957 when it was only examinable and compulsory to girls alone. The sudden change of the system of education from the 7:4:2:3 to 8:4:4, brought with it its own problems some of which have affected Home Science and other practical oriented subjects. As a result of the change, primary schools are now facing the problems of very large classes especially in practical subjects. The newly introduced subjects such as Home Science that were not taught before suffer lack of facilities, qualified personnel, lack of resources, improper teaching methods, and so on.

Also as a result of making Home Science a single body of knowledge, the subject has become wider and
deeper in scope. The aim of widening Home Science in the primary schools is not to overburden the pupils or the teachers, but it is to help pupils to become better family members and later establish successful homes.

Tate (1961) states that:

"the program is designed to help girls and boys gain an understanding of human relations and develop skill in home making tasks. Home Science education helps youths to achieve more satisfying and creative living in their families and prepares them to become more successful in marriage and in establishing their own homes".8

Hatcher and Halchin, (1973), indicate that, the central part of Home Science is:

"... the improvement of the quality of life; a good sought by all kinds of people".9

The Schools Council Curriculum Bulletin 4 (1972) explains that:

"The general aim of teaching Home Economics to young people is to show them that they can grow up to be good citizens, good parents and above all stable happy people able to enjoy in the full all that life has to offer them".10
Therefore, Home Science being a subject for life, there is need to identify those factors that affect its teaching and learning and find solutions to them. The next section discusses the statement of the problem.

1.2. STATEMENT OF THE PROBLEM

When colonialists came to Kenya in the early 1900s, they brought with them formal education. The missionaries taught the Africans how to read, write and do arithmetic (3Rs). This education was given so that Africans could be able to read the Bible and thus be converted and follow the white man's religion. It is only men who received this kind of education. As they learnt, the women and girls were taught simple community life, child-care and simple health. The Africans did not see the need for their wives and daughters to receive any formal education.

An awareness of the need to educate women came about with the slow realization that men could not be educated alone and yet cope with their wives who were not well-educated. In respect of this point in 1952, an Advisory Committee on Native Education in British Tropical Africa, produced a paper in which they laid down thirteen principles which helped to guide the British
Government towards sound educational policies. Several conditions touched on education of women and girls. One of the principles indicated that the education of women and girls was vital although it had its own problems. In another principle it was also indicated that there must be trained women teachers.

As a reaction to these principles, a curriculum that laid emphasis on training of men and women in simple health, home-life, industry, agriculture and recreation, was designed. The success of this curriculum depended on the teachers who would be trained. In the process of training, those pupils who would read or write better, taught the others (Pupil-teacher aspect). Thus when formal education was started teachers were inadequate. This is one origin of poor teaching whereby, the cleverer pupils taught the others.

This trend saw the opening of the Jeanes School and the Native Industrial Training Depot at Kabete in 1926. At these places, women were trained along side their husbands but only in Home Science related activities. No men were trained in Home Science since the subject (Home Science) was only seen as a female domain. This was an attitude that had already been implanted in people's minds. This attitude still has an impact in our Home Science
education. A good example was shown when some three men decided to take degree courses in Home Science at Kenyatta University in 1984. Although they completed the courses they were subject to ridicule, embarrassment and abusive language from their male counterparts. When one of the men was interviewed on his feelings about Home Science and men by Kasuku (1984) he said:

"...for a long time I was an object of derision for other male students. People say it is a woman's course. Those who had tried to get into it before were discouraged by other students".

The above mentioned students were the first male students to study Home Science at degree level at a University in Kenya. Currently Home Science is being taught to all pupils, both boys and girls at primary school level.

It was the intention of the researcher to study the attitudes of the primary school pupils and see if they still feel that Home Science is a woman's subject.

With reference to the historical development of Home Science, it is argued that the subject was not given the right impact initially. Records show that before
1957, Home Science was compulsory and examinable to girls at primary level. After 1957, it was no longer examinable or compulsory to primary school girls until 1985. Due to the above, many primary schools never bothered to provide the necessary equipment and facilities which would have otherwise been useful if the subject was examinable. When the 8:4:4 system of education was launched, majority of the primary schools were caught unprepared and without any resource materials or facilities. Some of the schools had converted their initial Home Science rooms into classrooms while others had sold all the equipment that was previously used for Home Science teaching.

Lack of equipment, resource materials, and facilities for Home Science has been a major factor that is currently affecting the teaching and learning of the subject. Problems associated with the rising cost of living, and the exorbitant cost of education have forced the government of Kenya to make parents share the cost of educating their children. Due to this fact, the burden of equipping schools and providing physical facilities has been left to the parents. Some of the parents especially in rural and slum areas are poor and therefore primary schools in those areas have suffered lack of equipment greatly since the parents cannot afford to equip them.
The researcher intended to study the position of resource materials and facilities and see how they affect the teaching and learning of Home Science.

The new 8:4:4 system of education, which puts emphasis on technical and vocational subjects such as art and crafts, agriculture and Home Science calls for a diversified education in order to enhance competence in a variety of skills.

In its traditional approach, Home Science was divided into specialized areas such as needlework, cookery and home management. Each one of these areas was taught as a separate subject. This approach resulted into "fragmentation" of the subject. Pupils who were taught Home Science under this traditional approach developed a narrow view of the subject and they found themselves stranded when they had to deal with aspects that touched on areas they never learnt in school. Teachers in particular, suffered, for example where a Home Science teacher had background knowledge in clothing and textiles, and he/she had to teach foods and nutrition. This problem has continued to affect the teaching and learning of Home Science. This is because teachers who are not specialized or well-informed in certain areas of Home Science lack competence in those areas.
The present primary school Home Science syllabus encompasses all the areas of the subject and thus it calls for a diversified approach in teaching and learning. Due to this, many teachers have found that the primary school syllabus for Home Science is too wide to cope with. This fact is worsened by the time allocated for teaching which is only four periods per week in the upper classes.

The researcher intended to find out whether teachers were able to cover the content for each level/class in each year especially if practicals had to be done. If not, the researcher wanted to find out how they managed to cope with the demands of the syllabus.

Due to high birth-rate and therefore increased population, school-going children are very many. This fact has resulted in over crowded classrooms where a teacher finds it almost impossible to reach every child.

The researcher intended to find out the size of the classes and how the Home Science teacher coped with these numbers especially during practical lessons.

The majority of the Home Science teachers were trained during the years before the introduction of the 8:4:4 system of education. The Home Science curriculum at that
time was fragmented and the Home Science teachers were only informed in certain specialized areas such as clothing and Textiles or Foods and Nutrition. The researcher wanted to establish whether those teachers who were trained in specialized areas found it difficult to teach the broad Home Science curriculum covering all areas. In addition to the above, the researcher intended to find out if all Home Science teachers in the primary schools were academically and professionally qualified. The researcher also intended to find out the attitudes of teachers towards Home Science. The researcher also intended to establish common problems among teachers and pupils of Home Science.

The researcher further intended to study all the key factors that have been identified in the above discussion and see how they affect the teaching and learning of Home Science. Finally, the researcher intended to give a discussion on the findings, recommendations and suggestions for further study in the factors listed below:

. Size of classes.
. Content of the Home Science subject, its wideness and scope.
. Number of trained Home Science teachers in the schools under study.
Facilities and resource materials available for use in those schools.

Methods and techniques used by teachers while teaching Home Science.

Attitudes of teachers/pupils towards Home Science as a subject.

Common problems among pupils and teachers of Home Science.

1.3. OBJECTIVES OF THE STUDY

The teaching and learning of Home Science may be affected by many factors. The objectives of this study were to:

(1) find out the number of teachers who are trained in Home Science and their academic and professional qualifications;

(2) find out whether time allocated is adequate for the work to be covered and how the teachers cope with this;

(3) find out the facilities and equipment available in the schools for learning/teaching Home Science and how they affect the teaching learning of the subject;
(4) study the content of the Home Science syllabus in the primary schools and find out the percentage covered by teachers of each level.

(5) find out the sizes of classes that are taking Home Science and if the teacher manages to pay attention to each pupil.

(6) find out the most commonly used teaching methods and techniques, how they affect the learning and teaching of Home Science;

(7) study attitudes of teachers and pupils towards Home Science in general;

(8) identify any common problems that Home Science teachers face that affect their teaching;

(9) identify any major problems that pupils of Home Science face that affect the learning of the subject.

1.4. PURPOSE AND SIGNIFICANCE OF THE STUDY

From the findings of this study most of the factors that affect the teaching and learning of Home Science in Lang'ata Division of Nairobi would be put forward.
Through the discussions, the findings would strengthen the Home Science education as a discipline and add on to its development. There have not been a lot of researches done in Home Science in Kenya. This one research in Home Science would contribute to the expansion of research material in this field.

Home Science has previously been looked down upon by many people because it lacked supporting materials and many teachers lack competence in teaching the subject since there is no accumulated knowledge available for ready use. This research therefore contributes to the accumulation of more knowledge in Home Science that can be used by teachers, researchers, pupils and people in related fields.

The recommendations of the study would also give a clue and open new avenues to other research areas. Given that the research deals with almost the whole teaching aspect, it is hoped that teachers would use the research findings to correct where they have gone wrong in the past and come up with more innovative methods or techniques of teaching, resource materials, teaching aids and realia.

1.5. LIMITATIONS OF THE STUDY

The study was carried out in Lang'ata Division of Nairobi which consists of only 18 primary schools.
The study was therefore limited to 10 out of the 18 primary schools and its findings will not be generalized to other parts of Nairobi or Kenya.

The study was also limited to standards 5, 6 and 7. Standard 8 class was not used in this study because of examinations.

The findings of this study will therefore not be generalized to all the primary schools but will be significant to the above mentioned classes. The attitude scale used was not standardized due to limited time.

1.6. BASIC ASSUMPTIONS

(1) In this study it was assumed that the subjects responded to the questionnaire, the interview and attitude scale positively.

(2) It was assumed that the information filled in the questionnaire would be correct and could be used to generalize correctly.

(3) It was assumed that the sample randomly selected for the study would be a fair representation of the whole population.
1.7. DEFINITION OF TERMS

The terms listed below are defined according to how they are used in this study.

FACTORS: Circumstances helping to bring out a result; or circumstances that have caused something to happen.

AFFECTS: Something that has an effect or influence on.

TEACHING: Giving instructions or lessons in a subject to a person or imparting knowledge or skills to somebody.

LEARNING: Gaining knowledge or skills in something by studying; practising or being taught.

HOME SCIENCE: Also known as Domestic Science or Home Economics. It is the study of home and family living within the environment. Home Science develops skills, knowledge, principles and attitudes which help the learner to relate better to the social and economic realities of his/her community or country.
RESOURCE MATERIALS: These are teaching/learning aids that assist the teacher when teaching or the pupils when they are learning. They include textbooks, audio visual aids, resources from the local community and so on.

REALIA: These are real objects that a teacher uses in teaching to make his/her lesson real. They may include such items as foodstuffs, vegetables and pieces of materials.

TEACHING AIDS: Like teaching resources, these are materials that the teacher uses when teaching to make the lesson more interesting, clear and to sustain attention. They can also be used to identify those concepts in teaching that are not easy to explain. They include wall charts, pictures, maps, just to mention a few.

DEMONSTRATION: A teaching technique used by teachers to show how to do things in an orderly manner during practical classes.
ATTITUDES: Inclinations towards something. For example when we have negative attitudes towards something, it means that we do not like it.

Chapter two will deal with the review of literature that is related to the subject under study.
FOOTNOTES


2. Ibid., p. 1.


6. Ibid., p. 46.


CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

This chapter deals with a review of literature related to the research topic.

Home Economics which is also referred to as Home Science, was introduced in Kenya by the colonialists after 1900. In those days it was taught to women and girls only. History shows that Home Science did not develop at the same pace as the other formal subjects. Some of its developmental characteristics which still affect its teaching and learning include:

(a) The Fragmentation Aspect. Before the introduction of the 8:4:4 system of education, Home Science used to be taught as three different subjects: clothing and textiles, foods and nutrition and home management. With the introduction of 8:4:4 system of education, all the above mentioned areas were combined. In addition to these areas, consumer education, child-care, guidance and counselling were also introduced. Home Science thus became wider in scope and more complete as a subject. It has been argued that teachers who were trained during the days when Home Science was fragmented, lack competence in those areas which they did not train in.
(b) The Nature of Home Science. Home Science is a practical subject and as such it requires a practical approach in teaching all its areas. Before the introduction of the 8:4:4 system of education, many teachers neglected the practical methods of teaching the subject. Today the syllabus recommends practical approach to the teaching and learning of Home Science.

(c) Teaching Resources and Facilities. Before the introduction of 8:4:4 system, Home Science was not an examinable subject. Many schools, therefore never bothered to acquire the necessary teaching resources and facilities. The 8:4:4 system of education introduced new subjects to the primary school curriculum which are technical and practical oriented in approach. All these subjects require the necessary resources and facilities. Home Science being one of these practical subjects demands a lot of teaching space, resources and facilities. Most of the primary schools are faced with financial constraints to the extent that they cannot meet the costs of the teaching resources and facilities of all practical subjects. This problem has affected the teaching and learning of Home Science.

(d) Attitudes Towards Home Science. The attitude towards Home Science has been that it is a female domain and that
it is a subject for the less gifted. With the modern approach and the changing roles of family members, men have started learning Home Science. Thus, slowly by slowly, the previously held negative attitudes towards Home Science are changing positively.

The sections covered in this literature review include:

A. (i) The rationale of the 8:4:4 system of education.
(ii) The curriculum under the 8:4:4 system of education.
(iii) The objectives of Home Science under the 8:4:4 system of education.
(iv) The scope of Home Science syllabus in primary schools.

B. The effective Home Science teacher.

C. Teaching methods and techniques that facilitate effective Home Science teaching and learning.

D. Home Science teaching resources and facilities.

E. Attitudes towards Home Science education.

2.2. THE 8:4:4 SYSTEM OF EDUCATION
(i) The rationale of the 8:4:4 system of education.

In 1981 the Presidential Working Party on the
Second University was appointed. Among its recommendations was the restructuring of the system of education in Kenya. This recommendation was accepted by the President in March, 1982.

The aim of restructuring the education and training system was to improve the quality of education at all levels. The new system was also expected to give children useful skills through practical subjects. Therefore, the 8:4:4 system of education lays emphasis on vocational and practical oriented subjects.

The rationale behind making the education system practically oriented was to ensure that there are equal opportunities for all students regardless of their place of birth, race or origin. The 8:4:4 system of education emphasises technical and vocational training which is expected to give the students graduating at every level some scientific and practical knowledge that can be used for either self-employment, salaried employment or future training.

The rationale that assessment and evaluation be based on continuous assessment method meant that, the students' abilities were to be on continuous assessment as well as final examinations. Increased opportunities for
further training indicated that, pupils who do not proceed to secondary education, are free to enter craft centres and can proceed to post-secondary education.

The final rationale was that education in Kenya must foster a sense of nationhood and promote positive attitudes of mutual respect.

(ii) **The Curricula under the 8:4:4 System of Education**

The 8:4:4 System of Education pamphlet (1984) points out that the objective of improving the quality of education at the all levels can only be achieved, through what is taught and how it is taught.² It is through the subjects that are taught that pupils will develop the required skills and talents to the full. The courses that are included in the 8:4:4 system of education which are expected to give pupils useful skills through practical exercises include Home Science, art and crafts, agriculture, woodwork, metalwork and so on.

(iii) **The objective of Home Science Under the 8:4:4 System of Education**

Sifuna (1986) emphasises that while vocational and practical subjects like agriculture, art and crafts are important, Home Science is designed to develop knowledge, skills, principles and attitudes which help the learner
to relate better to the social economic realities of
his/her community and country.³

He further outlines the specific objectives of Home
Science as:

"... to give pupils basic knowledge
useful in promoting the welfare of the
home and family and setting standards
for community living; to better standards
of living and create awareness and
appreciation of the expected standards; to
help pupils acquire skills to adapt
themselves to new situations and changes
related to home and family living in a
developing country such as Kenya; to
train pupils to appreciate their own
cultures and lay a foundation for further
learning and vocational training".⁴

With all these objectives in mind, the researcher
wanted to find out whether the Home Science teacher tries
to achieve them through teaching and whether the pupils
gain any meaningful knowledge, skills, principles and
attitudes that help them to relate better in their social
economic realities as asserted by the laid down objectives.

(iv) The Scope of the Home Science Syllabus in Primary
Schools

In the years before the 8:4:4 system of education
was launched, Home Science education was presented in
fragmented bits. These fragments of Home Science included
needlework, home management, foods and nutrition and child
care. Secondary schools used to offer any of these areas depending on whether they had facilities and also, on whether they could afford the costs involved in each area.

In primary schools Home Science was not compulsory although it was usually on the timetable as a teaching subject. Time allocated for Home Science teaching was used in teaching or learning other subjects.

The scope of Home Science today is wider since all the areas have been combined under one subject.

According to the Syllabuses for Kenya Primary Schools, Volume II (1986), the Home Science syllabus consists of the following areas.

(a) The family;
(b) Health education;
(c) Foods and nutrition;
(d) Laundry work;
(e) Clothing and textiles;
(f) Care of the home;
(g) Consumer education and
(h) Guidance and Counselling.

Each area is supposed to be accompanied by relevant practicals or projects. For example pupils in standard 4
are supposed to make a fringed mat, a pin-cushion and a lap-bag in clothing and textiles. Standard 5 pupils are supposed to construct underpants, peticoats for girls and a sleeveless top for boys. All the other classes have a selection of articles to construct in clothing and textiles. The other subject areas have similar practical requirements as well.

Despite the many projects and practicals to be done, the Home Science subject is only allocated four periods per week in standards 6, 7 and 8 and three periods per week in standards 4 and 5.

Due to the above mentioned facts, the question arises as to whether the Home Science syllabus is adequately covered by the end of the eighth year of primary education considering the work-load and time allowed.

If the Home Science teacher does not manage to cover the syllabus by the end of the eighth year of primary cycle, how does she then cope with it?

The researcher intended to find out those factors that are related to the scope of the subject, time allocation, practical lessons and projects and how they affected the teaching and learning of Home Science.
2.3. **THE EFFECTIVE HOME SCIENCE TEACHER**

The Home Science programme is one that deals with pupils directly by interacting with them just as people do at their homes. The Home Science teacher acts like a mother to the pupils and that's why Hatcher and Halchin (1975) argue that:

"The teaching of Home Science begins and ends with human relationships".7

With the above statement in mind, it is therefore clear that the Home Science teacher must possess special characteristics and qualities.

