FACTORS AFFECTING EFFECTIVE ACQUISITION OF PRACTICAL SKILLS IN HOME SCIENCE IN KENYAN PRIMARY SCHOOLS OF NAIROBI AND KAJIADO DISTRICTS

BY

MARGARET AGOLA NYADWE RACHO (MRS)

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DECLARATION

This Thesis is my original work and has not been presented for a degree in any other university.

DATE: 18-07-2001

NAME: **MARGARET AGOLA NYADWE RACHO (MRS)**

E55/7855/92

This thesis has been submitted for examination with our approval as University Supervisors:

SIGNED: **DATE:** 18-07-2001

DR. MARGARET NGAU
LECTURER
DEPARTMENT OF EDUCATIONAL ADMIN.,
PLANNING AND CURRICULUM DEVELOPMENT
KENYATTA UNIVERSITY

SIGNED: **DATE:** 28.09.2000

PROF. JULIA GITOBU
DEAN, FACULTY OF HOME ECONOMICS
KENYATTA UNIVERSITY

DEDICATION

This work is dedicated to my late parents Mr. & Mrs. Samwel Nyadwe Angawa and my late brother, Henry Francis Odhiambo for their dedication and endless support towards my education.

TELL ME, I'LL FORGET,

SHOW ME, I MAY REMEMBER

INVOLVE ME, I'LL UNDERSTAND

(An old Proverb)

Source unknown

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ABSTRACT

This study was to find out if pupils in primary schools are acquiring sufficient practical skills in home science for self-reliance. A descriptive study was carried out in Langata division in Nairobi and Ngong division in Kajiado district. Data was collected using a questionnaire, classroom observation schedule, Likert Attitude measuring scale and a checklist. Stratified sampling technique was used to select schools and pupils, while random sampling was used for home science teachers.

The findings of this study show that since the introduction of cost-sharing in structural adjustment programmes (SAPs) the community support to Primary Schools has sharply declined, consequently affecting the teaching of home science. Data also revealed that there was endemic lack of adequate teaching, and learning resources in both rural and urban primary schools coupled with inefficiency in their management by both headteachers and home science teachers. In-servicing teachers was inadequate.

Gender of pupils is affecting the acquisition of feminine skills in home science while boys do not have role models in learning the subject. However the age of the pupils emerged as a factor affecting acquisition of skills as the older pupils have higher aspirations of using these skills after primary school than younger pupils.

In conclusion the pupils are only getting tips and fragments of home science practical skills. These are not adequate to make primary leavers self-reliant.

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ACRONYMS

A.A.	Above Average Performance
A	Average Perfromance
B.A.	Below Average Performance
C.P.E.	Certificate of Primary Education
I.M.F.	International Monetary Fund
K.A.P.E.	Kenya African Preliminary Examination
K.C.P.E.	Kenya Certificate of Primary Education
K.I.E.	Kenya Institute of Education
K.N.E.C.	Kenya National Examinations Council
K.C.S.E.	Kenya Certificate of Secondary Education
P1	Trained Primary Teacher One
P2	Trained Primary Teacher Two
P3	Trained Primary Teacher Three
P4	Trained Primary Teacher Four
S.A.Ps	Structural Adjustment Programmes
S1	Trained Secondary Teacher One
U.T.	Untrained Teacher
U.T.T.	Untrained Technical Teacher
99.99	The dot indicates a recurring digit hence 99.99 = 100

CHAPTER ONE

INTRODUCTION

1.0 Background Information

Home science as a subject in the school curriculum has played an important role in the betterment of human life. It has raised our standards of living, and has enabled us to live a longer, healthier, enjoyable and more productive life. It has benefitted women and girls by helping them to be good home makers. The knowledge and skills in home science has enabled men and women get into careers related to the subject, such as catering, tailoring, professional cooking (chef), textile design and child care, among others. Recent attitudinal changes with regard to family roles have made boys as well as men benefit from the study of home science. The knowledge of home science has also helped in the caring and protection of the environment.

Historically, home science, as a discipline, has its roots in North America. Parker (1987) reports that the two early advocates of formal teaching of "Domestic Economy" were Emma Willard and Catherine Beecher. These two ladies urged that women's education should combine liberal arts and practical training in areas related to the home and families. Emma Willard is credited for founding the formal school in 1819. She also proposed that theory and practical housewifery be taught to females. At this time women in America and Europe were demanding for more education. This was due to their loss of economic usefulness, as factories assumed production of many goods previously made at home by women. However, this industrial revolution mainly affected women in the 18th and early 19th century in Europe. The primary purpose of teaching home skills to the high and middle class women, who were able

to get education, was to prepare them for work in the home and to improve family life and its economy.

In Africa, Olaitan and Agusiobo (1981) say that the art of home making is not new. Mothers and wives have always maintained the sacred ideals of the homes and made them steady institutions in which children were brought up and disciplined in the society. Heinrich (1987) reports that a number of typical female activities like food gathering, cultivating food crops, making pots, preparing food and drinks, selling goods in the market, building dwellings in some communities and making clothes, were observed and recorded by many pioneer white travellers in Africa. This shows that African women, just as their counterparts in other parts of the world, played an important role in the material culture of the time. These practical activities were learnt by girls from the age of five years, mostly through play. Ominde (1952) asserts that mothers would later on transform these plays into real work. However, the advent of formal education, civilization and technology have altered the structure and function of homes. In many parts of Africa, the educated people now live with their families in metropolises and upcoming towns. This has changed the traditional lifestyle and food patterns. These changes are challenges to homes, and as a result, women as well as men need home science knowledge to solve home problems, and improve family life and its economy.

Home science is a practical oriented discipline based on its theoretical principles. Brown (1985) says that as a practical science, home economics was to be concerned with helping families develop systems of actions (technologically or instrumentally) which would lead to the development of autonomous individuals, and to a society in which cultural, economic and political systems are conducive to the development and use of individual capacities.

In 1985, the Kenya Government changed its education system from 7:4:2:3 system to the 8:4:4 system of education. The most noticeable difference in the new system is that it had put more emphasis on practical work. It has introduced a number of vocational subjects such as home science, art and craft and agriculture. Each of these subjects should be geared to making learners self-reliant after school. Home science was envisaged as one of those subjects to impart skills to primary school leavers. Mercedes Bates at the 1973 Lake Placid Conference on home economics claimed that the big difference home economics seems to have with other disciplines is that it has skills. The skills combine technical knowledge and the development of craftsmanship through experience in handling materials as in cooking and sewing. Knowledge and practical skills on energy conservation, consumerism, food addictive, malnutrition, child abuse, teenage pregnancy and environmental pollution could help curb these social problems. The skills acquired also could prepare school leavers for further training or education. Some of the objectives of teaching home science in primary schools as stated by Kenya Institute of Education 1992 are:

Learners should be able to:

1. Develop and use appropriate skills and techniques for solving problems related to choice of food, eating habits, food handling, cooking, preservation and storage.
2. Select, prepare, cook, price and serve food items which can generate an income.
3. Acquire and apply skills necessary for construction of various garments and articles.
4. Identify and use laundery work equipment and detergents properly.

The skills in home science are economically viable, and if acquired properly can lead to self-employment or wage earning

occupations. This can possibly lead to self- reliance at the end of primary education.

The Kenya Government is not alone in its endeavour to make education practical oriented. In Europe, Curry (1956) says that Comenius, Pestallozi, Froebel and Montessory all expressed the importance of practical training in education. In Indonesia Curry reports that fourty per cent (40%) of schooltime is given to skill development. African traditional education was essentially practical training. The British colonialists in Africa adopted practical education for Africans in an attempt to make them fit in their environment. After political independence in Kenya, the Gachathi Commission (1976) and Mackay Report (1981) have both emphasized the need of equipping the youth with practical skills for self-reliance. This shows the importance of acquisition of practical skills during one's education to make himself-reliant. Obote (1991), argues that "self-reliance" in our present educational system is conceived as "Economic." Once one attains economic independence by way of self-employment or finding a job commensurate with skills acquired during his/her education, then such a person is self-reliant.

The Kenya Government is currently implementing the World Bank and International Monetary Fund (IMF) Structural Adjustment Programmes (SAPS). The government has therefore introduced the "Cost Sharing" Policy. In education, cost- sharing means that parents and the local community have to provide physical facilities besides teaching and learning resources, while the government pays teachers salaries. Parents and communities have difficulties in meeting this obligation. Also due to diversity in economic abilities, schools in some areas are disadvantaged in supply of facilities and resources. The teaching of home science, like any other practical subject, requires heavy capital investment. Where communities are poor, teachers and pupils are forced to do without the bare minimum resources.

Many researchers in home science since the introduction of 8:4:4 educational system such as Wang'ombe (1988); Kinai (1988); Rombo (1989) and Sei (1991) all agree that curriculum implementation is being hampered by many problems. Home science teaching requires that pupils be exposed to practical work and be made to practise and internalize the skills. A teacher should be able to demonstrate a skill with competence while pupils observe. Researchers have laid emphasis on determining the success of curriculum implementation but they have not stopped to ask what home science has accomplished in developing practical skills to promote self-reliance or self-employment and wage earning occupation among primary school leavers as envisaged in the new educational system of 8:4:4.

1.1 Statement of the Problem

The Kenya National Examinations Council (KNEC) report on examination performance (1992) indicates that home science practicals are constantly done poorly by candidates in Kenya Certificate of Secondary Education (KCSE). This may imply that pupils do not get a firm foundation in primary schools. Richard Ong'weno, a teacher writing in the *Daily Nation* Newspaper on 24th September 1994, complains that it is ten years since vocational subjects like home science were introduced in primary schools, and we are yet to see standard eight graduands become self-employed basically from skills learnt in school. This example of public outcry shows that there is need to look into the teaching of home science and find out if it is meeting the needs of the 8:4:4 system of education. Researches on home science glaringly show that pupils graduating from primary schools have not acquired enough practical skills from home science to make them self-reliance. Rural schools have been cited as having more problems than the urban schools. This study was therefore intended to investigate how effective teachers are imparting home science practical skills to pupils in primary schools in

Nairobi (urban) and in Kajiado (rural) districts. In particular the study looked at the support of parents and community in providing learning and teaching resources and their attitudes towards home science

1.2 Basic Assumptions

The basic assumptions underlying this study were:

1.2.1 There were factors affecting the acquisition of practical skills in home science in Kenyan primary schools.

1.2.2 That parents and communities in urban and rural schools were not equally able to provide school facilities.

1.2.3. That boys and girls were socialized differently and acceptance of home science and interest in it are influenced by gender of the pupil.

1.3 Purpose of the Study

The purpose of this study was to investigate the factors that affect effective acquisition of practical skills in home science in Kenyan primary schools. A comparative analysis of schools in a semi-arid area, Kajiado District and urban area, Nairobi District was carried out. This comparison was important because in Kenya, the curriculum is uniform for all schools, yet the communities have different economic abilities. The economic power as well as the interest and will of communities to support education programme are very important in achieving the goal of cost-sharing.

1.4 Objectives of the Study

1.4.1 To establish the adequacy of support given by the communities surrounding the primary schools in provision of learning and teaching resources particularly for home science.

1.4.2 To find out whether the attitudes held by the headteachers, home science teachers and pupils towards the learning of home science had an effect on acquisition of practical skills.

1.4.3 To find out whether the management of home science teaching and learning resources by the headteachers and home science teachers had an effect on acquisition of practical skills.

1.4.4 To investigate whether the professional and academic qualification of teachers of home science had an effect on acquisition of practical skills by pupils in home science.

1.4.5 To find out if pupil's gender affected acquisition of practical skills in home science.

1.4.6 To compare whether the availability of the facilities for teaching home science in schools had an effect on acquisition of practical skills.

1.5 Research Questions

This research will address the following questions:

1.5.1 How much support are the schools getting from communities surrounding them in regard to the provision of resourches particularly for teaching home science?

1.5.2 What attitudes are held by headteachers teachers and pupils towards the learning of home science and effect of this attitude on acquisition of practical skills?

1.5.3 How do headteachers and home science teachers manage the teaching and learning resources in home science and what effect does this have on acquisition of practical skills?

1.5.4 What is the effect of professional and academic qualification of home science teachers on acquisition of practical skills by pupils?

1.5.5 What is the effect of gender of pupils on acquisition of home science practical skills?

1.5.6 What is the effect in differences in availability of teaching and learning resources in the selected schools on acquisition of practical skills in home science?

1.6 Significance of the Study

This research attempted to answer the following major question: Are pupils in primary schools acquiring sufficient practical skills in home science? In answering this question, the researcher hoped that the findings could be used by educators such as the headteachers, school inspectors and Kenya Institute of Education (K.I.E.) to improve the teaching of home science in order to achieve its national objectives and justify the rationale of making the subject compulsory as a strategy to provide skills for self-reliance to curb unemployment in the country.

There was an effort to find out problems headteachers as managers of teaching and learning resources faced and how these affected the acquisition of practical skills in home science. In the past, researchers had blamed headteachers for lack of moral and financial support for home science teachers in primary schools. But no research had focussed on headteachers' problems in acquiring, maintaining and controlling of these resources. The understanding of these issues may lead to change of policy in the implementation of home science curriculum in the 8:4:4 system of education.

The findings would help teachers, educators and parents to try to find solutions to the problems affecting the acquisition of practical skills in home science. This is important because primary education is terminal to the majority of pupils in Kenya who should be provided with skills for survival in their environment.

1.7 Scope and Limitation of the Study

This study was conducted in six public schools in Lang'ata division of Nairobi, and six public schools in Ngong division in Kajiado District. The findings were limited to the sample schools and therefore would not be generalized because the sample was not nationally representative.

The study was also limited to standard seven classes in the sample schools and findings cannot be generalized to all primary schools in Kenya.

1.8 Organisation of the rest of the Study

Chapter Two: gives the literature review of the study based on its objectives.

Chapter Three: describes the research methodology used in the study. This includes the samples procedures, data collection and analysis.

Chapter Four: presents data analysis and interpretation of the findings of the study. Descriptive measures used were mainly frequences and percentages.

Chapter Five: deals with summary of findings within the theme of the study, conclusions, recommendations and suggestions for further research.

1.9 Definition of Significant Terms

Home science

Is the study of Home and Family Living within the environment. The subject is also known as Domestic Science, Home Economics and Domestic Economy.

Seven-Four-Two-Three (7-4-2-3)

The immediate past educational system in Kenya which offered seven (7) years of primary education, four (4) years of secondary, two (2) years of higher or advanced level education and three (3) years at university.

Eight-four-four (8-4-4)

The current educational system in Kenya which offers eight (8) years in primary education, four (4) years in secondary education and four (4) years at university. This study focuses at the first eight (8) years of primary school education.

Six-Three-Three-Four (6-3-3-4)

The Nigerian educational system which offers six (6) years of primary education, three (3) years of junior secondary, three

(3) years of senior secondary and four (4) years at university.

Practical Skills

Is the ability to practically do what has been acquired in theory.

Teaching Practical Skills

This is imparting practical skills to the learner by demonstrating to the learner, who then repeats what he/she has observed.

Effective

Is the extent to which objectives of home science are achieved, i.e. producing the intended results.

Acquisition

Is the ability to gain knowledge and/or practical skills.

Skills

Is the ability to do something according to set standards.

Resources

These will include teaching and learning materials such as: Equipment sewing machines, cookery, cutlery and utensils.

(ii) ***Teaching materials:*** Clothing material, food items, textbooks, exercise books and library books.

(iii) ***Audio Visual*** : Television, video tape and personal computer

(iv) ***Audio*** : Radio and tape recording

Management of Resources

This involves planning, budgeting, organizing how to provide or obtain/acquire teaching and learning resources, record keeping, storage, care and maintenance of facilities.

Planning

Is a purposeful preparation in advance of what is to be done in future.

Budgeting

Is an estimate of how much funds will be needed for provision of learning and teaching resources or the cost involved in provision of resources.

Control

Is the regulation of provision, utilization, issue, storage and maintenance of resources.

Improvisation

Is the use of a good representation of desired object.

Culture

Is the total range of ideas and activities of a group of people.

Self-reliance

Is a state when one attains economic independence, or knowledge and skills acquired which can eventually lead one to economic independence.

Mock-results

These are results of a trial examination given to candidates for K.C.P.E.

'Harambee'

A Kiswahili word meaning pulling together. A slogan used in fund raising activities in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on the variables the study sets out to investigate on the "Factors Affecting Effective Acquisition of Practical Skills in Home Science at Primary School Level". The literature supplements the background information presented in Chapter One.

2.1 Development of Home Science Teaching

Home Science initially started as a subject for women and girls in preparation for motherhood. Goodshell (1916) in Parker (1987) reports that the intellectual abilities of women were generally considered inferior, if not non-existent. Therefore, when they demanded for more education, they were offered mostly subjects concerned with the home and family. "Domestic Economy" or "Domestic Science", as the subject was known in the early days formed the core of women's formal education. The teaching of home science started in America. It then spread to Europe. The wives of the missionaries and women Christians spread the teaching of Home Science to Africa and parts of Asia. In Africa, Olaitan and Agusiobo (1981) say that "Domestic Science" was taught to older girls in special classes known as "Bride's Class" in preparation for their married life. The fees were paid by the men they were betrothed to.

