AN INVESTIGATION OF THE UTILIZATION OF COMMUNITY RESOURCES BY THE HOME SCIENCE TEACHERS IN SECONDARY SCHOOLS. A CASE STUDY OF EMBU AND KIRINYAGA DISTRICTS.

BY

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DECLARATION

THIS THESIS IS MY ORIGICAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY

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This case study was conducted to investigate the extent to which teachers of Home Science in Embu and Kirinyaga Districts utilize community resources to provide more relevant education to individual learners.

Literature review was organized around six areas; importance of community resources; extent to which local resources have been used; problems encountered by teachers in using community resources; situation in Kenya that calls for urgent use of community resources; types of community resources that can be used to enrich learning experiences and some common methods, procedures and activities that can be applied in usage of community resources.

The descriptive survey was used as a suitable research design. The five research instruments used included: A teachers' questionnaire, headteachers' questionnaire, students' questionnaire, an observation schedule and a checklist. The samples included two hundred and eighty eight students, forty teachers and twenty four headteachers.

Based on the results of data analysis, the respondents confirmed that their secondary schools did not have enough teaching/learning materials. Majority reported to have had only a few of teaching/learning materials.
The subjects were well conversant with community resources found in their school districts.

The opinions of teachers and headteachers favoured the need for using community resources as a way of making learning experiences more relevant.

Home Science teachers did not seem to have made adequate and effective use of community resources during their lessons. While items found in the community were used, resource people, field trips and activities of the community were poorly utilized. The reasons volunteered by teachers for poor utilization of local resources were that they had time and financial constraints. The headteachers complained that there was lack of time to cover the assigned syllabus if attention was given to practical experiences involving use of resources not suggested in the syllabus.

Recommendations

The key recommendations arising from the findings of the study are as follows:

1. There is a need for a policy that encourages the use of community resources in Home Science;
2. The Kenya Institute of Education should prepare a teaching/learning guide to the use of community resources;
3. Teacher training institutions should train student teachers to use community resources; and
4. The number of students in a Home Science class should be kept between fifteen and twenty.
CHAPTER I

1.1 INTRODUCTION

Meaningfulness like beauty is in the eyes of the beholder, it is definitely not inherent in instructional materials. Just like Chinese or Russian writing conveys no meaning to those who have never studied it, teaching/learning materials and verbal instructions which are not in the learner's language or outside his or her framework of experiences will have little meaning. Children learn and understand better, retain more and see purpose in what they learn as well as apply what they learn in real life situations when learning experiences appeal to their senses. This can only be achieved when school and community are inseparable environments. The quality of Education offered in Kenyan Secondary Schools can only be relevant in so far as it encourages children to be aware of the interrelationship that exists between school and work; to see how different abilities are related to productivity. The utilization of community resources vitalizes, enriches and supplements all curricular areas through firsthand observations and direct experiences. It provides appropriate learning situations much like that in which the experience is to be applied.

The restructuring of Kenya's Education System in 1985 included, the extending of primary education from seven
to eight years, the removal of higher secondary education ('A' level), the lengthening of University education to a minimum of four years duration and the diversification of the curriculum at all levels. This was aimed at offering a more relevant curriculum. Towards this end, Home Science curriculum for secondary schools in Kenya is aimed at improving the quality of life of the individual learners, the family and the community. There is a need to relate all learning experiences to the real problems of the Kenyan society.

The former curriculum had tended to concentrate on imparting knowledge for the sake of passing examinations.¹ The Home Science curriculum produced young people who were alien to their culture, community and even their own parents. Mbae (1986) reported that Home Science in Kenyan secondary schools was less popular and unaccepted because teachers did not present materials that were relevant to the needs, hopes and circumstances of the students.² Students from low economic home environments complained that they were taught skills that they could


² Margaret Mbae, "The relevance of Home Management to Individuals and Family needs" (unpublished PGDE project. University of Nairobi, 1984), pp. 28-38.
not practise at home. For example they were taught how to clean cemented floors, clean carpets, lay dining tables and bake in electric ovens which they did not have at home. There has been little integration between school experience and life in a country which is basically rural, lacks basic energy provisions, is heavily reliant on firewood and has a low per capita income. This lack of correlation is reflected through the equipment used in our secondary schools and teacher training institutions. This equipment has not been realistic in price, availability and technological complexities. Little effort has been made to blend these modern facilities and ideas with the materials and life experiences in the home environment of learners. Consequently, learners have been incapable of solving day-to-day problems outside the school especially rural children who encounter gas and electric cookers, refrigerators, electric mixers and others in secondary schools for the first time.

Alongside this are the limited financial resources at the disposal of Secondary Schools. Home Science, being a technical subject requires heavy financing for material requirements. It has therefore been affected by shortage of important facilities.
Kasuku (1984) revealed that Home Science teachers have facility related problems. They lack sufficient resources and equipment and those facilities are too expensive. It is thus very important for Home Science teachers to learn that the appropriateness of the materials used during their lessons in the context of Kenya, with limited financial resources is considered to be dependent upon their ability to design and develop materials of low cost and from indigenous sources. Unless this is done, the current status of the subject has labelled it, 'a subject at risk'. The risk of mismanaging and underutilizing the most precious resources, resources found in the local environments to the degree that they might fail to provide relevant education. High quality education is not necessarily expensive, that is why no one expects a Home Science teacher to cancel a practical lesson in Cookery for lack of electricity or gas to operate a conventional cooker. Teachers should improvise whenever necessary.

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1.2 BACKGROUND OF THE INVESTIGATION

The educational use of community resources is getting genuine consideration in Africa. Some countries are inclined to turning many primary and secondary schools to community schools. Nyerere (1967) has stressed the role of education in his country in fostering desirable attitudes, values, work habits and worthwhile skills which young people need, to meet the demands of their society.  

In Ethiopia too, a significant realization has been made of lack of relevance in learning experiences of children. Gilbraith (1964)\(^5\) pointed out that educational practices in that country had made learners good at memorizing facts they did not understand and were incapable of thinking and solving daily problems. They observed that this neglect had resulted in a tremendous waste of youth and abuse of valuable resources.

Some literature however indicates the recent teacher awareness of the educational use of community resources.\(^6\)


As Torrey (1966) noted, teachers have agreed that some subjects are taught better outside the classroom than inside. He also indicated the existence of field experiences as part of the school curriculum.

Ogoma (1987) confirms that research findings in Kenya reveal that community resources have been inadequately utilized and overlooked.

1.3 STATEMENT OF THE PROBLEM

The general objective of this study was to investigate the extent to which teachers of form one and form two Home Science in secondary schools in Kirinyaga and Embu districts use community resources to provide more relevant education. Kenyan Education system has reached a stage where certificates are not enough unless they can lead to cohesion and integration or are relevant to the needs of the country. The restructuring of the education system of Kenya in 1985 was a deliberate move to focus the entire educational system to the social economic needs of the country. The quality of education offered in Kenyan Secondary Schools will only be relevant in so far

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as it trains the learner for integration within his community. This is why this research laid emphasis on relevance.

The research was therefore aimed at answering the following questions:

1. Are there enough teaching/learning materials in Secondary Schools for Home Science lessons?
2. How conversant are Home Science teachers with community resources in their school district?
3. What are the teachers' perceptions on the role of community resources in Home Science?
4. To what extent are community resources being utilized during Home Science lessons?
5. What are the Chief Constraints encountered by Home Science teachers in utilizing community resources?

1.4 PURPOSE OF THE STUDY

The purpose of this study was to:

1. Find out if Secondary Schools have enough teaching/learning materials for Home Science.
2. Assess the Home Science teachers' knowledge of resources found in their local environment.
3. Find out the purpose for which the local resources are used during Home Science lessons.

4. Evaluate the extent to which local resources have been used in Home Science.

5. Identify reasons if any, why Home Science teachers do not use community resources.

1.5. SIGNIFICANCE OF THE STUDY

The Kenya Institute of Education (K.I.E) in the Teachers' guide of Form One and Form Two Home Science advises that there is need to improvise equipment and materials which are not available and that learning should be related to local environment. The findings will therefore be a source of important information regarding the status of Home Science.

The findings will be a reminder to teacher training institutions to continue devoting a major part of their

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programmes to training and orientating teachers in using community resources for teaching. Adequate time should be availed to helping student teachers prepare instructional materials from available resources.

The findings will be useful to Home Science teachers for improvement of their lessons.

Teacher Advisory Centres, school inspectors, education officers and other educationists will be informed on the current situation in Kenyan Secondary Schools.

1.6 BASIC ASSUMPTIONS

The assumptions made in this study are:

1. Secondary Schools do not have enough teaching/learning materials required for Home Science lessons.

2. Home Science teachers are conversant with resources found in their local community that can be used to enhance their lessons.

3. Home Science teachers do not have a clear perception on the importance of local resources in their lessons.

4. Community resources are not effectively used by Home Science teachers during lessons.
5. Certain constraints are encountered by Home Science teachers in using community resources.

1.7 SCOPE AND LIMITATIONS

This study was confined to Embu and Kirinyaga Districts due to shortage of funds and time. It however covered all the schools in the two districts that had implemented Home Science syllabus of the 8-4-4 system of Education at form two level.

Only form two students from within each of the two districts participated. These students have the advantage of being more conversant with resources found in their district. Form two students have had two years of learning Home Science of the new syllabus, they therefore represented form one and form two students. Form three Home Science students and teachers were excluded because most of the schools had not received the form three Home Science Teachers Guide by May 1988. There was therefore no guarantee that all Form threes could have covered their syllabus by the time this research was conducted.

Form one and form two Home Science teachers were selected because these are the teachers whose responses could compare well with responses of form two students. All headteachers of the schools selected participated to enable the researcher to compare their responses with
those of the students and teachers.

1.8 OPERATIONAL DEFINITIONS

1. Commercial Stores - A room or building where goods are regularly kept and sold.

2. Community resources - Anything in the community and outside the school that has educative value and is within the scope of the school's use. These include people, places, items and activities or events. Such resources can be classified into two; those that bring part of the community to school such as community workers, and those that take learners to the community such as agricultural shows.

3. Dietician - A person with knowledge and skills involved in planning diets to meet the needs of various individuals and groups of people. It includes efficient and economic purchasing of food and the preparation and serving of foods in an attractive and appealing manner.

4. Home Science - Home Science stands for the ideal home life of today, unhampered by the traditions of the past; the utilization of all resources of modern science to improve life; the freedom of the home from the dominance of things and their due sub-ordination to ideals.
and; the simplicity of material surroundings which will most free the spirit for the more important and permanent interest of the home and of society.

5. Learning experience - The learner's reaction to the external stimuli (interaction) in the environment.

6. Relevant education - In the Kenyan situation, it will be taken to mean education that produces a well rounded person with knowledge, skills and attitudes that will facilitate the improvement of life of the individual, family and the community at large.

7. S.1: Secondary Teacher Grade One. Usually Form Six leavers who passed East African Advanced Certificate of Education and passed an Examination on secondary training course.

8. Teacher - A person who is in a position of a leader or guide and attempts to shape and mould behaviour of learners through instruction and practical examples. In this study, it will be further taken to mean a person who helps students to participate gainfully in Home Science activities.
CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

This Chapter presents a review of related literature in six sub-sections. The first section deals with the importance of community resources in making learning experiences of learners more relevant. The second section looks into the extent to which these resources have been utilized. The third section presents some of the problems encountered by teachers in their attempt to use community resources during lessons. The fourth section analyses the situation in Kenya that calls for urgent use of community resources in Home Science. The fifth section examines some types of resources that can be used for enrichment of learning experiences. The sixth section reviews some possible methods, procedures and activities that can be used by teachers in using community resources.

The reader should be informed that education in Kenya has to be a function of, and a service to the community. Relevance of Education in Kenya is attributed to achievement of skills, knowledge, attitudes and interests that are not only desirable but basic for rural transformation. The literature reviewed therefore examines how community resources can make learning experiences meaningful to individual learners and at the same time improving the lives of families and the larger
2.2 IMPORTANCE OF COMMUNITY RESOURCES

A school should be of service to the community. It should be sensitive to the needs of the community and in co-operation with the parents, plan a programme that will make the best use of the available resources. The quality of education in any community should be in direct proportion to the informed intelligent and active support of the schools by the people of that community. It should be a conscious purpose to encourage and to crystallize such support. ¹ It follows that since the school provides education, and this education takes place within a social system, it must draw on or otherwise be related to the life experience of the surrounding community.

As far back as the first Century A.D, a Roman satirist, Gaius made the following observation about the schools of his day:—

I tell you, we do not educate our children in school, we stultify them and then send them to the world half-baked. And why? Because we keep them utterly ignorant of real life. The common experience is something they never see or hear ... Action or language, it is all the same, the great sticky honey balls of phrases, every sentence looking as though it has been stopped and rolled in poppyseed and sesame. ²

¹A. Nambe, A Community School (University of Mexico press. Albuquerque, 1939), p. 31.
Nineteen centuries later, Freire's comments on the education practice were almost the same as those of Gaius as the former remarks:-

The teacher talks about reality as if it were motionless, static, compartmentalized and predictable or else he expounds on a topic completely alien to the existential experience of the students. His task is to fill the student with contents of his narration. Contents which are detached from reality, disconnected from the totality, that engendered them and could give significance. Words are emptied off their concreteness and become a hollow alienated and alienating verbosity.

The Education process should everywhere be a reflection of the life experiences of society and a service to the same system. Secondary school Home Science teacher and pupils should make personal contacts and become a part of the community through actual participation in its activities. Arrangements can be made for individual pupils to accompany a social worker or a visiting nurse on visits to several families in the community. Pupils can also learn typical community problems by using discussion technique in which local community agencies, club and other service organizations participate.

The school should find out what is most needed in the lives of the people of community and monitor that before all else. Not until the aims and goals of such a system have been consciously determined can the purpose and specific nature of education in a given situation be clearly defined.\(^4\) It should constantly try to discover and utilize the resources of the community; the fields, the homes and the shops should be part of the school laboratories. Its workers should be numbered among the teachers, it should utilize the services of all available agencies of the state which rural schools can secure and the starting point in every part of the curriculum should be "our local environment."\(^5\)


The contention of Hart (1945) is that the community gives a child the substance of his life. He may hate his parents, neighbours and the ways of the world. He may hate the kind of life he is leading but he continues living in the community. Whether good or bad, the life of the community exists about him. He drowns himself in it and absorbs it with all his senses. He gets up everyday to find himself in it. It either nurtures him, starves him or poisons him and later it takes all what he is.

The importance of community resources for the enrichment of educational experiences is based on the sound philosophy and theory of learning. Community experience, firsthand learning through immediate sensory contacts with the environment is the first psychological basic learning approach. Through these contacts, the learner uses the community as a learning laboratory. He explores, studies and improves it.

Oslen (1955) quotes some principles identified by Rousseau on which the use of community resources is based as follows:

... You wish to teach a child Geography, and you provide him with maps, what elaborate preparation! Why not begin by showing him the real thing so that he may at least know what you are talking about?7

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7 Ibid.
Attitude development results from the student's contact with his social environment. This cannot be achieved if school and community are separate environments.

Deighton (1971) feels that if the society wishes to achieve egalitarian, personal autonomy and concern for one's fellow men, it should make appropriate choice of school policies, curriculum experiences, teaching and learning approaches. Learning occurs everywhere, and as such, teachers and students must have access to environment most conducive to attitudes development.

Dewey (1944) noted that the great waste in the school comes from a child's inability to utilize the experiences he gets from the school and in any complete and free way within the school itself. On the other hand, he is unable to apply in daily life what he is learning in school. This is isolation of the school.

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isolation from life. Page (1953) is of the opinion that schools that make their sole objective the teaching of books and train only the mind and not the hands are not being fair and just to the young ones and the community. They are misleading them and deceiving themselves. 10

Local environmental learnings can help deepen a child's roots to his local territory. 11 They can lead to critical self examination of his own surroundings and can help provide part of his citizenship. Once a learner observes and records what she/he has seen, she/he may begin to ask "why?", and once this occurs, the learner is becoming a Home Economist and not a mere collector of intellectual information.

A realistic school is not confined to the classroom, laboratory or library. 12 Unless young people are given every opportunity to learn about living through extensive firsthand problem-solving experiences, they cannot develop understanding, awareness, concern and skills desired in the improvement of human life. Written materials and


11 Margaret Dilke, The purpose and Organisation of Field Studies (Rivington Ltd, Montague house, 1965) p. 15.

visuals though important are not adequate. The school should open its doors for a wider life-centred experience. This is possible through a carefully planned program and wise use of resource people, work experience, community service projects and others.

