DETERMINANTS OF PERFORMANCE IN KENYA CERTIFICATE OF EXAMINATION (K.C.E.) IN RURAL SELF-HELP (HARAMBEE) SECONDARY SCHOOLS: A CASE OF NYANDARUA DISTRICT

BY

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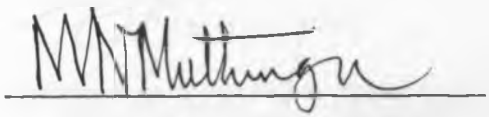
A Thesis submitted in partial fulfilment for the degree of Master of Arts in the University of Nairobi, 1986

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



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This thesis has been submitted for examination with my approval as University supervisor.

DR. EDWARD K. MBURUGU

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A B S T R A C T

This study seeks to understand the determinants of performance in Kenya Certificate of Education (K.C.E.) in rural self-help secondary schools.

The layout is such that we begin by a consideration of the methodology applied and the rationale behind it before attempting a descriptive analysis of data followed by hypotheses testing through multi-variate analysis.

Due consideration has been given to studies that have looked at school achievement. To this end, we have argued that these studies have failed to look at the home-school and achievement continium in explaining school achievement and have looked at them as discrete entities.

Based on this argument, this study attempts to explain KCE performance on the basis of home, pupil and school continium. We have considered several variables on the basis of home background, student background, school backgrund and examination achievement. The gist of the argument is that the home background is instrumental in determining the quality of school which in turn influences school avhievement.

Further analysis of data reveals that family socio-economic variables to be dependent on geographical locales. This in turn determines the quality of schools and ultimately school achievement.

CHAPTER ONE

1. INTRODUCTION

At independence, many Kenyans realised that there were great opportunities open to the educated nationals because the new Nation needed manpower to replace the Colonialists in both private and public sectors. At the same time, there was a general realisation that Secondary School Education was sufficient to place people in salaried employment and this, coupled with the inability of the then existing Government maintained Secondary Schools to absorb all primary school graduates prompted communities to look for alternatives. The main reason behind the felt need was in line with the general realisation that it was through education, and specifically secondary school education, that the youth could become competent competitors in the then available job opportunities of an emerging nation. The alternative most communities resorted to was self-help secondary schools and this way, Harambee (self-help) schools emerged.

The growth of these schools has taken place very rapidly. Keller, (1973:9) has noted that in 1973, it was estimated that more than 520 (approximately 85%) out of 585 of all unaided schools were harambee schools. He further states that the enrolment of the undaided schools increased from 6,954 students in 1963 to 70,146 in 1972. The corresponding figures for aided schools was 23,166 and 91,494 respectively.

Both the enrolment rates in the two catefories implies growth and expansion of educational opportunities. The expansion as Kabiru Kinyanjui (1979) and Rado (1974) has indicated have not been commensurate with creation of employment opportunities created by the economy. The result has been the practice by employers to use examination results as job recruitment devices, favouring those with the best grades. Similar methods are employed by training institutions which offer places to form four graduates.

Performance in harambee schools has been relatively poor compared to Government schools (Keller, (1973:35). This is because of the disadvantages the schools face such as poor teachers, equipment lack of funds and many others as will be seen later when compared to Government maintained schools.

In spite of the above, communities still have faith that education is the only way out for their children and hence, the schools continue to be sustained. This requires heavy financial sacrifices especially among the rural poor. It is this realisation that calls for a study in the area of harambee schools with the expectation that the findings will go some way to making recommendations on how best to improve performance in such schools. By so doing, students from these schools may be in a better position to compete with those from Government schools for the few vacancies that may exist at their level of education.