2.1.1 Home Science Teaching in Pre-independent Era in Kenya

In Kenya, Domestic Science became part of the normal school curriculum in 1904. Anderson (1970) reports a laundry class taught by a Miss Watson at Kikuyu in 1904. Another missionary, a Miss Stevenson was instrumental in starting a

series of schools for domestic science between 1912 and 1926 in Central Province. The Phelp's Stoke Commission (1920-1924) for Eastern and Southern Africa laid emphasis on practical education. It recommended that domestic science be taught to all girls in all schools. There was also provision to teach boys and men about their responsibility in the home. Binns Commission (1952) observed a general lack of resources for teaching practical subjects. They made recommendation for training of selected teachers to teach domestic science in intermediate schools. By 1955, domestic science was an examinable subject at the end of standard eight in the Kenya African Preliminary Examination (KAPE). A syllabus, schemes of work and teachers guides were prepared to help teachers who were mostly untrained. This was an effort to improve the standard of teaching of the subject. However, after only two years in 1957, Shefield (1964) in Sigot (1987) reports that the subject was removed from examination (KAPE) due to its failure to achieve its goal. This goal was to:-

> **Prepare young women for their role as future wives. This was because the skills learnt were not practical. (1987:3).**

2.1.2 Home Science Teaching in Post-Independent Era in Kenya

The Ominde Commission (1964) did not give emphasis on practical subjects. Although home science was being taught in primary schools, it was not an examinable subject in the Kenya Certificate of Primary Education (CPE). It was taught to girls only, but with a lot of laxity on the part of teachers. Lack of teaching resources also hampered its teaching.

The syllabus included needlework as a separate subject, and domestic science as another subject. Domestic science included housecraft and cookery. The schools were given the option of choosing to learn either needlework and/or domestic science. The later commissions on education like Ndegwa 1970, Bessey

(1972) and Gachathi (1976) once again saw the need for practical subjects because of their economic value. The Bessey Report (1972) particularly observed that in most rural schools, needlework was the only aspect of the syllabus being fully covered. At the same time, decried the large classes and lack of resources. It observed:-

> **Teachers doing the cutting out of garments for students, yet confidence in cutting a piece of material is necessary if pupils are to continue to make garments after leaving school, (1972:31).**

This kind of condition or situation hinders the acquisition of practical skills. For skills to be acquired, a pupil should manipulate and practise the skill imitating what he/she observed from the teacher. The Bessey Report recommended that domestic science be taught to both boys and girls under a different name. This recommendation did not get implemented until 1985 when the 8-4-4 educational system was introduced in Kenya. The subject was given a new name "Home Science" and made compulsory and examinable at the end of standard eight (KCPE). The 8-4-4 system of education introduces home science with a new philosophy. In this system "Home Science" is to produce skills which can be used for wage earning and self-employment, besides improving home life. One of the general objectives of Home Science clearly stated in the 1985 syllabus as quoted in Rombo (1989) says that:-

> **Specifically, the learner will have acquired relevant knowledge and skills in home science to make items for the home and income generating activities, (1989:27).**

These skills acquired could also promote self-reliance.
This recognition of home science by policy makers in the 8-4-4 educational system came as good news and as a challenge to home science educators in Kenya. The good news was that home

science was recognized as a subject to provide skills for self-employment and wage earning occupations. This improved the subject's image in schools. The challenge was lack of both human and material resources. There was need to train more teachers, and with the `cost-sharing` policy, the parents and the community were to provide material resources.

The skills in home science can be used in many careers. Onyango (1988) says that career openings in home science are motivating factors for male students enrolling to study the subject at university level in Kenya.

This study was set to find out if home science teaching is providing the practical skills and the factors affecting the effective acquisition of these skills.

2.2 Attitudes Towards Home Science

Hornby (1989) defines attitude as a way of thinking or behaving negatively or positively towards something. Current researchers argue that development of home science has not been easy due to the negative attitudes that have persisted towards education of women and girls. In a study by Breen (1986) in USA, it was found that home economists themselves reported that the subject has poor image and that university administrators rated home economics faculty as lower in quality. This shows a negative attitude towards home science. In Kenya, home science, as a subject has been considered a female pursuit, concerned with cooking and sewing. Kasuku (1984), observed that home science was discriminated against because of people's wrong attitudes. For instance, lack of information on what it can offer in terms of careers and its usefulness to individuals, families and society as a whole. Rombo (1989), found that headteachers were aware of the problems encountered by home science teachers, but did not assist them in solving these problems. This may imply that headteachers have negative attitudes towards the subject.

Grey (1988) argues that:

> **It is well-known by the teachers that the head encourages some practices and wishes to discourage others. This is promoted through the ordering of school resources (1988: 273).**

This indicates that attitudes of the headteacher will affect the provision of resources to subjects. Home science subject may be adversely affected by this attitude due to its originally low status in the curriculum. Kanai (1988) in her case study, however, showed that pupils have positive attitude towards home science and preferred certain topics which provided relevant knowledge to their lives.

The researcher intended to find whether different attitudes held by headteachers, teachers and pupils towards home science affects its teaching and the effective acquisition of practical skills.

2.3. Management of Teaching and Learning Resources

Management of resources involves planning, budgeting and organizing how to provide or get the teaching and learning resources. It also entails controlling proper utilization of the available resources. This can be done by keeping proper records of receipts and issues of teaching aids and materials, and proper storage and repairs of these resources. Rust (1985) says that:-

> **Good management aims to utilize the available resources in the best possible way, and to achieve the highest level of students potential abilities. (1985:1).**

Headteachers have the responsibility of managing teaching and learning resources in all subjects in the school. Ideally, they should involve subject teachers in decision making right from the planning stage. For good management to be achieved,

the headteacher should play his/her role as a leader. Neagley *et al* (1969) argue that:

> **The leadership which is exerted directly by the school administrator, or encouraged in other staff members is usually a dominant force in ensuring success to the educational enterprise. (1969:13).**

Good management of resources will allow effective teaching by individual teachers. Teachers should be involved in planning, organizing, controlling, co-ordinating and evaluation of learning and teaching resources. The headteacher, as a supervisor, should ensure that resources are put into proper use. Dull (1981) asserts that:

> **Through supervisory visits supervisors can learn first hand what is being attempted in the classrooms. They can observe the materials and methods being used, the attitudes and reaction of pupils and other factors that make effective teachings. (1981:210).**

Supervision is a vital component of the headteachers administrative tasks. This would ensure that teaching and learning resources are being used effectively and efficiently. In practical subjects such as home science, supervision is necessary to assess the acquisition of skills by pupils. This study will try to find out how the headteacher as a manager of teaching and learning resources influences the teaching and effective acquisition of practical skills in home science.

2.4. The Qualification and Gender of Home Science Teacher

A home science teacher should possess special qualities in order to cope with the demands of the subject. Olaitan and Ausiobo (1981) point out that effective classroom teaching demands that a teacher knows:-

(i) What to teach (subject-matter),

(ii) How to teach (Methodology), and

(iii) To make sure that her teaching materials are well prepared, (1981:33).

This demands that a home science teacher should be well-trained and informed. Home science became a compulsory subject in Primary Teachers Colleges (PTCs) in 1976. Since then, graduates from these colleges have some knowledge on home science. However, when the 8-4-4 education was introduced in primary schools in 1985, the untrained teachers and those trained before 1976 had problems to meet the challenges of the new curriculum. There are very few opportunities for the classroom teachers to update their knowledge and skills through in-service courses. Rombo (1989) found that the in-service course programmes for practising teachers are too rare, too brief and not organized to cater for all teachers. All these lead to incompetency of some home science teachers. However, a teacher cannot achieve curriculum objectives single-handedly. Both human and material resources work hand in hand. Hawes (1972) in Rombo (1989) cautions that teaching of vocational and pre-vocational skills if attempted without the necessary equipment can reduce them to mockery. For instance:

> **Where girls sew on small squares of clothes because they could not afford material to make clothes in their needlework lessons. (1989:37).**

As a result of such a condition, skills in needlework cannot be acquired effectively. It is therefore important for teachers to have the necessary resources and improvise where necessary and possible. Use of community and locally available resources should be encouraged.

Kenya`s education system is examination oriented. The success of schools and teachers is measured on academic performance of students in national examinations. This orientation gives little value to acquisition of skills in practical subjects. This research intends to investigate whether the level of training of teachers of home science affects the teaching and learning of the subject and effective acquisition of practical skills.

2.5 Gender of Home Science Teacher

Home science teaching has been associated with female teachers all along the world over. Although in Kenya, home science was made compulsory to all primary teachers during training, it has been documented and observed that home science in many primary schools is still taught mainly by female teachers. The male teachers in the field avoid teaching the subject. The male pupils therefore do not have role models when learning home science. The study investigated the effect of teachers' gender on pupils learning Home Science and acquiring practical skills.

2.6 School Community Relationships

The 8-4-4 system of education lays emphasis on community support for education. A government policy of "cost-sharing" expects parents and members of school communities to provide buildings such as classrooms, workshops and home-science rooms in primary schools. In many districts "harambees" for raising funds for such buildings were held just before the implementation of the new curriculum. Kimathi (1985) writing in *Sunday Nation* reported that:-

> **Those parts of the country which already have workshops will find the remaining task of equipping them more difficult. (1985:4).**

This was because the equipment required were very expensive.

In Kenya, the educational policies and curriculum are uniform to the whole country. There is no consideration for the socio-economic differences found in different communities surrounding the primary schools, and their ability to support school programmes. Ryozo *et al* (1981) in a UNESCO handbook quoted in Ogoma (1987) says that:

> **Every community, however small, has resources that can strengthen social studies and add to its vitality. (1985:4).**

In the same breath, the researcher believes that every community should be able to provide resources for the teaching and learning of home science. Jarolimek (1967) divides the community resources into two types. The first are those that bring part of the community to the class e.g. resource people. The second are those that take the class to the community e.g. field trips, surveys and others.

This study compared the community support in providing teaching and learning resources and whether this is a factor affecting the teaching and effective acquisition of practical skills in home science.

2.7 Availability of Facilities, Materials and Teaching Resources

An educational innovation such as the 8-4-4 educational system is accompanied by the need for new resources, buildings, equipment and qualified personnel. Many researchers in home science have pointed out that there is endemic lack of teaching and learning resources. Sifuna (1986) found a positive correlation between school facilities and performance of pupils. This study was set to compare the availability of the facilities, materials and teaching resources in the urban and

rural primary schools, and whether this is a factor affecting the acquisition of practical skills in home science.

2.8 Gender Stereotyping in Acquisition of Practical Skills in Home Science

Home science has been traditionally identified with feminine pursuits. This has not enhanced the image of the discipline. Home science is associated with practical work in the home and community the world over. Curry (1956) reports that in Sweden, the making of useful household articles by children under the direction of the parents was considered essential in the Scandinavian homes. This handwork called "synod" developed into regular schools by 1844. It was believed that the skills learnt prepared the youth for socially useful life. This was the beginning of technical education in the Scandinavian countries. In Malaysia, the programme in home science seeks to develop self-reliance, initiative and self-confidence. It also helps pupils to acquire the necessary skills to achieve a happy life. This is done regardless of sex and both boys and girls learn home science. (Ibid).

In Africa, there was a clear distinction between male and female duties. This sex-stereotype started quite early in childhood. It was encouraged by parents, siblings and the adults in the community. For example in Kenya, Ominde (1952) reports that:

> **Male children build houses; dig gardens, mould bulls, motor cars and carts. Female children concentrate on activities leading to the preparation of food and care of babies. (1952:13).**

This situation was similar in most African communities. For example Ole Sena (1981) says that among the Maasai, the young men served as apprentices to their fathers and learned how to manage cattle and family. This was in preparation for the day

they would become independent cattle owners. The girls helped their mothers with household cores like milking and building houses. Researchers in home science since 1985 when the subject became compulsory in primary schools, show that pupils have a positive attitude towards the learning of home science. However, Kaime (1990) found from his study that boys considered activities in home science associated with home as the domain of girls; and that sex-stereotyping is stronger in rural boys than in urban boys. The girls may also have advantage over boys because of their earlier preparation at home. The instructional attitude of home science teachers may also favour girls. The teacher may expect a female pupil to do a better quality work in needlework than a male pupil and be more agile in carrying out practical work than a male pupil. Yet, men are the best cooks (chefs) in hotels. Men are also known to be the best tailors and textile or fashion designers in Paris and all over the world. The researcher therefore intended to investigate if the gender issue has an effect on effective acquisition of practical skills in home science at primary school level.

2.9 Summary

The literature reviewed has focussed on the development of home science teaching internationally and in Kenya. It has also highlighted briefly on literature on the hypothetical variables affecting the effective acquisition of practical skills in home science. These variables are:-

i) Attitude towards home science

ii) Management of teaching and learning resources

iii) The qualification and gender of the home science teacher

iv) School community relationships and support

v) Availability of facilities, materials and teaching resources.

vi) Gender stereotyping in acquisition of practical skills in home science.

In chapter three, the research methodology which was applied in this study has been discussed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with the methodology and the design the researcher used in conducting this study. It describes the location of the study, sampling procedure, sample size and research instruments and their administration. It also describes the analysis of data.

3.1 Location of the Study

This study was carried out in rural primary schools in Ngong division, Kajiado District and urban primary schools in Lang'ata division, Nairobi District. The two divisions were chosen because of their diversified socio-economic activities of their communities. This might have had a significant effect on the abilities of these communities to support their primary schools. This support is important in Kenya's new policy of "cost-sharing" in education. The type and quantity of community support was expected to affect the quality of education primary school children received.

Lang'ata division is situated in Nairobi, the capital city. Nairobi is also the headquarters of the government, and the centre of many industries in the country. This division is therefore made up of people from different places with varied cultures, religions, interests and economic status. Most people are employed either in public service or private sectors, while a number are self-employed. The primary school education in Nairobi is under the City Education Department. Lang'ata division is one of the eight educational divisions in Nairobi City. The primary schools serve all communities regardless of religion, cultural or occupational affiliations.

Ngong division is one of the five educational divisions of Kajiado District. It is situated in Kajiado North constituency. The community in Ngong is mainly the Maasai ethnic group, although in recent years other ethnic groups have settled in the area. The Maasai are pastoralists, moving from place to place in search of water and better pastures for their animals. The immigrants are mainly agriculturalists who do settled peasant farming around Ngong town. The agriculturalists are said to be educationally more advanced than the Maasai. The Maasai education ever since the colonial period has been problematic. This is because the Maasai have persistently resisted change through education. For example, Gorham (1980), says that educational goals were perceived by the Maasai to be conflicting with pastoralist social system, and as a direct threat to it. However, since independence, there has been considerable expansion of school facilities by both the missionaries and the government. The setting up of group ranches in Kajiado District was very much encouraged by the government in the mid-1960s to 1970s. These ranches meant that the Maasai would have less movement. Gorham (1980) further reports that there was a relative increase in school enrolment around the regions where group ranches were found than other parts of Kajiado District. It is these diversified conditions that made the two divisions an appropriate choice for carrying out a study analysis of factors which affect effective acquisition of practical skills in home science in primary schools.

3.2 Target Population

The target population of this study was composed of standard seven pupils, headteachers and home science teachers in the selected public primary schools in Kajiado and Nairobi districts. An educational division is made of a number of schools under the management of an education officer known as Area Education Officer (A.E.O.).

Langata division in Nairobi has twenty (20) schools while Ngong division in Kajiado has thirty six (36) schools.

In Langata division there were an average of 5 male teachers ranging from 3 to 8 while the average for female teachers was twenty three (23) ranging from 18 to 32.

In Ngong division there were an average of five male teachers as well ranging from 3 to 7 while the average for female teachers was thirteen ranging from 2 to 32.

The pupils population of boys in Langata division ranged from 413 to 641 with an average of 532, while that of girls ranged from 310 to 550 with an average of 492.

In Ngong division the population of boys ranged between 55 to 603 with an average of 240 while that of girls ranged between 21 to 506 with an average of 217.

Enrolment in Standard Seven

In Langata division the population of standard seven boys ranged from 40-70 on an average of 54 while that of girls ranged between 39 to 65 on the average of fifty five (55).

In Kajiado the average enrolment for both boys and girls is twenty (28). Boys ranged from 9 to 52 and girls ranged from 4 to 66.

3.3 Sampling Procedure

There were thirty six (36) primary schools in Ngong and twenty (20) primary schools in Lang'ata divisions. The schools and pupils were sampled using a stratified sampling technique. This method was chosen based on the argument put forward by Borge (1983) that:-

> **Stratified sampling is used when it is desirable to select a sample in such a way that the research worker is assured that certain subgroups in the population will be represented in the sample. It is particularly appropriate in studies where research problem requires comparison, (1983:249).**

This method was, therefore, chosen by the researcher to compare the acquisition of practical skills by pupils of different abilities in academic performance namely above average, average and below average pupils. The schools were also grouped according to the performance in national examinations. A comparison was made of the schools in the two divisions. The researcher visited the divisional education offices in both districts. In each division a list of schools were used and the K.C.P.E. mock results for three (3) years were examined for the purpose of categorizing the schools.