Education is the development of individual dignity or self-realization within his community. The schools should therefore introduce and train each child of society into membership within his own community. By way of compromise, Desta (1975) feels that schools should saturate a learner with the spirit of service and provide him with the instruments of effective self-direction. This is the deepest and best guarantee of a larger society which is worth, lovely and harmonious. It is Griffiths' idea (1972) that supplementing existing school curriculum by introducing skills and techniques particularly relevant to rural environment is necessary. If it is likely that

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these are found to have little reference to rural life and its practical activities, it should be possible, without scrapping existing books and schemes, to introduce supplementary materials more closely related to the needs of the community around the school.

Hart (1955) holds the opinion that the democratic problem in education is not primarily a problem of training children, it is the problem of making a community within which children cannot help growing up to be democratic, intelligent, disciplined to freedom, reverent to the goods of life and eager to share in the tasks of the age. A school cannot produce this result, nothing but a community can do.¹⁶

Any education reforms in Africa should not be of a superficial kind, reflecting progressive international practices.¹⁷ This is because African traditions made no harmful distinction between learning and everyday life. The methods and spirit of education should therefore be adapted to the realities of Africa. School systems should therefore not be mere copies of foreign models but should be adapted to the nature and needs of African learners.

¹⁶ Hart in Edward Oslen, Loc. Cit.
This adaptation is only possible through creating learning experiences that need use of resources found in African local environments.

The importance of local environment resources in schools is that they are inexpensive, attractive and meaningful. They are pleasant and a natural environment is created in the classroom where they are improvised through the active participation of the teachers and the taught. They have novelty in themselves. Being simple they are easily understood by learners.

A Home Science teacher's major goal is to help individuals and families live more effectively. She is thus obligated to be aware of all community forces and their influence. She must be familiar with information about community background, attitudes, practices and resources. Teaching Home Science at any level is concerned with learning related to specific subject matter areas. These are feeding, clothing, housing, managing of

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family resources, growth and development between and among family members. A keen understanding of these aspects of community living that impinge upon individuals and their families will increase her ability to put over the subject matter in such a manner that it should take.

2.3 **EXTENT TO WHICH COMMUNITY RESOURCES HAVE BEEN UTILIZED**

Community and school interaction in United States of America can be traced as far back as 1930. During this year, fifth grade students in Cambridge, Ohio and Columbus are cited to have done activities that related classroom learning with community experiences. In one year the fifth grade class, divided into different committees studied industries, visited plastic firms, glass factories, furniture stores and pottery plants. One committee interviewed managers and other officials, another got pictures and sample products, a third committee collected information, made reports and did art and construction work. In another year the fifth grade class worked on better understanding and the use of home community and its services. They studied the telephone, country farm and conservation of soil through interviews and working in the communities.

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Marchak (1955) gives a realistic picture of career practice in one elementary school in Dale County, Florida. At the entrance of a large room, a fifth grade girl asked visitors to sign the register, thus playing the role of a receptionist. Others were also busy around the room working at sixteen career stations. A student for instance was cleaning a pair of false teeth, playing the role of dental hygienist; another was taking the blood pressure of students and others operated adding machines, typewriters or doing electrical repairs (without electricity) and activities similar to these.

From the African context, similar activities have been reported at individual, institutional and national level. Beshah (1966) shared his actual experience in the use of resource people. He reported that he invited a doctor to talk to his students on venereal diseases. A nutritionist also spoke on malnutrition. A worker from the pest control department talked on the control of pests. After realizing


the value of such beneficial experiences in teaching, the
writer advises his fellow teachers to avail themselves
to this worthwhile opportunity to make subjects alive.

There have been instances in Africa where private
schools have been highly innovative and oriented to
community needs. The work of Tai Solarin at the
Mayflower school at Ikenne, Nigeria is a case in point. 23
Dissatisfied with the secondary grammar school in which
they were working, Solarin and his wife built a school
of their own where greater freedom of thought and belief,
less rigid in discipline and a strong stress on manual
and practical activities were emphasized. Gradually they
built up a larger self sufficient school community in
which building, maintenance and food production were
undertaken by the pupils. He reports that concession
had to be made to public opinion and its popularity rose
as its examination results proved comparable to those of
other schools. Solarin has injected a welcome dose of
non-conformity into educational thinking
of Nigeria.

23
A.R. Thompson, Education and Development in Africa
Asfaw Yimeru, the founder of the Asra Ilnwari School in Addis Ababa stressed the importance of 'Moya' (family) education activities in the school. Moya activities place examinations in their true perspective.

A sizeable minority of the enrolment still consist of orphans; in addition, twenty local families live in the school's two compounds, turning them into villages in their own right. A community library has been established and evening classes for adults are provided. Older and former pupils are encouraged to look after the young children and to teach in lower classes.

What matters is not so much whether or not to give a rural or agricultural slant to education but rather to give the pupils an adequate background so that they can fit into the community and environment irrespective of whether this is going to be rural or urban, agricultural or industrial. This was the policy adopted in the Bunumbu community Teachers College in Sierra Leone. The College produced a curriculum for a six year environmentally based course, but that which took into consideration the

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needs of all children in the country, rural and urban. There was a common curriculum for all children which stressed the realities of the social and economic life of Sierra Leone and which led to an appreciation of the skills needed for successful farming and a ready acceptance of manual work in town or country as a honourable way of life. Linked with the college were twenty pilot schools which in turn were to become community centres and which mobilised the resources not only of the school teachers, but of the other 'teachers' within the community such as agricultural officers, local craftsmen and parents.²⁵

In Cameroon, the establishment in 1969 of the Institute of Rurally Oriented Applied Education (IPAR) was a significant development. IPAR not only trained a new generation of teachers but would combine this with other functions including in-service training, research and production of relevant textbooks and teaching materials.²⁶ It was recognised that no matter how well

²⁵ Ibid.
trained or educated the pupil might be, his desire and capacity to promote the advancement of his community would be sapped if the community was itself not prepared to change and willing to apply his education. Consequently the teacher had of necessity to be concerned with promoting the kinds of change in the community as was intended. His task was not so much to train the adults to transform their community as to motivate them to welcome and cooperate with the products of the school. This task was largely to be achieved not through overexhortation but through the influence of the school itself; remodelled to provide examples of community living which would be relevant to the wider community.

The Kwamsisi Community School in Tanzania was developed by Korogwe College of National Education Working with teachers and members of the community. It involves a primary school serving as a community Education Centre by developing two wings of operation. The primary school wing has pioneered the reform of the primary school curriculum along community-centred lines including study of the four areas of functional literacy and numeracy. These are: citizenship and political education; self help cultural activities, and community studies. The

primary school not only prepares pupils for their examinations but more important, aims at the development of community orientation to children. A second example in Tanzania is the Kibaba Centre. It is designed to improve a wide range of aspects of local village life and includes a number of associated sections. It has a health training centre, a farmers training centre, a rural development unit and a mobile service. Incorporated in these sections are smaller specialised units, a nutrition unit and a health unit. This centre also has a primary and a secondary school and seeks to associate community and school life in the task of raising the quality of life in the area.

A comprehensive and carefully worked out scheme of linking school and community on a national basis is to be found in the proposals of community education centres in the Sierra Leone Education review of 1976. The review

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begins by stressing the need to see the education system as a whole consisting of interrelated and independent parts. Basic education was to be provided both at formal primary schools and in the new community education centres (CECs). It emphasised common goals embracing literacy, numeracy, rational understanding of environment, occupational skills, positive attitudes and character traits. The CECs were to be run in close liaison with primary schools and there was to be common sharing of facilities.

In early stages of development, the CECs were to form both part of the base and also part of the superstructure of the education system. They were to provide supplementary and complementary programmes at both levels. Eventually they were to merge with primary schools and become unified community schools. The review noted and recommended close and continuing consultation between the schools and community

In Somalia, a remarkable and novel recent example of pupil participation in community life is not lacking. Somalia took the form of participation in national campaigns. The national literacy Campaign inaugurated in 1973 followed the successful adoption of the Roman alphabet for the writing of Somalia and its immediate introduction as a medium of instruction in schools.29 A two-year Campaign utilising

all educated Somalis as instructors was estimated to have made 400,000 people literate. This was followed by a one year campaign in which literacy was associated with teaching about health and livestock management. For the second phase, all schools were closed for one year to free teachers and pupils to participate more intensively.

In Ethiopia, the Zemecha Campaign for development was launched in 1974.\textsuperscript{30} It deployed 60,000 secondary and university students together with their teachers to teach rural people the principles of the Ethiopia revolution and to assist them in local development activities, land reform, nutrition and formation of farmers' associations. The purpose of that campaign was to re-educate those participating as instructors. The service projects included digging an irrigation channel and a drainage ditch for a village, demonstrating and explaining the value of pit latrines.

\textsuperscript{30}Ibid.
In Kenya, Koinange (1969) discussed wonderful accomplishments by students under the direction of a student-teacher committee. These activities are very good examples of how much planned and wise leadership can motivate students to contribute to the growth of the community at the same time acquiring lasting and meaningful learning experiences. By initiating healthy competition, the committee encouraged students to build additional classrooms by using local materials; and started poultry farms. First, students themselves contributed certain items such as eggs, hens and others. Later they accepted contributions from others. They planted trees for avenues, soil conservation, shades and botanical study. The committee also introduced methods of preservation of vegetables, fruits and flowers. To study a major aspect of the community, banana and coffee growing and maize harvesting were used. These crops were chosen because they represented the products of the communities the students came from and which in turn represent that of Kenya.

Kabarak high school engages in various community development activities that integrate the school and community.


32 Special correspondent, Daily Nation (Kenya) November 5, 1982 p. 6 col. 2.
The school produces its own vegetables, fruits, eggs, milk, honey and poultry. The school also operates a coffee farm twenty kilometres away. This school is trying to show some community responsibility which it stresses so much to students.

The reason for the trend taken by many countries is the belief that local members of the community are in a better position to guide the integration of the school with the community. Equally important is the growing need to tap community resources to finance educational development.

2.4 PROBLEMS ENCOUNTERED BY TEACHERS IN USING COMMUNITY RESOURCES

Thompson (1981), like many teachers feels that there is something wrong and odd about preparing children for life by teaching them about the community which awaits them outside the 'walls' of the school whilst compelling them to live in a very different manner within those 'walls'. They are taught about processes of decision-making and prepared for participation in these

33
processes while subjecting them to authoritarian control and direction, denying them virtually all experiences of making choices and decisions.

They are taught about improved ways of living whilst insisting that they live in school as part of a regimented mass consisting essentially and unnaturally of one age range and often one sex. And even more fundamental, they are prepared for productive roles in their community through bringing them into communities which are themselves not production units and in which the learning of skills may be isolated from management of production and from the realities of earning a living. This incongruity leaves teachers confused, undecided and unsure of what experiences to offer.

Ishumi (1981) in his field report on school community interaction in Tanzania confirmed that there were no any purposeful, conscious or functional interaction between the schools and local communities. He reported that, in all the communities visited, members had little knowledge of the activities done at school. Adults and parents were physically isolated from the schools, lacked

34 Ibid.

concern and in general held the view that school is a place for children and they have no business with it. Parents viewed schools as foreign institutions undermining their culture; their control, and conduct of their children. They had antagonistic relations with teachers. Teachers, unfortunately viewed themselves as more knowledgeable vis-a-vis the general public and therefore had little to share with them. Many schools, regrettably lacked any external community input.

Often, a change to a more realistic and practical form of education, more suited to the needs of the rural community is looked upon as an attempt to fob off children with something inferior especially in developing countries.36 Any attempts made by teachers towards this direction is often met with stern resistance by parents. Beeby (1966) explains why parents are often against such schemes no matter how well intentioned; to include 'agricultural or rural bias' in the school curriculum.37 He contends that an Asian or African peasant whose meagre patch of land cannot support all his sons can scarcely be blamed for

36 Ibid

seeking for some kind of schooling that will offer hope of escape from the land; and for looking askance at change of curriculum or method that might bind them more closely to the farm or village that can offer them no future. This is why any schemes with 'rural bias' have failed with such dismissal in most agricultural countries.

Griffiths (1972) shares the above common view when he says that ... most parents look on the school as a means of escape for their children from the hard private rural life. To establish schools for rural children where the curriculum deliberately attempts to keep them on the land is, to thwart their hopes and ambitions for their children and for their own old age. Experience would seem to show that in most areas, schools with "rural biased" curricula would be completely unacceptable.

Thompson (1981) thinks that community involvement in school is normally shortlived largely because of its artificiality in a context dominated by the prestige of modern knowledge. Teachers continue to be doubtful about the value of instruction provided by members of the community who maybe themselves 'uneducated' as well as

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unskilled in the art of teaching. Pupils remain unwilling to give the respect due to such instructors. The local instructors who have often found their work uncongenial have tended to be unreliable and to fall away. Moreover, other members of the community have been doubtful about the importance of being ascribed to practical work in the school to which they send their children; and whilst perhaps accepting the value of vocationally oriented courses have preferred them to be urban oriented.

Many parents will ask why should schools teach their children local production practices, which they themselves could do teach their children? And if these things were to be taught, why should this be done by people no better qualified than themselves? Parents send their children to school to learn what they themselves do not know. Why don't the teachers allow their children to get ahead with preparing for their national examinations which is the main job of the school?

Members of the community who find an occasional visit to their work place by school children a welcome and diverting novelty, are inclined to object if such visits become more regular. This is seen as a heavy demand

40 Ibid.
41 Ibid.
upon them, particularly when they do not either understand or necessarily accept. Desta (1975) felt that teachers encounter many problems in utilizing community resources. Many education systems practise strict schedules that are not flexible enough to allow planning for an extended visit. This rigidity has left teachers with no time to use community resources. Financial problems are very dominant because no funds are allocated for this purpose. Many teachers have negative attitudes towards the use of community resources because this gives them extra responsibilities. Headteachers fear that students will do poorly in examinations if they are offered experiences outside materials assigned by the Ministry of education. Parents. feel that the use of these resources in a particular area tend to base education on the needs of the particular community and this means students will be trained for life within the community only.

Planning educational field trips for pupils has been hindered by a number of factors. There is hardly

42
Desta, Loc. Cit.

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ever enough time for good preparation or opportunity for a trip itself. The biggest task seems to be getting students and teachers to establish good attitudes towards such an endeavour.

Use of resource people is not without problems. These people are not 'taken' seriously by students and this makes them unwilling to turn up when invited again. Others are suspicious that they are not invited in good faith. Very superior resource people are too busy with their occupations that they are not very reliable. There are also some resource people who need payment which is normally not forthcoming. Duration of lessons is also too short to allow adequate use of such people.

2.5 SITUATION IN KENYA THAT CALLS FOR URGENT USE OF COMMUNITY RESOURCES IN HOME SCIENCE

Kenya like many other developing countries is constantly faced with certain problems in education. Among the salient ones are; high rate of population growth resulting in persistent increase in enrolment in schools; dwindling financial support for education; shortage of facilities in schools, and under-use of rich environmental resources due to importation of content and ready-made formulas
of teaching/learning thereby offering learning experiences that are alien to the environmental context of the learners.

Many secondary schools are experiencing acute shortage of the necessary facilities. The Kenya Institute of Education (K.I.E) has noted with concern that when there are limited facilities and learners share equipment and materials, the slow learners may fail to acquire related skills as fast as the faster learners will. There is therefore ultimate need to improvise equipment and materials which are not available. KIE advises that the community should be used as a resource. There will also be need to relate learning to the local environment. It is therefore the duty of Home Science teachers to tap the strengths of their local environment.

The ministerial report on 8-4-4 education programme recognises that many secondary schools do not have adequate physical facilities. Since the government can meet only partial cost of this equipment, parents will be expected to augment the extra cost. This cost-sharing throughout

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45 Education Supplement vol. 2 (No. 6-7 January/February, 1985) "8-4-4 full report" p. 16.
the education system of Kenya, easy as it may sound, demands full utilization of resources available to any given community.

In an investigation of teaching methods and techniques employed by Home Science teachers in Kenyan secondary schools, Kiviu (1983) revealed some problems facing teachers as: lack of sufficient resources and equipment; lack of financial support from school administration and the Ministry of Education. These research findings were confirmed a year later by Kasuku (1984) in a study of factors leading to low acceptability of Home Economics in secondary schools. She reported that most schools had a facility related problem; that the facilities are too expensive and enough equipment is not bought.