1.2 STATEMENT OF THE PROBLEM

This study seeks to understand the determinants of K.C.E. performance in harambee schools. Previous research on such schools

has concentrated on factors relating to school quality such as poor teachers, inadequate equipment, finance, low selection grades at the time of enrolment, and poor educational climate found within the schools (Anderson 1969) Keller (1972), Kinyanjui (1972)

The argument is that these schools perform relatively poorly as compared to their Government maintained counterparts because they are disadvantaged along these lines. However, one expects performance to be explained not only from a school quality perspective because some Government schools perform more poorly or just as poorly as harambee schools. Consequently, this study seeks to go a step further by looking at how the home environments and the school environments interplay to determine K.C.E. performance in ' harambee secondary schools. To do this, it is necessary to seek answers to the following questions:-

(i) To what extent does parental and student attitudes towards school and teachers determine performance?

(ii) To what extent do the facilities available in school determine performance?

(iii) How does the children's labour contributions at home relate to academic work in cases where students are day scholars?

(iv) How does the students study environment at home (as reflected through facilities provided by parents) relate to performance?

(v) Is the home-school distance and the associationed time spent on walking to shcool related to performance?

(vi) Has the student's C.P.E. grade any bearing to eventual K.C.E. performance?

(vii) Which of the above factors feature out as critical factors in school performance?

A study of this nature is likely to be more fruitful because it seeks an explanation of the inter-relationship of various factors in determining performance. By so doing, the most important factors are likely to be discovered and hence, recommendations on how best to improve performance can be made.

The focus of this study can therefore be seen as an attempt to answer the question on how best harambee schools can be improved in order to approximate or measure up to the level of K.C.E. performance in Government Schools.

1.3 JUSTIFICATION OF THE STUDY

(i) Research on performance in education have not given due consideration to the home background, School factors, and examination results as a continium. To this end, this study will focus on the home, school and examination result relationships.

(ii) Harambee schools demand sacrifices on the part of communities in terms of funds to sustain them though rewards from these schools are not commensurate with the sacrifices.

(iii) A large number of children in the country enrol in harambee schools especially in rural areas. For example, in Nyandarua District where this study is based, enrollment for 1983 was as shown below

Table 1. Enrolment by Type of School in Nyandarua District

Type of School	Enrolment
1. Government maintained	5,638
2. Assisted Harambee	2,573
3. "Pure" Harambee (non-assisted)	424
4. Private	904
Totals	9,539

Source: Nyandarua District Education Office: Nyahururu.

The issue is here is that with increased population growth and the resultant demands for secondary school places, do these schools have institutional capability to maintain standards that will be able to yield acceptable examination results.

(iv) From a psychological perspective, success in any undertaking raise self-esteem of people and success in harambee schools can be rewarding to both parents (communities) and students. Though not easy to quantity, success of pupils affective growth and institutional and community changes should be seen as steming from community inputs in harambee schools.

(v) At policy level, this study will hopefully come up with recommendations on how best to improve harambee schools which appear to be playing a key role in the education system in Kenya. By identifying areas that facilitate or hinder the learning process in harambee scholls, appropriate programs can be instituted

1.4 OBJECTIVES OF THE STUDY

(i) To identify the factors that determine performance

(ii) To make recommendations on what programmes to be designed to improve the schools. This way, community goals can be met.

(iii) To explain the relationship which exists between the home, the student and the type of examination results obtained.

1.5 REVIEW OF LITERATURE

Education can be divided into two general catefories; formal which takes place in institutions such as schools, colleges, Universities and informal which takes place outside of such institutions. In Kenya, education was of the later type before the Missionaries introduced the former.

The purpose of pre-independence education was to make Africans malleable to colonization and consequently, colonial government directly controlled it, stratifying it on racial basis and giving Africans education that was inferior. The education offered was also incompatible with traditional values and cultural practices and this resulted in Africans struggling for better education which they could control. This saw the emergence of independent schools which have been seen as the first self-help schools to emerge in Kenya, (Keller 1973:9, Shefield 1973:16).

1.5.1 THEIR EMERGENCE: HISTORICAL BACKGROUND

Around 1960, a revival of a Movement almost similar to independent schools, was felt. Parents were determined to provide educational facilities to their children far more than the Government could support. This way, harambee schools emerged Keller 1973:7, Mkangi, 1978:191, Schefield, 1973:10-16.