Halcher and Halchin (1972), indicate that Home Science teachers must be humane, responsive, thinking, caring and feeling individuals. They must also be empathic. A teacher may possess excellent teaching methods and a firm command of the subject, but she will be effective if there is a positive relationship or supportive interaction between her and the pupils.8

Oloitan and Agusiobo (1981), point out that effective classroom teaching demands much of the teacher of Home Science. Basically the teacher should know:

(a) what to teach (subject matter)

(b) how to teach (methodology).9
"For the teacher to do her work well, she should make sure that her teaching materials are well-prepared and that the right procedures are followed. Her teaching tasks include:

(a) Planning,
(b) Implementing, and
(c) Evaluating of instruction."

Farrant (1964) outlines the main qualities of leadership required of the teacher to include; authority, competence, decisiveness, drama, energy, enthusiasm, humility, humour, imagination, initiative, integrity, loyalty, perseverance, responsibility; self-control and single-mindedness.

In addition to the above characteristics, the effective Home Science teacher should be well trained and well-informed. He/she should know the most recent trends in Home Science and learning. He/she should attend Home Science inservice courses regularly so as to keep her/himself informed of the latest events and curriculum changes in Home Science.

2.4. TEACHING METHODS AND TECHNIQUES THAT FACILITATE EFFECTIVE HOME SCIENCE TEACHING AND LEARNING

A variety of teaching methods and techniques can be used by Home Science teachers effectively to make their lessons easy to understand. Different teaching
methods assist to make pupils of different learning abilities understand the content of the subject easily. Home Science is a practical subject and due to this feature, it calls for a variety of teaching methods or techniques that are practical in nature. These teaching methods and techniques in most cases call for the participation of both the teacher and that of the pupils.

Fleck (1969), observed that individual pupils with individual differences must experience learning personally. She further observed that, learning takes place to the degree that an individual can discover a personal meaning in a situation or an idea. To do this the five senses must be fully utilized: seeing, hearing, speech, use of symbols and tasting are characteristics that must all be used in Home Science teaching and learning.  

Hatcher and Halchin (1973), say that teaching techniques have such functions as:

(a) Developing specific information that is not generally found in the reference books which helps to enrich the Home Science programme.
(b) They illustrate processes and skills or stimulate interest along new lines of thought.

(c) They also encourage the development of creative ability or provide experience not easily secured in any other way.

They further argue that, all techniques can be used to evaluate new learnings associated with class goals.\textsuperscript{13}

Fleck (1969), points out that the role of the teacher in choosing appropriate teaching methods is very vital. He/she must bear in mind his/her knowledge of human behaviour, group processes, how to boost morale in pupils, how to communicate effectively and how to relate with others. He/she must note his/her influence on the minds of the pupils, their actions, attitudes and personalities.\textsuperscript{14}

Some of the most effective methods that are commonly used by Home Science teachers as outlined by Hatcher and Halchin (1973), include:

(i) \textbf{Demonstration}. This is a teaching technique which generally involves the presentation of procedures or processes to be learned. Demonstration or showing how to do something
often leads to more effective learning than using written or verbal instructions that are sometimes vague and often subject to misinterpretation. Demonstrations may be given by pupils, teachers, visiting guest-speakers or experts. Demonstrations may be long or short. In addition to developing poise, ability to talk, one also learns the importance of organization and timing.15

Demonstrations are therefore very essential and beneficial to both the teacher and the pupil.

The Schools Council Curriculum Bulletin 4 (1971), argues that demonstrations are:

"... to show the class or group or one person how to do something which they are about to do for the first time or for revision. Demonstrations are composed of the skill of the demonstrator, the ease of performance and ability to sustain attention".16

Some of the areas where demonstrations are essential in the teaching of Home Science are stitching in needlework, cutting dresses, cooking, preparation of food, cleaning of houses, bathing a baby and so on.
However, the Schools Council Curriculum Bulletin 4 (1971), warns that poorly planned demonstrations may turn out to be disastrous.\(^{17}\) This is true especially when a pupil is making an article that he/she does not like or when the demonstrator prepares materials that are already familiar, valuable time is wasted.

Demonstrations could also be ineffective especially when what is being demonstrated is not practised immediately. Pupils are likely to forget the process of a demonstration if they have to wait for a week or two in order to practise.

(ii) Discussion

Discussion is one of the most effective teaching techniques for stimulating the learning process.

Hatcher and Halchin (1973), hold that:

"Good discussions involve group interactions in which individuals express themselves, listen to opinions of others, and then pool the best ideas and judgements".\(^{18}\)
Successful discussions require good leadership. Primary schools in Kenya can effectively apply discussions in Home Science education especially on topics dealing with family life education, growing up and adolescence age.

(iii) **Observation**

Hatcher and Halchin (1973) also indicate that:

"Directed observation, when carefully planned and carried out, can be beneficial as a learning technique by large groups, individuals or small groups. Through observation, students develop the ability to see things as they are not as often seem to be... In short observation helps students not only to see, but also to perceive".19

(iv) **Role Playing**

Role playing is an interesting and valuable teaching technique.

Hatcher and Halchin (1973) say that, role-playing is the spontaneous enactment or dramatization of a situation in which students or pupils impersonate people of various ages and occupations.20 This method is commonly used in our primary schools in Kenya especially during drama competitions.
(v) Exhibitions and Displays

Techniques of exhibitions such as setting up exhibits, arranging bulletin boards and making posters have long been part of many Home Science programmes both in our local primary schools and in secondary schools. Active participation in this operation develops creative and artistic ability, encourages responsibility and improves the use of management procedures and skills.

In Kenya, primary schools' exhibitions or displays are commonly held during parents' days, open days, and prize giving days. Also in many schools, Home Science, art and design items are displayed for assessment towards the end of the eighth year in the primary school cycle.

Farrant (1964) expresses that, exhibitions are rewarding because they enable children whose reading ability is limited to learn in a manner that is enjoyable and effective.21

Hatcher and Halchin (1973), point out that displays and arrangements on bulletin boards bring great satisfaction to the pupils carrying out the technique. This helps to sustain interest in the classwork.22
(vi) **Visiting**

Visiting is not a very common teaching technique in our primary schools since it involves large sums of money. Many schools would like to go out visiting but due to financial constraints, they cannot do so.

Some of the places that could be visited include factories that manufacture household items, food markets, stores and utility companies which demonstrate Home Science related activities. Some examples of common utility companies that offer such services are: the East African Industries (E.A.I.) whose personnel visits schools and demonstrates the correct use of tooth paste and tooth brushes. Kenya Power and Lighting Company (K.P.L.C.) is also another good example of a utility company. The K.P.L.C. personnel visits schools and demonstrates the economical use of power as well as the correct use of some Home Science electrical appliances. The problem in this case is, how many schools get access to these utility companies.

The above discussed teaching techniques are not the only ones that teachers could use for teaching Home Science, however, they are the ones that are commonly used in Kenya primary schools.
Hatcher and Halchin (1973), observe that in addition to the named methods of teaching, others which could be of great use include:

(a) Brain storming.
(b) Buzzing technique.
(c) Panel technique.
(d) Forum discussions.
(e) Jingle writing and
(f) Game playing.

Some of the traditional teaching techniques which are still predominant in our primary schools are:

(a) Drill methods and
(b) Lecture methods.

The Ominde Report (1964), disapproved the drill methods of teaching and cautioned teachers not to neglect activity and pupil-participation methods. The above named report also encouraged teachers to adjust their instructions to suit the needs of the learners. It also advised teachers to use activity methods of teaching that are particularly child-centred.23

UNESCO (1972), in a World Survey of Home and Family Education within formal education observed that,
out of the many teaching methods which were then used by Home Science teachers in the developing countries, demonstrations were being used in about 70 countries; small group techniques or teamwork was common in 63 countries; discussion method in 59 countries; and the lecture method in 51 countries. This survey report concluded that in terms of teaching methods which were then being practised by Home Science teachers, traditional methods predominated. It was then observed that there was 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 are referred to as experimental or investigation work, team work, programmed learning and local survey work.24

The Schools Council Curriculum Bulletin 4 (1974) argues that the aim of the primary school teacher is:

"To use any aspect of Home Science purely as part of project on environmental work in which they try to give children the broadest view of life possible all times. To try and make children to be able to be independent and think for themselves. The aim should be to teach children to learn to work on their own, learn for themselves through practice and experience and through books."25
The Gachathi Report (1976) observes that, teaching methods that are used, should be used to develop the ability to gather data by observation of the environment or by experiment as well as the ability to draw valid scientific inferences from the observed data. 

The Ominde Report (1964) and the Gachathi Report (1976) give an indication that after Kenya gained her independence in 1963, it continued to see the need for a more practical oriented approach to most of the practical subjects such as Home Science.

This need for a more practical oriented teaching approach is now being realized through the 8:4:4 system of education.

2.5. HOME SCIENCE TEACHING RESOURCES AND FACILITIES

As discussed in the previous section, teaching techniques and methods are an essential part of a lesson. However, methods and techniques alone cannot make a lesson successful. There is need for teaching resources and facilities which are also referred to as teaching aids.

Teaching resources, or teaching aids and facilities are necessary for making teaching more effective. They
help the teacher to communicate with the learners effectively and make the more complicated concepts realistic. They also increase the learners motivation and attention span.

Teaching resources have been classified into several groups such as:

(i) **Reading Materials** which include textbooks, reference books, magazines, newspapers, programmed materials, dictionaries, encyclopaedia and so on.

Reference books or the class textbooks are essential since they indicate what the teacher must teach and what the pupils have to learn. In other words most textbooks organize instruction so that it can be followed sequentially.

(ii) **Non-Reading Materials.** Non-reading materials are considered to be the audio-visual teaching aids like films, film-strips, tapes, transparencies, radio, television, charts, graphs and tables. Non-reading teaching aids exclude realia which fall in a class of their own.
Teaching through verbal communication contributes only a percentage of what the learner achieves when we use audio-visual aids. We increase the chances of more understanding as the learner uses both his listening ability strengthened by the visual ability. Therefore audio-visual teaching aids increase the teaching and learning ability.

(iii) Community Resources. Community resources are those teaching aids, materials/facilities and people that originate from the community within which the school is situated. Community resources may include: resource persons from the local community, rivers, historical sites and materials that can be used to make teaching aids which are available in the community. Such materials include: pieces of wood, sisal fibres, leaves and so on.

Karingithi (1988) quotes, Michaelis (1968) who argues that, the community is like a laboratory or store of information about human activities. In the community you find the resource people who may visit the class at school or in the same community you may take your class for educational trips.27
Farrant (1964) says that education needs to be associated with normal life and that many of the traditional media should not be ignored. Some of the traditional media that may be useful as teaching aids include: folk communicators, local dramatists, traditional puppetry and interviews conducted within the community.\(^\text{28}\)

(iv) Realia and Representation of Realia

Farrant (1964) refers to realia and representation of realia as "Media form real life and simulated life".\(^\text{29}\) He further argues that daily life introduces pupils to a great many visual experiences which the teacher can use for teaching. For example, specimens collected from the environment are very useful. Living specimens are the best. Examples of these that could be used for teaching Home Science may include: fish, chicken, different vegetables and so on. Pupils may collect and bring some of these specimens to school after the holidays. Other examples of realia and representation of realia may include: artefacts, models, dioramas and puzzles.\(^\text{30}\)

(v) Educational Technology

In addition to already discussed teaching resources and materials, modern technology is expected to play a major role in the teaching and learning of Home Science in the near future.
UNESCO (1972), noted that there was a conspicuous need to increase the supply of educational technology in particular in the countries of Africa. The most pressing need was for films and film strips and means of projection. Another urgent need was of teaching materials and textbooks.31

In the above statement Kenya is not exception since it is difficult to find a school that is well equipped with enough educational technology.

Some of the major problems that have been identified by different researchers as contributing factors to the lack of adequate teaching aids are that of limited finances and lack of familiarity with the methods and teaching aids themselves.

To support the above statement, Oloitan and Agusiobo (1981) indicate that:

"Many teachers, due to lack of competence in selection and use of instructional materials, introduce them into a class lesson just to occupy spare time or for the fun of it. For this reason, instructional materials, have not been adequately used by the teachers as aids to instruction".32
They further suggest that it is therefore necessary to guide teachers in the selection, preparation and use of instructional materials in order to give pupils the maximum benefit from instruction in Home Science.

Male (1988), Karingithi (1988) and Wang'ombe (1988) all conducted researches in primary schools both in Nairobi and Kiambaa Division of Kiambu Municipality. They found that many primary schools lacked almost all the essential Home Science teaching resource materials and teaching aids. They also found out that majority of primary schools that they visited lacked a Home Science room or laboratory.

Therefore for successful use of teaching materials, the teachers should consider the following points when selecting:

(a) Purpose of the instructional material.
(b) Content of the lesson to be taught.
(c) Appropriateness of the instructional materials for the lesson and,
(d) Circumstances for use.

2.6. ATTITUDES TOWARDS HOME SCIENCE EDUCATION

According to Wagah (1985) attitudes refer to:
"... a general way to inclinations towards something or to react in a certain way in response to certain kinds of situations".  

Warren and Jahoda (1966) say that attitude:

"... in itself is an inter-disciplinary term bridging psychology and sociology; since for attitudes they have social references in their origins, development and in their objects".  

Attitudes are therefore inclinations towards certain things and they also have social references.

With reference to the above definitions, current researchers argue that the development of Home Science has not been an easy one due to the negative attitudes that have been attached to the education of women and girls.

Tate (1961) writes that, the earliest schools for girls in the colonies were Dame Schools. In these schools girls were taught knitting, mending and other housewifery duties with much emphasis on being a good hostess and by all means a lady. These schools existed in the United States of America (U.S.A.) between 1700s and 1800s. Education for girls was confined to schools that were open from two to six months. The curriculum consisted of catechism, spelling, reading and writing but rarely
arithmetic. "It was thought that the woman's mind was of the type to which arithmetic would be incomprehensible".35

This attitude has been carried along for many years that even when the colonialists came to Kenya, it took long for women to develop educationally.

Home Science has been seen as mainly a female domain even as recent as early 1980s.

Kasuku (1984) quoted the words of Professor Marangu who was the Head of the Home Economics Department, Kenyatta University in 1984. She said, "Home Science is still looked at as a subject for women."36

Mbae (1984) interviewed students both from urban and rural schools in Meru, Kenya, and found out that pupils did not have any negative attitudes towards home management which is one of the areas of the Home Science subject. However, majority of the pupils expressed dissatisfaction with the content of the syllabus. They indicated that some of the topics were western oriented and had no direct bearing with African culture.37

Commenting on the world view about Home Science Wagah (1985), indicates that studies carried out in the
past show that few students are attracted to the area of Home Science since it is seen as "less important, less prestigious and as having no vocational future".  

She goes on to say that:

"In the eyes of man it has been viewed as a woman's subject and to bright students it is regarded as a subject specifically for dull students or less gifted. Many others rate it as an easy subject not worth learning in schools".  

In a Journal of Home Economics Social Issues by American Home Economics Association (A.H.E.A.) (1986) it is indicated that:

"The discipline of Home Economics encourages a combination for a balanced human existence... Home Economics offers practical vocational content".  

In the recent past, men seem to have decided to shade away those negative attitudes that existed there before. This is witnessed by the example of three (3) men who joined the Department of Home Economics, Kenyatta University in 1984/85 academic year. They were pursuing a Bachelor's Degree in Home Economics. The men went through the training but it was not easy for them since the other male students kept on teasing them about their choice of subject area.
With the introduction of the 8:4:4 system of education, in 1985, Home Science became examinable and compulsory to all pupils both boys and girls. This is yet another good example of the changing attitudes.

The Schools Council Curriculum Bulletin 4 (1971) explains the reason why it is important to teach boys Home Science in primary schools as:

"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 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".41

Therefore, the negative attitudes towards Home Science such as, being a subject for women only, are changing. The researcher wanted to find out whether there are still some negative attitudes with regard to Home science education in Lang'ata Division of Nairobi.

Chapter three focuses on the methodology that the researcher used to collect the data needed for the study.
FOOTNOTES


2. Ibid., p. 2.


4. Ibid., p. 129.


6. Ibid., pp. 164-171.


8. Ibid., pp. 5-6.


10. Ibid., p. 33.


17. Ibid., pp. 20-21.


20. Ibid., p. 159.


29. Ibid., p. 300.

30. Ibid., p. 302.


39. Ibid.


CHAPTER THREE

METHODOLOGY

3.1. DESIGN, VENUE AND PROCEDURES OF STUDY

This project adopted a survey design. The area of study covered ten (10) primary schools in Lang'ata Division in Nairobi.

3.2. SAMPLING TECHNIQUES

The total population of the study consisted of eighteen (18) primary schools in Lang'ata Division, under the Nairobi City Education. Out of these eighteen (18) primary schools, ten (10) schools were randomly selected for the study.

For the purpose of this study, private schools, primary schools which do not have classes up to standard eight (8), special schools, schools for the disabled children and nursery schools, were excluded.

From the ten (10) randomly selected primary schools, those teachers teaching Home Science in the upper primary classes formed part of the main subjects of the study. The researcher expected to use at least three (3) teachers from each school in order to make a total of thirty (30) teachers. From the same schools the researcher used standards five (5), six (6) and seven (7). From these classes the researcher randomly
selected twelve (12) pupils per school to make a total of one hundred and twenty (120) pupils; that is 60 boys and 60 girls. This group of pupils constituted the other part of the sample of the study.

In summary, the sample of study included thirty (30) Home Science teachers, and one hundred and twenty (120) randomly selected pupils from the selected ten (10) primary schools in Lang'ata Division, Nairobi.

3.3. TOOLS USED

The researcher used the following tools for collection of data.

(a) Teacher's questionnaire.
(b) Teacher's attitude scale.
(c) Pupil's questionnaire.
(d) Interview schedule for heads of Home Science departments.

3.4. PILOT STUDY

After the preparation of the tools, a pilot study was carried out using two (2) schools. These schools were not included in the main study.
From the above two (2) primary schools, six (6) Home Science teachers responded to the teacher's questionnaire and attitude scale, while twelve (12) pupils responded to the pupil's questionnaire and attitude scale.