While addressing ourselves to the problem of inadequate facilities in schools, relevance of the education offered should be a major goal. The restructuring of education in Kenya in 1985 is aimed at a more relevant curriculum. Towards this end Home Science for secondary schools should


help learners to improve quality of life in their families and the community. There should be integration between school experiences and life experiences of learners in their community.

Regrettably, Mbae (1984) in her study, "The relevance of Home Management to individuals and family needs," noted that Home Science was found to be less popular and unaccepted because teachers did not present materials that were relevant to the needs, hopes and circumstances of the students. Fifty percent of the students who participated expressed the fear that the subject was not useful to them in their present home environment. Those from low economic group complained that they were not in a position to practise some of the skills taught. For instance, they could not bake at home due to lack of ovens. They were taught how to clean cemented floors, clean carpets, lay dining tables and also care for flush toilets. On the contrary they do not have all these things in their homes. She therefore recommends that emphasis should be laid on the rural facilities. For instance how to make and handle the essential equipment for cleaning a rural house; sweep and handle mudded houses; how to bake with ovens and baking trays that are locally made.

48 Margaret Mbae, "The relevance of Home Management to individuals and Family needs" (Unpublished PGDE project, University of Nairobi, 1984), pp. 28 - 38.
Research findings by Kiviu (1983) revealed that community study as a teaching method was almost ignored. A large percentage of teachers (seventy three percent) and ninety percent of their students seemed to agree that they did not go out on field trips or exhibitions related to Home Science and no guest speakers were invited either. A general finding from talking to teachers was that they found community study difficult to implement due to extra expenses involved in its use.

Heavy reliance on modern imported equipment has placed Home Science curriculum at a "risk"; the risk of mismanaging and underutilizing precious resources found in local environment. The cost of these materials as borne by the students (in form of extra Home Science fees) is too high. A Home Science department is too expensive to run and many students are discouraged from taking the subject. Schools too are discouraged from offering it.

Equipment needed is so expensive that even old machines cannot be replaced or repaired and getting spare parts and repair services is an acute problem. The equipment found in secondary schools is outdated models whose spare parts are hard to get. Home Science laboratories are quite small and can only accommodate a small controlled number of

49 Kiviu, Loc. Cit.
students. Settling Home Science expenses with heads of schools who in most cases consider them unreasonable and extravagant is difficult.

Other problems in Home Science are curriculum related. Kasuku (1984) reported that the curriculum for foods and nutrition is too 'western' and irrelevant to the extent of not helping students to solve day-to-day problems. Things learnt in these irrelevant topics cannot be used by the average Kenyan since most of these learners belong to the low income families.

Teaching methods will have to change to facilitate understanding, thinking and appreciation of the local environment among the learners instead of encouraging rote learning.

Utilization of community resources seems to be an immediate solution to most of the educational problems in Kenyan secondary schools. These resources, being from inexpensive materials available in the environment will ensure that Home Science is available to more students. When improvised, through the active participation of teachers and students, they are easily understood. They are

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51 Joseph Arap Leting, Daily Nation (Kenya) September 26, 1983) p. 3 Col. 1.
not only attractive, and natural but very meaningful hence relevant. Increased creativity on the part of the teachers, students and parents will ease the burden of cost-sharing.

2.6 RESOURCES THAT CAN BE USED FOR ENRICHMENT OF LEARNING EXPERIENCES

Every community, small or large, rural or urban, developed or developing has resources that can be utilized for educational purposes. As explained by Hann (1945), these resources exist in the form of people; institutions; techniques; natural wealth and earth features; history; hopes; aspirations; problems and tasks of planned community improvements. All these resources are there to be identified, studied and improved by being used as relevant curriculum contents and activities.

Even though it is agreed that a discreet classification of these resources is difficult due to their interdependence, many resource books list them in categories. The Joint council of Economic Education (1955) for instance categorises them into: natural resources; human resources capital, business enterprises; occupational organizations; Government agencies; social organizations; community aspects and others.


Some educators simply leave types of resources to be studied, open for the school to identify. They however give ideas as to what to look for and how to look for them. In addition to types of resources such as already cited, Desta (1975) believes that the school has an obligation to make a survey of rural development projects and major problems such as health, sanitation and superstitious or false health beliefs. Major activities such as coffee growing, animal husbandry, pottery, weaving and others should be identified as "a country's basic needs." 55

Writers such as Miller (1965) bring to the attention of the school teacher the wealth of resources which is often neglected or unnoticed. 56 It includes staff members such as the school nurse; the gardener; the teacher who is a footballer or a businessman; people who have travelled


56 James L. Miller, "Community Resources", Grade Teacher, Vol. LXXXII (No. 6 February 1965), pp. 118-121.
abroad and brought back souvenirs and others.

Very specific types of resources, people with special abilities and qualifications, centres for activities and organizations are suggested by Strandley (1967). The first kind are qualified people outside the school who can assist in making certain concepts more meaningful and skills more practical. These people are scientists; technicians; housewives; musicians; dentists and others. Second, there are areas where trained lay persons offer firsthand information. These are policemen; traffic policemen; firemen; public health workers; and representatives of the law. Third, many community activity centres such as newspaper offices, greenhouses, churches, cultural centres and others can be used to culminate learning experiences started in school. Such cooperative teamwork makes clear to students how different people and sectors of the community interdepend.

57 William E. Strandley, "Who was that Stranger I Saw in your class?" Grade Teacher, Vol. LXXXV (No. 1, September 1967), p. 88.
Jensen (1971) tells how the resource department in Minneapolis secured four hundred and seventy seven volunteers including executives, housewives and retirees. These represented all age groups and fields. This resource programme served all elementary schools in Minneapolis.

Apart from resource persons and activities found in the community being utilized, resource items in the community provide an invaluable variety of learning which is firsthand and stimulating. Such items as: brooms made from twigs of grass tied on a smooth stick; scrubbing brushes made of hard shrubs tied firmly on a rod of stick and dry maize cobs can also be used. Toilet brushes made from small branches of cedar tree or other trees fixed on a piece of stick; cobweb brushes from feathers, twigs or strips of material tied on a piece of stick. Bottle brushes from sisal fibre tied to a thin piece of stick; sieved ash and sand as abrasives; ground charcoal as an abrasive; some types of rough leaves as abrasives; graters from empty tins; ovens made of mud and drum; icing rags from polythene paper; empty bottles as rolling pins; sisal fibre for washing utensils instead of sponge; calabashes;

improvised dustbins from old basins and buckets; homemade meat safe; charcoal coolers; pots for keeping cool water; three stones (open fire) with firewood and many others.

Gitobu (1985) has explored extensively in the area of using community resources in an attempt to make Home Science in secondary school more available and relevant. She maintains that ashes have been used for many years in Kenya as an effective scouring agent for cleaning kitchen utensils. When sifted, ashes are very fine powder and may be put in the same use as any other scouring powder. Grasses or straw are commonly used locally to make brooms or brushes. This is the cheapest material available to homemakers who cannot afford commercially manufactured brooms or brushes. Usually, short-handled brushes are made and used for sweeping earthen floor. The stiffer types of grass and straw are more suitable for compound brushes or brooms. Coconut coir that surrounds coconut is used to make brushes that require to be a little stiffer than those made of sisal. Vegetable fibre from trees like palm or straw from some types of grass and millet stalks are used for making

stiff brooms and brushes. Mops maybe made at home by use of old cotton clothes like sheets and blankets. Long strips of material are prepared and fixed at the end of a handle with a nail or thin metal bar nailed at each end. Dusting mops can be conveniently made by use of feathers from duck or chicken.

Cooking over an open fire or partly enclosed fire is a method that is as old as Kenya communities are. It has been used both indoors and outdoors primarily for cooking or heating food but has been equally good for heating and lighting purposes. Although the use of fire cooking is gradually being replaced by use of modern equipment, majority of rural homes still use it due to its convenience and low cost of maintenance. In order to save time, fuel and to increase comfort of family members, there has been an effort to encourage the construction of a raised fire place. The open place on top is designed to take two or three pots. There is an open end for firewood and a simple chimney can be attached to remove smoke.

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60 Ibid, pp. 102 - 104.
With the current concern for appropriate technology in many countries including Kenya, experiments have been successfully carried out to solve some existing problems. One of the major handicaps that many families especially those in rural areas face is lack of facilities good enough to keep foodstuffs wholesome for any length of time. Although a refrigerator is ideal, only a small percentage of the country's population can afford such an appliance. Using the basic principle of refrigeration, other methods have been initiated. One of the most fascinating of these is the charcoal and water to cool a simple cabinet in which perishable foods such as milk, meat, vegetables and cooked foods can be kept for two to three days. It is not as effective as a refrigerator, but is certainly superior to an ordinary food cupboard.

2.7 SOME METHODS, PROCEDURES AND ACTIVITIES THAT CAN BE APPLIED IN USING COMMUNITY RESOURCES

The major methods to utilize community resources for educational purposes are suggested by Oslen (1955). These are community surveys, use of resource people, field trips, work experience, community service projects, school camping, documentary materials, interviews, extended field studies and audio visual aids.

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61 Ibid., pp. 102 - 104
62 Oslen, The School and Community Reader, op. cit., p. 34.
Use of human resources is not limited to any curricular area or any specific age. Very careful planning and democratic approaches are needed to secure resource people. First of all, the important step of determining how the particular person's area of competence fits into the program of the class must be made. It is essential to know what contributions the visit of the resource person can make to enrich pupils' understanding, development or modification of their attitudes, interests and skills. Therefore it is necessary to identify specific problems, decide who to invite, and discover the mode of presentation. This can be exhibits, discussion or demonstration, then inform and get confirmation from the resource person. Inform him/her about the pupils; specify time and place for the reception of the guest. Arrangements are then made to keep students abreast of classroom regulations. Choose a chairman or chairperson and a recorder among the pupils. Later, appropriate follow-up activities are organized.

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63 Ibid, pp. 206 - 299.
Field trips refer to any kind of excursion taken by students as an integral part of their academic work. Oslen (1955) gives some guidelines which if followed properly can enhance effectiveness of the method. He suggests that it is essential that the teacher knows what educative places are available and which are appropriate for a specific learning experience. The purpose of the trip must be determined so as to serve as a preview of a lesson. The teacher should start by gathering instructional materials, creating situations for observations, discovery and others. This is followed by arousing specific interest and verifying previous information. Then appropriate and stimulating questions are formulated that will facilitate the field experience. The necessary arrangements with community agents are made, securing parents consent and planning class schedules. It is essential to stimulate learning by encouraging students to ask question, take notes, make sketches and maps, collect specimens and others.

Oslen, op. Cit., pp. 250 - 270.
Lastly, the follow-up activities must be diversified, and should promote team and individual work.

Community surveys are a basis on which other methods depend. They enable accurate determination and understanding of factors inherent in community structure and processes. These activities offer learners' experiences in cooperative planning, visitation, interviewing, library research and other related classroom activities. In order for the survey method to be effective, the teacher is advised to make a thorough preparation in advance. He should not only acquaint himself with the method but also with the community. He should then stimulate the interests of students by translating the social significance of the activity, and by relating it to problems that touch the lives of the pupils, such as juvenile delinquency, sanitation and public health. These experiences should enable students to ask and attempt answers to questions like "what influence does it have on what we do, and what can we do about it"?

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A conclusion by Blomberg (1967) resulting from an experiment proved the value of direct experience teaching in the out-of-doors. The method used by the researcher was taking children on short field trips. He then evaluated their attitudes and behaviour as well as their accomplishments. Trips that were taken ranged from ten minutes to two hours for a period of nine years. Learning experiences were in science, mathematics, language, arts, social studies, art and music. The researcher recorded the results of the activities on discovery, creativity and recreation accomplished by students.

Work experience is a practical activity carried out in a normal way in all occupations. The following arrangements should be made. Work opportunities should be arranged; school schedule should be adapted accordingly. Effective supervision should be provided; adjustments of the work to the students' needs must be made; acquainting students with the purpose, procedures and desired outcomes. Above all, constructive criticism must be provided and encouraged.


Gantt (1971) discussed two methods of providing information regarding occupation to elementary school children. One way is to treat work as one of the generalizations in selected units centred around human activities. The second way is to give work related topics incorporated in units at various levels of instruction. A generalization like, "work of the society is accomplished through groups formed in order to achieve common goals" can be introduced in Kindergarten unit and expanded in each subsequent grade thus: Kindergarten unit on local environment studies would include service stations, the airport and the store. Standard one unit would be family at work, neighbours at work and community workers. Standard two unit would be community studies including workers around the world. Standard three units would be metropolitan communities. For standard four, five and six similar units can be developed.

Work experience, as its major objective, should develop in young people an attitude of respect and appreciation for people whose work contributes to the smooth functioning and welfare of society. Students must have a genuine feeling and respect for any productive

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Ibid., p. 362
activities, dignity and honour for the individuals who perform them. The school through its responsibility to meet vocational needs of children, can foster self esteem and encourage talents development. It can do so by providing opportunities for visits to various work centres such as food processing, water purification, sanitation, newspaper offices and many others. It can also invite community adults to the classrooms to discuss their occupation. Emphasis should be upon workers: their skills and knowledge, positive feelings about their importance, and the part the school plays in encouraging children to do what they want to do.

Service projects are cooperative activities organized and accomplished by students as contributions to the community. In planning the service projects, the first task is to discover the social needs and select projects. Next, it is necessary to gain background and insight in the project to be undertaken. By approaching community leaders and working through community groups, the organized class must be oriented and initiated to the service project.

69 Ibid., pp. 226 - 288.
70 Ibid., pp. 188 - 202.
The clearance with the government must not be overlooked. Some examples of such service projects are, area surveying, exterminating insects, mapping a town for expected growth, aiding in cleaning the locality and preventing soil erosion.

In Kenya at present, it may be observed that education which is really adaptive and involves the community setting is found in the rural areas. In these communities education is typically informal and consists largely of children modelling their behaviour after the adults (Kenyatta 1938)\textsuperscript{71}, (Odinga 1967)\textsuperscript{72}.

A recent innovation in Kenyan curriculum which seeks to adapt learning to communities surrounding schools is the environmental education approach. The introduction of environmental education is an approach that will inevitably incorporate utilization of community resources to provide desired learning outcome. This approach is more effective because, it enriches, vitalizes and complements curricular areas through firsthand observation and direct experience outside the classroom. Environmental education which extends the classroom beyond the four walls and out into the community, offers a suitable setting for


\textsuperscript{72} Oginga Odinga; \textit{Not Yet Uhuru, an Auto-biography}; Heinemann Education Books, Nairobi, 1967, pp. 8-9.
maximum understanding, meaning and insight.

Home Science teachers can use home visits as one way of gaining insight into the way families live, their problems, concerns, values, practices and others. For example, for Home Science students to learn how to utilize better, the working space in a home kitchen, they will need to see the actual kitchen arrangement and know something of the patterns of living of the family if a Home Science teacher's help is to be most effective. Such an activity is a bridge that links school instructions with community and family living.

Other activities like school camping, provide learners experience in democratic community living through such group living. This is because students are offered the opportunity to live, plan and work together in a simple democratic environment. It provides opportunity for involvement in community services. It includes activities such as nature exploration, healthy living, social relationship and working.

Documentary materials are available in every community. They not only make learning more interesting and functional but also bridge the gap between school and community. Documentary materials can be secured from standard publishers, government officials, civic associations and business organizations.
CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

The design for this study was survey where questionnaires, observation schedules and checklists were used in data collection. The study was devoted to gathering information, analysing, reporting and drawing conclusions. Descriptive analysis was used in data analysis.

3.2 PILOT STUDY

Before carrying out the main research, the researcher found it necessary to carry out a pilot study. This made it possible for the researcher to estimate the time required by subjects in completing the questionnaire. It was further meant to test if the items in the questionnaire were reliable and unambiguous. The pilot study was done in five schools in Meru district.

Teachers and Headteachers did not have any difficulties in filling the questionnaires. However there were inconsistencies in wording of items in the two questionnaires. Thus it was deemed necessary to revise the two questionnaires to make them similar as far as possible. A few additions were suggested by teachers on items four and ten. These were included on the final questionnaire (see Appendix 1).
Some students could not understand some of the terms used in their questionnaire, for example Dietician, Commercial stores and a few others. Since explanations on the questionnaires would have made it cumbersome, the researcher assisted the students by explaining the terms that were not easily understood. Grammatical and typing errors noted during the piloting were also rectified during the refining of the questionnaires.