Communities saw the schools as complementary to Government efforts to provide higher education above the primary level. Government schools were only able to absorb a small percentage - 14% according to Somerset (1974:150). As such harambee schools were seen as alternatives (Gachuhi 1970:69, Keller 1973:7, Schefield, 1973:85-89).

Keller, 1973:6-8 further summarises other reasons behind the emergence of such schools.

(i) A call for harambee or self-reliance in Nation building at independence by the then President Mzee Jomo Kenyatta.

(ii) The then tremendous opportunities for good job placement among the educated elite. With the realisation that the then existing places in Government maintained schools could not accommodate all who sought places and that education was the main factor for one to procure an opportunity parents undertook to equip their children through harambee schools.

(iii) The schools were seen as indicators of community status. Those communities with such schools were seen as developing at a faster rate than those without.

(iv) Politicians found it easy to win support in their constituencies by starting such schools.

The schools were never at any one time incorporated in the national planning exercise and they thus sprang up spontaneously. It should be noted that there has never been a clearcut Government

policy on these schools and that attempts to control their growth has not been successful (Keller, 1973:10-25)

After the brief historical background presented above, we attempt to review existing literature relevant to this study on the basis of topics such as home environment, socio-economic environment, school quality and performance.

1.5.2 FAMILY (HOME) ENVIRONMENT

Studies by Blackemore and Cooksey 1980:85-87; Logan and Logan 1974 and Schefield 1973:1-5 have indicated that the task of educating school children lies not only with the school alone but also should be based on support from the home. The family is seen as the central point from which children received education and formal schooling is only a recent phenomenon.

Parental education levels have been seen as important in determining home environment for shcool attending children. Where parents are well educated, they can teach and assist in home work using the school language (Blackemore and Cooksey, 1980:85-86; Prewitt, 1974:206; and Somerset 1972.

Related to parental educational levels is the argument that educating children should be seen as a two way process (traffic) and both parents and the school should have a part to play (Logan and Logan, 1974). The two state clearly that the crucial ingredient of early education for a child is the parents behaviour for they know best about the child entering school and should indicate

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1. Recently, especially with the introduction of District focus for Rural Development, emergence of new schools is not spontaneous but has to be planned and approved by the sub-D.D.C. Committee which is at an administrative division level.

to the child what the school and the teacher expects of it. Parents, as the two put it, should indicate to the child that the teacher is friendly, supportive and a helpful individual. The two also suggest the need for parents to understand the child's physical, socio-emotional and intellectual needs. However, it is unfortunate that not many parents understand the child's way of learning.

In rural Kenya, most parents are either illiterate or semi-literate. This makes most of them unable to assist their children in school work as their educated counterparts in urban areas and a few in rural areas.

A further illustration on the importance of home environment is presented by Banks (1976) when he cites Talcott Parsons. The argument that the later presents is that although the schools may be seen as the focal socialization agency in industrial societies, it can never take over completely from the family. Parsons argues that

> "The family exerts a profound influence on the response of the child to the school". (Banks 1976:67).

From this contention, Parsons holds that we should attempt to describe the family environment which is most likely to encourage a favourable or non-favourable response to school and academic performance.

Banks further argues that there are many aspects of family life such as child rearing practices, speech, thought patterns, fundamental value orientations which

are difficult to operationalise. These aspects are closely interrelated and problems are encountered when attempts to discover precise ways in which particular family backgrounds operate to produce under or over achievement. He attributes childrens school performance more to parental attitudes than material circumstance and type of school when he argues:

> "More of the variations in childrens' school achievement is specifically accounted for by variations in parental attitudes than variations in material circumstances of parents or by variations in the schools" (P.71).

From the brief overview above, it is apparent that the home environment from which a child comes may go a long way to determine the child's perception of school and his performance. In fact, Prewitt (1974:206) and Somerset (1972) hold that there is a tendency in Kenya for better educated families to ensure that their children attend high cost quality schools. This is contrary to Bank's contention above which does not locate socio-economic varibales as key factors in determining achievement and thus fails to see the importance of placing the family within a socio-economic hierachy in as far as school achievement goes.