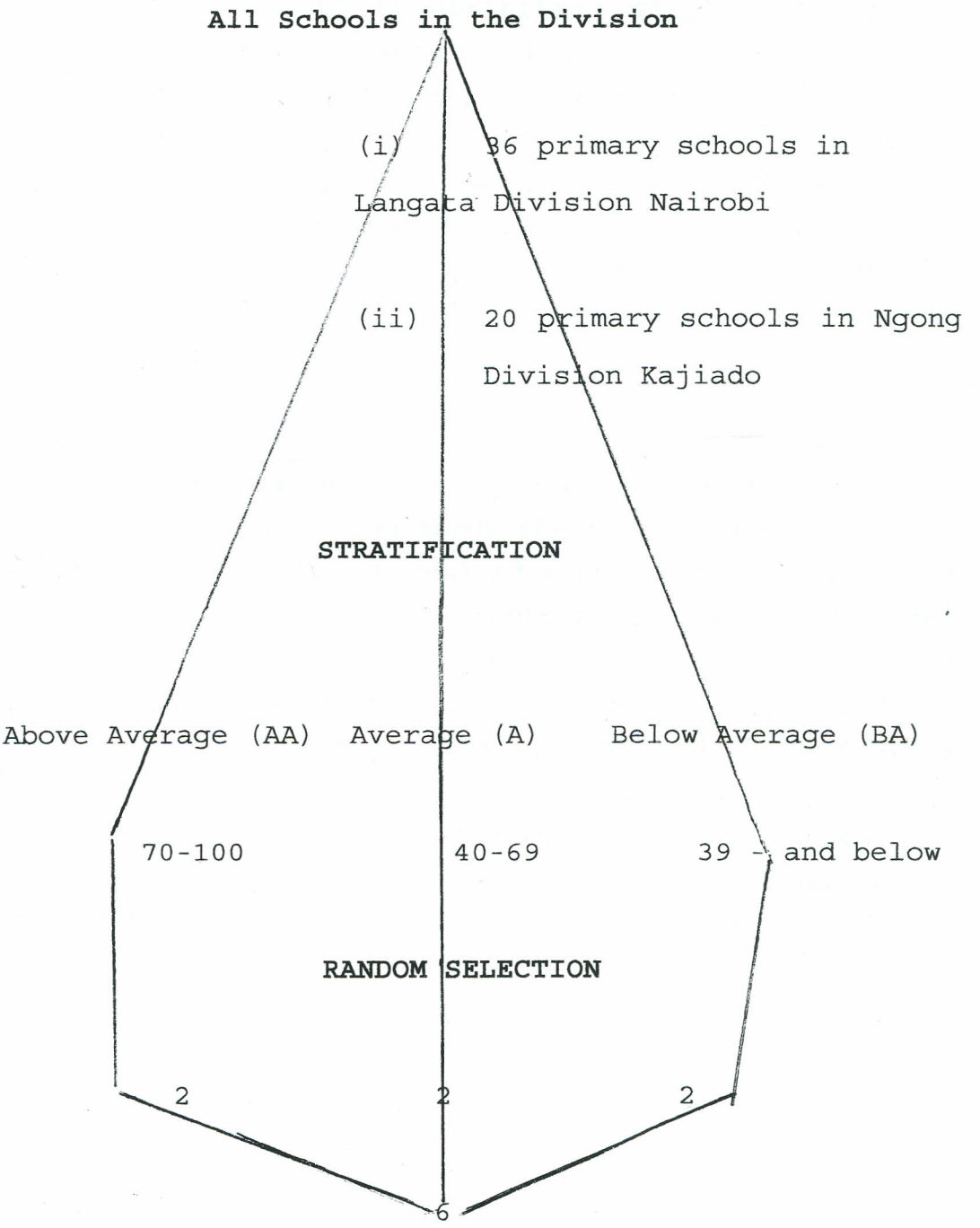
Home science raw marks were used without combining them with Business Education marks as is the case in K.C.P.E. The scores were the aggregate of theory paper and practical assessment. The categories were stratified using the mean score for schools:

i) Above Average (AA) schools had a mean score in home science between 70-100 marks
ii) The Average (A) schools scoring between 40-69 marks
iii) Below Average (BA) scoring 39 and below

By random sampling method, two schools were selected from each category as follows:-

Papers bearing the names of schools in each of the three categories were well mixed and tossed. The researcher randomly picked two papers from each category and recorded their names. A total of six schools were selected randomly from each division as shown in figure 1 below.

Fig. 1: Showing selection of schools



TOTAL = 6 Schools from each division

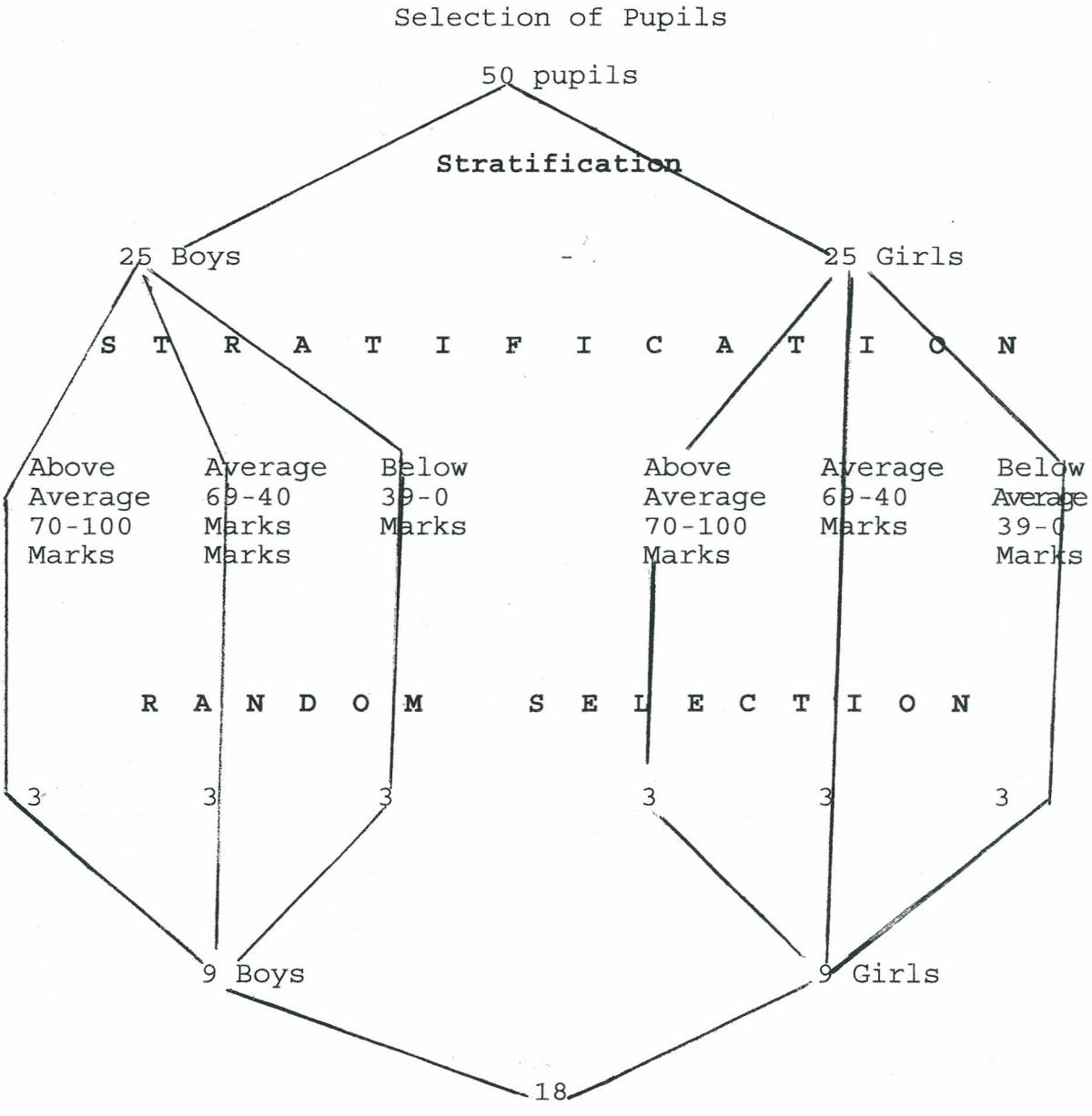
GRAND TOTAL = 12 Schools

3.3.1 Pupil Sample

Pupils were selected using stratified sampling technique. Pupils in standard seven were used as respondents. This is because this class has had enough experience in learning home science which starts in standard four under the 8-4-4 education system. They were also not pre-occupied with examination preparation like those in standard eight. It was also necessary to find out pupil's view of the subject to support or not support the worth of home science in providing practical skills.

The researcher and research assistant visited the twelve schools on various dates. They reported to the headteachers' offices and after explaining about the project gave copies of the research permits. They consulted with the home science and class teachers about class enrollments and pupils' performance in home science. Using the performance of end-year standard six results, pupils were divided into three groups of Above Average (AA) (70-100 marks), Average (A) (40-69) and Below Average (BA) 39 and below. Three pupils were selected randomly from each stratified group making a total of nine (9) boys and nine (9) girls. This was to ensure that each category was represented to allow comparison as shown in figure 2.

Fig. 2 Showing the Strategy of Selecting Pupils.



Total 18 Pupils in each school from 12 schools.
Grand Total = 216 pupils

Eighteen (18) pupils in standard seven were selected by random sampling in each school. The names were recorded. Where there were nine girls in standard seven, they were all taken. Where they were fewer than nine girls in the class, a ratio 2 boys to 1 girl (2:1) was used.

In total, 216 pupils were selected for the study. This represented 36% of the total enrolment of standard seven pupils in the selected schools.

3.3.2 Home Science Teachers

All primary school teachers trained from 1976 are qualified to teach home science. However, for the purpose of this study, two (2) home science teachers in each school were respondents, one teaching standard seven and another teaching a different class for example standard eight teacher. This gave a total of twelve (12) home science teachers per division and a total of twenty four (24) for the study. This represented 30% of the total population of teachers in both divisions.

3.3.3. Headteachers

All the headteachers in the selected schools were respondents in the study. This gave a total of 12 headteachers.

3.4 Research Instruments

The researcher used the following research instruments in the study: Questionnaires for all the respondents; R. Likert Attitude Measuring Scale for all respondents; A classroom observation schedule and a check-list of facilities, equipment and teaching resources.

Some of the questionnaires were constructed by the researcher based on the objectives of the study and some adapted from previous researches. The questions were mainly objectives and structured types.

Headteachers' Questionnaire - Contained 32 items

The first part of the questionnaire was concerned with information about the schoolhead and his/her personal details. The second part covered information about management of home science learning and teaching resources and the community support to the school especially in the teaching of home science.

Home Science Teachers' Questionnaire - Contained 41 items

The first part of the questionnaire elicited personal details such as academic, professional qualifications and experience in teaching home science. The second part enquired about respondents' involvement in management of teaching and learning resources, use of the community resources, problems encountered by the respondent when teaching practical skills, gender factors affecting the acquisition of practical skills and lastly suggestions on ways to overcome problems affecting effective acquisition of practical skills in home science.

Pupils' Questionnaire - Contained 24 items

The first part was to enquire into the pupils' family background. The second part sought information on the pupils' opinions on acquisition of practical skills in home science and whether these skills could make them self-reliant at the end of their course. The third part sought information regarding gender factors e.g. difference if any, affecting the acquisition of practical skills in home science. The pupils were also asked to suggest ways of improving the acquisition of practical skills in the subject.

The Classroom Observation Schedule - Contained 8 items

The observation schedule was used in the classroom collecting data in situ. The researcher or the research assistant observed at least one practical home science lesson in standard seven in all the sampled schools. An observation

teaching and use of resources by both open and closed questions. This instrument allowed direct observation of pupils' manipulation of various skills, for example, use of a sewing machine. It also allowed direct observation of use of resources by pupils and teachers. The researcher also had an opportunity to examine finished products of practical lessons. A comparison of boys and girls' products was also made.

Checklist

The purpose of this instrument was to establish the availability of basic facilities and equipment needed in teaching home science in primary schools. The researcher had prepared a list of items considered basic. The researcher, or with the help of a research assistant physically checked and recorded their number using the list. We also established whether they were functional or out of order. This instrument was used to cross check the internal validity of the respondents' response regarding these items in the questionnaire.

3.5 Pilot Study

A pilot study was carried out in two schools one from each district. The two schools were not included in the final sample schools. These pilot schools were in different divisions and therefore didn't stand a chance of being selected again for study by random sampling. However, the schools had similar conditions with the sample schools. The pilot questionnaires were administered by the researcher to standard seven pupils, home science teachers and headteachers in the pilot schools. The results were analysed and were used to clarify certain points in questionnaires which could be misunderstood. This was to measure the reliability of the questionnaire. Some questions on the attitude scale were modified for clarity for the pupils or asked in a different form intentionally to check reliability. On piloting the

checklist the researcher revised the list to contain only basic items required for teaching home science. This checked the internal validity of responses through questionnaires. Thus the pilot study results was used to measure the content validity of all the items the research designed to measure.

3.6 Administration of the Research Instruments

The researcher got clearance from the following bodies before carrying out the research:

3.6.1 A research permit from the Office of the President,

3.6.2 Permission from the Kajiado District Education Officer, and

3.6.3 Permission from the City Education Officer.

The researcher first visited all the selected schools for the purpose of introducing the study. The questionnaires for the headteachers were left with them on this first visit with a request to complete them before the next scheduled visit. During the second visit, the researcher consulted with home science teachers to get the standard six end of year home science results. The researcher used this information to sample pupils using stratified technique to put them into three performance groups. From these performance groups, random selection was used to get nine (9) boys and nine (9) girls. Arrangement for the third visit was made with headteachers. Class teachers were requested to provide time and a room where home science teachers and pupils could fill their questionnaires after the classroom observation by the researcher.

During the third visit, the researcher was accompanied by a research assistant to assist in administering the instruments. The researcher carried out classroom observation during a home science practical lesson for standard seven pupils. Relevant data (information) were collected using the observation

schedule. After this, home science teachers were requested to complete the questionnaires. Meanwhile, the research assistant completed the checklist on school facilities and resources that are basic for practical home science lessons. Later on, the researcher teamed up with the research assistant in assisting the selected pupils to complete their questionnaires. All the completed questionnaires were collected on the third day's visit. The research assistant followed up any instrument left behind in any of the schools.

3.7 Data Analysis Procedure

The data collected were put into two categories, refined and then coded. The two categories, used were:-

(i) Closed Questions with pre-coded numerical answers to be selected.
(ii) Open answers were consisted of words or sentences.

These data were first converted into numerical form by the process of coding. Computer analysis was done with the help of a computer expert who selected the appropriate package for analysis, i.e the statistical package for social sciences (SPSS).

The findings have been reported by use of tables, percentages, frequencies and descriptive illustrations (see Chapter Four).

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The purpose of this study was to compare factors affecting the effective acquisition of home science practical skills in primary schools. A comparison was made between urban schools in Nairobi and rural schools in Kajiado District.

In this chapter, analysis and interpretation of the findings are presented. Descriptive statistics were used mainly frequency tables and percentages.

4.2 Study Population

The study covered a total of 216 pupils in standard seven, 12 headteachers and 24 home science teachers. Table 4.1 shows the distribution of the study population.

Table 4.1 Distribution of Study Population by Gender

Headteachers N=12	**Kajiado District n**	**%**	**Nairobi District n**	**%**	**Total N**	**%**
Male	6	50	1	8.30	7	58.30
Female	-	-	5	41.7	5	41.70
Total	**6**	**50**	**6**	**50**	**12**	**100.00**
Home Science Teachers						
N=24	n	%	n	%	N	%
Male	3	12.50	-	-	3	12.50
Female	9	37.50	12	50.00	21	87.50
Total	**12**	**50.00**	**12**	**50.00**	**24**	**100.00**
Standard seven pupils						
N=216	n	%	n	%	N	%
Boys	63	29.20	50	23.10	113	52.30
Girls	45	20.80	58	26.90	103	47.70
Total	**108**	**50.00**	**108**	**50.00**	**216**	**100.00**

4.3 Headteacher Socio - Demographic Characteristics

Age:

The majority (75%) of the headteachers were aged between 41-50 years, while only 25% were aged between 31-40 years. However, in comparison, the Nairobi headteachers were older than their counterparts in Kajiado. This can be observed in table 4.2. About 41.65% of Nairobi teachers were aged over forty years compared to 33.3% in Kajiado. These findings show that most of the headteachers in the study were mature people with experience to manage their respective schools.

Table 4.2 Distribution of the Headteachers by Age

Headteachers n=12	Kajiado District		Nairobi District		Total	
AGE-GROUP	n	%	n	%	n	%
30 years	-	-	-	-	-	-
31- 40 years	2	16.70	1	8. 30	3	25.00
41- 50 years	4	33.30	5	41.70	9	75.00
Total	6	50.00	6	50.00	12	100.00

4.4 Academic and Professional Qualifications of Headteachers

Academic and professional qualifications of headteachers are an important contributing factor in the way they run their institutions. Table 4.3 (a) shows academic qualification of the headteachers. About half of the headteachers (58.3%) had secondary education. Kajiado comprises 33.3% compared to 25% of Nairobi headteachers. However, academic qualifications like university education and above were higher among Nairobi headteachers (25%) compared to (8.3%) among Kajiado headteachers.

The same table (4.3b) shows professional qualification of the Headteachers. It shows that one teacher (8.3%) from Kajiado was of Primary Teacher Four (P4) grade. About a quarter (25%) were Primary Teacher Three (P3). A number of the headteachers (41.7%) were primary Teacher Two (P2) while (16.7%) were Primary Teacher One (P1).

The highest qualification of Diploma or Secondary Teacher One (S1) (8.3%) were found only among Nairobi headteachers.

These findings show that the Nairobi headteachers had higher professional and academic qualifications than their Kajiado counterparts. The rural teachers were mostly of secondary school level and below (8.3%). The higher academic and professional qualifications of Nairobi headteachers in this study were found to be a contributing factor in how they run their institutions. For example, the researcher observed that the better qualified headteachers had good school records e.g. of pupils' marks. They also send steady monthly statistical returns to their divisional education officers, than their Kajiado counterparts.