Out of the six (6) teachers, the heads of Home Science departments responded to an interview schedule.

After the pilot study, all poorly set items were modified.

3.5. ADMINISTRATION OF TOOLS

After pilot-testing of the tools and any poorly set items modified, the questionnaires and attitude scales were distributed to each of the ten (10) schools according to the number or respondents. Each of the ten (10) primary schools were allocated at least:

(a) three (3) teacher's questionnaires with an attitude scale attached to each questionnaire.

(b) twelve (12) pupil's questionnaires with an attitude scale attached to each questionnaire.
These items were taken to each school by the researcher and collected after three (3) days.

The researcher then sought the assistance of the heads of Home Science departments in collecting back the questionnaires.

After the questionnaires had been collected, the researcher administered the interview schedule personally to the heads of the Home Science departments in those schools. This exercise took five days.

In summary, thirty (30) teachers and one hundred and twenty (120) pupils from standard five (5), six (6) and seven (7) responded to the questionnaires and attitude scales. In addition the heads of the Home Science departments also responded to an interview schedule.

The interview schedule was meant to counter check the data collected using the attitude scale and the questionnaire.

3.5.1. The Teacher's Questionnaire and Attitude Scale

The teacher's questionnaire was divided into four sections namely:
(a) Information related to the teacher.
(b) Facilities and resource materials.
(c) Curriculum.
(d) Teaching methods.

Section (a) sought information on the academic and professional qualifications of the teachers; their background knowledge and experience in teaching Home Science. It also determined the competence of Home Science teachers in primary schools.

Section (b) was to elicit information on the kind of equipment, facilities and resources materials that were available in the primary schools. The availability or unavailability would enable the researcher to assess whether the schools had the necessary equipment for the teachers to be able to teach Home Science effectively.

Section (c) discussed the curriculum; whether it was suitable or not for the primary school pupils. It also tried to find out the coverage of syllabus content; whether it was too wide or not enough for teaching in primary schools and how teachers cope with it.
Section (d) dealt with teaching methods commonly used for teaching Home Science in the primary schools and their suitability for effective teaching of a practical oriented subject such as Home Science.

The Teacher's attitude scale was generally to find out the attitude of teachers towards Home Science teaching.

3.5.2. The Pupils' Questionnaire and Attitude Scale

This questionnaire was general and was aimed at bringing out the weaknesses and strengths of Home Science learning in primary schools.

The pupils' attitude scale was used to find out the general attitude of pupils towards Home Science in primary schools especially now that it is examinable and compulsory to both boys and girls.

After data had been collected the researcher analysed items in the instruments by use of tables and percentages. After each table, interpretation of results was presented. Chapter Four thus deals with this data analysis and presentation.
CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0. INTRODUCTION

The main objective of this study was to investigate the factors that affect the teaching and learning of Home Science in primary schools in Lang'ata Division of Nairobi.

To collect data on these factors the researcher used the following instruments:

(a) Teachers' questionnaire
(b) Teachers' attitude scale
(c) Pupils' questionnaire
(d) Pupils' attitude scale
(e) Interview schedule for the heads of Home Science Departments

This chapter therefore presents an analysis and interpretation of the responses provided by both the Home Science teachers and pupils. To present this data the researcher has used tables which depict frequency distributions and percentages of these responses wherever applicable. Data interpretation is followed by a discussion after each table.

4.1. TEACHER RELATED VARIABLES

Teachers being the implementors of the Home Science curriculum are an important variable whose role will greatly affect the teaching and learning of the
subject in primary schools. Information concerning their sex, academic and professional qualifications, training, experience and day to day workload which are presented below, are aspects which are expected to influence how effectively and efficiently Home Science will be taught or learnt.

4.1.1. **Sex of Home Science Teachers**

The researcher was aware that all students in Primary Teachers Colleges are trained to teach all subjects. This item was intended to find out if Home Science subject is taught by both the male and female teachers as expected.

Table IV.1A **Showing Sex of Home Science Teachers**

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>M</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Table IV.1 shows that all the teachers who participated in the study were females. These findings indicate that the subject has been dominated by women teachers since it was introduced in formal education during the colonial years. Recently male teachers
have been trained alongside the female teachers to teach the subject but the study indicates that they hardly do it. It is generally assumed that Home Science is a female domain.

**Age of Home Science Teachers.**

The intention of this item was to depict the age range of Home Science teachers. Older teachers were expected to be more experienced in dealing with young pupils. The younger teachers on the other hand are expected to be fully equipped with new teaching skills acquired in teacher training colleges.

Table IV.1B  **Showing Age of Home Science Teachers**

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>30-39</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td>40-49</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Above 50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above shows that majority (60%) of the Home Science teachers were between the ages of 30 to 39 years. The minority are of the age range between 40 and 49 (13.3%).
The observation that the majority of the participants were between 30-39 years of age indicated that most of the teachers were experienced in teaching Home Science. The eight (8) young teachers between the ages of 20-29 years formed a group that has been recently trained. This group of teachers is expected to be very energetic and well-equipped with new teaching skills that are stipulated in the 8:4:4 system of education.

4.1.2. Pre-Service Training

This item was intended to reveal the number of Home Science teachers who have had pre-service training in teaching. Pre-service training in teaching is essential since it exposes the teacher to more content and methods of teaching effectively.

Table IV.2 Showing Number of Teachers Who have had Pre-Service Training in Teaching

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

KEY: N = Thirty (30) teachers.
As the table above shows, most of the Home Science teachers (96.7%) have had pre-service training, and only 3.3% has had no training at all. These findings indicate that the Home Science subject does not suffer from lack of trained teachers.

4.1.3. Academic Qualifications

This item was intended to show the academic status of Home Science teachers. Teachers' academic qualifications are an important factor in the teaching of any subject, as it is generally believed that the higher the qualification, the more the content the teacher has.

Table IV.3 Showing Teachers' Academic Qualifications

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>K.J.S.E.</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>K.C.E./E.A.C.E./G.C.E</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>K.A.C.E./E.A.A.C.E./H.S.C</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

KEY
K.J.S.E.          Kenya Junior Secondary Examination
K.C.E.            Kenya Certificate of Education
E.A.C.E.          East African Certificate of Education
G.C.E.            General Certificate of Education
E.A.A.C.E.        East African Advanced Certificate of Education
H.S.C.            Higher School Certificate
Table IV.3 indicates that 73.3% of teachers had successfully completed four years of secondary school Education (K.C.E./E.A.C.E./G.C.E.), while 20% had completed four (4) years secondary school education and two years of higher education respectively (K.A.C.E./E.A.A.C.E./H.S.C.). A small percentage of 6.7% has done two years of secondary school education (K.J.S.E.).

These findings indicate that all the primary school Home Science teachers who participated in the study had received some form of secondary education and thus were quite adequate as far as content was concerned.

4.1.4. Professional Qualifications

This item was intended to solicit information about the teachers professional qualifications. It is generally assumed that effectiveness in teaching largely depends on the qualifications that the teacher has received in the profession.
Table IV.4  Showing Teachers' Professional Qualifications

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1, P1/S1</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>P1</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td>P2</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>UT</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

**KEY**

S1  Secondary School Teacher One (1)
P1  Primary Teacher Grade One (1)
P1/S1 Primary/Secondary School Teacher One (1)
P2  Primary Teacher Grade Two (2)
UT  Untrained Teacher

Note that Untrained Teacher has no professional qualifications since she/he has not received any type of training in teaching.

Also note that the bigger the number next to letter P the lower the grade in professional qualifications.

The table above shows that 76.7% consists of P1s while 13.3% were P2s and 6.7% S1 and P1/S1. This makes up a total of 96.7%. This figure depicts that the largest number of primary school Home Science teachers are
qualified. The findings show that only a small number (3.3%) of the participants in the study had not received any form of training in teaching.

Through interviews with the heads of the Home Science departments, the researcher understood that the Nairobi City Education Office at present employs primary school teachers with at least P1 Teachers' Certificate. This feature explains why most of the respondents were P1s.

4.1.5. Teaching Experience in Home Science

This item was intended to reveal the duration of teaching experience that the respondents had in teaching Home Science. This factor was considered important since it is believed that teachers with long teaching experience are more skillful and effective in their approaches to the selection of teaching methods and resource materials for various topics in Home Science.

Table IV.5  Showing the Teachers' Teaching Experience

<table>
<thead>
<tr>
<th>Duration</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 6 years</td>
<td>15</td>
<td>50.0</td>
</tr>
<tr>
<td>Between 4-6 years</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Between 2-4 years</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
As the table above shows most of the Home Science teachers (90%) have taught the subject for more than two years. The most encouraging aspect is that 50% of the teachers have taught Home Science for more than six years. These findings indicate that most of the respondents in this study are quite experienced in teaching Home Science and so they should be able to handle the subject quite comfortably.

4.1.6. Teachers Who Studied Home Science While Training as Teachers

This item was intended to depict the number of teachers who studied Home Science while training as teachers. This aspect was considered important since Home Science is a practical-oriented subject and for one to teach it effectively, he/she needs formal training in the skills and knowledge concerned with the subject. Home Science teachers also need to have adequate background content and methodology.

Table IV.6 Showing the Number of Teachers Who Studied Home Science While Training as Teachers

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
Table IV.6 shows that 96.7% of the teachers studied Home Science in teacher training colleges. Those teachers who had not studied Home Science consisted of only 3.3%. These findings therefore indicate that all trained teachers had studied Home Science in teacher training colleges, while those teachers who had not studied Home Science were the untrained teachers.

Though interviews with the heads of Home Science departments in the various schools under study, the researcher found out that the Untrained Teachers (UTs) had background knowledge in Home Science which they learnt at secondary school.

4.1.7. Attendance of In-Service Course in Home Science

This item was intended to reveal the number of teachers who have received in-service training since 1981. In-service courses are necessary for re-training old teachers and for informing new teachers of any changes within the curriculum as far as subject matter and teaching methods are concerned. The researcher was aware that although the 8:4:4 system of education was launched officially in 1984, its syllabus was introduced into primary schools in (1981) and hence there was need for in-service courses for all the teachers concerned.
Table IV.7  Attendance of In-Service Courses in Home Science

<table>
<thead>
<tr>
<th>When attended</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 1981-1984</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Between 1984 to date</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>None since 1981</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above shows that only 43.3% of the teachers in this study attended in-service courses between 1984 and 1990. The findings also show that none of the teachers had attended any in-service course between 1981 and 1984 although the 8:4:4 syllabus had been introduced into primary schools.

Through interviews with the heads of Home Science departments, the researcher discovered that in-service courses were not regularly organized by the Kenya Institute of Education (K.I.E.) or the Ministry of Education (Inspectorate). However, some in-service courses were organized by the Nairobi City Education Office at the Nairobi Teachers Advisory Centre (T.A.C.).

4.1.8. Reasons for Failure to Attend In-Service Courses in Home Science

This item was intended to find out some of the reasons why majority of the Home Science teachers failed
to attend in-service courses.

This was considered important since Home Science did not exist in the curriculum for primary schools before the launching of the 8:4:4 system of education. Therefore, for effective teaching of the subject, all Home Science teachers needed to be in-serviced.

Table IV.8  Showing Different Reasons Why Teachers Failed to Attend In-Service Courses

<table>
<thead>
<tr>
<th>Reasons</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never had a chance to attend any</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>No plans for in-service courses</td>
<td>8</td>
<td>16.7</td>
</tr>
<tr>
<td>Only heads of departments were allowed to attend</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>No reasons given</td>
<td>15</td>
<td>50.0</td>
</tr>
</tbody>
</table>

The table shows some of the reasons why many teachers have failed to attend in-service courses. From these findings it is clear that the authorities concerned with plans for in-service courses have not had systematic arrangements for their teachers.

When the heads of departments of Home Science were asked why teachers did not attend in-service courses,
they said that there has not been proper plans where all the teachers could have a chance of attending the courses. They suggested that, if plans were made for teachers during the holidays, most of them would have a chance of attending the in-service courses.

4.1.9. Presence of a Teachers' Advisory Centre (T.A.C.) in Lang'ata Division of Nairobi

This item was intended to establish whether there is a Teachers' Advisory Centre (T.A.C) in Lang'ata Division of Nairobi. This was considered important since it is in the T.A.C.'s where teachers get assistance concerning how to improvise and make good teaching aids. They also get resource materials from there, and when they meet at the T.A.C. they exchange ideas and discuss problems associated with the teaching/learning of Home Science.

All the participants in the study unanimously agreed that there is no T.A.C. in Lang'ata Division, however, the researcher found out that the Nairobi Teachers Advisory Centre caters for all the teachers in the Nairobi City Education schools.

4.1.10. Assistance Received from the Nairobi T.A.C. in Relation to Home Science Teaching

The researcher went further to find out if the teachers received any assistance in relation to Home Science
teaching and learning. This was intended to find out if the personnel at the T.A.C. frequently gave any assistance to Home Science teachers in Lang'ata Division of Nairobi and if not, what some of the reasons for this failure could be.

Table IV.9A  Showing the Number of Teachers Who Received Assistance from the Personnel at the Nairobi T.A.C.

<table>
<thead>
<tr>
<th>Received Assistance</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that a minority of teachers (33.3%) received various types of assistance in Home Science teaching while a majority of teachers (66.7%) did not receive any assistance from the T.A.C. These findings generally tend to confirm the findings of item 4:2:8 which are tabled in Table IV.8 regarding reasons for failure to attend in-service courses.

When the teachers were asked what they thought was the cause of the failure of the T.A.C.'s in assisting, they gave different reasons as tabled next page.
Table IV.9B  Showing Different Causes of the T.A.C. Personnel in Failing to Assist the Teachers in Home Science

<table>
<thead>
<tr>
<th>Causes of T.A.C. Failure</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of communication</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Lack of Materials/Personnel</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>No response</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above shows most of the teachers (73.3%) in the study did not know why the T.A.C. does not assist them in Home Science related issues. However, about 13.3% suggested that the cause for this failure was due to lack of communication with the T.A.C., while 6.7% suggested that the T.A.C. personnel lacked interest in Home Science. Another 6.7% also suggested that the T.A.C. lacked resource materials and qualified personnel. These findings suggest that the Nairobi T.A.C. may not be giving its teachers the required services as expected.

4.1.11 Teachers Teaching Other Subjects Apart from Home Science

This item was intended to find out the number of
Home Science teachers who teach other subjects apart from Home science. This aspect was considered important because Home Science is a unique subject which requires skill in practical as well as theoretical knowledge. Teachers of this subject are therefore expected to be specialists and are not expected to teach other subjects. However, the researcher was aware that the primary school training programme is designed for teachers to teach all subjects that are taught in primary schools.

Table IV.10 Showing the Number of Teachers Who Taught Other Subjects Apart from Home Science

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above depicts that the majority of the participants in the study (70%) taught other subjects apart from Home science, while a small number of teachers (30%) taught only Home Science. These findings confirm the fact that most teachers in primary schools teach more than one subject and that there is no room for specialization.
4.1.12. Teachers Teaching Load per Week

This item was intended to show the average number of periods that each teacher in this study taught per week. This is important because the number of periods that a teacher taught per week indicated whether the teacher had extra time for planning, marking and attending to preparations for Home Science practical lessons. If a Home Science teacher is overloaded with too many periods to teach, she/he can never find time to plan for Home Science.

Table IV.11A  Showing the Average Number of Periods that Each Teacher Taught per Week

<table>
<thead>
<tr>
<th>Periods per Week</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 40 periods</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td>Between 30 and 40</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>Between 20 and 30</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that majority of the teachers (56.7%) were quite overloaded since they taught more than 40 periods per week. The table also indicates that a group of teachers (40%) taught between 30 and 40 periods per week. The very small number of teachers
who taught between 20 and 30 periods per week happened to be teachers that are also heavily loaded with other responsibilities. The researcher found out that latter group of teachers consisted of either deputy headteachers or senior-teachers who were also so busy with official duties that they could not teach more than 30 periods per week. This factor therefore portrays clearly why many teachers felt that they did not have adequate time for Home Science as a practical subject.

When the teachers were asked to indicate the number of periods per week when they taught Home Science (H/Sc) the following responses were given:

Table IV.11B Showing Number of Periods When Teachers Taught Home Science per Week

<table>
<thead>
<tr>
<th>H/Sc. Periods/Weekly</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 4 periods</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>5 to 9 periods</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>Over 10 periods</td>
<td>3</td>
<td>10.0</td>
</tr>
</tbody>
</table>

The above table shows that some of the teachers (43.3%) taught between 3 and 4 periods of Home Science per week. The other group of teachers (46.7%) taught between 5 and 9 periods per week, while a minority group of teachers (10%)
taught over 10 periods per week. Through these findings the researcher discovered that the first group of teachers taught only a single class while the middle group of teachers (46.7%) taught two classes and the last group of teachers (10%) taught more than two classes. This latter group of teachers consisted of specialists in Home Science. This is the reason why they were allocated more than two classes to teach.

4.1.13. Reflection of Team Work in Teaching Home Science

This item was intended to reveal whether Home Science teachers worked as a team for the success of the subject. This factor was considered important because, Home Science is a social science subject and one of its main objectives is to instil its meaning into the pupils that it is the study of family living. The family is a social unit and Home Science teachers are expected to reflect this aspect in their day to day relationships with their fellow colleagues and the pupils they teach, hence Home Science would become more of a reality. It is believed that Home Science teaching begins and ends with human relationships.
Table IV.12  Showing the Number of Teachers Who Worked as a Team for the Success of Home Science

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above shows that a large group of teachers (80%) in primary schools in Lang'ata Division worked as a team in their various schools; while a small group of teachers (20%) did not support this idea. At a glance these findings reflect that Home Science teachers in Lang'ata Division of Nairobi are moving towards the right direction of achieving the specific objectives of 8:4:4 system of education guidelines.


This item was intended to find out if teachers had adequate time to plan and prepare for Home Science lessons. It is essential that teachers have some time to plan for their Home Science lessons prior to the class. This is necessary so that if there are items to be bought, they are bought a day before the lesson. Planning a lesson just a few minutes before it is taught results in poor
teaching and hence poor learning. Planning in advance is a mark of efficiency, successful teaching and learning.