3.3. SAMPLING

The research was a case study of Embu and Kirinyaga Districts. The researcher selected all the schools in Embu and Kirinyaga districts that had implemented Home Science at Form two level. As table 1 below illustrates of the twenty four schools, thirteen (59 percent) of them were in Kirinyaga District and eleven (41 percent) in Embu District. Out of the total (24) nine were mixed, with boys and girls and the rest (15) were purely girls' schools.

All the Form one and two Home Science teachers in these schools were selected; this gave a sample of forty teachers. The same procedure was used to get a sample of twenty four Headteachers. Random sampling was used to get the students. To begin with, the researcher was aware that the selection criteria for students to secondary schools in Kenya is Quota System where eighty five percent of students in a given school
### Table 1

**Schools in Embu and Kirinyaga Districts Visited During the Main Study**

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<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Mugumo</td>
<td>M</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kerugoya</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kiaragana</td>
<td>M</td>
</tr>
<tr>
<td><strong>Embu</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>Nthagaiya</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kiangima</td>
<td>M</td>
</tr>
<tr>
<td>&quot;</td>
<td>Emmah</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kavutiri</td>
<td>M</td>
</tr>
<tr>
<td>&quot;</td>
<td>Mbiruri</td>
<td>M</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kyeni</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kangaru</td>
<td>M</td>
</tr>
<tr>
<td>&quot;</td>
<td>Nguvuiu</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Thigingi</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Mayoni</td>
<td>G</td>
</tr>
<tr>
<td>&quot;</td>
<td>Kanyuambora</td>
<td>G</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

**Key**

- **G** - Purely Girls' School
- **M** - With both Girls and boys.
should be from that district. Twenty two of these schools had two streams in form two, approximately eight four students. This gave a total of one thousand, eight hundred and forty eight students. Two schools (Kangaru and Kabare) had four streams, that is three hundred and thirty six students. The total population was two thousand, one hundred and eighty four students. The researcher chose to select the same number of students from each school because the majority of the schools had approximately the same number of students. The researcher obtained a list of all form two students who came from that district in each school. This gave a population of one thousand six hundred and eighty (1680). Simple random sampling was used to get twelve students from each school. Enough ballot papers were placed in a box with twelve of them numbered. Each students who came from that district was asked to pick one ballot paper. Those who picked numbered papers were selected for the research. This gave a sample of two hundred and eighty eight (288) students.

3.4 INSTRUMENTATION

The research instruments that were used in data collection were:-

1. Teachers' questionnaire
2. Headteachers' questionnaire
3. Students' questionnaire
4. Observation schedule
5. Checklist

The teachers' questionnaire was an adaptation from a questionnaire used by Desta in her Ph. D Dissertation "An Investigation of the Utilization of Community Resources in Elementary Schools in Ethiopia" (1975). It is from the teachers' questionnaire that the students' and headteachers' questionnaires were developed.

The teachers' questionnaire was categorised into:
- background information
- availability of teaching/learning materials
- knowledge of the community resources
- teachers' perception on the role of community resources in Home Science
- problems encountered by Home Science teachers in using community resources
- evaluation of the extent to which local resources were used in Home Science and additional opinions, comments or observations (see appendix 1).

The headteachers' questionnaire was classified into:
- background information
- availability of teaching/learning materials
- knowledge of the community resources
- problems encountered by Home Science teachers in using community resources, and additional comments, opinions or observations (see appendix 2).

The students' questionnaire was categorised into:
- background information
- availability of teaching/learning materials
- knowledge of the community resources
- evaluation of the extent to which community resources were used in
Home Science lessons and additional opinions, comments or observations (see appendix 3).

The observation schedule contained a list of items commonly found in the two districts that can be used during Home Science lessons. The items found in each school were checked against the schedule to identify those that were derived from the local environment.

The checklist was used to collect data on resources that cannot be stored in the schools. These are resource people, activities/events and places that could have been visited. This information was obtained from teachers' lesson plans, schemes of work and record of work books.

3.4 DATA COLLECTION PROCEDURES

Before visiting the schools, letters were written to headteachers of those schools to inform them of the researchers' intentions and obtain a list of Form two students from those districts. Attached to the letters were copies of a letter obtained from the Districts' Education Office authorising the research to be carried out. This was done in August 1988. The initial visit to schools was done in September 1988 to establish rapport with the subjects; to make the necessary arrangements for administration of the questionnaires and to obtain a list of Form two students from those districts in every school. In the following
two months, the questionnaires were delivered to the subjects in person. This personal administration was considered important in motivating the participants to respond more readily than if the questionnaires were mailed to them. It also gave the researcher a chance to assure the subjects of confidentiality and to let them express themselves freely.

The students' questionnaire was administered in absence of their teachers to give them liberty to respond without fear. They were requested not to discuss the items. The questionnaires were collected by the researcher after a forty minutes lesson. The Home Science teachers filled their questionnaires at the same time, so they were collected together with the students' questionnaires. Since many headteachers were busy at the time, they requested the researcher to give them time to respond to their questionnaires. The headteachers' questionnaires were therefore collected after two or three days.

The observation schedule was carried out immediately after collecting the students questionnaire. This was made possible by the Home Science teachers because they allowed the researcher to visit the Home Science rooms freely. While the students and teachers filled the questionnaires, the researcher was busy in the same room with students checking teachers' schemes of work, lesson
plans and record of work books.

3.5 DATA ANALYSIS

After all the questionnaires, checklists and observation schedules were completed, the researcher went through the items tallying the responses for every questionnaire. The frequencies, percentages and rank orders (where warranted) are worked out for each question. The analysis resulting from this tabulation is reported in chapter four of this study.
CHAPTER 4
DATA ANALYSIS

4.1 INTRODUCTION

In this study, the researcher worked with students, Home Science teachers and headteachers. The questionnaires were administered personally.

All the questionnaires issued out were returned, giving a hundred percent usable return.

The researcher used tallies, percentages and rank ordering for data analysis. Converting frequency counts into percentages was considered essential to enable the researcher to compare the three groups of subjects meaningfully because they were unequal in size. The percentage made the common bases of comparison clear because they indicated the number-per-hundred. However, the percentage comparison alone was limited in that the number of frequencies expected were not reasonably large; they could be misleading and might have seemed to suggest generalizations that were unwarranted. Therefore both frequency counts and percentage responses in presentation of analysis of data were used. In converting frequency counts to percentage, rounding to the nearest whole number was preferred because the data was not very precise. Where options in one item are too many, rank ordering is used to facilitate comparison.
The data collected was analysed in order to answer the following research questions as mentioned in chapter one:

1. Are there enough teaching/learning materials in secondary schools for Home Science lessons?
2. How conversant are Home Science Teachers with community resources in their school district?
3. What are the teachers perception on the role of community resources in Home Science?
4. What are the chief constraints encountered by Home Science teachers in utilizing community resources?
5. To what extent are community resources being utilized during Home Science lessons?

Before answering the research questions, it was found necessary to give a description of the subjects to ensure that the right samples were selected. It also ensured that they possessed the data being looked for. Therefore the head item on every questionnaire was devoted to describing the respondents.
4.2 REPORT OF RESPONSES OF TEACHERS

Background Information

The purpose of the head item of the questionnaire was to ensure that the right sample had been selected and that they possessed the data being looked for. The item included sex, school district, name of the school and educational background. All the forty teachers, used in the study were female. Twenty one respondents (53 percent) were from Kirinyaga district and nineteen (47 percent) from Embu district.

Educational Background

Table 2 below shows that, six (15 percent) were Graduate teachers with Bachelors Degree in Education and fifteen (38 percent) had Diploma in Education. Eight (20 percent) had Approved Teacher Status, three (7 percent) were S.1 teachers and eight (20 percent) were untrained teachers.

Availability of Teaching/Learning Resources

Research question 1: Are there enough teaching/learning materials in secondary schools for Home Science lessons? This question was asked to determine the amount of teaching/learning materials available for Home Science in Secondary Schools in Embu and Kirinyaga Districts.
Table 2
Educational Background of Respondents

<table>
<thead>
<tr>
<th>Item</th>
<th>Educational Background</th>
<th>Number of Respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>a University Graduate</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>b Diploma Holder</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>c Approved Teacher status</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>d S.1</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>e Untrained Teachers</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>f Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

As Table 3 below shows none of the respondents indicated to have "all the teaching/learning materials". Eighteen (45 percent) indicated to have had "most of the teaching/learning materials". Twenty two (55 percent) reported that they had "few of the teaching/learning materials. None showed to have had "no teaching/learning materials". From the data above, it can be concluded that most secondary schools have only a few of the teaching/learning materials required for Home Science lessons.
Table 3
Availability of Teaching/Learning Materials for Home Science

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. All the teaching/learning materials&quot;.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Most of the teaching/learning materials</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>c. Few of the teaching/learning materials</td>
<td>22</td>
<td>55</td>
</tr>
<tr>
<td>d. None of the teaching/learning materials</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Knowledge of the Community

Research question 2: How conversant are Home Science teachers with community resources in their school district? Respondents were asked to indicate the nature of the community in their school district. Table 4 below shows that twelve (30 percent) referred to the community as "rich and full of activities and people in the field of Home Science". Twenty four (60 percent) reported that the community "had a few of the activities and people in the field of Home Science". Four (10 percent) reported theirs as being "very poor with nothing to be noticed."
Table 4
Knowledge of the Community

<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
<th>Number of Respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>a Rich and full of activities and people in the field of Home Science</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>b Has a few of the activities and people in the field of Home Science</td>
<td>24</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>c Very poor with nothing to be noticed</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

The fourth item required the respondents to identify (from a given list) some of the resources that are found in their school district. Since more than one response was supplied by each respondent, the frequencies apply not to the total number of respondents (i.e. one response to one respondent that add up to forty) but, to how many respondents confirm that the resource is found in that district. Therefore instead of a total of forty respondents, a rank ordering is provided in the table below. As the table shows, the resource that was identified by the highest number was "hospital/health centre" reported by forty (100 percent). The next were
"dressmakers/dress designers" and "cooks from institutions" reported by thirty eight (95 percent) each. The fourth was also a tie of "medical doctors" and "commercial stores/shops" identified by thirty seven (93 percent) each. The sixth was a tie of "drycleaners/laundry services" and "agricultural shows" reported by thirty six (90 percent) each. The eighth was also a tie of "community workers" and "church celebrations" reported by thirty four (85 percent) each. The tenth was "women group projects" indicated by thirty three (80 percent). The eleventh was "first aiders" identified by thirty one (78 percent) and the twelfth was "dentist" by thirty (75 percent). The thirteenth was "beauticians from salons" reported by twenty eight (70 percent). The fourteenth was "parties in/or related to the school" indicated by twenty six (65 percent) and the fifteenth was "dieticians" identified by twenty four (60 percent). The sixteenth was "knitting" reported by twenty two (55 percent). Seventeenth was a tie of "weaving" and "youth group projects" indicated by twenty (50 percent). "Exhibitions" ranked nineteenth with nineteen (47 percent) responses. The twentieth was "dyeing" confirmed by eighteen (45 percent). "Pottery work" ranked twenty first with nine (23 percent). The twenty second in rank was "food packaging industries" reported by eight (20 percent). "Textile firms" ranked last with no responses.
### Table 5
Some Community Resources Found In Embu And Kirinyaga Districts

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Hospital/health Centre</td>
<td>40</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>b Dress designers/dressmakers</td>
<td>38</td>
<td>95</td>
<td>2</td>
</tr>
<tr>
<td>c Cooks in institutions</td>
<td>38</td>
<td>95</td>
<td>2</td>
</tr>
<tr>
<td>d Medical doctors</td>
<td>37</td>
<td>93</td>
<td>4</td>
</tr>
<tr>
<td>e Commercial stores/shops</td>
<td>37</td>
<td>93</td>
<td>4</td>
</tr>
<tr>
<td>f Drycleaners/laundry services</td>
<td>36</td>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td>g Agricultural shows</td>
<td>36</td>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td>h Church celebrations</td>
<td>34</td>
<td>85</td>
<td>8</td>
</tr>
<tr>
<td>i Community workers</td>
<td>34</td>
<td>85</td>
<td>8</td>
</tr>
<tr>
<td>j Women group projects</td>
<td>32</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>k First aiders</td>
<td>31</td>
<td>78</td>
<td>11</td>
</tr>
<tr>
<td>l Dentist</td>
<td>30</td>
<td>75</td>
<td>12</td>
</tr>
<tr>
<td>m Beauticians from salons</td>
<td>28</td>
<td>70</td>
<td>13</td>
</tr>
<tr>
<td>n Parties related to school</td>
<td>26</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>o Dieticians</td>
<td>24</td>
<td>60</td>
<td>15</td>
</tr>
<tr>
<td>p Knitting</td>
<td>22</td>
<td>55</td>
<td>16</td>
</tr>
<tr>
<td>q Weaving</td>
<td>20</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>r Youth projects</td>
<td>20</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>s Exhibitions/Displays</td>
<td>19</td>
<td>47</td>
<td>19</td>
</tr>
<tr>
<td>t Dyeing e.g materials</td>
<td>18</td>
<td>45</td>
<td>20</td>
</tr>
<tr>
<td>u Pottery work</td>
<td>9</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>v Food packaging industries</td>
<td>8</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>
The results show that Home Science teachers look at their community as having only a few of the activities and people in the field of Home Science. They however seemed to be very conversant with the resources found in their school districts. This is because, except for "textile firms" which had no responses, all the other resources listed had responses. Moreover eighteen out of the twenty four resources given, had over (50 percent) responses each.

**Teachers Perception on the Methods of Making Learning Experiences More Relevant**

Research question 3: What are the teachers' perception on the role of community resources in Home Science lessons? Item five required the teachers to give their opinion on how learning experiences can be made more relevant. As table 6 below shows, the first in rank was "providing first hand information by letting students interact freely with their local environment". "Using materials recommended by Kenya Institute of Education" and "teaching them in order to pass examinations" tied in the second position with thirty two (80 percent) responses. The fourth in rank was "giving students theoretical knowledge which they will apply later in life".
The findings below reveal that teachers have shown a departure from the traditional educational methods and approaches in their opinions on "methods of making learning experiences more relevant". The majority, thirty six (90 percent) believe that "providing firsthand information by letting students interact freely with the local environment" can make learning more relevant, purposeful

Table 6

Teachers' Perception On The Methods of Making Learning Experiences More Relevant

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Providing firsthand information by letting them interact freely with the local environment</td>
<td>36</td>
<td>90</td>
</tr>
<tr>
<td>b</td>
<td>Using materials recommended by Kenya Institute of Education</td>
<td>32</td>
<td>80</td>
</tr>
<tr>
<td>c</td>
<td>Teaching them in order to pass examinations</td>
<td>32</td>
<td>80</td>
</tr>
<tr>
<td>d</td>
<td>Giving students theoretical knowledge which they will apply later in life</td>
<td>26</td>
<td>65</td>
</tr>
</tbody>
</table>
and challenging.

Item six was meant to probe what teachers think are some of the advantages of using community resources in Home Science. As table 7 below shows, six (15 percent) felt that using community resources can "minimize the shortage of educational materials". Three (8 percent)

<table>
<thead>
<tr>
<th>Table 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages of Using Community Resources in Home Science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Number of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 a</td>
<td>Minimize the shortage of Educational materials</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>6 b</td>
<td>Can encourage better methods of teaching and learning by making Home Science less theoretical and more practical</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>6 c</td>
<td>Can help in adapting the syllabus to suit the needs and interests of students</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>6 d</td>
<td>All of the above</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>
believed that these resources can "encourage better methods of teaching/learning by making Home Science less theoretical and more practical". Three (8 percent) were of the opinion that using community resources "can help adapt the syllabus to suit the needs and interests of students". The majority, twenty eight (70 percent) expressed the feeling that "all of the above three" are advantages of using community resources.

A majority of the respondents agreed that other advantages of using community resources besides making learning experiences more relevant can be; minimizing the shortage of educational materials; encouraging better methods of teaching/learning; to help in adapting the syllabus to suit the needs and interests of students.

The Extent to Which Teachers Have Utilized Community Resources In Home Science

Research question 4: To what extent are community resources being utilized during Home Science lessons? The researcher had classified some resources into three broad groups i.e items, people and activities/events, therefore items nine, ten, and eleven are categorised in that same order. Respondents were asked to indicate (using outline lists of the three resources) the resources
they used. Item twelve required the respondents to show how often they used the various methods given, in using community resources.