Table 4.3 Distribution of Headteachers by Academic and Professional Qualifications

N=12

Academic (a)	**Kajiado District**		**Nairobi District**		**Total**	
	n	**%**	**n**	**%**	**N**	**%**
None	-	-	-	-	-	-
Primary 1-8	1	8.35	-	-	1	8.35
Secondary	4	33.30	3	25.00	7	58.30
University & above	1	8.35	3	25.00	4	33.35
Total	6	50.00	6	50.00	12	100.00
Professional (b)						
P4	1	8.30	-	-	1	8.30
P3	2	16.70	1	8.30	3	25.00
P2	2	16.70	3	25.0	5	41.70
P1	1	8.30	1	8.30	2	16.70
S1/Dip & above	-	-	1	8.30	1	8.30
Total	6	50.00	6	49.9	12	99.90

4.5 Experience of Headteachers in School Administration

About two thirds of the headteachers in the study (66.6%) had between 5-12 years of experience in school administration. Slightly less than ten percent (8.3%) from both districts had 2-5 years of experience and above while (16.7%) had above 13 years

These findings show that most of headteachers were experienced in school administration.

Table 4.4 Experience of the Headteachers in School Administration N=12

Experience in years	Kajiado District		Nairobi District		Total	
	n	%	n	%	N	%
2 years	-	-	-	-	-	-
2-5 years	1	8.30	1	8.30	2	16.6
5-8 years	2	16.70	2	16.70	4	33.4
8-12 years	2	16.70	2	16.70	4	33.4
13 years and above	1	8.30	1	8.30	2	16.6
Total	6	50.00	6	50	12	100.00

4.6 Attendance of In-Service Courses in School Management

Inservicing of headteachers in school administration and management is an important exercise, because headteachers are usually hand-picked from the classroom to head schools. The inservice organized by the Kenya Education Staff Institute (K.E.S.I.) equips headteachers with management skills. Table 4.5 shows the attendance of inservice courses by the headteachers.

Table 4.5: Attendance of Inservice Courses in School Management by Headteachers.

N=12 INSERVICE RESPONSES	Kajiado District		Nairobi District		Total	
	n	%	n	%	N	%
Yes	5	41.60	6	50.00	11	91.70
No	1	8.40	-	-	1	8.40
Total	6	50.00	6	50.00	12	100.00

Majority (91.7%) of the headteachers from both districts had attended the inservice courses organised by KESI in the last three years. The findings however show all six (6) Nairobi headteachers had attended these courses compared to five (5%)

headteachers from Kajiado. Only one headteacher had not been inserviced from Kajiado. This is a commendable work done by KESI, as it shows that most of the headteachers are professionally equipped with administrative skills needed for school management.

4.7 Home Science Teachers' Socio-demographic Characteristics

There were twenty four (24) home science teachers in the study. In each school two teachers were selected, one was the standard seven teacher and the other was randomly selected among the teachers in the school. The random selection was based on the assumption that any trained teacher is qualified to teach home science.

Teachers were considered an important factor because they are the implementors of curricular innovations. Their role greatly affects the teaching of a practical subject like home science and acquisition of practical skills from them by the learners.

Table 4.6 (a) Age and Gender of Home Science Teachers

N=24

Age in Years (a)	KAJIADO H/Sc. Teachers		NAIROBI H/Sc. Teachers		TOTAL	
	n	%	n	%	N	%
21-30 Years	5	20.80	2	8.30	7	29.20
31-40 Years	5	20.80	7	29.20	12	50.00
41-50 Years	2	8.40	3	12.50	5	20.80
Total	12	50.00	12	50.00	24	100.00

The age of teachers was relevant to the study because elderly teachers were expected to have a lot of experience in teaching home science. The younger teachers were expected to have fresh enthusiasm to teach the subject.

GENDER (B)	KAJIADO H/Sc. Teachers		NAIROBI H/Sc. Teachers		TOTAL	
	n	%	n	%	n	%
Male	3	8.30	0	-	2	8.30
Female	9	41.70	12	50.00	22	91.70
Total	12	50.00	12	50.00	24	100.00

Table 4.6 (a) shows that half (50%) of the home science teachers were aged between 31-40 years, constituting seven teachers (29.2%) from Nairobi and five teachers (20.8%) from Kajiado. The other seven teachers (29.2%) in the study were aged between 20-30 years comprising five Kajiado teachers (20.8%) and two teachers (8.3%) in Nairobi. In the last age group (41-50 years) only five teachers (20.8%) from the study were falling in this category. This was made up of two teachers (8.4%) from Kajiado and three teachers (12.5%) from Nairobi. On the whole Kajiado teachers were slightly younger than Nairobi teachers. The majority of the teachers were aged between 31-40 years. These teachers were expected to be experienced in teaching home science.

The gender of home science teachers is important in the subject because the teachers act as mentors or role models for pupils. Home science had always been associated with feminist. However, since the introduction of eight-four-four (8-4-4) curriculum, when it became compulsory, it is important that both genders now teach home science so that boys have models to emulate.

Table 4.6 (b) illustrates that the majority of the home science teachers were females (91.7%) compared to males (8.3%). The male teachers were only found in Kajiado schools. These findings show that gender factor among home science teachers can negatively affect the attitude of male pupils towards home science especially when they do not have role models.

4.8 Academic and Professional Qualifications of Home Science Teachers

Academic and professional qualifications are vital factors for the success of teaching any subject. They indicate the competency of an individual to the profession.

Table 4.7 Academic and Professional Qualifications of the Home Science Teachers

N=24

Academic (a) Qualification	KAJIADO Teachers		NAIROBI Teachers		TOTAL	
	n	%	n	%	N	%
Primary 1-8	1	4.20	-	-	1	4.20
Secondary	11	45.80	11	45.80	22	91.60
Post-Secondary & above	-	-	1	4.20	1	4.20
Total	12	50.00	12	50	24	100.00

Professional Qualifications: (b)						
	N	%	N	%	N	%
UTT	1	4.20	-	-	1	4.2
P4 and P3	1	4.20	-	-	1	4.2
P2	3	12.50	-	-	3	12.5
P1	7	29.10	8	33.3	15	62.5
S1/DIP Ed.	-	-	4	16.7	4	16.6
Graduate/ATS	-	-	-	-	-	-
Total	12	50.00	12	50.00	24	100.00

Table 4.7 (a) and (b) shows the academic and professional qualifications of the Home Science teachers.

The majority (91.6%) of home science teachers had reached form four level, the two districts had (45.8%) each. One teacher (4.2%) in Nairobi had higher academic qualification of post secondary and above, while another (4.2%) in Kajiado had the lowest qualification of primary education. These findings show that Nairobi teachers had slightly higher academic qualification than their counterparts in Kajiado.

Professionally, nearly two thirds (62.5%) of the home science teachers were P1 trained teachers and almost equally distributed in both districts. However, higher professional qualifications like diploma, graduate or Approved Teacher status (ATs) were only found among the Nairobi teachers (16.7%). Meanwhile, the lowest professional qualification of P3 and P4 (4.2%) and untrained technical teachers (UTT) (4.2%) were only found in Kajiado schools as shown in table 4.7 (b). We can safely argue that higher qualification of teachers contributes to acquisition of practical skills in home science.

These findings concur with the findings of Rombo (1989) who found that the urban schools were better placed in terms of qualified teachers than rural schools. This disparity in professional qualification affects teaching where teachers have lower qualification. In this study, standard seven pupils in Kajiado sampled schools performed below those in Nairobi schools.

The average mark for Kajiado pupils was 60.8% compared to 63.03% for Nairobi pupils.

4.9 Teaching Experience of Home Science Teachers in the Study

Experience in a profession makes one competent in the area. An experienced home science teacher will be competent, skillful, resourceful and economical in the use of teaching and learning resources. He/she will be able to impart practical skills to pupils.

Table 4.8 Home Science Teachers' Experience in Teaching

DURATION	KAJIADO Teachers		NAIROBI Teachers		TOTAL	
	n	%	n	%	N	%
1 - 2 YEARS	2	8.30	1	4.20	3	12.5
2 - 4 YEARS	2	8.30	1	4.20	3	12.5
3 - 6 YEARS	-	-	3	12.50	3	12.5
Over 6 YEARS	8	33.40	7	29.10	15	62.5
Total	12	50.00	12	50.00	24	100.00

It is observable from table 4.8 that two thirds (62.5%) of the home science teachers in the study had over six years of teaching experience. There were eight in Kajiado (33.4%) compared to seven (29.1%) of the Nairobi teachers. This shows that on the whole home science teachers were quite experienced, with Kajiado being slightly better than Nairobi teachers. Four (25%) of the teachers had between 2 and 6 years. While two of the teachers (12.5%) had between 1 and 2 years. This experience contributed to the acquisition of practical skills in Home Science both in urban and rural schools.

4.10 Attendance of In-service Courses in Home Science

Inservice courses are important in updating teachers' knowledge with new concepts, and technological ideas in the dynamic and cosmopolitan society. Therefore, inserviced teachers were found to be equipped with new ideas and this improved the acquisition of practical skills in Home Science than those who were not inserviced.

Table 4.9 Attendance and Frequency of Inservice Courses by Home Science Teachers.

Period	KAJIADO Teachers		NAIROBI Teachers		TOTAL	
	n	%	n	%	n	%
1984 - 1989	1	4.20	3	12.50	4	16.70
1989 - 1992	1	4.20	1	4.20	2	8.30
1992 - 1994	2	8.30	1	4.20	3	12.50
1994 - 1995	-	-	1	4.20	1	4.20
None since 1985	8	33.30	6	25.00	14	58.30
Total	12	50.00	12	50.00	24	100.00

Frequency for both Districts

	n	%
Once	4	16.70
Twice	3	12.50
Three times	1	4.20
Four times	1	4.20
More than four times	1	4.20
None	14	58.20
Total	24	100.00

Table 4.9 shows that more than half (58.3%) of the home science teachers (58.3%) had not attended inservice courses since the inception of the 8-4-4 curriculum from 1984, about a third (33.3%)of these come from Kajiado compared to (25%) in Nairobi. It is also important to note that in Kajiado rural schools only one teacher (4.2%) was inserviced during the time 8-4-4 curriculum was being introduced between 1984-1989. Equally low percentage
(12.5%) of Nairobi teachers were inserviced during the same period. It is also observable that in subsequent years very few teachers were inserviced.

These findings show that the inservicing of Home Science teachers is not as vigorous and as effective as it should be. Inservice should have been intensified at the introduction of the 8-4-4 curriculum and kept up in order to equip teachers with practical

findings in recent years in Kenya such as by Kasuku (1984), Kiviu (1985), Sigot 1987, and Kanga (1994) have all called upon the Kenya Institute of Education (K.I.E) and Ministry of Education to intensify the inservice courses for both primary and secondary home science teachers. Inservice should concentrate on imparting relevant practical skills such as using a sewing machine, laundry work and cooking. These skills would produce primary leavers with prevocational skills which they can use to venture into such occupations as restaurant cooks, dressmakers/tailors, house keeping among others.

On the frequency of attendance shown in table 4.9 (16.7%) home science teachers had attended the inservice only once and (12.5%) twice, while the remaining (4.2%) had attended between three times to more than four times. These findings also confirm that inservice training has not been adequately given to the home science teachers. Over half (58.3%)of the teachers had never attended any inservice course. When probed further, teachers gave various reasons for their failure to attend the inservice courses as listed below:

i) They had never been informed of inservice courses in home science

ii) They were never chosen by their headteachers to attend these courses.

These findings show that communication and information on home science inservice courses do not reach all schools. The rural schools like those of Kajiado where the distance between one school to another can be as long as seventy kilometres, are bound to suffer and continue to lag behind. Lack of access to inservice courses in home science affects the teaching of home science and acquisition of practical skills in these schools. This is evident by the findings in table 4.10 showing that 36.55% of pupils from Kajiado (rural) cannot use a sewing machine compared to 31.5% of their Nairobi (urban) counterparts. Those who can use

the sewing machine are very few. In Nairobi only (18.5%) of the pupils can use the machine compared to (13.45%) of Kajiado pupils.

Table 4.10 Number of pupils who are able to sew with a sewing machine.

	KAJIADO Pupils		NAIROBI Pupils		TOTAL	
	n	%	n	%	N	%
Yes	29	13.45	40	18.50	69	31.95
No	79	36.55	68	31.50	147	68.05
Total	108	50.00	108	50.00	216	100.00

4.11 Standard Seven Pupils' Socio-Demographic Characteristics

There were two hundred and sixteen (216) standard seven pupils in the study. Pupils were stratified by their academic performance and then randomly selected. An attempt was made to have a gender balance, but this effort was frustrated in the rural schools in Kajiado. This was because fewer girls in this semi-arid area go to school. However, the study ended up with one hundred and thirteen boys (113) or 52% and one hundred and three (103) or 48% girls. Despite the mentioned problem, the difference is insignificant - only 4%.

Table 4.11 Distribution of Pupils by Age

KAJIADO Pupils			NAIROBI Pupils		TOTAL	
Age in Years	n	%	n	%	n	%
12-14	45	20.80	96	44.40	141	65.30
14-16	41	19.00	12	5.60	53	24.50
16-18	20	9.30	-	-	20	9.30
18-29	2	0.90	-	-	2	0.90
Total	108	50.00	108	50.00	216	100.00

Table 4.11 shows that nearly two thirds (65.3%) of the sampled pupils (65.3%) were aged between 12-14 years. In comparison, more pupils from Nairobi schools (44.4%) were in this age group compared to (20.8%) in Kajiado. In the age group of 14-16 years there were more Kajiado pupils (19%) compared to only (5.6%) pupils in Nairobi. Only Kajiado pupils fell in the age bracket of 18 years and above. The mean ($\bar{X}$) age for the Nairobi pupils was 13 with a variance of 0.4 and of a standard deviation (SD) of 0.03, whereas the Kajiado pupils' mean ($\bar{X}$) age was 14.6 at a variance of 2.7 and a SD of 1.64.

These findings show that standard seven pupils in Nairobi were within the stipulated age group for their grade (44.4%) whereas among the Kajiado pupils only 20.8% were within this age group. This was probably due to late entry or frequent repetition of classes in Kajiado. In Nairobi, the table shows that there was correct age entry and probably academic follow-up of weak pupils to avoid repetition. Other factors are the quality of education due to teacher qualifications, school facilities and resources; parental and pupil aspirations, teachers expectations and encouragement of pupils.

The Kajiado pupils most of whom were older would take the learning of home science and acquisition of its practical skills more seriously than their counterparts in Nairobi who were younger in age. This was evident in pupils' aspirations as shown on table 4.12.

TABLE 4.12 MAKING CLOTHES FOR SALE AFTER STANDARD EIGHT

	KAJIADO		NAIROBI		TOTAL	
RESPONSE	**N**	**%**	**N**	**%**	**N**	**%**
YES	83	38.43	63	29.10	146	67.53
NO	25	11.57	45	20.90	70	32.47
Total	108	50.00	108	50.00	216	100.00

In table 4.12 it can be observed that more pupils from Kajiado (38.43%) out of the pupils' sampled population in the study agreed that they would be making clothes for sale after standard eight compared to 29% of pupils from Nairobi who want to do so.

On further probing, 37.5% of Kajiado pupils were positive that the home science skills they had learnt would help them to be self-employed compared to only 24.3% of their Nairobi counterparts.

Table 4.13 Distribution of Pupils by Gender

	KAJIADO		NAIROBI		TOTAL	
RESPONSE	**n**	**%**	**n**	**%**	**n**	**%**
Boys	63	29.20	50	23.10	113	52.30
Girls	45	20.80	58	26.90	103	47.70
Total	108	50.00	108	50.00	216	100.00

The table shows that the gender of the pupils in the sample were almost equally distributed. There were 113 boys and 103 girls in the study in the ratio 1:0.9. The ratio of boys to girls in Kajiado was 63:45 (7:5) and the ratio in Nairobi was 50:58 (5:6). These findings concur with previous research findings which indicates that gender enrolment in primary schools were almost equal.

4.12 Parents' Educational Attainment.

Educational background of parents of standard seven pupils in the study was important because educated parents especially mothers have positive impact on general education of their children. They are not only good role models who provide a conducive learning environment but they also have high expectations and aspirations. Educated parents will be able to impart basic skills of keeping the environment clean and basic hygiene among others to their children (Table 4.14).

Table 4.14 (a) Distribution of Pupils' Parents by Educational Attainment Level

Mothers Education level	Kajiado Mothers		Nairobi Mothers		Total	
	n	%	n	%	N	%
None	49	22.70	2	0.90	51	23.60
Primary 1-8	37	17.10	23	10.60	60	28.00
Secondary	17	7.90	62	28.70	79	36.50
University and above	4	1.90	16	7.40	20	9.20
Not living	1	0.40	5	2.30	6	2.70
Total	108	50.00	108	49.90	216	100.00

TABLE 4.14 (B)

FATHERS EDUCATION LEVEL	KAJIADO FATHERS		NAIROBI FATHERS		TOTAL	
None	41	18.98	2	0.92	43	19.00
Primary 1-8	27	12.5	13	6.12	40	18.52
Secondary	25	11.5	53	24.54	78	36.11
University and above	6	2.8	29	13.42	35	16.22
Not living	7	3.24	9	4.16	16	07.40
	*2	0.90	*2	0.90	*4	1.85
Total	108	50.00	108	50.00	216	100.00

* Missing information

Table 4.14 shows that (23.6%) of the mothers had no formal education. In Kajiado, (22.7%) of mothers had no education compared to 0.9% of Nairobi mothers. At the primary level, the two groups are almost at par with 17.1% mothers from Kajiado and 10.6% mothers from Nairobi.