Table IV.13A  Showing the Number of Teachers Who Had Adequate Time for Planning Home Science Lessons

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above indicates the number of teachers who felt that they had adequate time for planning was about 53.3%. The rest of the teachers (46.7%) felt that they did not have adequate time for planning for their lessons in Home Science. When these findings are compared with Table IV.11A showing average number of periods that each teacher taught per week, the results seem to indicate that, teachers who taught over 40 periods per week (56.7%) had no extra time to prepare for their Home Science lessons.

When teachers were asked if they also had enough time for marking pupils' work, their responses gave the
following results.

Table IV.13B  **Showing the Number of Teachers Who Had Adequate Time for Marking Pupils' Work**

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that majority of the teachers (66.7%) felt that they did not have adequate time for marking pupils' work, while 33.3% of teachers felt that they had adequate time. These findings tend to confirm the general feeling with most of the primary school teachers that they are so overloaded with teaching that they hardly get any extra time for marking pupils' books.

4.1.15. **Consideration for Allowance of Extra Time for Planning Practical Lessons by Head Teachers.**

This item was intended to explore if some teachers had been given special consideration to allow them extra time to plan for their Home Science practical lessons by their headteachers. The importance of this aspect was due to the fact that Home Science is a practical
subject and its teachers need some extra time to plan and prepare for practical lessons prior to the class. As it has already been indicated before, most of the teachers teach over 40 periods per week. This means each teacher has an average of 8 periods per day. Considering the different subjects that each teacher teaches it is clear that they hardly get special consideration for extra time for practical lessons.

Table IV.14  Showing Number of Teachers Who Had Been Given Special Time Allowance for Their Practical Lessons

<table>
<thead>
<tr>
<th>Given Extra Time</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

As indicated in the table above, only a minority of teachers (30%) got special consideration for allowing them extra free time to plan and prepare for their practical lessons by the headteachers. Through a discussion with the heads of Home Science departments, the researcher discovered that most of the departmental heads had been given some free time in order to plan and prepare for their
Home Science lessons. Majority of the teachers (70%) did not get this special consideration since most of them had no other responsibilities except teaching and they had to teach a full load. These findings support the Nairobi City Education regulations which say that their primary school teachers should be allocated a class each.

4.1.16 Time When Home Science Teachers Plan for Their Lessons

With reference to tables IV.11A, IV.13A, IV.13B, and IV.14 it is clear that most of the subjects under study did not have adequate or extra time either for planning or preparing Home Science practical lessons. They also did not have adequate time for marking pupils' work. With this in mind, the researcher went further to find out what time they actually did their planning, preparing and marking in Home Science.
Table IV.15  Showing When Most of the Teachers Planned/Prepared for Home Science Lessons.

<table>
<thead>
<tr>
<th>Lesson Planning/Preparing Time</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>During tea-break or lunch break</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>After school hours before going home</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>At home in the evenings and during weekends.</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>Whenever there are few minutes in between lessons</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Planning depends on whether there is free time or not</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

As the table above depicts, over 80% of the teachers planned for their Home science lessons either after school before going home or when they got home in the evenings or during the weekends. These findings indicate that this group of teachers utilized its free time to prepare for their lessons. In another sense, the findings portray teachers' dedication and a sense of duty to their teaching career.

The second group of teachers of over 30% did not have systematic time for planning for Home Science lessons since some (10%) planned either during tea-break or
lunch-break, while others (16.7%) planned whenever they got a few minutes in between lessons and finally the rest (6.7%) planned depending on whether they had time or not. These findings depict an uphazard planning and a "don't care" attitude towards Home Science teaching and learning. This is not what is expected of Home Science teachers but it could have been avoided if teachers had fewer lessons to teach and extra time for planning and preparing for their lessons.

4.1.17 Popularity of Home Science Teaching

This item was intended to reveal teachers' willingness to teach Home Science. It is generally understood that if a teacher opts to teach a certain subject he/she reflects some personal interest and hence tends to be more vigourous. Such a teacher is always ready to ensure effective teaching and learning in spite of any problems.

Table IV.16 Showing Teachers' Willingness to Teach Home Science

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
The table above shows that 96.7% of the teachers would opt to continue teaching Home Science even when required to make a choice. However 3.3% felt that they would not opt to continue teaching Home Science if they were given a choice.

4.1.18 Need for More Time for Planning, Teaching, Assessment and Evaluation of Home Science

A subject that is as involving as Home Science needs to be allocated plenty of time on the time-table. This is because each section of Home Science is accompanied by relevant practical lessons in order to make the subject more complete and meaningful. This item therefore needed to portray the number of teachers who supported the wish that Home Science planning, teaching, assessment and evaluation needed to be allocated more time; so that it could be taught and learnt more effectively and successfully.

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
The table above shows that all the subjects under study (100%) supported the need for more time to be allocated for planning, teaching, assessment and evaluation of Home Science.

4.2. FACILITIES AND RESOURCE MATERIALS

Teaching and learning resources are necessary for making teaching more effective. They help the teacher to communicate with the learner more effectively and make the more complicated concepts realistic. They also increase the learners motivation and attention span. Home Science being a practical subject is one of those subjects whose objectives can only be achieved through the use of appropriate teaching/learning resources and facilities.

The analysis hereafter deals with the availability of Home Science teaching/learning resources and facilities in primary schools in Lang'ata Division of Nairobi.

4.2.1. Teachers' Possession of Textbooks for Teaching Home Science.

This item was intended to reveal if Home Science teachers possessed any textbooks for teaching Home Science. Textbooks for teaching any subject are an important resource material since they contain the required content in that subject. Textbooks therefore act as a backbone to the
teaching/learning process. Teaching without textbooks results in disorganized teaching.

Table IV.18  **Showing the Number of Teachers Who Possessed Textbooks for Teaching Home Science**

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that all the respondents in this study had some type of textbooks that they used for teaching Home Science. These findings are very encouraging.

4.2.2. **Popular Textbooks for Teaching Home Science**

With the introduction of Home Science into primary schools through the 8:4:4 system of education, a number of different authors have written textbooks on the subject. This item is intended to reveal the most popularly used textbooks in teaching Home Science.
Table IV.19  Showing the Most Popular Home Science Textbooks

<table>
<thead>
<tr>
<th>Popular Textbooks</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Home Science by K.I.E. (Teachers' and Pupils')</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>Primary Home Science by Malkiat Singh</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td>Primary Home Science by Charity Mugo</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td>Home Science for Primary Schools by Heinemann</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Home Science for Primary Schools Gateway Series</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Home Management for Schools and Colleges by Naomi Were</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Basic Needlework by Winefride Bull</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Home Science for Primary Schools by P. Muchina</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Home Science by Lata and Maya, D.K.</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

As the table above shows the most popular textbooks are Primary Home Science by K.I.E. used by 93.3% of the teachers and Primary Home Science by Malkiat Singh used by 60% of the teachers. Through discussions with the heads of Home Science departments the researcher found out that most of the teachers use these two textbooks and a few schools supplement these two with others as shown on
Table IV.19. Most of the other textbooks listed on the table above are used as reference books while K.I.E. and Malkiat Singh books are used as the main texts.

4.2.3. Pupils' Possession of Home Science Textbooks

Textbooks are as equally important to teachers as they are to pupils. Textbooks provide organized content of the subject to be studied. For pupils they assist in acting as a basis for individual study and provision of self-test exercises. They also assist the pupil in strengthening the content given by the teacher.

Table IV.20 Showing Pupils who Possessed Home Science Textbooks

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

This table shows that only a small group of teachers (23.3%) indicated that the pupils they taught possessed textbooks for Home Science, while 76.6% of the teachers indicated that the pupils they taught did not possess any Home Science textbooks. These findings are rather discouraging as they are an indication of poor learning.
4.2.4. Popular Pupils' Textbooks

This item was intended to show those Home Science textbooks that are popularly used by the pupils. This is essential since it reflects teachers' awareness of the type of textbooks that their pupils use and the content within.

Table IV.21 Showing Popular Pupils' Textbooks

<table>
<thead>
<tr>
<th>Popular Pupils' Textbooks</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Home Science by K.I.E.</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>Home Science for Primary Schools by Malkiat Singh</td>
<td>15</td>
<td>50.0</td>
</tr>
<tr>
<td>*Home Science for Primary Schools by Charity Mugo</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>*Home Science for Primary Schools by P. Muchina</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>*Primary Population and Family Life Education by K.I.E.</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

As portrayed by the table above the most popular pupils' textbooks are Primary Home Science by K.I.E. as indicated by 93.3% and Home Science for Primary Schools by Malkiat Singh as indicated by 50% of the
teachers. These findings tie up with the findings in Table IV.19, in which popular teachers' textbooks are the same as those ones for the pupils. The rest of the teachers totalling to over 30% indicated the textbooks shown above (with asterisk) as commonly used as supplementary textbooks.

4.2.5. **Textbooks Recommended by the Ministry of Education as Subject Texts**

It is a regulation by the Ministry of Education that there should be some particular textbooks that are recommended for use in every subject. This is essential so that there is uniformity in the content that is taught. The above factor prompted the researcher to try and find out which textbook out of the popular pupils books are/is recommended by the Ministry of Education.

The findings showed that Primary Home Science for both pupils and teachers by K.I.E. is the only textbook that is recommended for classroom teaching in Home Science. That means that all the other textbooks which are regarded as popular are used as supplementary books.

4.2.6. **Teaching Aids Used by Teachers in Teaching Home Science**

Teaching aids just like textbooks play an
important role in assisting the teacher to teach more effectively. This item was intended to find out those teaching aids that Home Science teachers use. This was considered important because the researcher was able to identify those teaching aids that are commonly used for teaching Home Science.

Table IV.22  
Showing Number of Teachers Who Used Various Teaching Aids for Teaching Home Science

<table>
<thead>
<tr>
<th>Type of Teaching Aids</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charts and wall pictures</td>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>Pictures and cuttings</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Cloth samples</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>Real objects like vegetables and fruits</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>Projector and films slides</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Locally available materials</td>
<td>27</td>
<td>90</td>
</tr>
</tbody>
</table>

The above table shows that Home Science teachers use a variety of teaching aids. The results show that 93.3% of teachers use cloth samples, followed by 90% of teachers who use locally available materials as teaching aids. About 70% of teachers use charts and wall-pictures and 53.3% use pictures and cuttings. Through discussions
with some of the teachers, a few teachers (6.7%) indicated that they have used the projector and films or film slides but these were only used once or twice in a year. These findings clearly portray that most teachers do not only use one type of teaching aid, but a good variety. Also through casual discussions with the heads of Home Science departments, the researcher discovered that improvisation was a common feature since commercial teaching aids are quite expensive and the schools cannot afford.

4.2.7. **Home Science Laboratories**

This item was intended to establish how many schools had Home Science laboratories. Home Science is a practical subject and due to this its practical part requires a lot of space/room so that the pupils can put into practice the skills they have learnt in the subject. This factor calls for a laboratory for Home Science practical lessons. The researcher wanted to establish how many schools had functional Home Science laboratories.
Table IV.23  Showing Primary Schools With or Without Functional Laboratories Out of Ten (10)

<table>
<thead>
<tr>
<th>Code No. of School</th>
<th>With</th>
<th>Without</th>
<th>In Use</th>
<th>Not in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>School B</td>
<td>-</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School C</td>
<td>-</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School D</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>School E</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>School F</td>
<td>-</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School G</td>
<td>-</td>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School H</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>School I</td>
<td>Yes</td>
<td>-</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>School J</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>No</td>
</tr>
<tr>
<td>Total 10</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

From the table above the results show that only six (6) schools out of the ten (10) schools under study had laboratories, however only one of the Home Science laboratories was in use. Through discussions with the heads of Home Science departments, the researcher discovered that those schools that had laboratories were in the final stages of completing their construction,
while others were complete but lacked equipment and furniture. The only school with a functional Home Science laboratory complained of lack of adequate equipment, so the room was reserved for the examination class (standard 8) only. The remaining four schools had no Home Science laboratory but plans for their construction were underway.

4.2.8. Venues for Home Science Practical Lessons

Having learnt that some schools had Home Science laboratories and that most of these were not in use, the researcher went further to find out where the teachers carried out their practical lessons. This item therefore was intended to reveal the venues that Home Science teachers used for teaching practical lessons.

Table IV.24 Showing Number of Teachers Who Used Various Venues for Practical Lessons

<table>
<thead>
<tr>
<th>Venue for Practical Lessons</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the classroom</td>
<td>15</td>
<td>50.0</td>
</tr>
<tr>
<td>In the classroom and outside the classroom</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>In the staffroom</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>
As the table above indicates majority of the teachers (50%) used the normal classroom for Home Science practical lessons. About 46.7% used a combination of the classroom and outside the classroom depending on the nature of practical lesson. These findings indicate that not many schools have an alternative room for teaching Home Science practical lessons. Through discussions with the heads of Home Science departments, the researcher learnt that the use of the classroom as a Home Science room is very inconvenient since it does not offer adequate room for free movement of the pupils. Also considering that, for each practical lesson desks have to be removed and returned at the end of the lesson, this exercise consumes plenty of time and most teachers would rather do without the practical bit of the lesson. In cases where some of the equipment for Home Science were installed in the staffroom such as electric cookers and sewing machines, a small group of teachers (3.3%) conducted some of their practical lessons there. Some of the teachers indicated that practical lessons in laundry work were more practicable if taught outside the classroom and that is why they opted to hold their practical lessons either in or outside the classroom.

4.3. CURRICULUM

Before the 8:4:4 system of education was introduced into the primary schools in Kenya, the Home Science
education was offered in fragmented bits, namely; needlework, foods and nutrition, home management and child-care. When the 8:4:4 system of education was introduced into schools, the above mentioned areas in Home Science were combined into one subject. In addition to these areas, new areas such as health education, consumer education, guidance and counselling, were also introduced. The content of all these areas had to be learnt under one subject, Home Science. Many teachers looked at this combination with mixed feelings about its deepness, broadness, scope, time allowance and appropriateness to primary school pupils. The following section explores these different aspects.

4.3.1. Broadness of Primary School Home Science Syllabus

This item was intended to explore the feelings of the Home Science teachers and find out whether there were some of them who felt that the primary Home Science syllabus was just enough or too wide to be covered within the time given at each level or class.

Table IV.25 Showing Number of Teachers Who Felt That The Home Science Syllabus Was Just Enough

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
As the table above indicates, majority of the teachers (83.3%) felt that the Home Science syllabus was more than enough to be covered within the time given at each level. However, some 16.7% of teachers felt that the Home Science syllabus was just enough to be covered within the time given at each level or class. These findings indicate that something needs to be done about the broadness of the Home Science syllabus in primary schools so that teachers can teach effectively within the time allowed.

4.3.2. Suitability of Home Science Content to the Primary School Pupils

Suitability of content of any subject to the pupils is very important since it means that pupils are acquiring knowledge that is relevant to their lives and suitable to their different ages. When content is not suitable it means that the concepts being taught are either too difficult or irrelevant to the pupils' lives. This item was intended to find out how teachers felt about the suitability of primary Home Science content to the pupils.
Table IV.26 Showing the Number of Teachers Who Felt that the Home Science Content was Either Suitable or Not

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above shows that majority of the teachers (80%) felt that the primary school Home Science syllabus was quite suitable to the primary school pupils, while 20% of the teachers felt that the syllabus was not suitable. These findings indicate that it is quite in order to teach Home Science using this syllabus in primary schools.

4.3.3. Syllabus Coverage

This item was intended to show the number of teachers who are able to cover a specific percentage of the syllabus for Home Science within each year in each class. This is important because if teachers are unable to cover the content for each class within each year, it means that those topics that are not covered have to be pushed to the next class. This is a sign of inadequate coverage of the syllabus as it results in an accumulation of left-over
topics and this places a burden on the teachers/pupils of the examination class (standard 8).

<table>
<thead>
<tr>
<th>Coverage Percentage</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 80%</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>Between 60% and 80%</td>
<td>19</td>
<td>63.4</td>
</tr>
<tr>
<td>Below 50%</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table reveals that about 63.4% of the teachers were only able to cover between 60% and 80% of the content of the syllabus for each given class, while 33.3% of the teachers were able to cover above 80% of the syllabus. A negligible number of the teachers (3.3%) managed to cover below 50% of the syllabus. These findings indicate that majority of the teachers were unable to cover the content of the syllabus for each level or class. This is a sign of inefficiency or lack of adequate time. Through interviews with the heads of Home Science departments, the researcher learnt that most teachers were unhappy with the time allowed for Home Science teaching.
4.3.4. Teachers' Suggestions on Adequate Syllabus Coverage

The teachers being both the translators and implementors of the curriculum (syllabus) would be the ideal people to evaluate its coverage. In the previous item (4.3.3.) the results showed that majority of the teachers had found it impossible to cover the syllabus in the time allocated. This item (4.3.4.) was intended to portray the teachers' suggestions as to how the syllabus for Home Science could be adequately covered.

Table IV.28 Showing Teachers' Suggestions on Adequate Syllabus Coverage

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time allocated per week to be added.</td>
<td>17</td>
<td>56.7</td>
</tr>
<tr>
<td>Materials for practicals to be supplied by the schools</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>Fully-equipped Home Science laboratories to be constructed</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Home Science teachers to be allocated fewer periods.</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Two teachers to be allocated to a single class at a time.</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Teachers to be frequently in-serviced for efficient teaching</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Home Science to be taught by specialists</td>
<td>5</td>
<td>16.7</td>
</tr>
</tbody>
</table>
N.B. Most of the teachers made more than one suggestion. Also note that the suggestions have been arranged in order of importance in the table above starting with the suggestion that was given by majority of teachers.

As the previous table shows, the majority of the teachers (56.7%) suggested that in order for the syllabus to be fully covered, more time was required; followed by need for schools to buy materials for practicals (40%), then the requirement of fully-equipped laboratories; suggestions that Home Science teachers needed to be allocated fewer periods so that they can get time to teach effectively; two teachers to be allocated a single class at a time and teachers to be frequently in-serviced carried the same weight (20%). Finally a few teachers (16.7%) suggested that Home Science needed to be taught by specialists who have the know how of the planning and management of the subject. These findings tend to suggest that majority of the teachers could be going through a lot of difficulties and problems.

4.3.5. Adequacy of Time Allocation

This item was intended to depict the number of periods allocated to each class; and whether teachers find this time adequate for teaching Home Science effectively. Adequate time allocation for teaching is essential since it ensures full coverage of the
content in the syllabus whereas lack of adequate time results in an unharzard teaching and learning hence failure to achieve the subject objectives.