Related to the home background is the socio-economic background a student comes from. This aspect is of particular importance in determining performance

and general education of children. A brief review of socio-economic variables relevant to childrens' education is envisaged below.

1.5.3 SOCIO-ECONOMIC ENVIRONMENT

The home environment discussed above may be seen as a function of the socio-economic status of parents. Rich parents have been observed to spend much of their money to create a favourable study atmosphere at home for their children, spend much money towards putting the children in good quality schools, free their children from labour chores and many other advantages conducive to proper learning (Blakemore and Cooksey 1980:85-86, Gachuhi 1970:69-78, Gakuru 1979, Anderson 1969, Banks 1980:66-67, Somerset 1972, Prewitt 1974:204-206, Mkangi 1978).

Banks 1980:67-71, Blackemore and Cooksey 1980:69, Prewitt 1970:206, and Somerset 1972 all seem to suggest that children from good socio-economic backgrounds tend to perform better in school as a result of good parents educational standards, high incomes, their proximity to urban areas where best schools are found, their willingness to help children in school work, giving incentives in terms of presents and their ability to buy supplementary books. All these activities by parents which are a function of socio-economic status, put children from good backgrounds at a better position compared to those from poor socio-economic backgrounds.

Banks 1980:71-75 discusses studies done in the American society where low and middle class schools children are compared in terms of achievement. His discussion points to the advantages the latter have over the former and the subsequent differences in achievement.

Of relevance to this study is the relationship between child labour contributions in the family as it relates to socio-economic status of families and subsequently to school performance.

Labour contributions children make to households have been seen as an indicator of socio-economic environment from which a child comes, Blackemore and Cooksey 1980:58, Gachuhi 1970:95-100, Kayongo-Male and Walji 1978, Mostead 1976, Kayongo-Male 1980, Mkangi 1978, Anderson 1969:120-125: 187. The above scholars have attempted to relate labour contribution of children and socio-economic status of households.

Gachuhi 1970:92-100 argues that parents see children labour, especially that of girls as necessary and functional towards socialization into taking the roles of a wife. He sees boarding facilities in secondary schools as facilitating good study atmosphere for such facilities free children from labour. However, it should be noted that only a particular group of parents with good incomes are capable of paying boarding fee for their children and at the same time ready to do without their children's labour. Robertson 1985, and Eshiwani

1985:93-94 agree with Gachuhi when they acknowledge the fact that girls achieve lower than boys in school due to the high demands on their labour which sometimes forces them to drop out of school and puts them at a disadvantage when competing for work in the labour market.

Blackemore and Cooksey 1980:56:58:59 points out that shcool attendance may be interrupted or terminated by demands of parents for childrens' labour at home or in the fields. The authors hold that most farming parents are poor and use childrens' labour more than urban parents. The two, see rich parents as capable of educating their children because their incomes allows them to hire casual labourers to perform such chores as child care, farm work, household chores, while in poor families such duties are done by children in poor families and who are even sometimes expected to work for a wage to supplement household incomes.

Anderson 1969 have the following to say about labour contributions by harambee school attending students.

> "Nealry all the students in the study were expected to work, some had regular tasks such as milking or cleaning irrigation channels. Much of their work involved heavy manual labour and students complained of the effects on their school work".

Anderson 1969:124-125, further argues that

"Casual labouring was seen as a way the less wealthy got pocket money and in some cases supplemented fees".

Kayongo-Male and Walji 1978 point out that school attending children are seen just as important as any other children in East Africa. To them, labour contributions at home is not an important factor in influencing school attendance for children are expected to work even when attending school especially during the peak season. Parents then see the labour contributions by children as a way of life and are oblivious of the effect this might have on their school achievement.

Monstead 1976, points out that school attending girls work harder both in the mornings and evenings than boys. She points out that the importance of childrens work varies according to socio-economic status, with children from low socio-economic status families working more in all chores than those from high socio-economic status households.

A similar view is held by Kayongo-Male 1980 when she observes that the amount of total labour in all work activities except child care are signicantly related to age, education and birth order and that the amount of farm labour is well determined by the socio-economic status of the family and the acreage of a holding.