Nairobi mothers with secondary level constituted 28.7% compared to 7.9% of their Kajiado counterparts. A few mothers 1.9% from Kajiado and 7.4% from Nairobi had University education and above. These findings show that the mothers of standard seven pupils in Nairobi were more educated than their Kajiado counterparts.

This disparity in the mothers' education may affect both the attitude and ability of pupils to acquire practical skills in

home science. This is evident from the findings in the pupils' attitude towards home science. When asked if they would drop home science if given a chance, 20.8% of Kajiado pupils whose mothers had lower education agreed while only 2.3% of Nairobi pupils said they would drop the subject. The Nairobi pupils might have received more encouragement and support from their literate mothers.

Father's education level in table 4.14 (b) shows that 36.7% had an average of secondary education. However, some fathers had no education at all with Kajiado having 19.3% compared to 0.9% of Nairobi fathers. Again in Nairobi, 13.4% of Nairobi fathers had University education compared to only 2.8% of Kajiado fathers. These findings again indicates that fathers from Nairobi were more educated than their Kajiado counterparts.

Since it is expected that educated parents have more positive influence on their children's education than uneducated ones or the semi-illiterate parents, negative influence would be greater in Kajiado where the parents are less educated and many of them have clung to their ethnic cultures than in Nairobi. Parental encouragement is reflected by a pupil's response in table 4.15.

Table 4.15 Parents Encouragement

"My parents do not encourage me to put effort in home science subject so I do not spend a lot of time studying it"

	Kajiado		Nairobi		Total	
Responses	**n**	**%**	**n**	**%**	**N**	**%**
SA/A	33	15.30	6	2.80	39	18.06
SD/D	75	34.70	101	46.75	176	81.48
Missing	-	-	1	0.45	1	0.46
Total	108	50.00	108	50.00	216	100.00

Information in table 4.15 shows that 15.3% of Kajiado pupils are positive to the statement that "my parents do not encourage me to put effort in Home Science so I do not spend a lot of time

studying it. Compared to a few (2.8%) of their Nairobi counterparts. Such a statement shows that parental encouragement is needed by most pupils.

A higher proportion (46.7%) of Nairobi parents with higher educational attainment than Kajiado parents encourage their children to put effort in their studies. The findings concur with Munyori Abuku's writing in (Daily Nation 7th June, 1997) quoting Keith J. Toppings book "Parents as Educators" saying that "There is a very close relationship between parental encouragement and children's good performance" (1997).

4.13 Occupation of Parents

The occupation of parents was investigated in this study because it is an indication of the parents' ability to contribute towards the purchase of materials and equipment needed for 8.4.4 practical subjects like home science in Primary Schools.

Table 4.16(a) Distribution of Parents' Occupation

Fathers' Occupation	Kajiado Fathers		Nairobi Mothers		Total	
	n	%	n	%	N	%
Subsistence farming	19	8.80	1	0.40	20	9.30
Pastoralist	29	13.40	0	0.00	29	13.40
Business	40	18.50	40	19.00	80	37.00
Employed	13	6.00	58	26.80	71	32.90
Not living	7	3.20	9	4.20	16	7.40
Total	108	50.00	108	50.00	216	100.00

Table 4.16 (b)

Mothers Occupation	Kajiado Mothers		Nairobi		Total	
	n	%	n	%	n	%
Subsistence farming	33	15.30	9	4.20	42	19.40
Pastoralist wife	8	3.70	0	0.00	8	3.70
House wife	37	17.10	22	10.20	59	27.30
Business	28	12.90	45	20.90	73	33.80
Employed	2	9.50	28	12.90	30	13.90
*Not living			4	1.80	4	1.90
Total	108	50.00	108	50.00	216	100.00

The findings in table 4.16a shows that (36.5%) of the fathers do business and 32.8% are employed. That makes 69.3% of the pupils' fathers getting steady income. Subsistence farming was done by 8.8% of Kajiado fathers compared to only 0.4% in Nairobi. In total, nearly ten percent (9.3%) of the fathers do subsistence farming. Pastoralist fathers (13.4%) were only found in Kajiado. Nairobi fathers appeared to have better income because more fathers were employed (26.8%) compared to (6%) of Kajiado fathers.

The occupation distribution of the mothers shown in Table 4.17(b) shows that (12.9%) of the Nairobi mothers were employed compared to (9.5%) in Kajiado. Business was being done by (12.9%) of Kajiado mothers compared to (20.9%) of Nairobi mothers. On the whole (69.3%) of the mothers are either employed or doing business. Subsistence farming is done by (15.3%) of Kajiado mothers and (19.4%) of Nairobi mothers. Pastoralist mothers (3.7%) are only found in Kajiado.

These findings show that Nairobi parents would be able to support their primary schools with teaching and learning resources better than parents in Kajiado. Distribution of teaching and learning resources in both districts indicates that Nairobi primary schools were better off than their Kajiado counterparts. For example there was only one home science room among Kajiado primary schools in the study compared to five in Nairobi schools, as shown on table 4.39 page 78.

4.14 Community Support

Community support has been and is still vital in maintaining and sustaining primary schools. Because of the Structural Adjustment Programmes (SAPs), the government expects parents and the community to provide the teaching and learning resources while it pays teachers' salaries. A subject like home science would benefit greatly from the community support because it is directly affecting the life of the community. Digolo (1986) in his research findings on the study of community support discovered that every community has resources that could be used for the provision of relevant education especially for primary schools. One of the objectives of this study was to find out if the primary schools were getting sufficient support from the community for learning and teaching of home science. The study findings show that the community sometimes donates equipment and materials for home science. These donations included cooking and clothing materials.

Table 4.17 Donations of Materials and /or Equipment from Community.

N=12

H/M Responses	KAJIADO Headteachers		NAIROBI Headteachers		TOTAL	
	n	%	n	%	N	%
Yes	2	16.60	2	16.60	4	33.30
No	4	33.40	3	25.00	7	58.40
Missing	-	-	1	8.40	1	8.30
Total	6	50.00	6	50.00	12	100.00

Although the difference in community support from both districts is not significant, the rural schools were more affected than urban schools by lack of community support because about a third of headteachers from Kajiado (33.4%) did not receive any donation from the community compared to only 25% from Nairobi. In both districts only (16.6%) of headteachers received donations.

Table 4.18 Use of Resource Persons for Teaching Home Science

	Kajiado Headteachers		Nairobi Headteachers		Total	
	n	%	n	%	N	%
Yes	2	16.60	1	8.40	3	25.00
No	4	33.40	5	41.60	9	75.00
Total	6	50.00	6	50.00	12	100.00

The use of community resource persons in teaching is another way the community could help the schools. The headteachers and home science teachers combined initiatives to use and welcome resource persons would enhance the learning of home science. Table 4.18 shows about a quarter (25%) of the headteachers in the study used resource persons from the community while a higher proportion (75%) did not. However, this effort was not significantly improving the teaching of home science among Kajiado primary schools. This is evident by the average mark for pupils (60.8%) in home science which was just a little below the average mark of (63.03%) of home science mark in Nairobi schools. The headteachers from both districts gave various reasons for not using resource persons.

These were:-

a) Home science teachers in their schools were quite experienced and do not need resource persons. This reason was given by (37.5%) of the headteachers in the study.

b) The main reason given by the Kajiado headteachers was that resource persons were not available. This could be true because education in Maasai land has lagged behind since colonial days especially for girls.

c) Nairobi headteachers cited lack of recommendation from the syllabus for the use of resource persons.

The other alternative to using community resources would be to take pupils to the community surrounding the schools to learn certain aspects of home science. The response of headteachers who allow their home science teachers to take their pupils to the community is shown in table 4.19

Table 4.19 Learning from the Community
N=12

H/M Responses	KAJIADO Headteachers		NAIROBI Headteachers		TOTAL	
	n	%	n	%	N	%
Yes	3	25.00	1	8.40	4	33.40
No	3	25.00	5	41.60	8	66.60
Total	6	50.00	6	50.00	12	100.00

It is observable from the table that (66.6%) of the headteachers in the study do not allow their home science teachers to take their pupils to the community to learn certain aspects of home science. However, about a third (33.4%) do allow their teachers to take the pupils to the community. In comparison Kajiado (25%) was much better than Nairobi (8.4%) in the use of community by pupils.

These findings concur with Digolo's (1986) results of his study in which he found that there was little exchange of ideas and activities between primary schools and their surrounding communities. Kaime (1990) found that headteachers were willing to have the communities to help their schools, but this study reveals that schools in both districts were not using their communities sufficiently. The majority (91.7%) of the headteachers agreed that this support was weak and has affected the teaching of all practical subjects in their schools like home science. Table 4.20 shows these responses.

Table 4.20 Headteachers' Attitude Towards Community Support

Statement: **"The support of my community is very weak and this has affected the teaching of practical subjects like home science"**

Attitude	Kajiado Headteachers		Nairobi Headteachers		Total	
	n	%	n	%	N	%
SA/A	6	50.00	5	41.60	11	91.70
D/SD	-	-	1	8.40	1	8.30
Total	6	50	6	50	12	100

4.15 Attitudes towards Home Science

Attitudes of headteachers, home science teachers and pupils in standard seven was important in this study because it would be used as an index in determining the seriousness of teaching and learning the subject to provide the practical skills. Home science before the introduction of 8-4-4 curriculum was adversely affected by its low status in the primary school curriculum. For example, it was not examined at the end of the primary course and only taught to girls.

A Likert Attitude scale was used to measure the attitude of the participants. The researcher in this study used four alternatives only from the scale. These were:

1. Agree (A)
2. Strongly Agree (SA)
3. Disagree (D)
4. Strongly Disagree (SD)

The headteachers' responses to the statement that "home science provided practical skills and knowledge for self employment to primary school leavers" are shown in Table 4.21

Table 4.21 Attitudes Towards Home Science

Attitude scale	KAJIADO Headteachers		NAIROBI Headteachers		TOTAL	
	n	%	n	%	N	%
A/SA (Positive)	6	50.00	6	50.00	12	100.00
D/SD (Negative)	-	-	-	-	-	-
Total	6	50.00	12	50.00	12	100.00

All the headteachers (100%) believed that home science could provided practical skills and knowledge for self-employment. However, there was a problem of actualizing this expectation. The responses of the home science teachers on whether they had imparted some of these practical skills shown in table 4.22 shows that (62.5%) were not satisfied with skills imparted such as cutting and sewing. This was confirmed by the use of the observation schedule where the researcher observed that the apparatus and materials for sewing were inadequate and all teachers used the demonstration method of teaching only. This did not allow the pupils to manipulate the skills.

Table 4.22 Teachers attitude towards imparting Home Science Skills to Pupils.

Practical skills	Attitude	Kajiado teachers		Nairobi teachers		Total	
		n	%	n	%	n	%
Cutting and Sewing	A/SA	5	20.80	4	16.70	9	37.50
	D/SD	7	29.20	8	33.30	15	62.50
Total		12	50.00	12	50.00	24	100.00
Planning and cooking	A/SA	10	41.60	11	45.80	21	87.50
	D/SD	2	8.40	1	4.20	3	12.50
Total		12	50.00	12	50.00	24	100.00
Keeping clean Environment	A/SA	12	50.00	12	50.00	24	100.00
	D/SD	-	-	-	-	-	-
Total		12	50.00	12	50.00	24	100.00

The skill of cutting and sewing with a machine has proved to be a viable skill to school leavers most of whom become tailors and dressmakers. In the previous curriculum of 7:4:2:3 the Bessey report (1972) observed that needlework was the only unit being covered adequately in home science. However, this is not the case in the 8-4-4 curriculum. Kanga (1994) in her study discovered that clothing and textiles was the least enjoyed unit by students. This shows a decline in teaching this skill, which could be used for self-reliance.

On the other hand, all the home science teachers (100%) positively responded that they had imparted the skill of keeping a clean environment, and 87.5% of teachers are positive of imparting planning and cooking skills.

Table 4.23 Pupils Attitude Towards Home Science

STATEMENT - "I would drop home science if given a chance"

Responses	Kajiado n	%	Nairobi n	%	Total N	%
SA/A	45	20.80	5	2.30	50	23.10
SD/D	63	29.20	101	46.80	164	76.00
Missing	-	-	2	0.90	2	0.90
Total	108	50.00	108	50.00	216	100.00

The table 4.23 shows that 76% would not drop home science and only 23.1% would. This shows a positive attitude of pupils towards the subject.

4.16 Application of Home Science Skills to Job Situation.

Pupils' attitude towards a subject is important because a positive attitude will motivate the learner and a negative attitude will demotivate him/her. The pupils' responses as to whether they can apply some of the practical skills they had acquired in home science are summarized in table 4.24

Table 4.24 Application of Home Science Skills to Job Situation.

Acquired skills	Attitude	Kajiado Pupils		Nairobi Pupils		Total	
		n	%	n	%	n	%
Improving hygiene	A/SA	100	46.30	100	46.30	200	92.60
	D/SD	8	3.70	7	3.20	15	6.94
				*1	*0.50	1	0.46
Total		108	50.00	108	50.00	216	100.00

Acquired skills	Attitude	Kajiado Pupils		Nairobi Pupils		Total	
Working in hotel	A/SA	90	41.70	98	45.30	188	87.00
	D/SD	18	8.30	9	4.20	27	12.50
				*1	0.50	*1	0.50
Total		108	50.00	108	50.00	216	100.00
Make a balanced diet	A/SA	99	45.80	103	47.70	202	93.50
	D/SD	9	4.20	4	1.80	13	6.000
				*1	0.50	*1	0.50
Total		108	50.00	108	50.00	216	100.00

***Missing.**

It can be observed from data in table 4.24 that the majority (92.5%) of the pupils in the study were confident that they could apply the knowledge they had learnt in home science to improve hygiene. Just a few (6.9%) in the study were not confident.

Most (87%) and (93.5%) of the pupils were confident they could work in hotels using the skills obtained in home science, and make balanced diets respectively. Consequently (89.8%) were also confident that home science skills and knowledge could lead one to a good job, or career. These findings show that pupils have a positive belief and expectation of acquiring skills for self-employment. However, this study findings show that these beliefs and expectations have been thwarted by general lack of practical lessons due to inadequate teaching and learning resources.

Practical lessons were observed in three schools among Kajiado schools and in only one among Nairobi schools. The remaining schools did not carry out practicals during the time of research. The practical observations showed that the teacher demonstrated the skill while pupils observed. They were then divided into groups of between 10-15 pupils to carry out the practicals. While in their groups it was observed that pupils took it in turns to practise the skill. The resources used in the practicals were brought by the pupils. The large number of pupils in the group did not allow each pupil to practise the skill. The teachers were also not able to supervise the groups effectively and pay attention to any weak pupil. The practical lessons lasted for one hour (60 minutes or double lesson). On further probing, the teachers were asked why no practicals were observed to which they answered that they concentrated on theory work and past examination papers unless they were instructed otherwise to prepare pupils for practical assessment by the National Examination Council.

The above findings show that there is a trend of drilling pupils for passing examinations. This is killing the major thrust of 8-4-4 objective of providing the school leavers with knowledge and practical skills that would make them self-employed. Therefore, there is lack of practise in home science.

4.17 Assistance in Home Science Assignments

On enquiring whether pupils in the study carried out all the practical skills prescribed in the syllabus themselves or seek help from other members of the family such as mothers, sisters, relatives or maids, more than half (68.5%) agreed they did get help with their assignments on practical work (table 4.25). A small percentage (30.5%) however said they did their own assignments. In comparison (38.4%) of Nairobi pupils get help compared to (30.1%) in Kajiado. Those who do not get help from Kajiado were (18.9%) compared to (10.6%) of their Nairobi counterparts. Verbatim explanation from some of the pupils revealed that most of the time their helpers finished for them

revealed that most of the time their helpers finished for them the work given as assignments e.g Knitting or making a tray cloth and the pupils just fixed their names on the items. This kind of help is not right as the pupil does not get time to practice the skill.

These findings reveal that when pupils are awarded marks for their final products in standard eight examination (K.C.P.E.) most of the work was not pupils' work. It is, therefore, doubtful whether pupils have acquired the practical skills in home science. On asking the teachers whether they knew it was illegal for them to present work which was not the pupils', they revealed that this was no longer a secret because even the Kenya National Examination Council (KNEC) examiners were aware and that is why practical marks are not included in the final K.C.P.E. results.

Table 4.25 Assistance in Home Science Assignments

N = 216

Responses	Kajiado Pupils		Nairobi Pupils		Total	
	n	%	n	%	N	%
Yes	65	30.10	83	38.40		68.50
No.	43	19.90	23	10.60		30.50
			*2	1.00		1.00
Total	108	50.00	108	50.00		100.00

* Missing Information.

4.18 Management and Adequacy of Teaching and Learning Resources

Management is an important component of headteachers' tasks in schools. A good manager as Rust (1985) says, aims to utilize the available resources in the best possible way to achieve the highest level of students' potentiality. A good school manager (headteacher) will ensure that teaching and learning resources are available at the time they are required. This study aimed at finding out the different techniques used by headteachers or home science teachers in managing learning and teaching resources.

Table 4.26 The headteachers' responses on the availability of resources for teaching home science in their schools.