Table IV.29A  **Showing the Number of Home Science Periods Allocated for Each Class**

<table>
<thead>
<tr>
<th>Class</th>
<th>Periods Per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 4</td>
<td>3</td>
</tr>
<tr>
<td>Standard 5</td>
<td>3</td>
</tr>
<tr>
<td>Standard 6</td>
<td>4</td>
</tr>
<tr>
<td>Standard 7</td>
<td>4</td>
</tr>
<tr>
<td>Standard 8</td>
<td>4</td>
</tr>
</tbody>
</table>

The table above shows that lower primary (standards 4 and 5) have three (3) periods per week each while upper primary (standards 6 to 8) have four (4) periods per week each.

Table IV.29B  **Showing Teachers' Approval or Disapproval of the Time Allocated for Teaching Home Science**

<table>
<thead>
<tr>
<th>Approval</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>No</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
As the table above reflects 96.7% of the teachers felt that the time allocated for Home Science teaching was not adequate. These findings indicated that Home Science was therefore not being taught and learnt effectively due to inadequate time.

4.3.6. Class Size

This item was intended to indicate the number of pupils per class that each teacher taught. This is important since there is a common belief that teachers teach more effectively when they handle smaller classes and that pupils learn more effectively when they are fewer in a class. Small classes are more manageable and they allow easy detection of individual differences. A teacher who teaches a small class is able to reach and assist each pupil individually.

Table IV.30 Showing Class Sizes for Home Science

<table>
<thead>
<tr>
<th>Class Size</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 40 pupils</td>
<td>19</td>
<td>63.4</td>
</tr>
<tr>
<td>Between 30 and 40</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>Less than 30</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
The table above shows that majority of the teachers (63.4%) taught classes that had more than 40 pupils, while 33.3% of teachers taught classes that had between 30 and 40 pupils. The table shows that the smallest classes that had less than 30 pupils was taught by a minority of teachers (3.3%). Teaching 30 pupils per class is considered as ideal while a class that has over 40 pupils is considered to be too large especially in practical lessons.

4.3.7. Teachers' Suggestions of Ways of Handling Large Classes in Home Science

Teachers with long experience in teaching Home Science know how to handle their classes, whatever size, with great efficiency. However, younger teachers in the profession will initially find it very difficult to handle large classes and especially during practical lessons. This item was intended to portray some useful suggestions that Home Science teachers could consider applying while handling large classes.
### Table IV.31  
**Showing Teachers' Suggestions on How Large Classes Could be Effectively Taught**

<table>
<thead>
<tr>
<th>Teachers Suggestions</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividing the class into small groups</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>Have two teachers per practical lesson</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Practical lessons to be allocated more time</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Teachers to use demonstrations more often</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Schools to have adequate facilities and resource materials</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Teachers to be more committed and use their free time</td>
<td>3</td>
<td>10.0</td>
</tr>
</tbody>
</table>

As the table above indicates 70% of the teachers suggested that, in order to handle large classes effectively one needed to divide the class into small groups especially during practical lessons. For each small group, a leader could be elected in order to assist the teacher in managing the class. The rest of the suggestions are not strong enough to warrant any
recommendation in spite of the fact that their weight ranges between 10% and 20%.

4.4. **TEACHING METHODS AND TECHNIQUES USED BY HOME SCIENCE TEACHERS**

According to the 8:4:4 system of education, Home Science, like other practical subjects is designed to develop knowledge, skills, principles and attitudes which help the learner to relate better to the social economic realities of his/her community. Therefore to ensure and facilitate effective Home Science teaching and learning, a variety of teaching methods and techniques should be used. Due to its practical nature, teachers of Home Science find some of the teaching methods more effective than others. The most effective methods are therefore those which call for the participation of both the teacher and that of the pupils. In these methods individual pupils experience learning personally and discover a personal meaning in every idea that is taught. The following section explores those teaching methods that most Home Science teachers used and the factors that influenced their choice. It also discusses suggestions and ways which could be used to improve the teaching and learning of Home Science in primary schools.
4.4.1. Teaching Methods and Techniques Commonly Used by Home Science Teachers.

Teaching methods and techniques are essential in that they influence the degree to which learning of ideas takes place. They illustrate processes and skills or stimulate interest along new lines of thought. This item was intended to reveal those teaching methods that were commonly used by Home Science teachers in primary schools in Lang'ata Division of Nairobi.

Table IV.32 Showing Common Teaching Methods Used by Home Science Teachers

<table>
<thead>
<tr>
<th>Teaching Methods</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture method</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Discussion method</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>Small groups method</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Demonstration</td>
<td>29</td>
<td>96.7</td>
</tr>
<tr>
<td>Role playing</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Dramatising</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Project method</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Questioning and quizzes</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>
In the table IV.32, it is important to note that most teachers used more than one teaching method. The results show that majority of the teachers (96.7%) used discussion and demonstration methods respectively more often. The other teaching methods that were commonly used in order of merit include: small group method (66.7%), project method (26.7%), role playing (23.3%). The last few methods that were used by less than 20% of the teachers were considered less common. These include lecture, dramatising and questioning methods. Teaching Home Science using the demonstration method is quite in order since this often leads to more effective learning than in using the other teaching methods. Discussion method of teaching assists in stimulating the learning process.

4.4.2. Factors Influencing the Choice of Teaching Methods

This item was intended to depict those factors that influenced the choice of teaching methods in Home Science. This is important since the teaching method chosen also influences the teaching and learning processes of the people involved. Factors concerned with the number of periods that a teacher teaches, class discipline, class size, the nature of the subject, topic or content will influence the teaching method that a teacher chooses to use in the lessons.
Table IV.33 Showing Factors that Influenced Teachers in Their Choice of Teaching Methods and Techniques

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching load</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Class discipline</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Class size</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>Home Science being practical</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Content and Scope of Home Science</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

The table above shows that there are various factors that influenced the choice of teaching methods in Home Science. Majority of the teachers (83.3%) felt that class size was the major factor that influenced their choice of teaching method to be used; while 66.7% of teachers felt that the number of teaching periods that a teacher had also influenced his/her choice of teaching method. About 40% of teachers felt that their choice of teaching methods was influenced by the content and scope of the Home Science, 20% and 16.7% of the teachers were influenced by the fact that Home Science is a practical oriented subject and class discipline respectively. Only a small number of teachers (3.3%) did not respond to this item. Through discussions with the heads of Home Science departments, the
researcher realized that many teachers taught very large classes which were impossible to manage during practical lessons. As a result majority of the teachers opted to teach through discussions and lecture methods. They also indicated that teachers in primary schools teach so many lessons that they could hardly plan for a good number of practical lessons.

4.4.3. Teaching Methods Appealing/Not Appealing to Pupils

Through the teaching experience of many teachers, they come to learn their pupils in such a way that they can easily detect their pupils' weaknesses, strengths, dislikes and likes. They are also able to identify the teaching methods that their pupils like or detest. This factor is essential because it prompts the teacher to try and apply those teaching methods that are more appealing to the pupils or try to find ways and means of making those less appealing teaching methods more stimulating so that teaching and learning could be more effective.
Table IV.34A  
Showing Teaching Methods that Teachers Found Appealing to Pupils

<table>
<thead>
<tr>
<th>Appealing Teaching Methods</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrations</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>Discussions</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Small-Groups method</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Project work</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Practical lessons</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Role playing</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

From this table it is clear that 73.3% of teachers find demonstration teaching method more appealing to pupils. This teaching method is followed by discussion teaching method as indicated by 66.7% of teachers. Other popular methods are; small-group teaching method (20%), practical lessons (10%), project and role playing (6.7%) respectively. Demonstrations may be quite popular to pupils because in these methods of teaching pupils are shown how to do things and in many cases they are directly involved. Demonstrations are effective in teaching since pupils learn through all the five senses; hearing, touching, seeing, feeling and tasting wherever applicable.
Table IV.34B  

<table>
<thead>
<tr>
<th>Less Appealing Teaching Methods</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Method</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td>Dramatising</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Project</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Role Playing</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Discussion</td>
<td>3</td>
<td>10.0</td>
</tr>
</tbody>
</table>

The above table indicates that 80% of the teachers found lecture method of teaching the least appealing as compared to dramatising (20%), project (20%), role playing and discussion (10%). It is generally agreed that lecture method of teaching uses only one channel of communication, namely listening. This is not an effective method of teaching especially if used with young primary school pupils whose attention span is very short. Lecture method is also not recommended for practical oriented subjects like Home Science.

4.4.4 Teachers' Suggestions of Possible Ways of Improving the Teaching and Learning of Home Science in Primary Schools

Teachers are the implementors and translators of the
curriculum (syllabus). They are the people who are directly involved in transmitting knowledge, skills, principles and practices of any given subject. Pupils are the receivers of this knowledge, skills, principles and practices. Teachers through their teaching process come into reality with any weaknesses, strengths and problems that may not be foreseen by curriculum planners. Due to all these factors, teachers are in a better position to suggest possible ways of improving the teaching and learning of any subject.

This item was intended to show some useful suggestions that could be possibly used to improve the teaching and learning of Home Science in primary schools.
Table IV.35  Showing Teachers’ Suggestions of Possible Ways of Improving the Teaching and Learning of Home Science

<table>
<thead>
<tr>
<th>Teachers Suggestions</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools to have adequate teaching/learning resources and facilities.</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td>Allow more time for practical lessons.</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Teachers/Pupils to have a variety of reference books.</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>No. of pupils to be made smaller (grouping)</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Teachers to be given fewer periods in other areas.</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Syllabus to be narrowed accordingly</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Teachers to be in-serviced.</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Teachers to show more commitment to their profession.</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Introduce ways to motivate both pupils and teachers.</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Two teachers to be allocated per class where classes are large.</td>
<td>4</td>
<td>13.3</td>
</tr>
</tbody>
</table>
The above table shows all the Teachers' suggestions as to how Home Science teaching and learning could be improved in primary schools. These suggestions have been arranged in order of importance showing the number of respondents and percentage for each suggestion starting with the most popular one, schools to have adequate teaching/learning resources and ending with allocation of two teachers per class.

4.5. **TEACHERS' ATTITUDES TOWARDS HOME SCIENCE**

Teachers' attitudes towards any subject are important since they indicate general inclinations towards or against those subjects.

Currently researchers have argued that the development of Home Science has not been an easy one due to the negative attitudes towards education of women that existed during the colonial era. A few years ago, Home Science was not examinable or compulsory to all the pupils in primary schools. With the introduction of the 8:4:4 system of education, Home Science became examinable and compulsory. This move was received with mixed feelings since some of the teachers and pupils felt that primary schools were not yet ready to offer Home Science to all the pupils (boys and girls). The reasons for these mixed feelings were prompted by the fact that many schools
lacked the necessary resource materials and facilities. Home Science is a practical subject and thus it requires dedicated teachers who are well informed in the subject. Some of the teachers therefore had positive attitudes towards its success while others had negative attitudes.

This section analyses the teachers' attitudes towards Home Science and its related aspects. Attitudes are important in that teachers with positive attitudes towards a subject do a better teaching job than those with negative attitudes.

In the analysis the following scales were used:

- S.A. meaning strongly Agree
- A. meaning just Agree
- U. meaning Undecided
- D. meaning just Disagree
- S.D. meaning strongly Agree

The researcher has assumed that statements bearing S.A. (Strongly Agree) and A. (Agree) are positive and therefore in this analysis they have been used to mean the same thing. (Positive Response). The scale U. (Undecided) remains the same as used in the questionnaire. The scales S.D. (Strongly Disagree) and A. (Agree) have been used to mean the same thing in this analysis.
Table IV.36  Showing Teachers' Attitudes Towards Home Science Teaching and Learning

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>ATTITUDE SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teachers see Home Science as involving a lot of work</td>
<td>SA/A</td>
<td>28</td>
<td>93.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Home Science seen as a difficult subject to teach</td>
<td>SA/A</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Teacher enjoys teaching other subjects better than Home Science</td>
<td>SA/A</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>20</td>
<td>66.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Teacher enjoys reading more about Home Science during free time</td>
<td>SA/A</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Teacher enjoyed Home Science related activities during school days</td>
<td>SA/A</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
Table IV.36 Continued.

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>ATTITUDE SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Teacher finds pupils enjoying her Home Science lessons</td>
<td>SA/A</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>No other textbooks to be used for teaching Home Science except K.I.E.books</td>
<td>SA/A</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>22</td>
<td>73.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>Lack of necessary equipment makes Home Science difficult to teach</td>
<td>SA/A</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>Most of the Home Science teaching aids cannot be improvised</td>
<td>SA/A</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Periods allocated for Home Science not being adequate for one to cover the syllabus</td>
<td>SA/A</td>
<td>27</td>
<td>90.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>Teacher having never managed to cover all the topics in her teaching experience in Home Science</td>
<td>SA/A</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>15</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
Table IV.36 Continued.

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>ATTITUDE SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Teacher having been inserviced regularly whenever there is need</td>
<td>SA/A 7</td>
<td>23.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 3</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 20</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Divisional T.A.C. having assisted the Home Science teachers whenever need arose</td>
<td>SA/A 6</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 6</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 18</td>
<td>60.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Home Science to be taught to all pupils (boys and girls)</td>
<td>SA/A 24</td>
<td>80.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 6</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Girls performing better than boys in Home Science</td>
<td>SA/A 6</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 2</td>
<td>6.7</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 22</td>
<td>73.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Boys performing better than girls in Home Science</td>
<td>SA/A 6</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 4</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 20</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Teaching a small group of pupils being better than teaching a large one</td>
<td>SA/A 27</td>
<td>90.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U 0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD 3</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 30</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
In table IV.36, twenty (20) items that show different teachers' attitudes have been displayed.

Item number one shows that 93.4% of the teachers agreed with the statement that Home Science involved a lot of work while 3.3% disagreed with it. Some 3.3% of the teachers were undecided about the statement. In item number two, 23.3% of the teachers agreed with the statement that Home Science was a difficult subject to teach while the majority of the teachers disagreed with it. About 6.7% of the teachers were undecided. These findings showed...
that many teachers found Home Science an easy subject to teach.

As far as enjoying teaching Home Science majority of the teachers (66.6%) displayed the negative attitude that they did not enjoy teaching other subjects better than Home Science. A minority of teachers (16.7%) agreed that they enjoyed teaching other subjects better than Home Science, while 16.7% of teachers were undecided.

Item number four which talked about reading Home Science related literature, 76.7% of the teachers agreed with the statement that they enjoyed reading more about Home Science during their free time. On the same item 23.3% of the teachers disagreed with the statement, while 10% were undecided.

In item number five, majority of the teachers (86.7%) agreed with the statement that they enjoyed Home Science related activities during their school days. About 10% disagreed with the statement and 3.3% of teachers were undecided.

In item number six, majority of the teachers (70%) agreed with the statement that pupils enjoyed their Home Science lessons while 13.3% disagreed with it. About 16.7%
were undecided.

In item number seven majority of the teachers (73.4%) disagreed with the statement that only K.I.E. books should be used for teaching Home Science. These findings indicated that Home Science teachers felt that there was need for other Home Science textbooks to be used. In this item, 13.3% of the teachers agreed that only K.I.E. textbooks should be used for teaching Home Science while 13.3% of teachers were undecided.

In item number eight majority of the teachers (93.3%) agreed with the statement that lack of necessary equipment made their teaching job more difficult, while 6.7% disagreed with the statement. This item reflected that lack of equipment for Home Science was a major factor that influenced the teaching of the subject.

In item number nine 60% of the teachers disagreed with the statement that most of the Home Science teaching aids could not be improvised, while 36.7% of the teachers, agreed with the statement. Only 3.3% of teachers were undecided on this item.

In item number ten, 90% of the teachers agreed with the statement that time allocated for Home Science was not adequate, while 10% disagreed with the statement.
These findings indicated that lack of adequate time was another main factor that affected the teaching and learning of Home Science.

In item number eleven, responses were almost equal in weight since 40% of the teachers agreed with the statement that they had never managed to cover the syllabus in their teaching career, while 50% disagreed with the statement. Only 10% of teachers were undecided about the statement.

In item number twelve, it was clear that majority of the teachers (66.7%) had not been in-serviced in any way, while 23.3% agreed that they had been inserviced in Home Science. A small number of teachers (10%) were undecided about the statement.

In item number thirteen, the table portrays that 60% of the teachers disagreed with the statement that the divisional T.A.C. assisted Home Science teachers while 20% of the teachers agreed with the statement. Some 20% of the teachers were undecided about the statement. The results on this item seemed to confirm the findings on table IV.9A. and 9B.

In item number fourteen, majority of the teachers (80%) agreed with the statement that Home Science needed
to be taught to all pupils both boys and girls. A small minority of the teachers (20%) disagreed with this statement. These findings indicated that initial negative attitudes towards Home Science as being a female domain were changing.

In item number fifteen, majority of the teachers (73.3%) disagreed with the statement that girls performed better than boys in Home Science. About 20% of the teachers agreed with the statement and only 6.7% were undecided.

In item number sixteen majority of the teachers (66.7%) disagreed with the statement that boys performed better than girls while 20% disagreed with the statement. Some 13.3% were undecided about this statement.

Item numbers sixteen and fifteen therefore indicated that both boys and girls performed equally well in Home Science.

In item number seventeen, majority of the teachers (90%) agreed that teaching a small number of pupils was better than teaching a large one. This is true since a teacher will be able to reach every pupil if the class is small. On this item 10% of the teachers disagreed with the statement.
In item number eighteen, the statement that Home Science needed to be made optional to pupils in primary schools, 43.3% of the teachers agreed with the statement while 46.7% disagreed with the statement. Some 10% of the teachers were undecided.

In item number nineteen, 76.7% disagreed with the statement that some of the topics in primary Home Science were not suitable for the pupils at this level. This showed that most of the topics were suitable for primary school pupils. Some 23.3% agreed with the statement showing that some topics were not suitable.

In item number twenty 83.3% of the teachers agreed with the statement that, the introduction of Home Science into primary schools was a major step towards self-reliance. Some 10% of the teachers disagreed with the statement, while 6.7% were undecided.

Generally, teachers showed positive attitudes as a whole towards the teaching and learning of Home Science

4.6. PUPIL RELATED VARIABLES

Pupils are the receivers of all the knowledge, skills, principles and practices that are passed to them by the teachers, and have an important role to play in the process
of their learning. As they go through the process of learning there are many factors such as lack of time, exercise books, textbooks, learning materials and fully committed teachers, that will affect them. Pupils are essential because without them the teaching profession would be meaningless. Thus pupils and teachers make the teaching and learning process complete.