The frequencies in Tables 8, 9 and 10 do not apply to the total number of respondents, rather to how many respondents confirmed that the resource was found in that district. Therefore instead of a total of forty respondents, a rank ordering is provided.

As table 8 illustrates, the items that were used by the highest number were "brooms from twigs or grass" and "rags from old blankets, sheets or towels" used by twenty six (65 percent) each. The third in rank was "dusters from old pieces of cloth" used by twenty four (60 percent). The fourth in rank was "homemade jikos" used by nine (23 percent). The fifth was a tie of "toilet brushes from small branches of cedar trees" and "bottle brushes from sisal fibres" used by eight (20 percent) each. The seventh was "calabashes" and "some types of leaves as abrasives" used by seven (18 percent) each. The ninth was "empty bottles as rolling pins" used by six (13 percent). In the ninth position was also "scrubbing brushes made of hard shrubs or maize cobs". The eleventh was "icing bags made from polythene paper" used by five (15 percent). The twelfth was a tie of "sieved ash and sand as abrasives" and "ground charcoal" reported by four (12 percent). The fourteenth was
Table 8
The Extent to Which Resource Items Were Utilized

<table>
<thead>
<tr>
<th>Item</th>
<th>Resource</th>
<th>Number of Responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. a</td>
<td>Brooms made from twigs or grass etc</td>
<td>26</td>
<td>65</td>
<td>1</td>
</tr>
<tr>
<td>b</td>
<td>Rags from old blankets sheets, towels etc.</td>
<td>26</td>
<td>65</td>
<td>1</td>
</tr>
<tr>
<td>c</td>
<td>Dusters from old pieces of cloth</td>
<td>24</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>d</td>
<td>Home made jikos</td>
<td>9</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>e</td>
<td>Toilet brushes from small branches of cedar tree etc.</td>
<td>8</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>f</td>
<td>Bottle brushes from sisal fibre etc.</td>
<td>8</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>g</td>
<td>Some types of leaves as abrasives</td>
<td>7</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>h</td>
<td>Calabashes</td>
<td>7</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>i</td>
<td>Scrubbing brushes made of hard shrubs or maize cobs etc.</td>
<td>6</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>j</td>
<td>Empty bottles as rolling pins</td>
<td>6</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>k</td>
<td>Icing bags made from polythene paper</td>
<td>5</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>l</td>
<td>Sieved ash and sand as an abrasive</td>
<td>4</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>m</td>
<td>Ground charcoal as an abrasive</td>
<td>4</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>n</td>
<td>Graters made from empty tins</td>
<td>3</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>o</td>
<td>Three stones with firewood</td>
<td>1</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>p</td>
<td>Homemade meat safe</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>q</td>
<td>Homemade ovens</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>
"graters made from empty tins" used by three (8 percent). The fifteenth was "three stones with firewood" used by one (3 percent). None of the teachers used "homemade meat safe", "homemade ovens" or "charcoal coolers". These ranked sixteenth which is the lowest rank. From table 8 above, fifteen out of eighteen items listed had less than 50 percent responses each. The majority of these had their responses below 26 percent. These results give a clear indication that items found in the community are poorly utilized during Home Science lessons.

On the whole, resource persons were also inadequately used as illustrated on table 9 below. The resource person used by the highest number was "house designer" used by eight (20 percent). The second in rank was "house constructors" used by seven (18 percent). The third was a tie of "medical doctor" and "dressmakers/dress designers" used by six (15 percent). The fifth was "first aider" used by two (5 percent). The sixth was "dentist" used by one (3 percent). No teacher seemed to have used "hairdresser", "housewives", "shopkeeper", "dietician", "architect" or "cook". These ranked in the seventh position. There was no response to others.

A close examination of data in table 9 reveals that the only resource person used by only one quarter of the teachers was house designers. All the other resource persons were used by less than eight out of forty teachers.
Half (seven) of the resource persons listed were not used at all. The findings therefore confirm that resource persons in the community were inadequately utilized during Home Science lessons.

Table 9
The Extent To Which Resource Persons Were Used

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Respondents</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 a</td>
<td>House designers</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>b</td>
<td>House constructor</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>c</td>
<td>Dressmakers/Designers</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>d</td>
<td>Medical doctor</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>e</td>
<td>First aider</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>f</td>
<td>Dentist</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>g</td>
<td>Housewife</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>h</td>
<td>Dietician</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>i</td>
<td>Architects</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>j</td>
<td>Shopkeeper</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>k</td>
<td>Cook</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>l</td>
<td>Hairdressers/</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Beauticians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The eleventh item on the questionnaire was a list of places that can be visited to enhance Home Science lessons. Table 10 below shows the results as follows:- "Agricultural shows" ranked first with twelve (30 percent) responses. The second was "homes around the school" visited by eleven
(28 percent). The third was "shopping centres" visited by six (15 percent) respondents. The fourth was "child welfare unit" visited by two (5 percent) of the teachers. The fifth was "hospital" used by one (3 percent). The fifth position was also taken by "exhibitions" indicated by one (3 percent). None of the teachers reported to have used "bakery", "textile firm" or "drycleaner/laundry service". These ranked seventh. The findings seem to

Table 10
Extent To Which Places of Educational Value Were Visited

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Agricultural show</td>
<td>12</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>b Homes around the school</td>
<td>11</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>c Shopping centre</td>
<td>6</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>d Child welfare unit</td>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>e Hospital</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>f Exhibitions</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>g Bakery</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>h Drycleaners/laundry services</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>i Textile/clothing industries</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>
indicate that places of educational value were also poorly utilized. "Agricultural shows" had the highest number of response, but this was by only 30 percent of the teachers. Two thirds of the total number of places listed had responses below 7 percent and out of these, three had no response. These results confirm that places that can be visited to enhance Home Science lessons were overlooked and underutilized.

Item twelve required the respondents to show how often they used each of the methods provided in their attempt to use community resources. As table 11 below shows, practical activities were used "regularly" by three (8 percent), "occasionally" by nine (23 percent) and "never" by twenty eight (70 percent). Use of other written materials like magazines and newspapers was done "regularly" by four (10 percent) "occasionally" by twenty six (65 percent) and "never" by ten (25 percent). Making and using items out of the local materials like scouring powder from ashes mixed with 'omo' was done "regularly" by eight (20 percent) "occasionally" by seventeen (43 percent) and "never" by fifteen (37 percent). Field trips were taken "regularly" by none of the respondents, "occasionally" by two (5 percent) and "never" by thirty eight (95 percent), thus only 5 percent ever made a field trip with Home Science students. On the basis of data on
Table 11, twenty eight (70 percent) of the teachers never gave students practical activities in the

Table 11
The Extent To Which Various Methods of Utilizing Community Resources Were Used

<table>
<thead>
<tr>
<th>Item</th>
<th>Resource</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regularly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Occasionally</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>12 a</td>
<td>Practical activities like cleaning drainage in the neighbourhood</td>
<td>3(8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9(23%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28(70%)</td>
</tr>
<tr>
<td>b</td>
<td>Use of other written materials like magazine and newspapers</td>
<td>4(10%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26(65%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10(25%)</td>
</tr>
<tr>
<td>c</td>
<td>Making and using items out of local materials like scouring powder from ashes mixed with omo</td>
<td>8(20%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17(43%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15(37%)</td>
</tr>
<tr>
<td>d</td>
<td>Field trips</td>
<td>0(0%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2(5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38(95%)</td>
</tr>
</tbody>
</table>

neighbourhood that could enhance lessons. Only twenty six (65 percent) of the teachers used written materials like magazines and newspapers occasionally. Majority of the teachers, seventeen (43 percent) assisted students in
making and using items out of local materials only occasionally. Field trips were never taken. This was confirmed by thirty eight (95 percent). The findings indicate that the various common methods that can be applied in using community resources were not used by Home Science teachers. They were used only occasionally by a few and never used by the majority.

Problems Encountered By Home Science Teachers in Utilizing Community Resources

Research question 5: What are the chief constraints encountered by Home Science teachers in utilizing community resources? As table 12 below illustrates, twenty two (55 percent) teachers admitted that "it was true" they did not make use of community resources. Six (15 percent) reported that "it was not true" that they did not use these resources. Twelve (30 percent) indicated that they "sometimes" used community resources.

Item eight required respondents to give specific reasons (from a given list) for inadequate and ineffective utilization of community resources in their Home Science lessons. Respondents who reacted to the previous question, those who reported, "its true" and "I sometimes use community resources" were asked to indicate specific reasons
for inadequate use of these resources. Of these, three (8 percent) reported that "the community has no resources that they can use in Home Science". Eighteen (45 percent)

Table 12
Use of Community Resources by Home Science Teachers

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses</th>
<th>Number of Respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>a It is true</td>
<td>22</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>b It is not true</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>c I sometimes use Community Resources</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

indicated that "they have to cover the work for the term or year as laid down in the syllabus". Two (5 percent) reported that "students are not interested in Community resources". Eight (20 percent) said that "parents do not like seeing students outside the school". Twenty (50 percent) indicated that "it interferes with the work and responsibilities of members of the Community". Eighteen (45 percent) reported that "it disrupts the timetables and other functions of the school". None said
Table 13
Reasons for Inadequate Utilization of Community Resources by Home Science Teachers

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of respondents</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>The community has no resources that I can use in Home Science</td>
<td>3</td>
</tr>
<tr>
<td>b</td>
<td>We have to cover the work for the year as laid down in the syllabus</td>
<td>18</td>
</tr>
<tr>
<td>c</td>
<td>Students are not interested</td>
<td>2</td>
</tr>
<tr>
<td>d</td>
<td>Parents do not like seeing students of our school outside the school</td>
<td>8</td>
</tr>
<tr>
<td>e</td>
<td>It interferes with the work and responsibilities of members of the community</td>
<td>20</td>
</tr>
<tr>
<td>f</td>
<td>Disrupts the timetables and other functions of the school</td>
<td>18</td>
</tr>
<tr>
<td>g</td>
<td>It requires a teacher with more knowledge and experience</td>
<td>0</td>
</tr>
<tr>
<td>h</td>
<td>There is a problem of transportation</td>
<td>20</td>
</tr>
<tr>
<td>i</td>
<td>It is risky to take students out or bring strangers in school</td>
<td>0</td>
</tr>
<tr>
<td>j</td>
<td>Requires most time for planning</td>
<td>22</td>
</tr>
</tbody>
</table>
that "it required a teacher with more knowledge and experience". Twenty (50 percent) reported that "there was a problem of transportation and other expenses for a trip or other activities". None was for the opinion that "it was risky to take students out or to bring strangers to school". Twenty two (55 percent) indicated that "it required more time for planning" (See table 13 above).

According to the responses of the teachers as provided above, the reasons for inadequate utilization of local resources are: "there was problem of transportation", "it required more time for planning", and "use of these resources interfered with the work and responsibilities of members of the community".

Additional Opinions, Observations or Comments On Use of Community Resources in Home Science

This being an open-ended item respondents were asked to give their own opinions, observations or comments on use of community resources. Their responses were listed and their frequencies obtained as shown below:

1. There is no time to use community resources 13
2. No idea on how to use these resources 2
3. Community is not cooperative 3
4. Specific community resources should be recommended by Kenya Institute of Education
5. Too many students in one class make it difficult
6. There are financial problems

4.3 REPORT ON RESPONSES OF FORM TWO STUDENTS

Background Information

The purpose of the head item was to help determine the background information about the students. All the respondents (288) were female students. One hundred and fifty six (54 percent) were from Kirinyaga district and one hundred and thirty two (46 percent) were from Embu district.

Availability of Teaching/Learning Materials

Research question 1:- Are there enough teaching/learning materials in secondary schools for Home Science? Nineteen (7 percent) reported that they had "all the teaching/learning materials". One hundred and one (35 percent) reported to have "most of the teaching/learning materials". One hundred and sixty eight (55 percent) indicated to have had "only a few of the teaching/learning materials".
On the basis of the responses of students, secondary schools have only a few of the teaching/learning materials. This was the response of the majority of the students.

Knowledge of the Community

Research question 2: How conversant are Home Science teachers with community resources in their school district? One hundred and sixty three students (57 percent) felt that the community was "rich and full of activities and people in the field of Home Science". Eighty three (29 percent) reported it having "a few of the activities and people in the field of Home Science". Forty two (14 percent) indicated that the community was very poor with nothing to be noticed.

According to the responses of the majority of the students, local environments were very resourceful.

Item four required the students to identify from a given list the resources that were found in their district. As table 14 illustrates, "hairdressers/beauticians" ranked first with two hundred and seventy six (96 percent) responses. Four resources ranked second, these are "cooks", "hospitals/health centre", "agricultural shows" and "parties related to the school". These were reported by two hundred and seventy two (94 percent) each. The sixth was "knitting" indicated by two hundred and fifty
eight (90 percent) of the respondents. This tied with "drycleaners/laundry services". The eighth rank was taken by "dressmakers/dress designers" reported by two hundred and fifty (87 percent). "Shops/commercial stores" ranked ninth with two hundred and forty nine (86 percent) responses. The tenth were "youth group projects" and "medical doctors" identified by two hundred and forty three (84 percent) of the students. "Women group projects" ranked twelfth with two hundred and forty (83 percent) of the responses. The thirteenth was "church celebrations" reported by two hundred and thirty six (82 percent) of the students. "Community workers" ranked fourteenth, identified by two hundred and seven (72 percent) of the respondents. The fifteenth was "weaving" indicated by two hundred (69 percent) respondents. This tied with "dieticians". Position seventeen was taken by "dentist" with one hundred and seventy seven (61 percent). Rank eighteen was taken by "food packaging industries" reported by one hundred and seventy two (60 percent). The nineteenth was "displays/exhibitions" indicated by one hundred and sixty (56 percent). Rank twenty was "dyeing" confirmed by one hundred and twenty seven (44 percent). "Pottery work" ranked twenty first with one hundred and sixteen (40 percent) while "textile/clothing industries" had no responses and therefore ranked last. There was no responses to "others".
Table 14
Some Community Resources Found In Embu and Kirinyaga Districts

<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
<th>Number of respondents</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>a Hairdresser/beauticians</td>
<td>276</td>
<td>96</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>b Cooks</td>
<td>272</td>
<td>94</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>c Agricultural shows</td>
<td>270</td>
<td>94</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>d Parties in or related to your school</td>
<td>272</td>
<td>94</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>e Hospitals/health centre</td>
<td>273</td>
<td>94</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>f Dry cleaners/laundry services</td>
<td>258</td>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>g Knitting</td>
<td>258</td>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>h Dress makers/tailors/Dress designers</td>
<td>250</td>
<td>87</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>i Shops/commercial stores</td>
<td>249</td>
<td>86</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>j Youth group projects</td>
<td>243</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>k Medicals doctors</td>
<td>243</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>l Women group projects</td>
<td>240</td>
<td>83</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>m Church celebrations that you attend</td>
<td>236</td>
<td>82</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>n Community workers</td>
<td>207</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>o Weaving baskets, belts and others</td>
<td>200</td>
<td>69</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>p Dietician from the district hospital</td>
<td>200</td>
<td>69</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>q Dentist</td>
<td>177</td>
<td>61</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>r Food packaging industries</td>
<td>172</td>
<td>60</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>s Displays/exhibitions by schools and other people</td>
<td>160</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>t Dyeing materials and others</td>
<td>127</td>
<td>44</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>u Pottery work</td>
<td>116</td>
<td>40</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>v Textile or clothing industries</td>
<td>0</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>w Others</td>
<td>0</td>
<td>0</td>
<td>22</td>
</tr>
</tbody>
</table>
A close examination of data on table 14 shows that the form two students are very conversant with community resources found in their school district. This is evident in that nineteen out of the twenty three local resources listed had well above 50 percent responses each. Out of the remaining four, only two did not have a response.

**Use of Community Resource by Home Science Teachers**

Research question 4: To what extent are community resources being utilized by Home Science teachers during their lessons? One hundred and fifty six (51 percent) students agreed that "it was true" that their teachers did not make effective and adequate use of community resources. Forty eight (17 percent) reported that "it was not true" and eighty two (28 percent) felt that their teachers "sometimes" used community resources.