Table 4.26 Adequacy of Learning and Teaching Resources.
N = 12

Responses	Kajiado H/M		Nairobi H/M		Total	
	n	%	n	%	n	%
Yes	0	0.00	4	33.30	4	33.30
No.	6	50.00	2	16.70	8	66.70
Total	**6**	**50.00**	**6**	**50.00**	**12**	**100.00**

Table 4.26 shows that 66.7% of the headteachers in the study said that they did not have adequate teaching and learning resources, with a higher percentage (50%) coming from Kajiado compared to 16.7% of Nairobi schools. About a third (33%) agree they have enough teaching and learning resources and these are only in Nairobi schools. These findings show that lack of resources and poor management are being felt more in the rural schools than in urban schools.

These findings concur with the findings of Sei (1991) in which she said lack of facilities and equipment affect the teaching of home science. On using a checklist schedule and visiting the stores of the schools, it was observed that the few schools in Nairobi (33%) who claimed they had just about adequate resources, some of these resources were not in full use. For example sewing machines stored in the headteachers' offices were never used. Some of the saucepans were stored in cartons on top of the office cupboards.

4.19 Availability of Home Science Rooms

A home science room allows teachers and pupils to carry out practical lessons with ease. This promotes the learning and acquisition of practical skills if the room is well-equipped.

A room without equipment, on the other hand, would not be very useful to teachers and learners. Responses on availability of these rooms and their uses are shown in table 4.27.

TABLE 4.27 Availability of Home Science Rooms and their Use.

Home Science room available	**Kajiado Schools**		**Nairobi Schools**		**Total**	
	n	%	n	%	N	%
Yes	1	8.30	5	41.70	6	50.00
No.	5	41.70	1	8.30	6	50.00
Total	**6**	**50.00**	**6**	**50.00**	**12**	**100.00**
Home Science room in use	**Kajiado Schools**		**Nairobi Schools**		**Total**	
	n	%	n	%	N	%
Yes	0	0.00	5	41.70	5	41.70
No.	6	50.00	1	8.30	7	58.30
Total	**6**	**50.00**	**6**	**50.00**	**12**	**100.00**

Key: 0 = Not in use

The table shows that half (50%) of the schools in the study had home science rooms while the other half (50%) did not. On the whole, 41.7% of the home science rooms available were found in Nairobi schools and only one (8.3%) home science room was found among Kajiado schools. On enquiring further whether these rooms were in use, the findings revealed that all the home science rooms in Nairobi were in use, the single one in Kajiado was not even in use.

The researcher using an observation schedule, discovered that in Kajiado, the only home science room available was converted into a store. On enquiring where the practicals were done, the teachers said they did them in the classrooms or under a shade, whenever the weather permits. These findings show that rural schools in this study lack home science rooms, and the urban schools have home science rooms except one which did practicals

in the workshop. This lack of special rooms for home science will affect the teaching of the subject.

Brown (1986) described home economics (home science) as a subject concerned with actions. The actions must be co-ordinated and manipulated in a specified area. It is therefore vital for home science to have its own room where these actions can be imparted to pupils to acquire the practical skills. The rooms available were not effectively used mainly due to lack of equipment and apparatus.

4.20 Budgeting for Materials and Equipment

Budgeting helps a manager to forecast the cost of resources and ways of looking for funding. It also allows him/her to achieve the set goals of the enterprise. A headteacher who budgets for resources will achieve most of his/her objectives. Home science teaching involves the use of permanent and perishable resources. In this study, the researcher was interested in finding out whether headteachers and home science teachers budgeted for home science requirements. The responses are shown in Table 4.28.

TABLE 4.28 Budgeting for Home Science
N = 12

Responses Budgeting	Kajiado Headteachers		Nairobi Headteachers		Total	
	n	%	n	%	n	%
Yes	3	25.00	4	33.30	7	58.30
No.	3	25.00	2	16.70	5	41.70
Total	6	50.00	6	50.00	12	100.00

N = 24 Budgeting by Home Science Teachers

Responses	Kajiado Teachers		Nairobi Teachers		Total	
	n	%	n	%	N	%
Yes	4	16.70	4	16.70	8	33.40
No.	8	33.30	6	25.00	14	58.30
			*2	8.30	*2	8.30
Total	**12**	**50.00**	**12**	**50.00**	**24**	**100.00**

* No Response.

The responses show that just over half (58.3%) of the headteachers do budget for home science and 41.7% do not. In comparison, more headteachers from Nairobi (33%) budget compared to 25% of their Kajiado counterparts. In fact, it can be observed from the table that in the rural schools (Kajiado) half of the headteachers in the study budget while the other half do not.

Furthermore, the table reveals that about a third (33.3%) of home science teachers do budgeting, while half (58.3%) do not. There were no responses from two home science teachers. In comparison, the same proportion (16.7%) from each district budget for home science. These findings show that budgeting is being done by half of the headteachers and only about a third of the home science teachers. The findings indicate lack of adequate budgeting for home science especially among the home science teachers.

Although budgeting is necessary, it must be followed by actual fund raising. Home science teachers' budgets could be used by the headteachers to estimate the levy charges on parents for buying resources necessary for teaching. This would ease the parents ever increasing expenditure on education.

As implementers of innovations in education, this lack of serious budgeting by teachers will affect the teaching of home science in various ways. Lack of co-ordination between what parents can afford and what the teachers require by the headteacher who is also the accounting officer, makes him/her unable to control receipts and expenditure of funds in the school.

4.21 Allocation of Funds

On probing further, the researcher wanted to know from those who budgeted, who decides on the amount of money to be allocated for home science so that this amount can be levied on parents. Table 4.31 shows the responses by the headteachers in the study.

Table 4.29: Who Decides on allocation of funds:

	Kajiado		Nairobi		Total	
	N	%	N	%	N	%
Headteacher	-	-	-	-	-	-
Homescience teacher	4	33.30	2	16.70	6	50.00
Committee	1	8.30	3	25.00	4	33.30
P.T.A. AGM	1	8.30			1	8.30
M.O.E	-	-	-	-	-	
Any other/NGO	-	-	1	8.30	1	8.30
Total	6	49.90	6	50.00	12	99.90

The table shows that headteachers in both districts do not decide on the amount of money to be allocated for home science. This result is good because headteachers do not teach the subject so they don't know the estimate of what is required, so their role is to control the funds. Fifty per cent of the home science teachers make decision with about a third (33.3%) from Kajiado and 16.7% from Nairobi. Other decision-makers are school committee and

Parents Teachers Association (P.T.A.). An identified NGO which donates materials and funds for home science in Nairobi makes this decision. Ministry of Education (M.o.E) does not make any decision at all regarding this issue. These findings show that the Ministry of Education has not decided on any budget for teaching home science, unlike in the past when it levied parents some money for home science. Consequently, various bodies are involved in making decisions on how much money to charge parents. This disparity may favour some parents while it may hurt others. A uniform system of allocating funds would help the teaching of home science and the proper control of funds in schools. The main decision makers in this study are the subject teachers (50%), ideally this decision should be made during P.T.A. meetings. The headteacher should co-ordinate the receipts and expenditure of funds.

Table 4.30 Headteachers influence on Decisions on the use of Teaching and Learning Resources:

N=12

Responses	**Kajiado Headteachers**		**Nairobi Headteachers**		**Total**	
	n	%	n	%	n	%
Yes	3	25.00	4	33.30	7	58.30
No	3	25.00	2	16.70	5	41.70
Total	6	50.00	6	50.00	12	100.00

4.22 Headteachers' influence on teachers' Decisions

The headteacher's influence can have a positive or negative effect on the teacher. The kind of positive influence the headteachers would have is encouraging the teachers to make the right decisions, for example, asking them to make a budget and helps them to realize some of the funds and materials they would use for teaching. Another way of influencing the teachers' decisions would be to allow the teachers to present their budgets to the P.T.A. committee and let it be defended before the committee. The negative influence would not motivate the teachers. Table 4.30 shows the headteachers who influence their teachers on the use of teaching and learning resources.

The table shows that 58.3% of the headteachers in the study influence their home science teachers' decisions on the use of teaching and learning resources, while 41.7% do not. In comparison, more Nairobi headteachers (33.3%) influence their teachers compared to 25% of their Kajiado counterparts. The rate of influence in Nairobi shows that the teachers make the right decisions due to their high academic and professional qualification which is superior to those of Kajiado counterparts.

4.23 Supervision of Home Science Classes by Headteachers

Supervision is a very important role of a headteacher. It helps him/her to get first-hand information about progress and problems encountered by the teachers and pupils in class. The headteachers who supervise their home science classes are shown in table 4.31

Table 4.31 Supervision of Home Science Classes by Headteachers: N=12

Responses	Kajiado Headteachers		Nairobi Headteachers		Total	
	n	%	n	%	N	%
Yes	4	33.30	6	50.00	10	83.30
No	2	16.70	-	-	2	16.70
Total	**6**	**50.00**	**6**	**50.00**	**12**	**100.00**

The table shows that the majority (83.3%) of headteachers in the study supervise their home science classes. However, (16.7%) do not. In comparison, it was noted that all (5) Nairobi headteachers supervise their classes, while in Kajiado only four (4) supervise and two (2) do not. The supervision done by all Nairobi headteachers shows that their teachers will get their problems solved faster than those teachers in Kajiado where some headteachers do not supervise home science classes. Nairobi home science teachers will consequently teach home science better than their Kajiado counterparts which may result in more acquisition of practical skills by Nairobi pupils than Kajiado pupils.

4.24 Gender Attitudes

Gender attitudes held by pupils and their teachers towards acquisition of practical skills will affect acquisition of these skills. Table 4.32 shows teachers' attitudes on gender.

Table 4.32 Gender Attitude towards Performance Home Science

N = 24

Statement 'A' Boys perform better than girls'

Responses	Kajiado H/S. teachers		Nairobi H/S. teachers		Total	
Attitude Scale	n	%	n	%	n	%
Positive SA/A	7	29.20	3	12.50	10	41.70
Negative SD/D	5	20.80	9	37.50	14	58.30
Total	12	50.00	12	50.00	24	100.00

Statement 'B' Girls perform better than Boys.

Responses	Kajiado H/S. teachers		Nairobi H/S. teachers		Total	
Attitude Scale	n	%	n	%	N	%
Positive SA/A	7	29.20	1	4.20	8	33.30
Negative SD/D	5	20.80	11	45.80	16	66.70
Total	12	50.00	12	50.00	24	100.00

Table 4.32 shows that (41.7%) of the Home Science teachers in the study agree with statement A (Boys perform better than Girls) and (58.3%) do not. On statement 'B' - "Girls perform better than boys." Over a half of the teachers (66.7%) do not agree and only a third (33.3%) agree.

The data were collected using the two statements above (A & B). We can have a combined data of the two statements for both Nairobi and Kajiado to compare the gender performance. This is shown in table 4.33

Table 4.33 Comparison of Pupils Performance by Gender

(a) KAJIADO

Statement	Boys perform better	Girls perform better	
A	29.20	20.80	50.00
B	20.80	29.20	50.00
Total	**50.00**	**50.00**	**100.00**

Kajiado pupils gender performance is the same for both boys and girls as indicated by the teachers attitude. (50:50)

(b) NAIROBI

Statement	Boys perform better	Girls perform better	
A	12.50	37.50	50.00
B	45.80	4.20	50.00
Total	**58.30**	**41.70**	**100.00**

Table 4.33 shows that about half (58.3%) of Nairobi Teachers believe that boys perform better than girls while (41.7%) do not believe so. However, the overall attitude of the teachers are positive that boys perform better than girls(58.3%).

Table 4.34 shows a sample representation of the pupil performance by population in home science theory paper.

Table 4.34Pupils Performance in Theory Paper by Gender

	Boys mean %	Girls mean %
Above Average (AA)	61.00	50.00
Average (A)	55.00	50.00
Below Average (BA)	27.00	25.00
Total Gender mean	**47.70**	**42.30**
Grade	C-	D+

The above findings show that boys' above average (AA) performance was 61% compared to 50% for girls of the same category.

The boys average had a mean of 55% compared to 50% of the girls. Below average boys mean was 27 compared to 25 of girls. The mean grade for boys was C-(47.7%) compared to a mean of D+ (42.3%) for girls.

The findings on the whole shows home science teachers are positive that the gender does affect the performance in practical besides cultural upbringing of children in urban and rural areas. Pupils' attitude on gender performance is shown in table 4.35

Table 4.35 Segregated Teaching of Home Science:

Attitude Scale	**Kajiado Pupils**		**Nairobi Pupils**		**Total**	
	n	%	n	%	N	%
Statement (a) "Home Science should be taught to girls only"						
SA/A	27	12.50	4	1.80	31	14.40
SD/D	81	37.50	103	47.70	184	85.10
	*-	-	1	0.50	1	0.50
Total	108	50.00	108	50.00	216	100.00
*** Missing information**						
Statement (b) Boys are not serious in studying home science						
SA/A	33	15.30	18	8.30	51	23.60
SD/D	75	34.70	89	41.20	164	75.90
	-	-	*1	0.50	*1	0.50
Total	**108**	**50.00**	**108**	**59.00**	**216**	**100.00**

The majority 85.1% of the pupils in the study did not believe in segregating girls for home science while 14.4% believed in segregation. However, 23.6% of the study pupils believe that boys are not serious with home science; the highest percentage (15.3%) coming from Kajiado when compared to 8.3% from Nairobi pupils.

These findings show that the gender issue is partly affecting the acquisition of home science practical skills especially in Kajiado primary schools. However, this effect is not serious in Nairobi schools.

4.25 Availability of Teaching and Learning Resources in Schools

An educational innovation like Kenyan 8-4-4 curriculum and Nigerian 6-3-3-4 are accompanied by the need for new teaching and learning resources. In this study, a comparison was made between rural schools (Kajiado) and urban schools (Nairobi) to find out whether they have sufficient resources such as buildings, home science rooms, equipment and materials for teaching the subject. The responses of home science teachers who seek assistance from the Teachers Advisory Centres (TACs) in their areas are shown on Table 4.36

Table 4.36 TACs Assistance to Teachers

N=24

Responses	Kajiado H/Sc. Teachers		Nairobi H/Sc. Teachers		Total	
	n	%	n	%	N	%
Yes	3	12.50	5	20.80	8	33.30
No	9	37.50	6	25.00	15	62.50
*	-	*	1	4.20	*1	4.20
Total	**12**	**50.00**	**12**	**50.00**	**24**	**100.00**

* Missing

The information in table 4.36 shows that a high proportion (62.5%) of the home science teachers do not seek assistance from their TAC Offices. Just about a third (33.3%) do seek assistance. In comparison, more Nairobi teachers (20.8%) seek assistance compared to (12.5%) of their Kajiado counterparts. On further probing by the researcher to find out why home science teachers do not seek help, the majority gave the following reasons "The TAC tutors are willing but do not have enough materials and/or equipment for home science". Others cited lack of qualified tutors concerned with home science.

The researcher using a checklist instrument when visiting some TAC offices in the Kajiado area, was only able to see a baby's cot in their store which confirmed the teachers' responses.

4.26 Methods of acquisition used by Home Science Teachers

Various methods used by Home Science teachers to acquire materials and equipment are shown in Table 4.37.

TABLE 4.37 METHODS OF ACQUIRING EQUIPMENT AND MATERIALS

N =24

METHODS	N	%
Asking pupils for materials	2	8.30
Asking pupils for money	9	37.50
Teacher uses His/her own money	5	20.80
Teacher asks H/M for funds	1	4.20
Ask P.T.A. Chairman for money	0	0.00
Do without practical	6	25.00
Improvise	1	4.20
Total	**24**	**100.00**

It can be observed that the common method used by 37.5% was to ask pupils to bring money from home to buy the materials they needed for practicals. A few teachers (20.8%) used their own funds to buy the materials for practicals. This method was later confirmed by the researcher in a conversation with a home science teacher. This teacher explained how she spends her own money to buy items for the practical work final assessment. Another group of teachers (25%) opt to do without a practical which requires the materials which they do not have. This is a dangerous option because pupils will not learn or acquire the skills they need. The number of those who ask pupils to bring materials from home constituted (8.3%). It is interesting to note that very few teachers (4.2%) ask headteachers for money to buy materials. This confirms earlier findings presented in table 4.29 p.69 which shows that headteachers do not decide on the amount of money to be allocated to home science and have no control of its funds.

Improvisation is important in teaching yet this study shows that only (4.2%) of the home science teachers in the study did improvisation. The researcher observed a teacher using brown paper for making skirts with pupils who could not afford clothing

material. This sort of improvisation should be encouraged in home science although it has its peculiar limitations.

4.27 Materials and Equipment by Donations

Some donors have helped a number of primary schools with materials and/or equipment for home science. The responses to this item are shown in the table 4.38.

TABLE 4.38 DONATIONS

RESPONSES	KAJIADO H/SC. TEACHERS		NAIROBI H/SC. TEACHERS		TOTAL	
	n	%	n	%	N	%
Yes	2	8.50	4	16.60	6	26.10
No	10	41.50	8	33.40	18	73.90
Total	**12**	**50.00**	**12**	**50.00**	**24**	**100.00**

Almost three quarters (73.9%) of the home science teachers in the study do not receive any donation of materials and/or equipment for teaching home science. Very few teachers (26.1%) in the study get some donations. In comparison, the Nairobi Primary schools (16.6%) compared to (8.5%) of their Kajiado counterparts get help. The donations come from parents NGOs and teachers. Materials donated include cooking materials and improvisation.

4.28 Availability of Facilities and Resources

The researcher used a checklist to establish the actual existence of the learning and teaching resources to confirm the responses of the teachers. The observed resources are shown on table 4.39.

Table 4.39 Teaching and Learning Resources Available in the Schools.