The following section analyses those factors that affect the learning of Home Science in primary schools as far as pupils are concerned. The subjects in this study included one hundred and twenty pupils (60 boys and 60 girls), who were randomly selected from standards 5, 6, and 7 from ten (10) schools in Lang'ata Division of Nairobi.

4.6.1. Possession of Home Science Exercise Books

This item was intended to explore the ownership of exercise books specifically for Home Science by the pupils. Exercise books play a vital role in the teaching and learning process as they provide a storage of learnt materials and content. Exercise books also are used for doing exercises and assignments that are given by the teachers. All this enhances effective teaching/learning process.
Table IV.37  Showing the Number of Pupils Who Possessed Their Own Exercise Books for Home Science

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>119</td>
<td>99.2</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the above table shows, majority of the pupils (99.2%) possessed their own exercise books specifically for Home Science. Some 0.8% of the pupils did not possess any exercise book. The researcher was aware that pupils are expected to buy their own textbooks and thus it is likely that this pupil who did not possess any exercise books, came from a poor family.

4.6.2. Possession of Home Science Text Books

This item was intended to reveal whether pupils own their own textbooks of Home Science. In any subject the textbook plays an important role in facilitating learning. A textbook is also a source of content and self testing exercises. It allows individual learning which assists in the development of knowledge, skills, principles and practices in the respective subject.
Table IV.38  Showing Pupils' Possession of Textbooks

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>81</td>
<td>67.5</td>
</tr>
<tr>
<td>No</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table shows that majority of the pupils (67.5%) possessed their own textbooks in Home Science, while 32.5% of the pupils did not. These findings were confirmed through interviews with the heads of departments for Home Science who indicated that most of the pupils from poor families could neither afford textbooks nor materials for Home Science practicals.

4.6.3. Possession of Materials for Making Needlework Articles

This item was intended to reveal the number of pupils who possessed materials for making needlework articles. Home Science being a practical subject demands a lot of resource materials. Pupils in all the primary schools are expected to buy their own materials for Home Science. Some poor families find it quite impossible to meet all the rising costs of education and the affected pupils have to do without a few things.
Table IV.39  **Showing Pupils’ Possession of Materials for Needlework**

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>95</td>
<td>79.2</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>20.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table shows that 79.2% of pupils possessed materials for making needlework articles, while 20.8% did not possess any.

4.6.4. **Parents’ willingness to Buy the Requirements for Practical Lessons**

Practical lessons are essential since they help the pupil to learn through doing. One way of ensuring that practical lessons are successfully taught and learnt is by making all pupils involved in the lesson. This can only be done if all pupils have adequate learning materials. This item was intended to reveal the number of pupils whose parents are willing to buy for them all the necessary materials for practical lessons.
Table IV.40  

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>83</td>
<td>69.2</td>
</tr>
<tr>
<td>No</td>
<td>37</td>
<td>30.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table shows that majority of the pupils (69.2%) had parents who were willing to buy for them all the necessary requirements for practical cookery lessons in Home Science. Some 30.8% of the pupils indicated that their parents were unable to buy requirements for practical cookery lessons. This factor could have been prompted by lack of money on the part of the parents.

4.6.5 Acceptance of Home Science Lessons

This item was intended to find out whether pupils enjoyed learning Home Science or not. When a pupil enjoys learning a subject, he/she reflects a positive attitude towards that subject.
Table IV.41  Showing Number of Pupils Who Enjoyed Home Science Lessons

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>114</td>
<td>95</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above shows, 95% of the pupils enjoyed Home Science lessons.

4.6.6.  Provision of Home Assignments in Home Science Practical Work

This item was intended to reveal whether pupils were given home assignments in Home Science practical work. Home assignments are essential in that they occupy the pupils while at home. Home Science involves a lot of practical work and as it has already been indicated, it suffers lack of adequate time to cover the syllabus. Due to this fact, some of the practical work that pupil could do on their own could comfortably be done at home with the assistance of the pupils' parents. This enhances a spirit of co-operation and commitment between the teachers, parents and pupils and hence effective learning.
Table IV.42 Showing Pupils' Responses as to Whether They Were Given Home Assignments in Home Science Practical Work

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>100</td>
<td>83.3</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above depicts, 83.3% of the pupils indicated that their teachers provided them with practical home assignments in Home Science. Only 16.7% indicated that they were not given any home assignments in Home Science.

4.6.7 Teachers' Organization of Home Science Practical Lessons

This item was intended to show pupils responses as to whether their teachers organized Home Science practical lessons. As earlier mentioned, practical lessons reinforce theoretical lessons. Teachers who organize practical lessons show a mark of efficiency.
Table IV.43  Showing Pupils' Responses as To Whether Their Teachers Organized Home Science Practical Lessons.

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>115</td>
<td>95.8</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above indicates, 95.8% of the pupils indicated that their teachers organized practical lessons for them.

4.6.8. Teachers' Assistance to Pupils in Practical Lessons

This item was intended to find out how many pupils were assisted by their teachers during practical lessons by showing them how to do things. In all practical lessons in any subject, teachers are expected to show the pupils what to do and how to do things.

Table IV.44 Showing Number of Pupils Who Were Assisted by Their Teachers in Home Science Practicals

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>114</td>
<td>95</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>
As the above table shows 95% of the pupils indicated that their teachers assisted them in Home Science practical work by showing them what to do and how to do it.

4.6.9. Pupils Having Made Their Home Science Articles on Their Own

This item was intended to find out if pupils made their Home Science articles on their own or if they had to seek assistance from their relatives. Pupils in all schools are expected to learn practical lessons by doing. Learning would not be fully achieved if pupils had to have some of their practical work done by others.

Table IV: 45A. Showing Pupils' Responses as to Whether They Made Their Home Science Articles on Their Own

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>45</td>
</tr>
<tr>
<td>No</td>
<td>66</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Table IV. 44A shows that 45% of the pupils made all their Home Science articles on their own, while 55% of the pupils did not.
Table IV.45B. Showing Number of Pupils Who Were Assisted By Relatives to Make Home Science Articles

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>58</td>
<td>48.3</td>
</tr>
<tr>
<td>No</td>
<td>62</td>
<td>51.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that 48.3% of the pupils were assisted to make Home Science articles while 51.7% were not.

4.6.10. Home Science Being a Difficult Subject

This item was intended to indicate the number of pupils who find Home Science a difficult subject. Pupils' interest in a subject determines the degree of difficulty in understanding that subject. Those pupils who find a subject easy, tend to understand it faster than those who find it difficult to learn.
Table IV.46  Showing Number of Pupils Who Found Home Science Difficult

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>No</td>
<td>110</td>
<td>91.7</td>
</tr>
</tbody>
</table>

The above table shows that 91.7% of the pupils did not find Home Science difficult to learn while 8.3% of the pupils found it difficult. This is a clear indication that pupils in primary schools are interested in Home Science.

4.6.11  Availability of Adequate Time at Home to do Home Science Assignments

This item was aimed at establishing whether pupils have adequate time at home to do Home Science assignments. Pupils who live in urban centres like Nairobi usually have plenty of free time after school each day unlike rural pupils who attend to a variety of activities after school like fetching water, looking for firewood and so on. It is therefore essential that urban pupils are kept occupied as this develops a sense of responsibility and organization.
Table IV.47  Showing Availability of Time at Home to do Home Science Assignments

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>99</td>
<td>82.5</td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the above table shows majority of the pupils (82.5%) indicated that they had adequate time at home to do Home Science assignments. Some 17.5% of pupils indicated that they did not have adequate time at home to do Home Science assignments. These findings indicated that the learning of Home Science was taking place as was expected.

4.6.12. Parents Being Happy that their Sons/Daughters are Learning Home Science in School

When Home Science was introduced into primary schools and was made compulsory and examinable to all pupils (boys and girls) initially there was hue and cry that this step was impossible. Many parents did not accept it immediately especially fathers of sons. This was as a result of the negative attitudes that existed towards Home Science. Many parents felt that Home Science was a
female domain.

### Table IV.48 Showing Pupils Whose Parents Were Happy Now That They Were Learning Home Science

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>114</td>
<td>95.0</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the above table shows majority of the pupils (95%) indicated that their parents were happy now that they were learning Home Science, while 5% of the pupils indicated that their parents were not happy. These findings indicate that majority of the parents have by now developed positive attitudes towards Home Science.

#### 4.6.13. Teachers' Positive Relationship With Pupils In Home Science

This item was intended to reveal the number of pupils who felt that their Home Science teachers related well with them. Researchers have argued that effective Home Science teachers must be humane, responsive, rational, caring and feeling individuals. Such teachers must show positive relationship and supportive interaction between them and their pupils.
Table IV.49  Showing Pupils Whose Teachers Showed Positive Relationship With Them

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>116</td>
<td>96.7</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>3.3</td>
</tr>
</tbody>
</table>

The table above shows that majority of the pupils (96.7%) indicated that their teachers related with them positively by assisting them in practical work, inspecting and assessing it. This is a clear indication that Home Science teachers in primary schools were quite effective despite the many problems that they faced.

4.6.14. Pupils' Positive Contribution at Home

The aim of this item was to reveal pupils' positive contribution at home as a result of learning Home Science. Home Science is a unique discipline since it requires the learner to apply the acquired knowledge, skills, principles and practices directly to real life situations. In this case, the primary Home Science pupils are expected to apply the knowledge they learn directly to their families by assisting family members or the house servants.
Table IV.50  Showing Those Pupils Who Applied Home Science Knowledge at Home

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>11.7</td>
</tr>
</tbody>
</table>

The table above indicates that 88.3% of the pupils contributed positively towards their homes by assisting their family members or the house servant with Home Science related activities. Some 11.7% of the pupils indicated that they did not contribute positively at home. These findings indicate that Home Science was achieving its objectives as stipulated by the 8:4:4 system of education.

4.6.15  Wish to Continue Doing Home Science Even At Secondary Level

This item was intended to show those pupils who had the wish to continue doing Home Science even at secondary level. This is important since it indicates the acceptance and popularity of the subject.
Table IV.51  Showing Number of Pupils Who Wished To Continue Doing Home Science Even At Secondary Level

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>105</td>
<td>87.5</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above indicates that most of the pupils (87.5%) would opt to continue doing Home Science even at secondary level, while 12.5% did not accept this suggestion. This means that Home Science has been fully accepted.

4.6.16. Boys Doing Home Science

This item was intended to find out if there was a general consensus that boys should do Home Science. It is important that all pupils (boys and girls) learn the Home Science discipline so that when they start their own families they can contribute equally to their homes.
Table IV.52  Showing Pupils Who Thought Boys Needed To Learn Home Science Also

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>108</td>
<td>90.0</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above shows, majority of the pupils (90%) indicated that boys needed to learn Home Science, while 10% did not accept this statement. There has been a general feeling that Home Science is a female domain, but the findings in this study refuted that claim.

4.6.17. Acceptance that the Home Science Teachers Are Good Teachers

To learn and teach Home Science effectively, pupils must relate well with their teachers. This is done through pupils' acceptance of their teachers as being the best and also through the teachers in giving the right content to the pupils and being their source of inspiration. This item was intended to portray those pupils who thought that their Home Science teachers were some of the best teachers that they had.
Table IV.53  Showing Pupils Who Felt That Their Home Science Teachers Were some of the Best Teachers They Had

<table>
<thead>
<tr>
<th>Responses</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

As the table above shows majority of the pupils (88.3%) indicated that their Home Science teachers were some of the best teachers that they had, while 11.7% of the pupils did not feel the same.

These findings indicate that most Home Science teachers are effectively teaching the subject. They also indicate that majority of the pupils are learning the subject effectively despite the few problems that they face.

4.7. PUPILS' ATTITUDES TOWARDS HOME SCIENCE

Pupils' attitudes towards any subject are important since they indicate general inclinations towards or against those subjects. Before the introduction of the 8:4:4 system of education Home Science was not examinable and compulsory to all pupils in primary schools.
Now that it has been made examinable and compulsory it is important to know how pupils have responded to this challenge. Pupils with positive attitudes towards Home Science learn better than pupils with negative attitudes.

This section analyses the general pupils' attitudes towards Home Science in the primary schools in Lang'ata Division of Nairobi.

In the questionnaire the scales Strongly Agree (SA) and Agree (A) were used separately while in this analysis they have been used together (SA/A) to mean the same thing or to refer to a positive response. The scale undecided (U) remains as used in the questionnaire. The scales Disagree (D) and Strongly Disagree (SD) which were used in the questionnaire separately, have been used in this analysis together (D/SD) to mean the same or to refer to a negative response.

At the end of the analysis a discussion about the findings has been given.
Table IV.54  Showing Pupils' Attitudes Towards Home Science

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Home Science lessons being interesting</td>
<td>SA/A</td>
<td>114</td>
<td>95.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Teachers' encouragement to pupils to study Home Science</td>
<td>SA/A</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Parents' encouragement to pupils to study Home Science</td>
<td>SA/A</td>
<td>99</td>
<td>82.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>7</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>14</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>If choice of subjects to be dropped was given, one would drop Home Science</td>
<td>SA/A</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>87</td>
<td>72.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Pupil enjoyed Home Science lessons more than any other subject</td>
<td>SA/A</td>
<td>74</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>16</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Pupil enjoyed needlework lessons only</td>
<td>SA/A</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>64</td>
<td>53.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>ITEM NUMBER</td>
<td>STATEMENT</td>
<td>SCALE</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------</td>
<td>---------</td>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>7</td>
<td>Pupil enjoyed cookery lessons only</td>
<td>SA/A</td>
<td>48</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>55</td>
<td>45.8</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>Pupil enjoyed child-care lessons only</td>
<td>SA/A</td>
<td>32</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>22</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>66</td>
<td>55.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>Pupil enjoyed house care lessons only</td>
<td>SA/A</td>
<td>42</td>
<td>35.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>22</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>56</td>
<td>55.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>42</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>Pupil enjoyed health care lessons only</td>
<td>SA/A</td>
<td>55</td>
<td>45.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>47</td>
<td>39.2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>Teacher made learning of Home Science very interesting</td>
<td>SA/A</td>
<td>111</td>
<td>92.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>Pupils were taught things that affected themselves, their families and homes</td>
<td>SA/A</td>
<td>91</td>
<td>75.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>
Table IV.54 Continued.

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Learning Home Science made pupil think of taking up a Home Science related career in future</td>
<td>SA/A</td>
<td>78</td>
<td>65.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>19</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>Home Science to be taught to girls only</td>
<td>SA/A</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>105</td>
<td>87.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>Home Science to be taught to both boys and girls</td>
<td>SA/A</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>16</td>
<td>Home Science being a waste of time, hence should be removed from the time table</td>
<td>SA/A</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>Teacher not showing pupils what to do during Home Science lessons</td>
<td>SA/A</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>114</td>
<td>95.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>Pupil detested days when Home Science appeared on the time table</td>
<td>SA/A</td>
<td>9</td>
<td>75.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U</td>
<td>5</td>
<td>42.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>106</td>
<td>88.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>
As the above table shows majority of the pupils agreed with all the statements which expressed positive attitudes towards Home Science. These statements included item number one showing 95% agreement, item number two showing 88.3% agreement, item number three showing 82.5% agreement, item number five showing 61.7%, item number eleven showing 92.5%, item number twelve showing 75.8% agreement, item number thirteen showing 65% agreement and item number fifteen showing 88.3% agreement. The findings also showed that majority of the pupils disagreed with those statements which expressed negative attitudes towards Home Science. These statements included; item number four showing 72.5% disagreement, item number fourteen showing 87.5% disagreement, item number sixteen showing 88.3% disagreement, item number seventeen showing 95% disagreement, item number eighteen showing 88.3% and finally item number nineteen showing 93.3% disagreement.

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STATEMENT</th>
<th>SCALE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Teacher taught other subjects during Home</td>
<td>SA/A</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Science lessons</td>
<td>U</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D/SD</td>
<td>112</td>
<td>93.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>
Items numbers six, seven, eight, nine and ten were set in such a way that pupils could express either positive or negative attitudes towards special areas of Home Science. In item six, 32.5% of the pupils agreed that they enjoyed needlework while 53.3% expressed negative attitudes, and 14.2% of the pupils were undecided. In item seven 40% of the pupils expressed positive attitudes towards cookery while 45.8% did not. Some 14.2% of the pupils were undecided. In item number eight 26.7% of the pupil's expressed positive attitudes towards child-care while 55% did not and 18.3% of the pupils were undecided. In item nine, 35% of the pupils expressed positive attitudes towards house-care while 46.7% disagreed. Some 18.3% of the pupils were undecided. In item number ten, 45.8% of the pupils expressed positive attitudes towards health care lessons while 39.2% disagreed and 15% were undecided.

Generally all the pupils expressed positive attitudes towards Home Science and this is a great encouragement to teachers, curriculum planners and the nation as a whole. These findings therefore indicate that Home Science is generally achieving its objectives and that it has been fully accepted in the primary schools despite the few problems that any new practical subject would initially face.
4.8. INTERVIEW SCHEDULE FOR HEADS OF HOME SCIENCE DEPARTMENTS

This interview schedule was administered to ten heads of the Home Science departments of the ten schools that were under study. The interview schedule was administered as a way of counter-checking the information given in the questionnaires and attitude scales for both the teachers and the pupils.

A general discussion that touched on the major study areas was carried out with the heads of Home Science departments. These heads of Home Science departments had also responded to the questionnaire and attitude scale.

On the number of Home science teachers in all the ten schools under study, the findings showed a total of ninety six (96) teachers. This gave an average of nine (9) teachers per school.

Out of these 96 teachers, only three (3) were untrained. These three untrained teachers were not confined to any class, but were allocated standards four (4) five (5), six (6), seven (7) and eight (8) to teach Home Science.

The heads of Home Science departments indicated that majority of the teachers were not comfortable with
Home Science and this was true with eight (8) schools out of those (10).

On the question of Home Science room, it was confirmed that six (6) schools out of the ten (10) schools under study had Home Science rooms. The only problem was that, five (5) of these six Home Science rooms were not in use and they lacked equipment. The other schools were still making plans to construct Home Science rooms.