Items eight, nine and ten required students to identify any resources (from given lists) that they used during their Home Sciences lessons. As table 15 below shows, the resource item that was used by the highest number was "rags from old blankets or sheets" reported by one hundred and sixty seven (58 percent). "Dusters from old pieces of cloth" ranked second, with one hundred and
### Table 15
The Extent To Which Resource Items Were Utilized

<table>
<thead>
<tr>
<th>Item</th>
<th>Responses</th>
<th>Number of responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 a</td>
<td>Rags from old blankets, sheets towels etc.</td>
<td>167</td>
<td>58</td>
<td>1</td>
</tr>
<tr>
<td>b</td>
<td>Dusters from old pieces of cloth</td>
<td>165</td>
<td>57</td>
<td>2</td>
</tr>
<tr>
<td>c</td>
<td>Brooms made from twigs or grass etc</td>
<td>147</td>
<td>51</td>
<td>3</td>
</tr>
<tr>
<td>d</td>
<td>Homemade jikos</td>
<td>91</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>e</td>
<td>Ground charcoal as an abrasive</td>
<td>59</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>f</td>
<td>Scrubbing brushes made of hard shrubs or maize cobs etc.</td>
<td>50</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>g</td>
<td>Toilet brushes from small branches of cedar tree etc.</td>
<td>44</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>h</td>
<td>Three stones with firewood</td>
<td>41</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>i</td>
<td>Bottle brushes from sisal fibre etc.</td>
<td>40</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>j</td>
<td>Sieved ash and sand as an abrasive</td>
<td>34</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>k</td>
<td>Graters made from empty tins</td>
<td>32</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>l</td>
<td>Calabashes</td>
<td>17</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>m</td>
<td>Some types of leaves as abrasives</td>
<td>15</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>n</td>
<td>Icing bags made from polythene paper</td>
<td>6</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>o</td>
<td>Empty bottles as rolling pins</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>p</td>
<td>Homemade ovens</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>q</td>
<td>Charcoal coolers</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>r</td>
<td>Homemade meat safe</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>
sixty five (57 percent) respondents. The third was "brooms made from twigs or grass" reported by one hundred and forty seven (51 percent) students. Fourth was "homemade jikos" confirmed by ninety one (32 percent) respondents. "Ground charcoal" ranked fifth with fifty nine (20 percent) respondents. The sixth was "scrubbing brushes made from hard shrubs, maize cobs etc" reported by fifty (18 percent) students, "Toilet brushes" from branches of cedar tree or other suitable trees was seventh, with forty four (15 percent) respondents. The eighth position was taken by "open fire with three stones" reported by forty one (14 percent) of the respondents. "Bottle brushes from sisal fiber or other suitable materials" was ranking nineth with forty (13 percent) of the students. The tenth position was taken by "sieved ashes for sand as abrasives" indicated by thirty four (12 percent) of the respondents. Rank eleven was taken by "graters from empty tins" confirmed to have been used by thirty two (11 percent). "Calabashes" ranked twelfth with seventeen (6 percent) students. Rank thirteen was taken by "some types of leaves as abrasives" confirmed by fifteen (5 percent). Fourteenth was "icing bags from polythene paper", indicated by six (2 percent) respondents. No student indicated that they used any of the following; "home-made meat safe", "charcoal cooker", or "made ovens", these ranked fifteenth. There was no response to "others". The
results seem to indicate poor use of items found in the community. Only three items out of eighteen had responses above 50 percent. All the other items were identified by less than 33 percent of the students and four out of these were never used.

Item ten was a list of Resource Persons who could either be invited to school or visited for learning purposes. Respondents were required to identify any of them that they visited or was invited during their Home Science lessons. As Table 16 illustrates, 'Resource persons were also inadequately used. The resource person that was confirmed to be first was "hairstylist/beautician" identified by ninety respondents (31 percent). The second was "medical doctor" reported by eighty four (29 percent). The third was "cook" identified by seventy four (26 percent). The fourth was "house constructor" reported by fifty eight (20 percent). The fifth in rank was "Shopkeeper" reported by fifty (17 percent). The sixth was "first aider" identified by forty three (15 percent) respondents. The seventh was "house designer" reported by forty one (14 percent) and the eighth was "dressmaker" indicated by thirty six (13 percent). "Architect" ranked nineth with nine (3 percent). The tenth position was a tie of "dietician" and "housewife" which had seven (2 percent) each. Position twelve was taken by "dentist" with three
(1 percent). There was no response to others.

<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
<th>Number of Respondents</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>a Hairdressers and beauticians</td>
<td>90</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>b Medical doctor</td>
<td>84</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>c Cook</td>
<td>74</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>d House constructors</td>
<td>58</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>e Shopkeeper</td>
<td>50</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>f First aider</td>
<td>43</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>g House designers</td>
<td>40</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>h Dressmakers or designers</td>
<td>36</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>i Architects</td>
<td>9</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>j Dietician</td>
<td>7</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>k Housewife</td>
<td>7</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>l Dentist</td>
<td>3</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>

The resource person identified by the highest number was "hairdressers/beauticians" but this was only by ninety (31 percent). On the whole, all resource people listed were identified by less than 31 percent of the students.
Places and activities of educational value were also poorly utilized. As illustrated on table 17, "agricultural shows" ranked first with one hundred and forty (49 percent). The second was "homes around the school" reported by one hundred (35 percent). Third was "exhibitions" identified by fifty one (18 percent). The fourth position was "shopping centre" identified by thirty (10 percent). Fifth in rank was "textile/clothing industry" confirmed by twenty (7 percent). Sixth in position was "hospital/health centre" reported by twelve (4 percent). Rank seven was

Table 17
The Extent to Which Places of Educational Value Were Utilized

<table>
<thead>
<tr>
<th>Item</th>
<th>Response</th>
<th>Number of Responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>a. Agricultural show</td>
<td>140</td>
<td>49</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>b. Homes around the school</td>
<td>100</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>c. Exhibitions</td>
<td>51</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>d. Shopping centre</td>
<td>30</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>e. Textile firms</td>
<td>20</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>f. Hospital</td>
<td>12</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>g. Child welfare unit</td>
<td>10</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>h. Dry cleaner or laundry services</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>i. Bakery</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>
taken by "child welfare clinic" indicated by ten (3 percent). None of the respondents reported to have used "bakery" or "dry cleaners".

Places and activities of educational value were also poorly used during Home Science lessons. The place visited by the highest number was "agricultural shows" but by only one hundred and forty (49 percent). All the other places listed were visited by less than one hundred (35 percent) of the students. Two out of these were not visited by any students at all.

Item twelve required the respondents to indicate how often they used each of the methods provided during their Home Science lessons. Practical activities like cleaning drainages in the neighbourhood were "regularly" used by eighteen (6 percent). Eighty four (29 percent) reported to have had these activities "occasionally" and one hundred and eighty six (65 percent) "never" had them. Using written materials like magazines and newspapers was "regularly" done by thirty four (12 percent) of the respondents. Seventy seven (27 percent) said they "occasionally" used these materials and one hundred and seventy seven (61 percent) "never" used them. Making and using items out of the local materials like scouring powder from ashes was "regularly" done by sixty (22 percent). One hundred
and seventy five (60 percent) made such items "occasionally" and fifty three (18 percent) "never" used them. Field trips were "regularly" taken by twelve (4 percent), "occasionally" by twenty five (9 percent) and two hundred and fifty one (87 percent) "never" went on a field trip. See Table 18 below.

Table 18
The Extent to Which Various Methods of Utilizing Community Resources Were Used

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Responses</th>
<th>Regularly</th>
<th>Occasionally</th>
<th>Never</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 a Practical activities like cleaning drainage in the neighbourhood</td>
<td>18(6%)</td>
<td>84(29%)</td>
<td>186(65%)</td>
<td></td>
<td>288</td>
</tr>
<tr>
<td>b Use of other written materials like magazines and newspapers</td>
<td>34(12%)</td>
<td>77(27%)</td>
<td>177(61%)</td>
<td></td>
<td>288</td>
</tr>
<tr>
<td>c Making and using items out of local materials like scouring powder from ashes mixed with omo</td>
<td>60(22%)</td>
<td>175(60%)</td>
<td>53(18%)</td>
<td></td>
<td>288</td>
</tr>
<tr>
<td>d Field Trips</td>
<td>12(4%)</td>
<td>25(9%)</td>
<td>251(87%)</td>
<td></td>
<td>288</td>
</tr>
</tbody>
</table>
The results above indicate that field trips were poorly used, this was confirmed by 87 percent of the students. Practical activities and other written materials like magazines were also never used, and this was agreed upon by 65 percent and 61 percent respectively. However 60 percent of the respondents confirmed that they made items out of local materials occasionally. The findings reveal that the various possible methods that can be applied in using of community resources were not adequately utilized.

Opinions, Observations or Comments

On Use of Community Resources

In Home Science

Item thirteen was open ended to give respondents a chance to 'air' their views. These responses were listed and their frequencies obtained as shown below:–

1. Our teachers are lazy 3
2. Better trained teachers are needed 22
3. Community Resources are very important but rarely used 46

4.4. REPORT ON RESPONSES OF HEAD TEACHERS

Background Information

The purpose of the head item of the questionnaire was to help determine background information about the respondents. This was to ensure that they had the
data being looked for.

Of the twenty four headteachers, thirteen (54 percent) were male and eleven (46 percent) were female. Thirteen of the headteachers (54 percent) were from Kirinyaga district and eleven (46 percent) from Embu district.

Availability of Teaching/Learning Materials

Research question 1: Are there enough teaching/learning materials in secondary schools for Home Science?

None of the respondents reported to have "all the teaching/learning materials". Six (25 percent) indicated that they had "most of the teaching/learning materials". The majority, eighteen (75 percent) indicated that they had "a few of the teaching/learning materials". None reported to have "no teaching/learning materials".

According to the report of the majority of head teachers, secondary schools have only a few of the teaching/learning materials.

Knowledge of the Community

Research question 2: How conversant are Home Science teachers with community resources in their school district? Item three on the questionnaire asked the respondents to identify some of the resources that are found in their school district. Nineteen
(80 percent) felt that the community was "rich and full of activities and people in the field of Home Science". Five (20 percent) were of the opinion that the community "has a few activities and people in the field of Home Science". None of the respondents admitted that the community is "very poor with nothing to be noticed".

The majority of the headteachers therefore looked at the local community as very resourceful for Home Science lessons.

The fourth item required the respondents to identify (from a given list of resources) some of the resources that were easily found in their district. The resources that ranked first were; "community workers", "Commercial stores/shops", "women group projects", "agricultural shows", and "church celebrations". These were reported by twenty four (100 percent) of the respondents. In the sixth position were; "dry cleaners/laundry services" and "displays/exhibitions" indicated by twenty three (96 percent) respondents. The eighth rank was also a tie of "dressmakers/dress designers" and "medical doctors" reported by twenty two (91 percent). The tenth were, "hospital/health centres" and "weaving" confirmed by twenty one (88 percent). In the twelfth position were, "cooks", "dentist" and "knitting" reported by twenty (83 percent). The fifteenth was "hairdressers/beauticians" indicated by eighteen (75 percent).
Table 19
Some Resources Found In Embu and Kirinyaga Districts

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Agricultural shows</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>b</td>
<td>Community workers</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>c</td>
<td>Commercial store/shops</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>d</td>
<td>Women group projects</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>e</td>
<td>Church celebrations</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>f</td>
<td>Dry cleaners/laundry services</td>
<td>23</td>
<td>96</td>
</tr>
<tr>
<td>g</td>
<td>Displays/Exhibitions</td>
<td>23</td>
<td>96</td>
</tr>
<tr>
<td>h</td>
<td>Medical doctors</td>
<td>22</td>
<td>91</td>
</tr>
<tr>
<td>i</td>
<td>Dressmakers/Designers</td>
<td>22</td>
<td>91</td>
</tr>
<tr>
<td>j</td>
<td>Hospitals/health centres</td>
<td>21</td>
<td>88</td>
</tr>
<tr>
<td>k</td>
<td>Weaving e.g baskets</td>
<td>21</td>
<td>88</td>
</tr>
<tr>
<td>l</td>
<td>Cooks</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td>m</td>
<td>Knitting</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td>n</td>
<td>Dentist</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td>o</td>
<td>Hairdresser/beautician</td>
<td>18</td>
<td>75</td>
</tr>
<tr>
<td>p</td>
<td>Pottery work</td>
<td>13</td>
<td>54</td>
</tr>
<tr>
<td>q</td>
<td>Parties</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>r</td>
<td>Dieticians</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>s</td>
<td>Youth group projects</td>
<td>10</td>
<td>42</td>
</tr>
<tr>
<td>t</td>
<td>Dyeing materials</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>u</td>
<td>Textile/clothing industries</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>v</td>
<td>Food packaging industries</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>w</td>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The seventeenth was "parties related to the school" confirmed by twelve (50 percent) students. Also in this position was "dieticians". "Youth group projects" ranked nineteenth with ten (42 percent) students. Twentieth was "dyeing materials" identified by eight (33 percent) students. "Textile/clothing industries" ranked twenty first with only two (8 percent) students. None of the respondents identified "food packaging industries". This ranked twenty second. There was no response to "others" (see Table 19 above).

The responses of headteachers as illustrated on Table 19 show that the respondents were well conversant with the resources found in their school district. Eight out of the twenty-three resources listed were identified by over 50 percent of the headteachers.

_Headteachers' Perception on The Methods of Making Learning Experiences More Relevant_

Research question 3: What is the role of community resources in Home Science? Item five asked the respondents to give opinions on how learning experiences can be made more relevant. The respondents were required to rank the options given in order of importance. Twenty two (92 percent) were of the opinion that learning experiences can be made more relevant by "providing first hand information by letting students interact freely with
"Teaching students in order to pass their examinations" ranked second with twenty (83 percent). Fourteen (58 percent) believed that "using materials recommended by Kenya Institute of Education" can make learning experiences more relevant. Minority, thirteen (54 percent) expressed the idea that "giving students theoretical knowledge which they will apply later in life" can be a way of making learning experiences more relevant (see Table 20 below)

**Table 20**

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of responses</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. a Providing firsthand information by letting them interact freely with the local environment</td>
<td>22</td>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td>b Teaching them in order to pass examinations</td>
<td>20</td>
<td>83</td>
<td>2</td>
</tr>
<tr>
<td>c Using materials recommended by the Kenya Institute of Education</td>
<td>14</td>
<td>58</td>
<td>3</td>
</tr>
<tr>
<td>d By giving students theoretical knowledge which they will apply later in life</td>
<td>13</td>
<td>54</td>
<td>4</td>
</tr>
</tbody>
</table>
As the majority of the headteachers agreed, providing firsthand information by letting students interact freely with the local environment can make learning experiences more relevant, purposeful and challenging. This was supported by twenty two (92 percent) of the headteachers.

Respondents were further asked to indicate "some of the advantages of using community resources in Home Science". Two (8 percent) saw the advantage of using community resources as only to "minimize the problem of shortage of educational materials like cookers and brooms." Three (13 percent) were of the opinion that these resources "can encourage better methods of teaching/learning by making Home Science lessons less theoretical and more practical". "Adapting the syllabus to suit the needs and interests of students" was considered an advantage by six (25 percent). However the majority, thirteen (54 percent) agreed that the above three are all advantages of using community resources (See Table 21 below).

The findings revealed that, other advantages of using community resources besides making learning experiences more relevant are: minimizing the problem of shortage of educational materials, encouraging better methods of teaching/learning and helping to adapt the syllabus to suit the needs and interest of students. This was agreed
on by the majority of the headteachers (54 percent)

Table 21

Advantages of Using Community Resources in Home Science

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of response</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 a</td>
<td>Minimize the problem of shortage of educational materials e.g. cookers, first aid kits, brooms etc.</td>
<td>2</td>
</tr>
<tr>
<td>b</td>
<td>Can encourage better methods of teaching/learning by making Home Science lessons less theoretical and more practical</td>
<td>3</td>
</tr>
<tr>
<td>c</td>
<td>Can help in adapting the syllabus to suit the needs and interests of students</td>
<td>6</td>
</tr>
<tr>
<td>d</td>
<td>All of the above</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>24*</td>
</tr>
</tbody>
</table>

Problems Encountered by Teachers in Utilizing Community Resources

Research Question 5: What are the chief constraints encountered by Home Science teachers in utilizing community resources? Item seven asked for their reaction
to this statement, "Home Science teachers in your school do not make adequate and effective use of local resources in the community during their lessons". It was agreed by eleven (46 percent) headteachers that it was true that Home Science teachers in their school did not use community resources. Three headteachers (13 percent) reported that it was not true and ten of them (42 percent) said that Home Science teachers sometimes used community resources.