Studies done in Tanzania and discussed by Blackemore and Cooksey 1980:56-57, seem to suggest that school attendance of children more than one mile away from school tended to absentee themselves more, and that distance rather than socio-economic status seemed to be the major determinants of performance.

From the brief overview above, it is apparent that socio-economic environment from which a child comes tend to influence not only the school a child attends but also the home environments which as seen earlier is also important in determining school achievement.

In view of the fact that this study is focusing on harambee secondary schools, we will attempt to review briefly some literature on school quality as it relates to school achievement.

1.5.4. SCHOOL QUALITY AND PERFORMANCE

Performance in harambee secondary schools is relatively poor compared to Government schools. Students from harambee schools sit for the same examinations as Government Schools but the former (harambee schools) show a bias on arts subjects because capital required to establish laboratories are lacking Keller 1973:30-34, Anderson 1969:120-121 and Kinyanjui 1972:3

The above contention is made more clear by the

table below which shows that only about 30% of the students from unaided schools were able to score division three and above as compared to 63% in the same range in Government aided schools.

Table 2: Analysis for Joint Examination for E.A.C.E. and School Certificate 1970[2]

Type of School	Div. 1	Div. 2	Div. 3	Div. 4	Fail	Total
Aided	11%	21%	31%	25%	12%	100
Unaided	2%	7%	21%	34%	37%	100

Source: A study of curriculum Development in Kenya Ministry of Education 1970, in Keller 1970:35 table IV.

2. N, not given.

Among major constraints facing harambee schools are: Poverty in terms of teachers, (poorly educated and trained staff) poor equipment such as buildings, desks, books, (especially text books) laboratories, libraries, overcrowding in classrooms. Anderson 1980:74-76, Keller 1973:29-32, Kinyanjui 1972:1-3, Schefield 1973:90-95.

To be more precise, a detalied review of the problems faced by harambee schools are here presented as put across by Anderson 1969 and Kinyanjui 1972. They spell out the following problems,

(i) Finance

The argument here is that financial difficulties are associated with the nature of self-help which requires that communities raise money for capital development and for recurrent expenditure. Anderson 1969 points out the contradictions that result when capital development is over-emphasized
at the expense of recurrent expenditure: e.g. classrooms and teachers' houses as being built for prestige purposes while basic educational needs such as text books, libraries, and laboratories are bieng ignored.

(ii) Pupils

The argument here is that pupils perceive their schools as subordinate to government schools.

Anderson 1969, however, gives the following warning. On this view

> "The degree to which this criticism is voiced and the intensity of feelings behind it appears to depend largely on the quality of the school attended". Anderson (1969:122).

Kinyanjui 1972 has the following to say on teachers in harambee schools.

> "These schools have employed less qualified teachers in the country and secondly they are financially and otherwise incapable of competing with Government maintained schools for the few qualified personnel". Kinyanjui 1972:3.

On teachers, Anderson (1969) holds the same view with Kinyanjui 1972 but goes further to identify problems related to teaching. Here, he points out that there is lack of continuity in teaching due to high teacher turnover. They are also seen as being deficient in teaching techniques, academic knowledge. high student teacher ratio, and also absenteeism on the part of students during lesson time.

Financial problems are seen as related to teaching problems. Teaching materials become deficient as a result of lack of money. According to Anderson. 1969:128

> "Stringent budgets generally keep the purchase of books and equipment to the minimum".

He further points out that:-

> "Basic course books are usually provided but are frequently out of date or inferior editions are ordered and sometimes, people have to share".

Makau, 1986 in discussing factors that influences teacher effectiveness in the schools of Kenya identifies school management problems, inadequate funds for creation of learning resources and poorly trained teachers as crucial factors. He observes that in the Kenyan situation where infusion of additional resources to education from the Government is unlikely, teacher training and the development of managerial infrastructure are good avenues with scope for improvement without need for heavy expenditures.