On the question on alternative Home Science rooms, all the Home Science heads indicated that they used classrooms, or outside the classroom for Home Science practicals. It was confirmed that most of the practical materials and equipment was brought by pupils from their homes.

When asked about the number of pupils in each class the findings showed an average of forty-three (43) pupils per class.

On the question of resource materials such as textbooks, exercise books and Home Science teaching aids, the heads of department all unanimously confirmed that the City Education Office supplied the schools with a few textbooks (pupils' and teachers') and a few Home Science equipment and materials. However, the teachers complained that the
sewing materials they got from the City Education Office were of very poor quality and they could hardly go round a class. These heads of departments expressed the need to supplement the K.I.E. Home Science textbooks since they felt that the content in these books was very shallow.

On the question of parents response to Home Science, all the heads of department agreed that most of the parents agreed to support the Home Science subject by buying the necessary materials, textbooks and other requirements. The only parents who could not buy materials were the poor ones.

Heads of Home Science departments also confirmed that some of the problems that their teachers complained about included, teaching large classes, teaching very many periods, attempting to cover the Home Science Syllabus which they said was very wide, lack of teaching/learning resources and facilities, and inadequate time allocation for Home Science lessons. Lack of textbooks was not a very serious problem since most of the pupils had bought their own copies.

On the question of whether Home Science was achieving its objectives six (6) out of the (10) heads of departments believed that Home Science was achieving its objectives while the remaining four (4) felt that Home Science was
failing due to lack of facilities, equipment and resource materials coupled with the problem of teaching large classes.

On the question of whether there were any pressing factors that the heads of Home Science departments felt that they were affecting Home Science teaching and learning the following findings were revealed.

Table IV.54  
Showing Pressing Factors That Affected Home Science Teaching and Learning Out of Ten (10) Schools

<table>
<thead>
<tr>
<th>Pressing Factors</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide syllabus</td>
<td>6</td>
<td>60.0</td>
</tr>
<tr>
<td>Large classes</td>
<td>7</td>
<td>70.0</td>
</tr>
<tr>
<td>Lack of facilities and resource materials</td>
<td>7</td>
<td>70.0</td>
</tr>
<tr>
<td>Failure to Assess Practicals</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Attitude that only women should teach it</td>
<td>3</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Table IV.54 shows that wide syllabus, large classes and lack of facilities were some of the major factors that affected the teaching and learning of Home Science.
On the question of how some of these problems could be solved the heads of departments gave the following suggestions.

(a) Provision of adequate facilities and equipment.
(b) Teachers can divide their classes into groups when teaching practical lessons.
(c) All continuous assessment and practical work to be graded or be recognised by awarding a certificate in order to encourage pupils and teachers.
(d) Home Science teachers should be in-serviced regularly.
(e) Male teachers should be included in Home Science teaching to help change the attitude that it could only be taught by female teachers. This step if taken would also encourage the boys.
(f) More time should be allocated to the subject especially for practical lessons.

4.9. CONCLUSION

In conclusion the data analysed has revealed a number of factors that have been portrayed as affecting the teaching and learning of Home Science. These factors relate to the teachers, pupils, the school, Home Science curriculum and are summarised in chapter five.
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0. INTRODUCTION

The purpose of this study was to find out the factors that affect the teaching and learning of Home Science in primary schools in Lang'ata Division of Nairobi. This chapter presents the summary of the findings followed by conclusions and recommendations.

5.1. SUMMARY OF FINDINGS

From the data analysed and discussed in Chapter Four various factors were clearly indicated as having some influence on the teaching and learning of Home Science in primary schools in the area of study. Among those indicated were factors that touched on teachers, the primary school Home Science curriculum (syllabus), size of the classes, unavailability of facilities and resource materials, lack of adequate time, teaching methods and techniques, attitudes of teachers and pupils towards Home Science and finally the general problems associated with the teaching and learning of Home Science in primary schools.

5.1.1. Teachers

Teachers are the tools through which knowledge skills, principles, practices and attitudes are
transmitted to the pupils. They make learning possible by translating the syllabus of any given subject to the pupils. Their quality in form of qualifications, both academic and professional training, sex, age, competence in the subject matter and related issues, can adversely affect the quality of teaching that they do. Through this study the following factors related to teachers were revealed:

(a) All the teachers teaching Home Science were females and that all except one had a teaching experience of more than two years. Only one was not trained. It was also noted that all the teachers under study had done some secondary education with the lowest being of form two level and the highest being of higher school education level (Form Six). All the trained teachers had either a P2, P1, PI/S1 or S1 teaching certificate and had done some Home Science while in training or in school.

(b) It was regrettably noted that slightly less than half of the teachers (43%) had attended in-service courses since 1984 while the rest of the teachers had not attended any. The major reasons for not attending in-service courses included lack of plans by the concerned authorities, that all teachers could not attend in-service courses since they
would dessert their lessons. About 50% of the teachers gave no reasons for failing to attend inservice causes.

(c) The findings showed that in Lang'ata Division there was no Teachers' Advisory Centre (T.A.C.), however, there was a Nairobi Province T.A.C. The teachers responses indicated that the Nairobi T.A.C. was not of much help to them since about 66.7% of the teachers had not seen any T.A.C. personnel assisting them in their respective schools. The main reasons for this failure was that, T.A.C. personnel lacked interest in Home Science related issues. They also indicated that the Nairobi T.A.C. lacked personnel qualified in the Home Science subject. Some other teachers felt that there was no communication between the T.A.C. and the teachers in various schools.

(d) Most of the Home Science teachers taught only one or two classes (3 to 8 periods per week) of Home Science despite their large teaching load of forty (40) and over lessons per week.

(e) Teachers indicated that they had no time for attending to different aspects of Home Science such as marking pupils' work at school, or assisting them in Home Science related activities. Apart from this they
specifically indicated that they were not given any special consideration due to the fact that they were teaching a practical subject. While in school they had no time to mark and so they would either mark or plan or evaluate pupils' work after school hours, at home or during the weekends.

5.1.2. **Facilities and Resource Materials**

Facilities and resource materials are essential because without them teaching becomes inadequate. These items which include textbooks, exercise books, teaching aids, materials and all requirements for Home Science including foodstuffs and a well-equipped Home Science laboratory make the teaching and learning of Home Science successful. The findings indicated that:

(a) All the teachers had a good variety of reference books for Home Science, however, the K.I.E. Home Science textbooks and Primary Home Science by Malkiat Singh were dominant. Out of all these textbooks only K.I.E. Home Science books were recommended by the Ministry of Education for use in primary schools.

(b) The study showed that Home Science teachers were using a variety of teaching aids. Those which featured prominently were cloth samples used by
93.3% of the teachers, locally available materials used by 90%, real objects like vegetables and fruits used by 86.7% of the teachers, charts and wall pictures used by 70% of the teachers.

(c) It was pathetic to note that only one primary school had a functional Home Science room or laboratory out of the ten (10) schools under study, five (5) schools had completed Home Science laboratory but they lacked equipment, four (4) other schools had no Home Science rooms but were making plans to construct them.

5.1.3. Curriculum

In the 8:4:4 system of education Home Science includes more areas than the three which were taught previously. Its broad aspect has affected many teachers' adjustment and approach to the teaching of the subject. Due to this feature the findings related to its use and approach indicated that:

(a) About 83.3% of the teachers found it too wide to be covered within the time allowed on the time table.

(b) Some teachers (80%) indicated that the content was suitable, however, about 63.3% of the teachers indicated that they only managed to cover between 60% to 80% of the syllabus for each level or class; hence extra time was needed for its full coverage.
(c) Most of the teachers (63.4%) taught very large classes (with over 40 pupils) and therefore were unable to meet individual needs of every pupil.

5.1.4. Teaching Methods and Techniques

Teaching methods and techniques are essential since they determine how well a lesson is learnt. The following were the findings on this area.

(a) Teachers used a variety of teaching methods and techniques which they found most applicable depending on the conditions present. The most common methods were demonstration and discussion methods both used by 96.7% of the teachers. The other popular teaching methods included small-group method used by 66.7% of the teachers. The other teaching methods were not popular since they were used by below 26% of the teachers.

(b) Findings indicated that the teaching methods and techniques that appealed to the pupils were demonstrations and discussions, while those which did not appeal to them included lecture, dramatisation and role playing methods.

In general there were many factors that teachers felt affected their teaching and the learning of the pupils. About 83.3% of the teachers felt that large classes were a major factor, while 66.7% of the teachers found teaching
load to be a major factor. About 40% of the teachers regarded the scope of the Home Science syllabus to be another factor. Through discussions a good number of teachers indicated lack of resource materials and facilities as another factor that led to poor teaching and learning.

5.1.5. Teachers Attitudes Towards Home Science

The findings revealed that the greater proportion of the teachers who responded to the teachers attitude scale were positively inclined towards the teaching and learning of Home Science in primary schools as shown below:

(a) Although a very great majority (93.3%) felt that Home science involved a lot of work, about 70% of the teachers thought it was not difficult to teach. A majority of 66.7% agreed that they enjoyed teaching Home Science.

(b) The majority of the teachers (76.7%) reported that they enjoyed reading Home Science related literature while 86.7% enjoyed Home Science during their school days.

(c) A very great majority (93.3%) reported that lack of necessary equipment made their Home Science lessons difficult to teach. Some 63.3% of the teachers agreed that most Home Science teaching aids could be improvised.
(d) As regards time 90% of the teachers agreed that time allocated for Home Science was not adequate to cover the syllabus.

(e) About 50% of the teachers agreed that they had not been in-serviced regularly.

(f) As regards the Nairobi T.A.C. about 63.3% of the teachers agreed that they did not get any assistance from it.

(g) Most of the teachers, (80%) agreed that all pupils should learn Home Science whether they are boys or girls. On this question, the teachers generally agreed that no sex was better than the other as far as performance was concerned.

(h) On teaching methods, 90% the teachers agreed that teaching small groups was better than teaching large groups.

(i) On the question of making Home science optional the number of those who agreed (43.3%) and the number of those who disagreed (46.7%) was nearly the same.

(j) On a suggestion of whether some topics were not suitable to be taught in primary schools, 76.7% of the teachers did not believe that there were difficult topics.

(k) Most Home Science teachers (83.3%) showed an interest in Home Science and agreed that its teaching was a
step towards self-reliance.

5.1.6. Pupils and the Learning of Home Science

Pupils are essential in that while the teachers play the part of transmitting knowledge, they are the receivers. The process of teaching and learning cannot take place without both the teachers and the pupils. The following are the findings as regards to pupils:

(a) Most of the pupils (99.2%) declared that they had exercise books for Home Science notes and assignments, however only slightly over a half of the pupils (67.5%) indicated possession of text books for Home Science.

(b) Most of the pupils (83%) confirmed that their parents were willing to buy Home Science practical requirements such as sewing materials, foodstuffs and cleaning materials.

(c) Nearly all pupils (95%) indicated that they had great interest in Home Science and thus had enough time at home to do assignments. They also confirmed a great encouragement by both their teachers and their parents. About 95.8% of the pupils indicated that their teachers assisted them by showing them what to do and how to do things in Home Science lessons. A majority of 96.7% of the pupils indicated that their teachers inspected
their work regularly.

(d) The findings also indicated that 51.7% of the pupils showed a tendency of being assisted in making their Home Science articles by their parents, sisters and other relatives. On the other hand majority of the pupils (91.7%) agreed that Home Science was not a difficult subject. On the above issue most of the pupils (87.5%) agreed that they would wish to continue with Home Science when they join secondary schools.

(e) On the question of who should do Home Science, 90% of the pupils indicated that boys should also do Home Science.

(f) On the part of their teachers about 88.3% of the pupils agreed that their teachers were some of the best teachers in their schools.

In general, pupils in primary schools showed great eagerness in learning Home Science as indicated in the summary of findings above.

5.1.7. Pupils' Attitudes Towards Home Science

The findings of this study showed that majority of the pupils had similar attitudes like those of their teachers by being positively inclined towards Home Science:
(a) The majority (95%) found Home Science lessons interesting and did not believe in dropping it.

(b) A great majority of 88.3% agreed that they were encouraged by both the parents and the teachers to learn Home Science.

(c) About 61.7% of the pupils agreed that they enjoyed Home Science lessons more than any other subject.

(d) Some 75.8% accepted that in Home Science they learnt things that affected their families and homes.

(e) There was a general consensus of 88.3% that both boys and girls should learn Home Science.

(f) All suggestions that teachers did not help pupils or that they did not like the days when Home Science appeared on the time table or that their teachers taught other subjects during Home Science, were refuted strongly.

Generally all pupils were positively inclined towards Home Science.

5.1.8. Heads of Home Science Departments

Majority of the heads of Home Science departments were standard 8 teachers. They all participated in the main questionnaire and during the interview they confirmed all the information supplied by the other teachers as shown
below:

(a) In each school there were about 9 Home Science teachers.

(b) Majority of the Home Science teachers were not able to teach effectively due to lack of adequate resource materials and facilities especially a well-equipped laboratory.

(c) They all agreed that there was an average of 42 pupils per class and these numbers were very large.

(d) Teachers taught a lot of periods and thus they had no time to attend to Home Science related activities specifically; hence Home Science suffered from lack of time for planning practical lessons.

(e) A good number of pupils did not have reference books and this contributed to inadequate learning.

(f) That the syllabus was too wide to be covered within the given time.

(g) They suggested that the government should supply materials for Home science lessons.

5.2. RECOMMENDATIONS

From the data analysis, interpretations and findings, the researcher came up with the following recommendations. These recommendations are expected to assist researchers to
study and solve the problems that affect the teaching and learning of Home Science in primary schools. Recommendations made here are not final and therefore there is room for further research which would help to make the teaching and learning of Home Science more effective and successful.

Home Science, is a subject that deals with the family directly through the application of its knowledge, skills, principles, practices and attitudes in our every day life. It is a subject which every individual should learn since it is essential for successful family living. For it to play its role, it must therefore be taught effectively and hence the following are the recommendations that need to be realized as we teach or learn it:

(a) Any unqualified teachers should either be trained or be inserviced for effective teaching to take place.

(b) Seminars and inservice courses should be organized for both the old and new teachers to keep them abreast with the new teaching techniques, new knowledge, new skills and thus well-informed of any curriculum changes. These seminars and inservice courses could be held during the holidays so that all the teachers could have a chance of attending.
(c) Male teachers especially newly trained teachers, should be encouraged to teach Home Science since they are all trained equally. When they teach it would be a way of encouraging the boys in the primary schools and thus some negative attitudes towards Home Science would change positively.

(d) The teaching load of Home Science teachers should be reduced so as to allow them some extra time to plan, assess and evaluate their work before and after the actual class. At the same time, the Home Science teachers need to be given more Home Science lessons than any other. This way they would consolidate their work and concentrate more on improving the teaching and learning of the subject more effectively.

(e) Home Science teachers should be encouraged to be more enterprising and creative so as to improvise most of the resource materials through the use of community resources. Where they cannot get a Home Science room, they need to look for an alternative like a make-shift room on a cleared ground. This room could be equipped by parents through the harambee spirit, whereby each parent contributes an old jiko, or a pan, or spoons and so on. Consequently, parents or the government need to provide adequate facilities.

(f) While designing the Home Science curriculum, teachers need to be asked for their opinions as regards the
content, wideness and deepness of the syllabus, time allocation and appropriateness of the syllabus to the primary school pupils.

(g) The number of pupils per each practical class needs to be reduced. This problem could be solved by either allocating two teachers per class during practical lessons or dividing the classes into smaller groups.

(h) Through the harambee spirit, primary schools need to organize some funds that could be used to buy the Home Science materials and things like foodstuffs so that pupils are supplied on equal basis for each practical lesson.

(i) The Ministry of Education needs to recommend more than one textbook for the teaching/learning of Home Science in primary schools. This will supplement the Home Science curriculum on various topics which may not have been adequately covered in one textbook.

5.3. CONCLUSION

From the data analysis in Chapter four and the findings in this chapter, the researcher drew the following conclusions:

(a) The Home Science classes in primary schools are too large and the teachers cannot pay adequate attention
to all the pupils and thus, the authorities concerned should look into this problem and see how it can be solved.

(b) The syllabus is too wide and involving. The curriculum planners need to see how the syllabus could be narrowed either by leaving out some topics or some practical areas or reducing the number of projects to be done in each class.

(c) Lack of adequate resource materials and facilities especially fully equipped laboratories has been a major factor affecting the teaching and learning of Home Science. Inspite of this fact the teachers and pupils have shown great interest and positive attitudes towards the subject.

(d) Teachers dominantly used two methods of teaching: demonstrations and discussions, though a minority used a variety of other teaching methods.

(e) Common problems that the teachers indicated as major included teaching large classes, lack of adequate facilities especially an equipped Home Science room, very wide syllabus and lack of adequate teaching time.

5.4. SUGGESTIONS FOR FURTHER RESEARCH

Home Science is a unique subject and due to this nature it has had many developmental problems. Now that
it has fully been accepted among the other subjects of the 8:4:4 system of education, a lot of attention needs to be paid to it so that its objectives can be achieved. Not much research has been done in Home Science since its inception into primary schools and thus such areas as suggested below need attention by other educationists.

(a) A similar research should be conducted in other divisions of Nairobi Province and outside Nairobi.

(b) A study on male teachers' attitudes towards Home Science should be carried out.

(c) A study similar to this one covering a larger sample should be carried out, preferably in the whole of Kenya.

(d) A study on parents' attitudes towards Home Science should be carried out.

(e) A study on sex differences in the teaching and learning of Home Science should be carried out too.
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TEACHERS QUESTIONNAIRE

Do not write your name anywhere on this questionnaire. The information you give concerning Home Science teaching and learning will be treated as confidential. Your contribution towards the improvement of Home Science in Primary Schools will greatly be appreciated, so respond as HONESTLY and ACCURATELY as possible.

ATTEMPT ALL THE QUESTIONS IN DIFFERENT SECTIONS.

SECTION A

INFORMATION RELATED TO THE TEACHER:

Put a tick (✓) in the brackets corresponding to your answer.