Item eight required respondents to give specific reasons as to why their Home Science teachers did not utilize community resources. As table 22 below shows, none agreed that "the community had no resources that could be used in Home Science". Twenty headteachers (83 percent) reported the reason to be that "they had to cover the work for the term or year as laid down in the syllabus". Two (8 percent) of them gave the reason that "students were not interested in the community resources". Six headteachers (25 percent) argued that "parents did not like seeing students outside the school". None admitted that "it interfered with the work and responsibilities of the members of the community". Ten (42 percent) headteachers reported that "it disrupted the timetable and other functions of the school". Twelve (50 percent) of them gave the reason as being that "it required a teacher with more knowledge and experience". Eight (33 percent) agreed that "there was a problem of transportation and other expenses needed for a trip or other
Table 22
Reason For Inadequate Utilization of Community Resources By Home Science Teachers

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Number of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>a The community has no resources that can be used in Home Science</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>b They have to cover the work for the term or year as laid down in the syllabus</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>c Students are not interested in them</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>d Parents do not like seeing students of our school outside the school</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>e It interferes with the work and responsibilities of members of the community</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>f Disrupts the timetables and other functions of the school</td>
<td>10</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>g It requires a teacher with more knowledge and experience</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>h There is a problem of transportation and other expenses for a trip or other activities</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>i It is risky to take students out or to bring strangers in school</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>j Requires more time for planning</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
expenses needed for a trip or other activities". None felt that "it was risky to take students out or to bring strangers to school". There was also no response to "it required more time for planning".

On the basis of the responses of majority of the headteachers, one conclusion was made: that the reason for inadequate utilization of local resources by Home Science teachers was that they could not cover the assigned syllabus if they gave attention to experiences involving local resources not suggested in the syllabus. This was expressed by 83 percent of the respondents.

Additional Opinions, Observations or Comments On Use of Community Resources in Home Science

The last item on the questionnaire gave respondents the liberty to express themselves freely without being restricted in their responses. These responses were recorded and their frequencies obtained. The results were as shown below:

1. The learning experiences offered to students should be based on what is readily available in the environment 4
2. Community resources are very important because facilities for Home Science were very expensive 10
3. Teachers should have more in-service
4.5 **ANALYSIS OF OBSERVATION SCHEDULE AND CHECKLIST**

According to data collected through the observation schedule, as illustrated on Table 23, the resource material used in most schools was "abrasives" identified by twenty four (100 percent) of the schools. Second in rank was "rags" found in twenty three (96 percent) schools. "Brooms" ranked third found in twenty two (91 percent) schools. This was followed by "dustbins" identified in eighteen (75 percent) schools. "Scrubbing brushes" took the fifth rank, found in ten (42 percent) schools. Also in this position was "rolling pins" found in ten (42 percent) schools. The seventh was "icing bags", in eight (33 percent) schools. The eighth in rank was "toilet brushes" found in seven (29 percent) schools, "dusters" took the ninth rank with six (25 percent) schools. In the tenth position was a tie of "graters" and "ovens" identified in two (8 percent) schools. Ranking twelfth and, with no response, were "charcoal coolers", "meat safe" or "others".
Table 23
Observation Schedule of Local Items
Used In Secondary Schools During
Home Science Lessons

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Schools that used it</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Abrasives</td>
<td>24</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>b Rags</td>
<td>23</td>
<td>96</td>
<td>2</td>
</tr>
<tr>
<td>c Brooms</td>
<td>22</td>
<td>91</td>
<td>3</td>
</tr>
<tr>
<td>d Dustbins</td>
<td>18</td>
<td>75</td>
<td>4</td>
</tr>
<tr>
<td>e Scrubbing brushes</td>
<td>10</td>
<td>42</td>
<td>5</td>
</tr>
<tr>
<td>f Rolling pins</td>
<td>10</td>
<td>42</td>
<td>5</td>
</tr>
<tr>
<td>g Icing bags</td>
<td>8</td>
<td>33</td>
<td>7</td>
</tr>
<tr>
<td>h Toilet brushes</td>
<td>7</td>
<td>29</td>
<td>8</td>
</tr>
<tr>
<td>i Dusters</td>
<td>6</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>j Graters</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>k Ovens</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>l Charcoal coolers</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>m Meat safe</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

On the basis of the results of the observation schedule as shown above, it can be concluded that the use of local resources in secondary schools was below average. The only four resources that scored above 50 percent were abrasives, rags, brooms and dustbins. The rest, nine items scored below 45 percent. It seems that only 38 percent of the resources were used and 62 percent of them poorly used.
After going through teachers' lesson plans, schemes of work and record of work books, the findings revealed that resource persons and places/activities of educational value were poorly utilized. The most utilized activity was "agricultural shows" confirmed in twenty (83 percent) of the schools. The second was "cooks" in fifteen (62 percent) schools. The third was "exhibitions" in thirteen (55 percent) schools. Fourth in rank was "shopkeeper" found to have been visited in eleven (54 percent) schools. Fifth was "medical doctor" in twelve (50 percent) schools. In position six was a tie of "first aider" and "homes around the school" identified in eight (33 percent) of the schools. Eighth in rank was also a tie of "dressmaker" and "shopping centre" in six (25 percent) of the schools. Position ten had a tie of "hairdressers" and "hospital" used in four (16 percent) of the schools. "Child welfare unit" ranked twelfth with twelve (12 percent) responses. Position thirteen was taken by "housewife", "house constructor" and "house designer" identified by two (8 percent) of the schools each. None of the schools seemed to have used "dietician", "bakery" "textile firm", or "dry cleaner/laundry services". These ranked sixteenth in position. (See Table 24 below).
Table 24
A Checklist of Resource People and Places/Activities Used During Home Science Lessons

<table>
<thead>
<tr>
<th>Resource Person or Place/Activity</th>
<th>Number of Schools that used a resource</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Shows</td>
<td>20</td>
<td>83</td>
<td>1</td>
</tr>
<tr>
<td>Cook</td>
<td>15</td>
<td>62</td>
<td>2</td>
</tr>
<tr>
<td>Exhibition</td>
<td>13</td>
<td>55</td>
<td>3</td>
</tr>
<tr>
<td>Shopkeeper</td>
<td>11</td>
<td>54</td>
<td>4</td>
</tr>
<tr>
<td>Medical doctor</td>
<td>12</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>First aider</td>
<td>8</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>Homes around the school</td>
<td>8</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>Dressmaker</td>
<td>6</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Shopping Centre</td>
<td>6</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Hairdressers</td>
<td>4</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Hospital</td>
<td>4</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Child welfare unit</td>
<td>3</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Housewife</td>
<td>2</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>House constructor</td>
<td>2</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>House designer</td>
<td>2</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Dietician</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Bakery</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Textile firm</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Dry cleaner/laundry Service</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>
Comparisons were made of items which were common to Home Science teachers, headteachers and students. Items used for comparison dealt with assessment of existing situations, and opinions on common experiences.

In each comparison, the highest and the lowest number of responses to a certain item (including their percentages) were indicated. Since it was found difficult and inconvenient to present these comparisons in tabular form, descriptive explanations are used. The researchers' reactions to conflicting response outcomes were delayed until the next chapter (in the conclusion and recommendations).

The following were the items used for comparison:
First, the items used to compare the responses of the three groups were: availability of teaching/learning materials; knowledge of the community; and were adequate use of community resources made by Home Science teachers?

Secondly, items used to compare responses of teachers and headteachers were: perception on the methods of making learning experiences more relevant; advantages of using community resources in Home Science; problems encountered by Home Science teachers in utilizing community resources.
The item used to compare responses of teachers and students was: evaluation of the extent to which teachers have utilized community resources in Home Science.

On the "availability of teaching/learning materials," there was a consensus of responses by the three groups. With the highest number of responses was that they had "few of the teaching/learning materials" indicated by twenty two (55 percent) of the teachers, eighteen (75 percent) of the headteachers and one hundred sixty eight (58 percent) of the students. Having "all the instructional materials" had the lowest number of responses with no response from teachers and headteachers and nineteen (7 percent) responses from the students.

On "knowledge of the community" the responses of teachers differ from those of headteachers and students who agreed that the community was "rich and full of activities and people in the field of Home Science" indicated by nineteen (80 percent) headteachers and one hundred and sixty three (57 percent) students. Teachers however felt that the community had "few of the activities and people in the field of Home Science". This was indicated by twenty four (60 percent) teachers. The community being "very poor with nothing to be noticed" had the lowest responses from all the three groups. This was expressed by four (10 percent) teachers, none of the headteachers and forty two (14
percent) students. Examination of their awareness of some specific community resources found in their districts revealed a diversity of responses from all the three groups. The majority of the teachers, forty (10 percent) identified "hospital/health centre", while majority of the headteachers identified "community workers", "dry cleaners/laundry services", "commercial stores/shops", "youth group projects" and "exhibitions by schools or other groups". These were identified by twenty four (100 percent) headteachers. Majority of the students, two hundred and seventy six (96 percent) identified "beauticians/hairdressers". However the three groups seemed to agree that their district did not have "textile or clothing industry", this was identified by none of the teachers, headteachers or students. "Food packaging" industries was also not identified by any of the teachers or headteachers thus the two resources ranked last.

Were adequate use of community resources made by Home Science teachers? There was a consensus between teachers, headteachers and students who agreed that "it was true" that they did not make adequate and effective use of community resources. This was expressed by the majority, twenty two (55 percent) teachers, one hundred and fifty six (51 percent) students and eleven (46 percent) headteachers. Lowest in responses from both teachers and students was that "it was not true" with six (15 percent) teachers and forty eight
(17 percent) students but the headteachers' lowest responses were on "she sometimes used them" by three (13 percent).

Assessed on their "perceptions on the methods of making learning experiences more relevant", teachers and headteachers reached a consensus. Majority, thirty six (90 percent) teachers and twenty two (92 percent) headteachers felt that learning experiences could be made more relevant by "providing firsthand information by letting students interact freely with the local environment. Minority of both, twenty six (65 percent) teachers and thirteen (44 percent) headteachers, responded to "giving students theoretical knowledge which they could apply later in life". On advantages of using community resources, the highest response by both teachers and headteachers was: twenty eight (70 percent) teachers and thirteen (54 percent) headteachers who believed the advantages as being "minimizing the shortage of educational materials", "encouraging better methods of teaching and learning," and "helping in adapting the syllabus to suit the needs and interests of students". The lowest response by teachers was: three (8 percent) who felt that the only advantage can be, either to "encourage better methods of teaching/learning" or to "help adapting the syllabus to suit the needs and interests of learners. The lowest response by headteachers was two (8 percent) who
believed that the only advantage could be "to minimize the problem of shortage of educational materials".

Reasons for inadequate utilization of community resources differed in responses from headteachers and teachers. Majority of the teachers, twenty two (55 percent) gave the reasons as being "there is a problem of transportation and other expenses for a trip or other activities", and "it required more time for planning".

The lowest responses of teachers (0 percent) were "it required a teacher with more knowledge and experience", and "it was risky to take students out or to bring strangers to school". The responses of teachers were in conflict with those of headteachers. The highest number of responses of headteachers were that they had to cover the work for the term or year as laid down in the syllabus. None of the headteachers felt that "the community has no resources," or "it interfered with the work and responsibilities of community members", or "it was risky to take students out or bring strangers to school" or "requires more time for planning" as reason for Home Science teachers not using community resources.

Responses to determine the extent to which community resources were utilized by Home Science teachers differed widely between teachers and students. While the highest response for teachers was on "brooms made from
twigs or grass" and "rags from old blankets, sheets or
towels" as items used in Home Science lessons, the highest
response for students was on "rags made from old blankets,
sheets or towels". These responses were: twenty six
(65 percent) teachers, and one hundred and sixty five
(58 percent) students. None of the teachers declared to
have used "homemade meat safe", "homemade ovens", or
a "charcoal cooler". None of the students confirmed having
used "empty bottles as rolling pins", "homemade meat
safe", "homemade ovens", or "charcoal coolers". The
resource persons used by most of the teachers and students
differed in scores. Majority of the teachers, eight
(25 percent) stated to have used "house designers" while
majority of the students declared to have used
"hairdressers/beauticians". The two groups also differed
on resource persons that were least used. None of the
teachers seemed to have used, "hairdressers/beauticians"
"dietician", "housewife", "architect", "shop keeper"
or "cooks". The lowest response of students, three
(1 percent) was on "dentist". The highest responses for
teachers and students on places visited was "agricultural
shows" identified by twelve (30 percent) teachers and one
hundred and forty (49 percent) students. These responses
revealed a consensus. The places used by none of the
teachers were "bakery", textile/clothing industries" and "dry,
cleaner/laundry services". None of the students stated to
have visited "bakery", or "dry cleaner/laundry services".

The item "methods that can be used in utilizing community resources" revealed diversity in responses, except the first method. "Practical activities like cleaning drainage in the neighbourhood" was "never" used. This had the highest number of respondents from both groups, that is twenty eight (70 percent) teachers and one hundred and eighty six (65 percent) students. The lowest scores from both groups were that this method was "regularly" used by one (3 percent) teacher and eighteen (6 percent) students. On "use of other written materials like magazines and newspapers", the highest score for teachers was "occasionally" by twenty six (65 percent) and lowest score by teachers was "regularly" by four (10 percent). On the same method, the highest number of students, one hundred seventy seven (61 percent) stated "never" and the lowest scores by students, nineteen (7 percent) stated that they "regularly" used this method. The third method "making and using items out of local materials" also differed in responses of both groups. The highest number of teachers, seventeen (43 percent) stated to have used it "occasionally" and the minority, four (10 percent) of them used it "regularly". While majority of the students, one hundred and seventy five (60 percent) said to have used this method
"regularly", minority, fifty three (18 percent) said that they "never" went on field trips. A minority, none of the teachers and twelve (4 percent) students declared to have gone on field trips "regularly".

The main objective of the study was to investigate how the schools of form one and two Home Science subjects in the Western districts utilise community resources in the teaching of Home Science. The study involved four schools, two in each district. The study was conducted into five sub-topics. The first five sub-topics were: extent to which resources were used; degree of importance given to resources; type of resources used; and the form in which resources are used. The study declared that the resources were not fully used.

The resources utilised were; local plant and animal species; natural; human; man-made; biological; non-biological; and teachers and students. There are a number of resources that can be utilised in the teaching of Home Science in the Western district. The study declared that the resources in the Western district are not fully used.
CHAPTER 5
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This Chapter summarises the study and presents the conclusions which were drawn from the results of the investigation. Recommendations based on the outcomes of the investigation are provided.

5.1 SUMMARY

The general purpose of the study was to investigate the extent to which teachers of form one and two Home Science in Embu and Kirinyaga districts utilize community resources to provide more relevant education. The study also attempted to identify information, guidelines and methods of utilizing these resources for learning.

Literature review was organised into five sub-topics. These were: importance of community resources; extent to which community resources have been used; problems encountered by teachers in using community resources; situation in Kenya that calls for urgent use of community resources in Home Science; and types of resources that can be used for enrichment of learning experiences in Home Science.

The main concern of the investigation was to determine
existing conditions and present status of the use of community resources in Home Science. As a result, the descriptive survey was chosen as a suitable research design.

The research instruments used were questionnaires for Home Science teachers, headteachers and form two students. In addition, an observation schedule and a checklist were used. The items were organised into: background information; availability of teaching/learning materials; knowledge of the community; importance or role of community resources; evaluation of the extent to which these resources are utilized in Home Science and additional observations comments or opinions. Some modification of items were made as seen to fit the three groups. The research instruments were tried out first. These were further revised and finalized on the basis of information obtained from the pilot study.

The sample of two hundred and eighty eight students was drawn from a population of two thousand, one hundred and eighty four students through simple random sampling. All the Form One and Two Home Science Teachers in Embu and Kirinyaga Districts were selected; this gave a sample of forty teachers. The same procedure was used to get a sample of twenty four headteachers.

In data analysis, tallies, percentages and rank
ordering were used. Both frequency counts and percentage responses were used also for presentation.

5.2 CONCLUSIONS

The investigation was based on three types of questionnaire, observation schedule and a checklist. Even though some different items were included in each of the three questionnaires, many items were common to all. The items both common and different were referred to and relevant conclusions based on the results of the investigation were drawn. All items on the observation schedule and checklist were drawn from the questionnaires.