Resources	Kajiado Schools	Nairobi Schools
Large Equipment	2	5
Small Equipment	3	4
Audio Visual Aid	-	2
Real Objects	1	3
Visual Aid	-	-
Charts	2	4
Home Science rooms	1	5
Classrooms for home science	6	1
Water Supply	4	6
Water storage	3	5
Home science store rooms	1	6

The table shows that large teaching equipment like sewing machines, gas cookers, paraffin or electric cookers and others were found in two schools in Kajiado District and five schools in Nairobi District.

Small equipment like traditional cooking stones, charcoal stoves, improved oven and others were found in three schools in Kajiado and four schools in Nairobi. Audio visual teaching aids like tape recorders, radio cassettes, radios were found only in two schools in Nairobi and no school in Kajiado had them. Visual aids like video, projector and television were not available in any of the schools in both districts. This was expected as very few schools can afford them countrywide.

Actual items used for practicals like vegetables, clothing material and samples were only observed in one school in Kajiado and three schools in Nairobi. The Kajiado primary schools used classrooms for home science practicals while in Nairobi only one school used the classroom or workshop for practicals.

All Nairobi schools had water supply compared to four schools in Kajiado. Five out of six schools in the study from Nairobi had water storage while only three in Kajiado had storage for water. All Nairobi schools had home science stores while in Kajiado only

one school had such a store. In Kajiado, most of the home science apparatus and equipment were stored in the headmaster's office.

On the whole, the checklist shows a general lack of essential equipment for teaching practical skills like sewing machines and real objects. However, the rural schools in Kajiado were more affected than the urban schools in Nairobi.

Table 4.40 Problems of Acquisition.

Problems	n	%
There is general lack of resources	2	16.60
Negative attitudes by pupils and parents	1	37.50
Lack of competent teachers	3	12.50
Lack of nearby markets	4	8.30
Lack of water	5	4.20
Inadequate time for practicals	1	4.20
Large classes	4	8.30
Material not available in time	1	4.20
* Missing	3	4.20
Total	**24**	**100.00**

The major problem cited affecting the provision of resources was negative attitude towards home science by pupils and parents (37.5%). This is in spite of their efforts in providing the resources. The teachers still felt that general lack of resources in schools is a problem (16.6%).

Teachers themselves say that they are not competent (12.5%) to teach all areas of home science especially with large classes. Last but not least, lack of water, markets, time for practical work and materials not being provided in time for practicals were some of the problems cited (4.2%). Lack of teaching resources is an endemic problem for primary schools in both districts.

4.29 Solutions to the Problems Affecting the Provision of Learning and Teaching Resources in Home Science

Teachers suggested a number of solutions which they thought would solve their problems affecting provision of resources they need for teaching and learning home science. These solutions are listed on Table 4.41 and were common among all the teachers in the study.

Table 4.41 Solution to Problems Affecting Provision of Learning and Teaching Resources in Home Science

Solutions	All H/S Teachers in the study Responses. n	%
Creating awareness of importance of Home Science to the community, Parents and pupils.	3	12.00
Provision of materials by Government and the schools.	4	16.60
Inservice and /or seminars for Home Science teachers.	4	16.60
Raising funds (Harambees).	1	4.20
Starting school projects to generate funds.	1	4.20
Encouraging improvisation by teachers.	2	8.30
Issue of certificates for practical	3	12.50
Reducing home science syllabus	1	4.20
Home Science to be taught for daily use only.	3	12.50
* Missing	2	8.30
Total	**24**	**100.00**

The table shows that the common solutions suggested by most of the home science teachers in the study were:

a). Provision of learning and teaching resources for home science should be taken over by the government and schools and not just left to parents only (16.6%).

b). Inservice and/or seminars of home science teachers be carried out more vigorously (16.6%).

c). Creating awareness of importance of home science to the community, parents and pupils would help them to change their negative attitude towards the subject (12%)

d) Home Science to be taught for daily use only and not for examination (12.5%) as the articles displayed for final assessment are not wholly pupils' effort. This was admitted by (68.5%) of the pupils who get help with their work (Table 4.26, p.65).

e) Fundraising through harambee for purchasing the resources. (4.2%)

f) Schools to start income-generating projects and the money be used for purchasing learning and teaching resources (4.2%).

These findings show that home science teachers were anxious and willing to improve the teaching of the subject by suggesting useful ways of solving their problems to uplift their teaching.

4.30 Summary

The preceding chapter has presented data collected from the headteachers, home science teachers and standard seven pupils on the general objectives of the study. Descriptive illustrations and percentages were used in the presentation and discussion of the results.

The findings showed that community support is not adequate as only about a third (33.4%) of the schools received community donations. Data also showed there was endemic lack of teaching and learning resources for teaching home science in schools, but rural were more affected than urban ones. There was indication that management of the resources were inefficient by both headteachers and home science teachers. However qualified and home science teachers were found to be doing very well. Male pupils lacked role models in learning home science since most of the home science teachers were females.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to compare factors affecting effective acquisition of home science practical skills in primary schools. A comparision was made between urban schools in Nairobi and rural schools in Kajiado.

Since the introduction of the 8-4-4 system of education, home science has become compulsory and an examinable subject in the Kenya Certificate of Primary Education (K.C.P.E.). Home Science in this system is envisaged as a practical subject to equip standard eight school leavers with skills and knowledge that can make them employable or give them the capacity for self-employment. It is over ten years since the introduction of the new educational system, yet unemployment and lack of practical skills by primary schools levers is rampant. It is this state of affairs that prompted the need to find out if there were factors affecting acquisition of home science skills as a practical subject. The findings would benefit curriculum developers at Kenya Institute of Education (K.I.E.), policy makers at the Ministry of Education, School Inspectors, and the Kenya National Examinations Council (KNEC) in solving the problems encountered by teachers and schools in the acquisition of home science practical skills.

5.2 Findings

The major findings of this study are given in the light of the main objectives which were:-

a). Adequacy of community support in providing learning and teaching resources for home science.

b). The effect of attitudes held by headteachers, home science teachers and pupils towards home science.

c). Management of teaching and learning resources and their effect on acquisition of home science practical skills.

d). The effect of professional and academic qualification of home science teachers on acquisition of practical skills.

e). The effect of pupils' gender on acquisition of home science practical skills and

f). A comparison of availability of facilities in urban and rural schools.

5.2.1 Adequacy of Community Support

The community support in providing learning and teaching resources for home science in both rural and urban schools has been found to be inadequate. The findings from the study show that (66.7%) of the schools did not receive donations from the community. About three quarters (75%) did not use community resource persons in teaching home science, and (66.6%) did not take pupils to the communities surrounding the schools to learn certain aspects of home science. This shows that there is failure of the schools to involve the community in their teaching. This may be due to poor school and community relationship. This is evident by the headteachers' response in saying that their home science teachers are quite experienced and did not need resource persons. However, headteachers from Kajiado decry lack of resource persons for home science in their district. This inadequate community support is affecting the teaching and learning of home science and acquisition of its practical skills.

5.2.2 Attitudes of Headteachers, Teachers and Pupils

All the home science teachers (100%) were positive that they had imparted the skill of keeping a clean environment to their pupils, and most of them (87.5%) were positive that they had imparted the skill of planning and cooking nutritious meals. However, more than half (62.5%) of home science teachers were not confident of imparting the skill of cutting and sewing clothes or using a sewing machine to their pupils.

The majority (93.5%) of the pupils believed that given the opportunity, they can effectively apply the skills acquired in home science for self-employment, for example, preparing a balanced diet in hotel cooking, working in a hotel (87%) and improving hygiene (92.5%). However, the parents inability to supply sufficient teaching and learning resources make them have a slightly negative attitude towards the subject and this is affecting the teaching of home science and consequently the acquisition of practical skills by pupils.

5.2.3 The Effect of Management on the Practical Skills

The elements of administration in management considered in this study were:

a) Budgeting
b) Decision making and
c) Supervision

(a) Budgeting

The study revealed that about half (58.3%) the headteachers budgeted for home science while 41.7% did not budget. Only a third (33.3%) of Home Science teachers budgeted while about half (58.3%) did not. This lack of budgeting especially by the subject teachers who are conversant with the relevant requirements of the curriculum affects the

teaching and learning of home science. This will hinder effective acquisition of practical skills.

(b) Decision Making

The study revealed that home science teachers are the main decision makers on the amount of money to be allocated and levied on parents for the teaching of home science. However, school committees, NGO and Parents Teachers Associations were also involved. The headteachers were not involved in this decision making and yet they influenced and controlled the teachers' use of teaching resources. This disparity does not augur well for the teaching of home science. Ideally, headteachers are charged with the responsibility of collecting and using Government revenue in schools. They should be involved together with the teachers in deciding what is affordable to the parents in their community, so that parents are not burdened.

(c) Supervision

The study revealed that the majority (83.3%) of the headteachers supervised their home science classes. This supervision was more vigorous in the urban schools where all the headteachers (50%) supervised their classes, than in the rural schools where only (33%) of the headteachers supervised their classes. Lack of effective supervision in primary schools is affecting the teaching of home science especially in the rural schools.

The management of home science teaching and learning resources was not adequately done due to no set down policies and procedures to be followed. The headteachers are not wholly responsible whereas teachers are also not certain of the extent of their responsibility. Lack of effective supervision affects the teaching of home science.

5.2.4 The Effect of Professional and Academic Qualification of Home Science Teachers on Imparting of Practical Skills

Data revealed that the urban schools had better qualified teachers in both academic and professional training than the rural schools. The rural school teachers had however longer teaching experience than the urban teachers. Inservicing of home science teachers has not been done effectively to uplift the status of teachers.

This is evident by the fact that about half (58.3%) of the home science teachers had not been inserviced since the inception of the eight-four-four (8-4-4-) system. The frequency of the inservicing was also found to be inadequate. These findings concur with Kanga (1994) who found in her study that the majority of home science teachers felt that they were not adequately prepared to teach certain sections of home science syllabus e.g. clothing and textiles (needlework) in the new system.

5.2.5 The Effect of Gender on Acquisition of Home Science Practical Skills

The theory marks and the teachers' responses to the gender effect show that boys perform better than girls in theory work. The pupils on the other hand agree that home science should be taught to both girls and boys because boys are just as serious as girls in the study of home science. This in effect is true because the world famous fashion designers, chefs, and tailors are men. The study shows that home science teaching was dominated by female teachers (91.7%), hence the male pupils do not have role models. Male pupils were also affected by feminine activities like baby care and house cleaning. It can be safely concluded that the gender factor to some extent is affecting acquisition of home science practical skills.

5.2.6 A Comparison of Availability of Facilities In Urban and Rural Schools

Data revealed that teaching and learning resources were inadequate in both urban and rural schools. Urban schools however were better off than rural schools because in terms of equipment; they had more large and small equipment than the rural schools. They also had more home science rooms than their rural counterparts. Teachers cited negative attitudes of parents and pupils as the major problem hindering provision of facilities especially materials for practicals when required. This is because some pupils would bring the materials needed while others would not due to parents inability to buy the item. The scheduled practical by the teacher cannot be effectively carried out by all pupils. The general lack of teaching and learning resources in schools was affecting acquisition of home science practical skills.

Teachers also used different methods to get teaching and learning resources, but the major method used by all the teachers in the study was to ask parents through their children for money, which was (37.5%) About a quarter (25.5%) of the teachers did not do practicals on certain topics. Disappearance of some home science equipment accessories from stores was found to be rampant in both rural and urban schools. For example, the researcher observed that some machines had only peddles while their tops were missing. This disappearance was mainly attributed to burglary in the schools.

5.3.9 CONCLUSIONS

On the basis of the findings of this study, the following conclusions were arrived at:-

a) That the community support in providing teaching and learning resources was inadequate in both rural and urban schools.

b) That attitudes held by the headteachers, home science teachers and pupils towards home science were found to be positive. These attitudes therefore do not affect the teaching and learning of home science or acquisition of its practical skills. However, teachers cited negative attitude of parents towards home science as affecting their teaching. The negative attitudes of the rural parents was found to be stronger than the urban parents.

c) That the management of teaching and learning resources by headteachers and home science teachers was found to be inadequate due to lack of co-ordination in budgeting and decision making on the use of learning and teaching resources. This lack affected the teaching and acquisition of practical skills in Home Science notably in rural schools.

d) That the home science teachers in the study were professionally trained to teach home science. However, the majority felt that they had not been inserviced enough in the new system of 8-4-4 curriculum. This was evident in the findings of the study where about half of the home science teachers (58.3%) had not attended any inservice in home science between 1985 to 1995.

e) That gender of the pupils is affecting acquisition of practical skills in certain aspects of home science concerned with the feminine activities like knitting and childcare. However the effect is stronger in rural than urban schools. Boys were found to be performing better than girls in theory work.

f) That the age of the pupils has emerged in this study as a factor affecting the acquisition of home science practical skills. The older pupils from Kajiado were more positive in being self-employed e.g. making

clothes for sale after standard eight than their Nairobi counterparts, which were younger in age.

g) That there was a general lack of adequate teaching and learning resources in both districts. Most urban schools with home science rooms were not fully utilizing them, due to lack of equipment. In the schools where practical lessons were observed, there were too many pupils to handle in a practical lesson due to large classes especially in urban schools. One of the suggestions by teachers for solving this problem was for the government and schools to set strict policies for acquisition of materials for teaching not only home science but all other practical subjects like agriculture, art & craft and music. This would give meaningful impetus in teaching these subjects, to impart practical skills and knowledge for self-employment and towards achieving the national objective of making school leavers self-reliant. As it is now many pupils get only the tips and fragments of the practical skills. Many students leave standard eight without competently acquiring technical practical skills to make them be self-employed.

5.4 RECOMMENDATIONS

In view of the various factors that have emerged from the study as hinderances to the effective acquisition of home science practical skills the following recommendations are suggested:

a) The inspectorate of the Ministry of Education should carry out vigorous intensive and extensive inservice courses for home science teachers. They should target rural schools so as to equip teachers with enough knowledge and skills to impart to pupils and make them feel competent and not threatened. Resource centres

like TAC offices should have more items for teaching and learning home science.

b) The Ministry of Education in its attempt to improve the 8-4-4 education system should review the teaching of home science and include a unit on entrepreneurship in the primary school syllabus. This would equip the standard eight graduates with knowledge on how to apply the practical skills acquired in home science for self-employment. This will enhance the chance of achieving the goal of self-reliance in education.

c) The Ministry of Education through the inspectorate should ensure that primary schools have basic equipment for teaching home science. One way of doing this would be to make an estimate for these equipment and levy cost to parents as the case was in the old system regarding secondary home science teaching. Alternatively, fees payment in primary schools should be re-introduced. Headteachers should be able to control and co-ordinate all monies collected for practical work. The government should not leave the responsibility of putting up and equipping home science rooms to parents. The cost of most of the teaching equipment are expensive and this prohibits schools from acquiring them.

d) The Kenya Home Economics Association should promote awareness of home science as a subject with practical talents and skills which can be used for self-employment. Home science teachers in schools should try hard to inform the parents and pupils of the importance of the subject and how to exploit the skills learnt for self-employment. The information should be adequate and accurate.

e) Kenya National Examinations Council (KNEC) should devise another method of assessing practical projects in home science. Alternatively, they should allow the teachers to assess their own pupils during the five years of home science in primary schools so that the continuous assessment could be used for grading the standard eight leavers. A standardization of the mean grade can be done by the K.N.E.C. objectively.

f) KNEC. should include practical marks of home science in the Kenya Certificate of Primary Education (K.C.P.E.). This will make teachers and pupils work hard to achieve good grades.

g) Home economists in Kenya where the image of the subject has been low should try to create awareness to potential employers, of talents and skills home science graduates from all tiers of education have. These could be used for example, marketing a product by using expertise and experience of home scientists or economist. Industries producing household items or food products can provide jobs for the graduates at all levels. With technical know-how, the graduate can analyze a product and determine if it meets its intended use.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

a) To be able to make home science a practical oriented subject, a study of its employable skills is recommended. This would help primary schools to concentrate on imparting these skills for self-employment. This can reduce the extensive pre-requisites for the teaching of whole curriculum. For example, encouraging skill training of occupations which would prepare pupils for the job market.

b) A similar study be carried out in other districts to identify other factors such as potential employers requirement in terms of skills.

c) A further research could be conducted to investigate whether primary school leavers who do not join secondary schools are securing paid employment or becoming self-employed using skills acquired in home science and/or other practical subjects. This would answer the important question whether the 8-4-4 curriculum is more relevant to the needs of Kenyan society and more geared towards the promotion of self-employment among primary leavers. Such a research would help to reveal the weakness and strengths of the 8-4-4 primary curriculum. The revelation could be used in reviewing the system which has been long overdue.

d) A further research could be conducted on qualitative analysis of the factors affecting the acquisition of Home Science practical skills. This would be used by policy makers in the Ministry of Education to improve the teaching of home science in Kenya.

e) A study to establish the role on management of teaching and learning resources in primary schools could be conducted.

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APPENDIX I.

Questionnaire Prepared for Headteachers in Primary Schools Selected for the Study.

This is a research investigating factors affecting effective acquisition of practical skills in home science in Kenyan primary schools. It is going to compare primary schools in Ngong Division of Kajiado District and Lang'ata Division of Nairobi District.

Your school has been selected to participate in this study. All headteachers, two home science teachers and standard seven pupils will answer questionnaires. I am kindly requesting you as the headteacher of this school to give information concerning the teaching of home science in your school. By giving accurate information, you will help in improving the teaching of home science. Your contribution will be highly appreciated. All information you give will be confidential. Do not write your name anywhere in this paper.