1. Teacher's Sex: Male -------------- ( )
   Female ---------------- ( )

2. Teacher's Age: in years ---------------

3. Are you a trained teacher?
   Yes ---------------- ( )
   No ------------------ ( )

3. What is the level of your academic qualifications
   (a) C.P.E./K.P.E./K.A.P.E. ------------------------
   (b) K.J.S.E. --------------------------------------
4. What is your professional qualification?
   (a) Graduate Teacher  
   (b) Approved/Graduate  
   (c) Diploma  
   (d) S1, P1/S1  
   (e) P1  
   (f) P2  
   (g) P3  
   (h) P4  
   (i) Untrained Teacher (U.T.)  
   (j) Any other (specify)  

5. For how long have you been a primary Home Science teacher?
   (a) Less than 2 years  
   (b) Between 2-4 years  
   (c) Between 4-6 years  
   (d) Over 6 years  

6. Did you study Home Science when you were training as a teacher?

   Yes  
   No  

7. Have you attended any inservice course(s) in Home Science?
   (a) Between 1981-1984
   (b) Between 1984 to date
   (c) None at all since 1981

8. If you have not attended inservice course(s) at all, write the major reasons for this failure.
   (a) -----------------------------------------
   (b) -----------------------------------------
   (c) -----------------------------------------
   (d) -----------------------------------------

9. Is there a Teachers' Advisory Centre (T.A.C.) in your division?
   Yes --------------( )
   No ---------------( )

10. Do the personnel at the T.A.C. in your division frequently assist your school in Home Science related problems?
    Yes --------------( )
    No ---------------( )

11. If No what do you think causes this failure of the personnel in the T.A.C. to assist your school in Home Science related problems?
    (a) -----------------------------------------
    (b) -----------------------------------------
12. Do you teach any other subject apart from Home Science?
   Yes -----------------( )
   No -----------------( )

13. What is your teaching load per week?
   (a) Less than 20 periods -----------------( )
   (b) Between 20 and 30 periods -------------( )
   (c) Between 30 and 40 periods ------------( )
   (d) Over 40 periods ----------------------( )

14. Indicate the number of periods you have for Home Science alone per week.

   ---------------- periods.

15. Do all the Home Science teachers work as a team for the success of the subject in your school?
   Yes-------------------( )
   No -------------------( )

16. Do you have time during the day for planning Home Science lessons?
   Yes -------------------( )
   No -------------------( )

17. Do you also have adequate time to mark pupils' work in Home Science?
   Yes -------------------( )
   No -------------------( )
18. Has your Head/teacher made special consideration to allow you extra time to plan for your Home Science practical lessons?

   Yes -----------------( )
   No -----------------( )

19. If no time is allowed, when do you plan for your Home Science lessons whether practical or theory?

   (a) During tea-break or lunch-break -------( )
   (b) After school hours before going home ---( )
   (c) At home in the evenings and during weekends---( )
   (d) Planning depends on whether there is free time or not -------------------------------( )
   (e) Whenever there are few minutes in between lessons -----------------------------------( )
   (f) Home Science does not need planning -------( )

20. If you were given an option would you still want to teach Home Science?

   Yes -----------------( )
   No -----------------( )

21. Do you think Home Science teachers need extra time for planning/assessment and evaluation?

   Yes -----------------( )
   No -----------------( )

22. Do they also need extra time for teaching the subject?

   Yes -----------------( )
   No -----------------( )
SECTION B

FACILITIES AND RESOURCE MATERIALS

23. Do you have any books that you use for teaching Home Science in your school?
   Yes ----------------( )
   No -----------------( )

24. Name all the books that you use for reference when teaching Home Science.
   (a) ............................................................
   (b) ............................................................
   (c) ............................................................
   (d) ............................................................
   (e) ............................................................

25. Does each pupil have his/her own pupils' textbook(s) that he/she uses when learning?
   Yes ----------------( )
   No -----------------( )

26. Name at least three common pupils' textbooks that are used by the pupils.
   (a) ............................................................
   (b) ............................................................
   (c) ............................................................

27. Out of these teachers' and pupils' textbooks which ones are recommended by the Ministry of Education to be used for teaching Home Science?
   (a) ............................................................
28. Which of the following teaching aids do you use for teaching Home Science in your school?

(a) Charts and wall pictures
(b) Pictures and cuttings
(c) Cloth samples
(d) Real objects like vegetables and fruits
(e) Projector and films or slides
(f) Tape Recorder/Player
(g) Television/Video Tapes
(h) Locally available materials
(i) None of the above

29. Does your school have a Home Science laboratory or Home Science room?

29. Does your school have a Home Science laboratory or Home Science room? 

30. If it does not have a laboratory or Home Science room where do you carry out your practical lessons?

(a) In the classroom
(b) In the classroom and outside the classroom
(c) Always outside the classroom
(d) In the staff-room
(e) We do not do any practicals

SECTION C

CURRICULUM

31. The primary Home Science syllabus is just enough to be covered within the time given at each level or class.

Yes
No
32. Is the content of the primary Home Science syllabus suitable for the primary school pupils?

Yes -----------------( )
No -------------------( )

33. By the end of the year roughly about what percentage of the syllabus do you cover in teaching your class in Home Science?

(a) Below 50% ---------------------------( )
(b) Between 60% and 80% -------------------( )
(c) Above 80% --------------------------( )

34. From your own experience as a Home Science teacher suggest ways which you recommend that could help you and other teachers in covering the Home Science Syllabus more effectively.

(a) -------------------------------------------------
(b) -------------------------------------------------
(c) -------------------------------------------------

35. Which class do you teach Home Science and what is the number of periods per week?

(a) Standard 4 ------( ) periods per week -------
(b) Standard 5 ------( ) periods per week -------
(c) Standard 6 ------( ) periods per week -------
(d) Standard 7 ------( ) periods per week -------
(e) Standard 8 ------( ) periods per week -------
36. Is the time allocated enough for you to be able to assist each pupil during both practical and theory lessons?

Yes -------------( )
No --------------( )

37. How big is your class (number of pupils)

Less than 30 --------------------------------( )
Between 30 and 40 ---------------------------( )
Over 40 pupils ------------------------------( )

38. From your experience as a Home Science teacher, suggest ways which could be used by Home Science teachers in handling large practical classes for effective teaching.

(a) --------------------------------------------
(b) --------------------------------------------
(c) --------------------------------------------

SECTION D

39. Which of the following teaching methods or techniques do you commonly use for teaching Home Science -------------------------------( )

(a) Lecture method -------------------------( )
(b) Discussion method ----------------------( )
(c) Small groups method -------------------.-( )
(d) Demonstration --------------------------( )
(e) Role Playing ---------------------------( )
(f) Dramatising ----------------------------( )
(g) Project method -------------------------( )
(h) Any other (specify) -----------------------------

40. Which of the following factors greatly affect the choice of teaching method(s) that you use in teaching Home Science?

(a) Teaching load ----------------------------------( )
(b) Class discipline ---------------------------------( )
(c) Class size --------------------------------------( )
(d) The fact that Home Science is a practical subject ---------------------------( )
(e) The content and scope of the Home Science syllabus ---------------------------( )

41. Which teaching methods seem to appeal to the pupils in Home Science lessons?

(a) -------------------------------------------------
(b) -------------------------------------------------
(c) -------------------------------------------------

42. Which teaching methods do not seem to appeal to the pupils in Home Science lessons?

(a) -------------------------------------------------
(b) -------------------------------------------------
(c) -------------------------------------------------

43. Suggest ways of improving the teaching and learning of Home Science in primary schools:

(a) -------------------------------------------------
(b) -------------------------------------------------
(c) -------------------------------------------------

Thank you for your co-operation
APPENDIX II

TEACHERS' ATTITUDE SCALE

Read the following statements carefully then indicate with a tick (✓) in the space below the letter (s) that you think best tells how you feel about Home Science in primary schools.

KEY:

S.A. - Shows that you Strongly Agree with the statement
A. - Shows that you just Agree with the statement
U. - Shows that you are Undecided.
D. - Shows that you just Disagree with the statement
S.D. - Shows that you Strongly Disagree with the statement

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<th>STATEMENT</th>
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<tbody>
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<td>1. Home Science involves a lot of work</td>
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<td>2. Home Science is difficult to teach</td>
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<td>3. I enjoy teaching other subjects better than Home Science</td>
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<td>4. During my free time I enjoy reading more about Home Science</td>
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<td>5. During my school days I used to enjoy Home Science related activities</td>
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<td>6. The pupils I teach enjoy my lessons very much</td>
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<td>7. K.I.E. Home Science textbooks should be the only ones to be used as teaching books.</td>
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<td>8. Lack of necessary equipment makes my Home Science lessons difficult to teach.</td>
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<td>9. Most of the Home Science teaching aids cannot be improvised.</td>
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<td>10. Periods allocated for Home Science are not adequate for one to cover the syllabus.</td>
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<td>11. In my teaching experience I have never managed to cover all the topics in my class(es).</td>
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<td>12. I have been inserviced regularly whenever there is need.</td>
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<td>14. Home Science should be taught to all pupils (boys and girls).</td>
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<td>15. Girls perform better in Home Science than boys.</td>
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<td>16. Boys perform better than girls in Home Science.</td>
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<td>17. It is better to teach a small group of pupils than handling a large one.</td>
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<td>18. Home Science should be made optional to pupils in primary schools.</td>
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<tr>
<td>19. Some of the topics in primary Home Science are not suitable for the pupils at this level.</td>
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<tr>
<td>20. The introduction of Home Science in primary schools is a major step towards self-reliance.</td>
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</tbody>
</table>

Thank you.
APPENDIX III

PUPILS' QUESTIONNAIRE

INSTRUCTIONS

Do not write your name anywhere on this paper. The following questions are about Home Science. It is not a test therefore all the answers you give are correct.

ATTEMPT ALL THE QUESTIONS. YOUR ANSWERS WILL CONTRIBUTE TOWARDS THE IMPROVEMENT OF HOME SCIENCE IN PRIMARY SCHOOLS.

Put a tick (✓) in the brackets against the answer(s) that you find best for the question.

1. I am a (a) boy --------------------------(  )
   (b) girl --------------------------(  )

2. I have my own textbook for Home Science.
   Yes -----------------(  )
   No -----------------(  )

   Yes -----------------(  )
   No -----------------(  )

4. Do you have materials for making needlework articles?
   Yes -----------------(  )
   No -----------------(  )
5. When we have a cookery practical lesson my parents buy for me all the necessary things for my lessons.
   Yes -----------------( )
   No -----------------( )

6. Do you enjoy Home Science lessons?
   Yes -----------------( )
   No -----------------( )

7. Does your teacher give you Home Science practical work to do at home?
   Yes -----------------( )
   No -----------------( )

8. Does your teacher organize Home Science practical lessons at school?
   Yes -----------------( )
   No -----------------( )

9. Does the teacher show you what to do when you are doing practicals or sewing at school?
   Yes -----------------( )
   No -----------------( )

10. Have you made all your Home Science articles on your own?
    Yes -----------------( )
    No -----------------( )

11. Does the teacher ask you to ask your mother or cousin or auntie to assist you to make your needlework articles at home?
    Yes -----------------( )
    No -----------------( )
12. Is Home Science a difficult subject?
   Yes -----------------( )
   No -----------------( )

13. Do you get enough time at home to do Home Science assignments?
   Yes -----------------( )
   No -----------------( )

14. Are your parents happy now that you are taking Home Science in primary school?
   Yes -----------------( )
   No -----------------( )

15. Does your teacher help most of the other pupils in your class during sewing or cooking?
   Yes -----------------( )
   No -----------------( )

16. Does your teacher inspect the work you do in class?
   Yes -----------------( )
   No -----------------( )

17. Do you make some of the food items that the teacher shows you for your family at home - such as mandazi, tea - and so on.
   Yes -----------------( )
   No -----------------( )

18. Do you help the house servant or your mother with house-work during the weekends now that you can use the knowledge you get from Home Science?
   Yes -----------------( )
   No -----------------( )
19. Do you wish to continue to do Home Science even when you go to secondary school?

Yes -------------( )
No -------------( )

20. Do you think boys should do Home Science?

Yes -------------( )
No -------------( )

21. Is your teacher one of the best teachers in Home Science in your school?

Yes -------------( )
No -------------( )

Thank you for your co-operation.
# APPENDIX IV

## PUPILS' ATTITUDE SCALE

Read the following statements carefully then indicate with a tick (✓) in the space below the letter that you think best tells how you feel about learning Home Science in primary schools.

**KEY**

- **S.A.** - Shows that you Strongly Agree with the statement
- **A.** - Shows that you just Agree with the statement
- **U.** - Shows that you are Undecided
- **D.** - Shows that you just Disagree with the statement
- **S.D.** - Shows that you Strongly Disagree with the statement

No. (1) has been filled for you as an example.

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>1. I have two eyes, two ears and a nose.</td>
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<td></td>
<td></td>
<td>✓</td>
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<td>2. Home Science lessons are interesting.</td>
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<td>3. My teachers encourage me to study Home Science.</td>
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<tr>
<td>4. My parents encourage me to study Home Science.</td>
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<td>5. If I was given a choice of subjects that need to be dropped, I would drop Home Science.</td>
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<tr>
<td>STATEMENT</td>
<td>SA</td>
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<td>6. I enjoy Home Science lessons more. than any other subject.</td>
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<td>7. I enjoy only Needlework.</td>
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<td>8. I enjoy Cookery lessons only.</td>
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<td>9. I enjoy Child-Care lessons only.</td>
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<td>10. I enjoy House Care lessons only.</td>
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<tr>
<td>11. I enjoy Health Care lessons only.</td>
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<td>12. Our teacher makes the learning of Home Science very interesting.</td>
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<td>13. We are taught things that affect ourselves, our families and our homes.</td>
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<td>14. Learning Home Science makes me think of taking up a career that is related to the subject in future.</td>
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<td>15. Home Science should only be taught to girls.</td>
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<tr>
<td>16. Home Science should be taught to both boys and girls.</td>
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<td>17. Home Science subject is a waste of time and should be removed from the time-table.</td>
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<tr>
<td>18. Our teacher does not show us what to do during Home Science lessons.</td>
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<tr>
<td>19. I hate the days when Home Science appears on the time table.</td>
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Thank you for your co-operation.
APPENDIX V

INTERVIEW SCHEDULE FOR HEADS OF
HOME SCIENCE DEPARTMENT

1. How many Home Science teachers does your school have? ---

2. How many are untrained teachers (U.T.s) out of that number? ---------------------- U.T.s

3. Does any of the U.T.s teach Standard 5, 6 or 7 Science. Yes ------------------------
   No ------------------------

4. From your own judgement, do you think your Home Science teachers are comfortable with the teaching of the subject?
   Yes ------------------------
   No ------------------------

5. Does your school have a Home Science room?
   Yes ------------------------
   No ------------------------

6. If Yes, is the Home Science room well-equipped?
   Yes ------------------------
   No ------------------------

7. If No, where do the teachers conduct their practical lessons?

8. If your school is not well-equipped; how do the teachers cope with the situation?

9. What is the average number of pupils in each class
10. Do you get a government grant to buy essential Home Science requirements such as Teachers' Reference books, Teachers' Guides, Pupils' Text Books and other Home Science materials such as cloth for sewing and so on?

Yes ---------------------------------
No ---------------------------------

11. If you do not get any government grant, who meets the cost of these things?

(a) Teachers' Reference Books
(b) Teachers' Guide
(c) Pupils' Textbooks
(d) Materials for sewing (cloth, threads and so on).
(e) Equipment for the Home Science room
(f) Food stuffs for cookery classes
(g) Other materials such as materials for cleaning the house, e.g. (soap, vim) and so on

12. Do parents respond positively when you ask their sons/daughters to bring some Home Science teaching/learning requirements from their homes.

Yes ---------------------------------
No ---------------------------------
13. Do the Home Science teachers complain often about issues concerned with:

(a) Teaching large classes
Yes -----------------
No ------------------

(b) Teaching boys
Yes -----------------
No ------------------

(c) Work overload
Yes -----------------
No ------------------

(d) Very wide syllabus of Home Science
Yes -----------------
No ------------------

(e) Lack of facilities for teaching
Yes -----------------
No ------------------

(f) Lack of textbooks
Yes -----------------
No ------------------

(g) Inadequate time allocation for Home Science practicals
Yes -----------------
No ------------------

14. Do you think Home Science teaching and learning is achieving its objectives.
Yes -----------------
No ------------------

15. Are there any pressing factors that you feel are affecting the teaching and learning of Home Science in your school?

(a) --------------------------------------------

(b) --------------------------------------------

(c) --------------------------------------------
16. How do you think we can overcome these factors:

(a) ------------------------------------------------

(b) ------------------------------------------------

(c) ------------------------------------------------

Thank you for your co-operation.
Dear Sir/Madam,

TO WHOM IT MAY CONCERN

The bearer is a bonafide 2nd year student of the M.Ed. (PTE) programme at Kenyatta University in the Department of Educational Communication and Technology.

Kindly assist him/her in the collection of information for his/her project.

Thanking you for the anticipated assistance.

Yours sincerely,

OCHIENG MOYA
M.Ed. PTE COURSE CO-ORDINATOR

OM/gr.
The Secretary,
National Council for
Science and Technology,
P. O. Box 30623,
NAIROBI.

RE: RESEARCH AUTHORISATION

APPLICANT(S) MRS. JOSEPHINE MWIKALI KAVILU

The above named has been authorised to conduct research on "A STUDY OF THE FACTORS THAT AFFECT THE TEACHING AND LEARNING OF HOME SCIENCE IN PRIMARY SCHOOLS IN LANGATA DIVISION".

As indicated on the application form, this research will be conducted in LANGATA DIVISION, NAIROBI AREA for a period ending JANUARY, 1991.

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

I herewith enclose copies of his/her application for record purpose. He/She has also been notified that we will need a minimum of two copies of his/her research findings at the expiry of the project.
The Headteachers,
St. Mary's Karen Primary School,
Toi Primary School,
Nadaraka Primary School,
Kibera Primary School,
Langata West Primary School,
Shadrack Kimalel Primary School,
Olympic Primary School;
Mbogathi Road Primary School,
Knaala South Primary School,
Langata Barracks Primary School,
Langata Road Primary School,
Uthuru Garde Primary School.

The title of her research "A study of the factors that affect the teaching and learning of Home Science in Primary Schools in Langata Division".

This permit is valid until January, 1991.

Please give her all the necessary assistance and co-operation.

Yours faithfully,

[Signature]

Solomon Gecce
Ag. Chief Adviser to Schools
for: CITY EDUCATION OFFICER, NAIROBI

C.c. Divisional Adviser - Langata
Z.A. - Langata Zone

SG/ENG