According to the report, majority of the teachers, headteachers and students reported to have only a few of the teaching/learning materials.

Even though the majority of students and headteachers looked at their community as being very resourceful, full of activities, people and items that could be used in Home Science, the Home Science teachers felt that the community had only a few of these resources.

All the three groups seemed to be well conversant with the resources found in their school district. This was confirmed because except for food packaging industries and textile/clothing industries, all the other resources had
responses from the teachers, students and headteachers.

The teachers and headteachers showed a departure from the traditional educational method and approaches in their opinion on "methods of making learning experiences more relevant". They indicated that "by providing first hand information by letting students interact freely with the local environment" could make learning more relevant, purposeful and challenging.

The majority of the respondents agreed that besides making learning experiences more relevant, they also help to: minimize the shortage of educational materials; encourage better methods of teaching and learning; and also help in adapting the syllabus to suit the needs and interests of students.

Even though the majority of teachers and students admitted not to have made adequate use of community resources, the headteachers (majority) indicated that their Home Science teachers sometimes used community resources. Teachers and students responses as to what resources they used revealed some, though quite inadequate use was made of these resources. This being the most important research question that the study was concerned with, the observation and checklists were used to countercheck the responses of teachers and students. The
results revealed that the kind of resource used more is items found in the community. Both resource people and places/activities seemed to have been poorly used because the majority of the percentages were quite low.

According to the responses of teachers and headteachers on the reasons for inadequate use of local resources; two conclusions were made. First, on the basis of the responses given by the majority of teachers there was a problem of transportation and it required more time for planning than scheduled for in their timetables. Second, according to the responses of the majority of headteachers, teachers had to cover the work for the term or year as the syllabus requires. Their general opinion was that the examinations imposed by the education system create a problem. As a result, the headteachers complained of lack of time to cover the assigned syllabus, if attention was given to practical experiences involving the use of resources not suggested in the syllabus.

Respondents' additional recommendations favoured more encouragement of the use of community resources. They also stressed the need for several changes if these encouragements would take effect. Among the changes suggested were: more cooperation from the
headteachers, teachers, Kenya Institute of Education and the Ministry of Education; the curriculum needed to be localised because students had a great degree of diversity in age, needs and environmental background. Teachers needed more training in the use of community resources; more trained teachers were required because the shortage was acute; an effective and practical pre-service and in-serviceing of Home Science teachers was needed.

5.3 RECOMMENDATIONS

On the basis of the data analyzed and the major findings presented in this research, the following recommendations are made to serve as guidelines for further action and research in the area of utilisation of community resources to provide relevant secondary schools Home Science education.

1. An education policy should be formulated and implemented to encourage utilisation of community resources to adapt learning experiences of secondary school Home Science students to their environment.

2. The Kenya Institute of Education should, prepare a Home Science guide to the use of local resources for learning including a survey of resources in each locality.
3. Decentralisation of the curriculum is desirable in Kenya Secondary Schools where each district has its unique environment, resources, problems and life activities.

4. Teacher Advisory Centres, (TACs) should play a leading role in the collection and dissemination of community resources to secondary schools for Home Science lessons. TAC tutors, secondary school supervisors and headteachers should constitute a committee that should guide Home Science teachers in the utilisation of community resources.

5. Teacher training institutions should devote the major part of their programs to training and orientating Home Science teachers to the use of local resources for teaching. They should avail adequate time to helping student teachers to prepare teaching/learning materials from materials that are locally available. The teachers should be encouraged to work with and use specialists and other people in the community as resource people.
6. A nationwide follow-up study to evaluate improved and extended use of local resources and outcomes of the approach should be conducted following orientation, training and workshop experience offered to trainees, teachers, school inspectors and education officers by teacher training institutions.

7. The number of students in a Home Science class should be kept between fifteen and twenty. This is because large enrolments in a class make it practically impossible for one teacher to be of effective use to a student, and conduct individualized class activities or group activities.
BOOKS


ARTICLES AND PERIODICALS


10. Strandley William E, "Who was that stranger I saw in your classroom?" Grade teacher Vol. LXXXV (No. 1 September 1967).


UNPUBLISHED MATERIAL


OTHERS

1. Conference of Ministries of Education, Final Report Declaration 2.4, III (nd)

2. Education Supplement Vol. 2 No. 6-7, January/February, 1985. "8-4-4 full report".


APPENDIX 1

QUESTIONNAIRE FOR FORM ONE AND TWO TEACHERS (1988)

All information provided will be treated confidentially.

Directions

Please do not write your name but you are requested to consider each question very seriously and give the information you are asked for as honestly as possible. Put a tick between the brackets against the most suitable answer(s) you have chosen.

Example

1. My home district is
   (a) Kiambu (✔)
   (b) Meru ( )
   (c) Embu ( )
   (d) Kirinyaga ( )

1 (a) Sex
   (a) Male ( )
   (b) Female ( )

(b) School district
   (a) Kirinyaga ( )
   (b) Embu ( )

(c) Name of school

(d) I am
   (a) University graduate ( )
   (b) Diploma Holder ( )
   (c) Approved teacher status ( )
   (d) S I ( )

(c) Name of school

1. Write these others down ________________________________

2. As a Home Science teacher, I have
(a) All teaching/learning materials
(b) Most of the teaching/learning materials
(c) Little of the teaching/learning materials
(d) None of the teaching/learning materials

3. What do you say of the community?
(a) Rich and full of activities and people in the field of Home Science
(b) Has a few of activities and people in the field of Home Science
(c) Very poor with nothing to be noticed

4. Below you are provided with a list of resources that can enhance your lessons. Identify those that the district has.
(a) Beauticians from Salons/Hairdressers
(b) Dentists
(c) Dress designers/tailors/dressmakers
(d) Community workers
(e) First aiders
(f) Medical doctors
5. A Home Science teacher can make learning experiences more relevant by (more than one answer allowed).
6. Using community resources in your Home Science lessons can.
   (a) Minimize the problem of shortage of educational materials e.g. cookers, first aid kits, brooms etc. ( )
   (b) Can encourage better methods of teaching and learning by making home science lessons less theoretical and more practical ( )
   (c) Can help in adapting the syllabus to suit the needs and interests of students ( )
   (d) All the above. ( )

7. What is your reaction to the following statement? "As a Home Science teacher, you do not make adequate and effective use of resources of the community during your lessons with form One and Two students."
(a) It is true  
(b) It is not true  
(c) Sometimes I use community resources  

8. If your answer to question 7 is either 'A' or 'C' or both, Why is it that you did not use these resources. (More than one answer is allowed)  
(a) The community has no resources that I can use in Home Science  
(b) We have to cover the work for the term or year as laid down in the syllabus  
(c) Students are not interested in them  
(d) Parents do not like seeing students of our school outside the school  
(e) It interferes with the work and responsibilities of members of the community  
(f) Disrupts the timetables and other functions of the school  
(g) It requires a teacher with more knowledge and experience  
(h) There is a problem of transportation and other expenses for a trip or other activities.
i) It is risky to take students out or to bring strangers in school ( )

j) Requires more time for planning ( )

9. You are provided with a list of some resources that can be effectively used in Home Science. Please put a tick against any that you have used during Home Science lessons.

(a) Brooms made from twigs or grass etc. ( )

(b) Scrubbing brushes made of hard shrubs or maize cobs etc. ( )

(c) Toilet brushes from small branches of cedar tree etc. ( )

(d) Bottle brushes from, sisal fibre etc. ( )

(e) Dusters from old pieces of cloth ( )

(f) Rags from old blankets, sheets, towels etc. ( )

(g) Sieved ash and sand as an abrasive ( )

(h) Ground charcoal as an abrasive ( )

(i) Some types of leaves as abrasive ( )

(j) Icing bags made from polythene paper ( )

(k) Empty bottles as rolling pins ( )

(l) Calabashes ( )

(m) Home made meat safe ( )

(n) Graters made from empty tins ( )

(o) Homemade jikos ( )
10. Indicate with a tick any resource person used from the list below, either by visiting him/her or inviting him/her to school.

(a) Hairdresser/beautician
(b) Medical doctor
(c) Dietician
(d) First aider
(e) Housewife
(f) Dentist
(g) Dressmakers or designers
(h) Architects
(i) House constructors
(j) Shopkeeper
(k) House designers
(l) Cook
(m) Others; please specify
11. What places did you ever take your form one or two students to, as Home Science trip?

(a) Bakery
(b) Textile/Clothing industry
(c) Dry cleaners/laundry services
(d) Hospital/health centres
(e) Child welfare clinic
(f) Shopping centre
(g) Homes around the school
(h) Agricultural shows
(i) Exhibition/displays
(j) Others

Please write down these others

_________________________________________________________________
_________________________________________________________________

12. How often do you and your form two students make use of the following:-
### Table: Use of Community Resources

<table>
<thead>
<tr>
<th>Practical activities like cleaning drainage in the neighbourhood</th>
<th>Regularly</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of other written materials like magazines and newspapers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making and using items out of local materials like scouring powder from ashes mixed with omo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field trips</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Is there any opinion, observation or comment you would like to share with the researcher on use of community resources in Home Science?

[Blank lines for comments]
All information provided will be treated confidentially.

Directions

Please do not write your name but you are requested to consider each question very seriously and give the information you are asked for as honestly as possible. Put a tick between the brackets against the most suitable answer(s) you have chosen.

Example:

(i) My home district is

   (a) Kiambu (✓)
   (b) Meru ( )
   (c) Embu ( )

1. (a) Sex
   (a) Male
   (b) Female

2. Form one and two Home Science teachers have
   (a) All teaching/learning materials ( )
   (b) Most of the teaching/learning materials ( )
   (c) Little of the teaching/learning materials ( )
   (d) None of the teaching/learning materials ( )
3. What do you say of the community?

(a) Rich and full of activities and people in the field of Home Science. ( )

(b) Has few activities and people in the field of Home Science ( )

(c) Very poor with nothing to be noticed ( )

4. Below you are provided with a list of resources that can enhance Home Science lessons. Identify those that are available in your school district (more than one answer allowed)

(a) Beauticians/hairdressers ( )

(b) Dentists ( )

(c) Dress designers/tailors/dressmakers ( )

(d) Community workers ( )

(e) Medical doctors ( )

(f) Dieticians ( )

(g) Cooks in institutions ( )

(h) Food packaging/processing industries ( )

(i) Hospital/Health centre ( )

(j) Textile or clothing industries ( )

(k) Dry cleaners/laundry services ( )

(l) Shops/Commercial stores ( )

(m) Women group projects ( )

(n) Youth group Projects ( )

(o) Agricultural shows ( )
(p) Display/exhibition by schools and other people

(q) Church celebrations/service

(r) Parties in or related to the school

(s) Pottery work

(t) Dyeing materials and others

(u) Knitting

(v) Weaving baskets, belts etc

(w) First aider

(x) Others

Please write down these others

5. In your own opinion, how can learning experiences be made more relevant. (More than one answer allowed)

(a) By giving students theoretical knowledge which they will apply later in life

(b) Using only materials recommended by the Kenya Institute of Education

(c) Providing firsthand information by letting them interact freely with the local environment

(d) Teaching them in order to pass examinations

6. Using community resources in Home Science lessons can
(a) Minimize the problem of shortage of educational materials e.g. cookers, first aid kits, brooms etc. ( )

(b) Can encourage better methods of teaching/learning by making Home Science lessons less theoretical and more practical. ( )

(c) Can help in adapting the syllabus to suit the needs and interests of students ( )

(d) All of the above ( )

7. What is your reaction to the following statement? "Home Science teachers in your school do not make adequate and effective use of resources in the community during their lessons".

(a) It is true
(b) It is not true
(c) Sometimes they use them

8. If your answer to question seven is either "A" or "C" or both, why do you think they did not use these resources (more than one answer allowed).

(a) The community has no resources that they can use in Home Science ( )

(b) They have to cover the work for the term or year as the syllabus requires ( )

(c) Students are not interested in the
community resources.

(d) Parents do not like seeing students outside the school.

(e) It interferes with the work and responsibilities of members of the community.

(f) Disrupts the timetables and other functions of the school.

(g) There is problem of transportation and other expenses for a trip or other activities.

(h) It is risky to take students out or bring strangers in school.

(i) Requires more time for planning

13. Is there any opinion observation or comment you would like to share with the researcher on the use of community resources?
APPENDIX 3

QUESTIONNAIRE FORM TWO STUDENTS (1988)

All information provided will be treated confidentially.

Direction

Please do not write your name but you are requested to consider each question very seriously and give the information you are asked for as honestly as possible. Put a tick between the brackets against the most suitable answer(s) you have chosen.

Example

(i) My school district is Kiambu (✓)
   Meru ( )
   Embu ( )
   Kirinyaga ( )

1. a) Sex (a) Male ( )
   (b) Female ( )
   b) I am in form (a) One ( )
   (b) Two ( )
   c) My home district is (a) Embu ( )
      (b) Kirinyaga ( )

2. During your Home Science lessons you have (one answer only)
   (a) All the teaching/learning materials ( )


3. What can you say of your district? (one answer only)

(a) Rich and full of activities and people in the field of Home Science.  
(b) Has a few of activities and people in the field of Home Science.  
(c) Very poor with nothing to be noticed.  

4. Below, you are provided with a list of people and activities that are commonly found in other districts. Tick against any that is found in your district (more than one answer allowed).

(a) Hairdressers/Beauticians from salons  
(b) Dentists  
(c) Dressmakers/tailors/Dress designers  
(d) Community workers  
(e) Medical doctors  
(f) Dietician from a district hospital  
(g) Cooks in institutions  
(h) Food packaging industries like bakeries  
(i) Hospital/health centre  
(j) Textile or clothing industries  
(k) Dry cleaners/laundry services  

(b) Most of the teaching/learning materials  
(c) A few of the teaching/learning materials  
(d) None of the teaching/learning materials
(1) Shops/commercial stores
(m) Women group projects
(n) Youth group projects
(o) Agricultural shows
(p) Displays/exhibitions by schools and other people
(q) Church celebrations that you attend
(r) Parties in or related to your school
(s) Pottery work.
(t) Dyeing materials and others
(u) Knitting
(v) Weaving baskets, belts and others
(w) First aider

Others, Please specify these others

7. React to this statement "your Home Science teacher does not make use of the people, activities and items found in your district."

(a) It is true
(b) It is not true
(c) Sometimes she uses them
8. Below, you are provided with a list of items that can be used in your Home Science lessons. Please tick against all that you and your teacher have used during your lessons.

(a) Brooms made from twigs or grass or any suitable materials from the environment

(b) Scrubbing brushes made from hard shrubs, maize cobs or other materials from the environment.

(c) Toilet brushes from small branches of cedar tree or other suitable trees

(d) Bottle brushes from sisal fiber or other suitable fibers

(e) Rags from old blankets, sheets or towels.

(f) Sieved ash or sand as abrasives

(g) Ground charcoal as abrasives

(h) Some types of leaves as abrasives

(i) Icing bags from polythene paper

(j) Graters from empty tins

(k) Homemade meat safe

(l) Charcoal cooler

(m) Homemade jikos for cooking

(n) Empty bottles as rolling pins

(o) Open fire with firewood

(p) Homemade ovens
(q) Calabashes
(r) Dusters from old pieces of cloth
(s) Others, Please specify ____________________

10. From the list of people provided below, tick against any that you either visited as a class or was invited to your Home Science class:

(a) Hairdresser/beautician
(b) Medical doctor
(c) Dietician
(d) First aider
(e) Housewife
(f) Dentist
(g) Dressmaker/Tailor/Dress designer
(h) Architect
(i) House constructor
(j) House designer
(k) Shopkeeper
(l) Cook
(m) Others

Please write down these others

11. Out of the places listed below, which one did you ever visit as Home Science students.

(a) Bakery
(b) Textile/clothing industry  
(c) Dry cleaners/laundry services  
(d) Hospital/health centres  
(e) Child welfare clinic  
(f) Shopping centre  
(g) Homes around the school  
(h) Agricultural shows  
(i) Exhibition/displays  
(j) Others  

Please write down these others


12. How often does your class and your Home Science teacher make use of the following, 

<table>
<thead>
<tr>
<th>Practical activities like cleaning drainage in the neighbourhood</th>
<th>Regularly</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use other written materials like magazines and newspapers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making and using items out of local materials like scouring powder from ashes mixed with Omo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. Is there any opinion, observation or comment you would like to share with the researcher on use of community resources in Home Science?