SECTION A: Demographic information sheet

Below you are provided with statements. You are kindly requested to give the appropriate information either by ticking (✓) and / or by giving the requested information on the spaces provided.

Name of School.....

Division.....

District .....

1. Your Sex is
   1 Male ( )
   2 Female ( )

2. Your age is
   1. Below 30 Years ( )
   2. Between 31 and 40 years ( )
   3. Between 41 and 50 years ( )
   4. 51 years and above ( )

3. Your academic qualification is
   1. K.A.P.E/C.P.E/K.C.P.F
   2. KCSE/EACE
   3. Degree
   4. Any other (please specify)

4. Your professional qualification is
   1. Untrained teacher ( )
   2. P4 ( )
   3. P3 ( )
   4. P2 ( )
   5. P1 ( )
   6. SI Diploma ( )
   7. A.T.S. ( )
   8. Graduate ( )
   9. Any other (Please specify)

5. Did you study home science in

   1. School Yes ( )
      No ( )

   2. College Yes ( )
      No ( )

6. How long have you been a headteacher?

   1. Below 2 years ( )
   2. Between 2 and 5 years ( )
   3 Between 5 and 8 years ( )
   4. Between 8 and 12 years ( )
   5. Over 13 years ( )

7. Have you ever been in-serviced in school administration or attended a seminar organized by Kenya Education Staff Institute (K.E.S.I.) in the last 3 years?

   1. Yes ( )
   2. No ( )

8. Total enrolment in school

   1. Boys .....
   2. Girls .....

9. Number of pupils in standard seven

   1. Boys .....
   2. Girls .....

10. Number of teachers in school

   1. Male .....
   2. Female .....

SECTION B:

This section is seeking information about management of teaching and learning resources for home science in your school. Put a tick (√) in the spaces provided against the appropriate answer(s).

11. Do you have a home science room in your school?
    1. Yes ( )
    2. No ( )

12. If `No' where are home science practicals carried out?
    1. In the classroom ( )
    2. Under a tree ( )
    3. In the staffroom ( )
    4. Any other (Please specify)

13. Do you have sufficient learning and teaching resources for home science?
    1. Yes ( )
    2. No ( )

14. Who supplies the equipment and learning materials for home science?
    1. The Government ( )
    2. Parents ( )
    3. Community ( )
    4. Teachers ( )
    5. Others (Please specify)

15. Do you budget for home science teaching materials?
    1. Yes ( )
    2. No ( )

16. Who decides on the amount of money to be allocated to home science?

1. The headteacher ( )
2. The home science teacher? ( )
3. The school committee ( )
4. The Parent Teachers Association ( )
5. The Ministry of Education ( )
6. Any other (Please specify)

17. Are home science teachers consulted when allocating funds for home science?

1. Yes ( )
2. No ( )

18. Do you influence teachers' decision making on the use of home science teaching and learning resources?

1. Yes ( )
2. No ( )

19. Do you supervise home science classes?

1. Yes ( )
2. No ( )

20. If ``No'' how do you get information about their problems

1. Teachers' report ( )
2. Pupils' report ( )
3. Parents' report ( )
4. Deputy H/M report ( )
5. Any other (please specify)

COMMUNITY SUPPORT

21. Do you receive material and/or equipment for home science by donations?
    1. Yes ( )
    2. No ( )

22. If `yes' please identify the donors
    1. .....
    2. .....
    3. .....

23. Do you use community resources such as `resource persons' to teach certain aspects of home science in your school? 1. Yes ( )
    2. No ( )

24. If `No' to question 23 give reasons
    1. .....
    2. .....

25. Do home science teachers take pupils to the community to learn some aspects of home science?.
    1. Yes ( )
    2. No ( )

26. If `no' give reasons
    1. .....
    2. .....

HEADTEACHERS' ATTITUDE SCALE

Read the following statements carefully and then indicate with a tick ( ) in the spaces provided what you think best tells how you feel about teaching home science in primary schools.

27. Home science is a practical subject which provides skills and knowledge for self-employment for primary school leavers.

Strongly agree ( )
Agree ( )
Disagree ( )
Strongly Disagree ( )

28. Parents in my school have tried within their economic limitations, to provide basic facilities and equipment that are needed for effective teaching of home science.

Strongly Agree ( )
Agree ( )
Disagree ( )
Strongly Disagree ( )

29. Home science teachers do not carry out practical lessons as often as required due to lack of basic facilities for teaching such as sewing machine.

Strongly Agree ( )
Agree ( )
Disagree ( )
Strongly Disagree ( )

30. The support of my school community is very weak and this has affected the teaching of practical subjects like home science.

Strongly Agree ( )
Agree ( )
Disagree ( )
Strongly Disagree ( )

31. Cultural attitudes towards cooking and household activities have affected the teaching of home science skills to boys in my school.

Strongly Agree ( )
Agree ( )
Disagree ( )
Strongly Agree ( )

APPENDIX II

Questionnaire Prepared for Teachers of Home Science in the Selected Primary School.

SECTION A:

Demographic Information

Instructions

Below you are provided with statements. You are kindly requested to give appropriate information either by ticking (√) and/or by giving further information.

Name of your primary school:

.....

Division: .....

District: .....

32. What is your gender?

    1. Male ( )
    2. Female ( )

33. What is your age range?

    1. 20 -30 Years ( )
    2. 31 - 40 Years ( )
    3. 41 - 50 Years ( )
    4. 51 years and above ( )

34. What is your academic qualification?

    1. K.A.P.E./C.P.E/K.C.P.E.
    2. K.J.S.E.
    3. C.S.C./E.A.C.E./K.C.E/K.A.C.E.
    4. H.S.C./E.A.A.C.E./K.A.C.E.

5. B..Ed/B.A./B.Sc.
6. Any other (please specify)

35. Your professional qualification is
    1. Untrained teacher ( )
    2. P4 ( )
    3. P3 ( )
    4. P2 ( )
    5. P1 ( )
    6. SI Diploma ( )
    7. A.T.S. ( )
    8. Graduate ( )
    9. Any other (please specify)

SECTION B: This section is seeking information concerning the teaching of home science in your school.

36. How long have you taught home science?
    1. 1-2 years ( )
    2. 2-4 years ( )
    3. 4-6 years ( )
    4. Over 6 years ( )

37. Does your school have a home science room?
    1. Yes ( )
    2. No ( )

38. If `No' where do you carry out your practical lessons?
    1. In the classroom ( )
    2. Outside the classroom ( )
    3. In the staffroom ( )

4. We do not have any practical ( )
5. Other (specify)

39. Is home science one of the subjects you studied at school?
1. Yes ( )
2. No ( )

40. Is home science one of the subjects you studied at Teachers Training College or University?
1. Yes ( )
2. No ( )

41. Did you attend in-service course(s) in home science?
1. Between 1985 - 1989
2. Between 1989 - 1992
3. Between 1992 -1994
4. None at all since 1985

42. If you attended in-service courses in home science, how many have you attended?
1. Once only ( )
2. Twice ( )
3. Tree times ( )
4. Four times ( )

43. If you have not attended in-service course(s) at all, in home science give reasons for this failure to attend:
Reason:1. .....
2. .....
3.....

SECTION C:

This Section Is Seeking Information on the Availability of Teaching and Learning Resources in Home Science in Your School.

44. Is there a Teachers' Advisory Centre (T.A.C.) in your division?

1. Yes ( )
2. No ( )

45. Do you get help or assistance from the personnel in the T.A.C. office in matters related to home science teaching and learning materials?

1. Yes ( )
2. No ( )

46. If the answer is `No' what do you think are the causes of this failure of the personnel in the T.A.C. office to assist your school in relation to home science teaching?

Reason:1. .....
2. .....
3. .....

47. How do you get materials for teaching practical lessons in home science? Please tick ( ) as many methods you use to get them ( )

1. Ask pupils to bring materials from home ( )
2. Ask pupils to bring money and the school buys materials ( )

3. Teachers use their own money to buy materials and ask for refund from the H/M. with receipt ( )
4. Ask H/M for money to buy materials ( )
   Ask PTA chairman for money ( )
5. Opt to do without the item and cover topic in theory only ( )
6. Improvise ( )
7. Any other way (please specify ( ).

48. Do you receive any donations for buying materials for home science teaching?
   1. Yes ( )
   2. No ( )

49. If `yes' list the donors and what they have donated.
1. Parents of the school.....
2. Community around the school .....
3. Churches .....
4. Non-Governmental organization .....
5. Teacher's improvisation .....
6. School (pupils) .....

Among the above whom does the school depend on mostly for provision?
   1. .....
   2. .....
   3. .....

50. In which way do the donors help?
   1. Provide Construction labour ( )
   2. Community organized harambee ( )
   3. Government provides certain equipment/materials

51. Are home science teaching resources adequate in terms of quantity (in number) for teachers in your school?

1. Adequate ( )
2. Moderately adequate ( )
3. Inadequate ( )
4. There is nothing at all ( )

52. Are home science learning resources adequate in terms of quantity (in number) for pupils in standard seven in your school?

1. Adequate ( )
2. Moderately adequate ( )
3. Inadequate ( )
4. There is nothing at all ( )

53. List at least three (3) problems you face in the provision of home science teaching and learning resources.

1.....
2.....
3. .....

54. Suggest at least three (3) solutions to these problems.

1.....
2.....
3.....

SECTION D:

Management of teaching and learning resources by home science teachers.

55. Do you prepare a budget for home science teaching and learning resources and present it to the headteacher?
    1. Yes ( )
    2. No ( )

56. Do you participate in decision making regarding allocation of funds in your school for home science?
    1. Yes ( )
    2. No ( )

TEACHERS' ATTITUDE SCALE

Each of the following statements expresses a feeling which one has towards the teaching of home science. Read the statements carefully then indicate with a tick ( ) the letter or letters which best indicate how you feel about home science teaching.

Key:

SA - Means that you strongly agree with the statement.
A - Means that you just agree with the statement
D - Means that you disagree with the statement
SD - Means that you strongly disagree with the statement.

57. Home science involves a lot of work
    SA ( )
    A ( )
    D ( )
    SD ( )

58. Home science is difficult to teach.

SA ( )

A ( )

D ( )

SD ( )

59. I enjoy teaching other subjects better than home science

SA ( )

A ( )

D ( )

SD ( )

60. Lack of equipment makes home science practicals difficult to teach

SA ( )

A ( )

D ( )

SD ( )

61. The introduction of home science in primary schools is a major step towards making pupils able to be self-employed

SA ( )

A ( )

D ( )

SD ( )

62. Pupils leaving primary schools have acquired skills in tailoring (sewing) from home science to make them self-reliant as tailors.

SA ( )

A ( )

D ( )

SD ( )

63. They have also acquired skills in planning nutritious meals which they can use for self-employment as hotel cooks

SA ( )
A ( )
D ( )
SD ( )

64. They can also do good cooking both traditional and modern cooking for the family and for sale.

SA ( )
A ( )
D ( )
SD ( )

65. They can keep the environment clean and tidy to prevent spread of diseases like malaria and cholera

SA ( )
A ( )
D ( )
SD ( )

66. I have managed to teach my class the skills of cutting and sewing with machine

SA ( )
A ( )
D ( )
SD ( )

67. The parents usually provide the required home science materials needed for practical

SA ( )
A ( )
D ( )
SD ( )

68. Girls perform better than boys in home science.

SA ( )
A ( )
D ( )
SD ( )

69. Boys perform better than girls in home science.

SA ( )
A ( )
D ( )
SD ( )

70. Parents' low attitude to home science is affecting the teaching of the subject

SA ( )
A ( )
D ( )
SD ( )

APPENDIX III

Pupils' Questionnaire

SECTION A: Demographic Information Sheet

Below you are provided with statements. You are kindly requested to put a tick (√) in the brackets against the answer which seems best to you. You can also give further information in the spaces provided.

74 Name of School .....

Your class is:

Division:

District/Town:

75. You are a (i) Boy

(ii) Girl

76. Your age is between:

(1) 12 - 14 Years ( )

(2) 14 - 16 Years ( )

(3) 16 - 18 Years ( )

(4) 18 - 20 Years ( )

(5) Over 20 years ( )

77. Mother`s level of education (schooling) is:

(1) None

(2) Primary (standard 1-4) ( )

(3) Primary (standard 1-8) ( )

(4) Secondary (form I-II) ( )

(5) Secondary (Form I-IV) ( )

(6) Higher (Form V-IV) ( )

(7) University ( )

(8) Any other ( )

(9) Not applicable if mother is not living ( )

78. Father`s level of education (schooling) is:

(1) None

(2) Primary (standard 1-4) ( )

(3) Primary (standard 1-8) ( )

(4) Secondary (Form 1-II) ( )

(5) Secondary (form I-IV) ( )

(6) Higher (Form V-VI) ( )

(7) University ( )

(8) Any other ( )

(9) Not applicable if father is not living ( )

79. Mother`s occupation:

(1) Subsistence farmer ( )

(2) Pastoralist wife ( )

(3) Housewife ( )

(4) Business woman ( )

(5) Employed - please state kind of employment e.g. Teacher.

80. Father`s occupation:

(1) Subsistence farmer ( )

(2) pastoralist ( )

(3) Business man ( )

(4) Employed - please state kind of employment e.g. Teacher .....

81. Do you like home science lessons?

(1) Yes ( )

(2) No ( )

82 Do you have practicals in home science lessons?

(1) Yes ( )
(2) No ( )

83 Can you sew using a sewing machine?
(1) Yes ( )
(2) No ( )

84. Do you think you will be able to make clothes to sell when you leave school after standard eight?
(1) Yes ( )
(2) No ( )

85. Do you get help from your mother, sister, maid or relative with your home science work, e.g. Knitting?
(1) Yes ( )
(2) No ( )

SECTION C:

This section is seeking information about learning home science by both boys and girls. Answer all questions as accurately as you can, but remember not to write your name anywhere on this paper.

86. Home science is a subject which is interesting to all pupils.
(1) Yes ( )
(2) No ( )

87. Boys can cook better than girls in standard seven.
(1) Yes ( )
(2) No ( )

88. Girls can sew better than boys in standard seven

(1) Yes ( )
(2) No ( )

89. Boys like knitting better than girls
(1) Yes ( )
(2) No ( )

90. Girls like house cleaning better than boys
(1) Yes ( )
(2) No ( )

91. Girls get higher marks in home science than boys.
(1) Yes ( )
(2) No ( )

92. Teachers of home science like girls than boys in class
(1) Yes ( )
(2) No ( )

93. Boys can use sewing machines better than girls
(1) Yes ( )
(2) No ( )

PUPILS' ATTITUDE SCALE

Read the following statement carefully and then indicate with a tick ( ) in the spaces, the letters that you think best tell how you feel about home science learning in primary schools.

Key:

SA - Means that you strongly agree with the statement
A - Means that you just agree with the statement
D - Means that you disagree with the statement
SD - Means that you strongly disagree with the statement

94. Home science practical skills we have learnt will allow us to get employment in hotels, nursery schools or as house workers.

SA ( )
A ( )
D ( )
SD ( )

APPENDIX IV

Classroom Observation Schedule

This is data collection in situ. It will entail actual classroom teaching of practical lessons. The researcher will use a classroom observation guide which contains items that lay emphasis on the teaching of practical skills acquisition. The researcher will also observe how the teacher and pupils use resources.

Classroom Observation Schedule

Name of school:
Division:
District/Town:
Lesson: Time:
Class:
Date:

PRACTICAL CLASS

99. Which teaching resources are used?
    1.
    2.
    3.
    4.

100. Are students given clear instructions?
    (1) Yes ( )
    (2) No ( )

101. Is the teacher able to demonstrate the skill(s)?

(1) Yes ( )

(2) No ( )

102. Are pupils given a chance to carry out the whole practical?

(1) Yes ( )

(2) No ( )

103. Are pupils given a chance only to carry out part of the practicals?

(1) Yes ( )

(2) No ( )

104. How are the pupils involved in the practical exercises?

(1) Individually ( )

(2) In pairs ( )

(3) In groups ( )

(4) As a class ( )

105. Does the teacher use materials from the village in practical work

(1) Yes

(2) No

106. Any other observations:

APPENDIX V

Researcher's Observation Check-list

Availability of home science rooms, facilities, teaching and learning resources.

Name of the school:

Division:

District/Town:

Date:

A. ROOMS	Available	Number	Use		
			Often	Some times	Rarely
1. Home Science					
2. Classrooms used for home science					
3. Water supply					
4. Water storage					
5. Home science store room					

B. FACILITIES	Available	Number	Use		
			Often	Some times	Rarely
1. Gas cooker					
2. Electric cooker					
3. Charcoal stove					
4. Paraffin stove					
5. 3 Cooking stones					
6. Improvised ovens, e.g. sand, metal					
7. Cooking utensils					
8. Sewing machines					
9. Sewing equipment					
10. Any other					

C. TEACHING RESOURCES	Available	Number	Use
1. Charts or wall picture			
2. Pictures			
3. Cuttings			
4. Cloth samples			
5. Cooking materials for practicals			
6. Films			
7. Slides			
8. Tape recorder/player			
9. Radio			
10. Radio cassette			

APPENDIX VI

Primary Schools in the Study

Kajiado District - Ngong Division

1. Enkenyian
2. Nagile
3. Arap Moi
4. Olepolos
5. Kimuka
6. Ngong Township

Nairobi District - Langata Division

1. Olympic Primary School
2. Karen C. Primary School
3. Jamhuri Primary School
4. Toi Primary School
5. St. Mary Primary School
6. Ngong Forest Primary School