On management of secondary schools, he contends that a training program on personnel management, organisation of learning programs, management of school resources for more effective learning, creation of school climate in which pupils feel at home and establishment of good relations with parents and the community, to be crucial for maximisation of teacher effectiveness and consequently quality of learning oucomes. He locates the initial targets for such a program in order of priority as new heads, heads of unaided schools and heads of schools in remote and difficult areas.

From this discusssion, Makau seems to place emphasis on the factors that influence teacher effectiveness and is concerned with being cost-effective in making the teachers more effective. Although he acknowledges that physical resources in schools, good school community relationship and hamonized school atmosphere as crucial in determining learning outcomes, school management is seen as the most critical factor in ensuring acceptable learning outcomes.

From the account above, it is clear that harambee secondary schools face problems which have been used to explain poor performance in examination. Some scholars seem to locate home background factors as key variables, others see the school factors in terms of inadequate facilities as critical factors while others see poor management of existing resources as crucial in determining learning outcomes. To this end, this study attempts to explain achievement in examination by looking at the home, the school, and achievement continium. We hope to locate the importance of each part of the continium and thus establish the linkage between them.

1.5.5 THEORETICAL FRAMEWORK

The process of educating students will be seen from a structural functionlist perspective where specific component parts of a social system will be seen as playing specific and complementary roles to

produce a desired outcome, in our case, the outcome is good K.C.E. performance.

The first component of the social structure is seen as the students' home backgrounds where parents are expected to play the role of making the home atmosphere or environment condusive for proper learning for their children by freeing them from non-school labour, making facilities such as reading lights, reading tables and chairs and possibly assisting the students with school work. The issue here is on how school needs compete with other family needs such as food, medical care, clothing and the degree to which parents can meet school needs vis a vis these other needs.

The student body form the second component of the social structure. They too must be seen to play the role of putting extra time to school work by studying privately, consulting teachers outside the classrooms and discussing school work with other colleagues. They must also be seen to be motivated towards school work by depicting positive attitudes towards their respective schools which enhances their capability to play their roles.

The last component of the social structure will be seen as the school itself. Both the physical and non-physical facilities must be seen as adequate inorder to enable the school play its role of preparing the students towards good examination results. The quality

of school management and utilization of these facilities is also crucial. We are interested in the interelationship of the pupils, teachers and the resources available as processing agents.

The roles played by the three components must be seen as complementing each other for in an event one being faulty, the whole system will most likely not be in a position to produce the desired outcome. We also anticipate conflict in an event where one component fails to play its role competently.

Thus, the ability of these components of our structure to play their roles will enhance school achievement.

The purpose of this theoretical framework is to shed some light on the relationship between the home environment, the students and the school environment in relation to school performance, that is, the home, school and achievement continium. By looking at the structural components described and the ability of each in playing its roles towards good examination achievement, we expect to detect the faulty component part. We are therefore in a position to determine how the roles expected of each component complements the others and determine whether some components hinder or facilitate the achievement of good examination results.

CHAPTER TWO

2.1 SITE DESCRIPTION

Nyandarua is one of the districts which make up Central Province in the Republic of Kenya. It lies between 0° 08'N and 0° 50'S latitude and between 36° 13'E and 36° 42'E longitude with a total land area of 3528 square kilometres. To the north lies Laikipia, to the east is Nyeri and Muranga, to the south is Kiambu and the west lies Nakuru District.[1]

Administratively, it is divided into five division, sixteen locations and fifty five sub-locations. It has an altitude of between 1828M to 2437 metres above sea level and an average annual rainfall of between 750 mm and 1500 mm.

On the basis of rainfall patterns, three categories of land petential are noticeable namely high potential covering 37% , medium potential which covers less than 1% and low potential which covers 52% of the total land area. The remaining 10% is under public use forests and waters.

The socio-economic profile shows an essentially mixed farming type of land use with small scale farming increasingly supplementing its former "scheduled area" status. Dairying is an important activity in the District, sheep rearing for wool, pyrethrum growing, vegetables and wheat and potato growing are among the major income earners to farmers.

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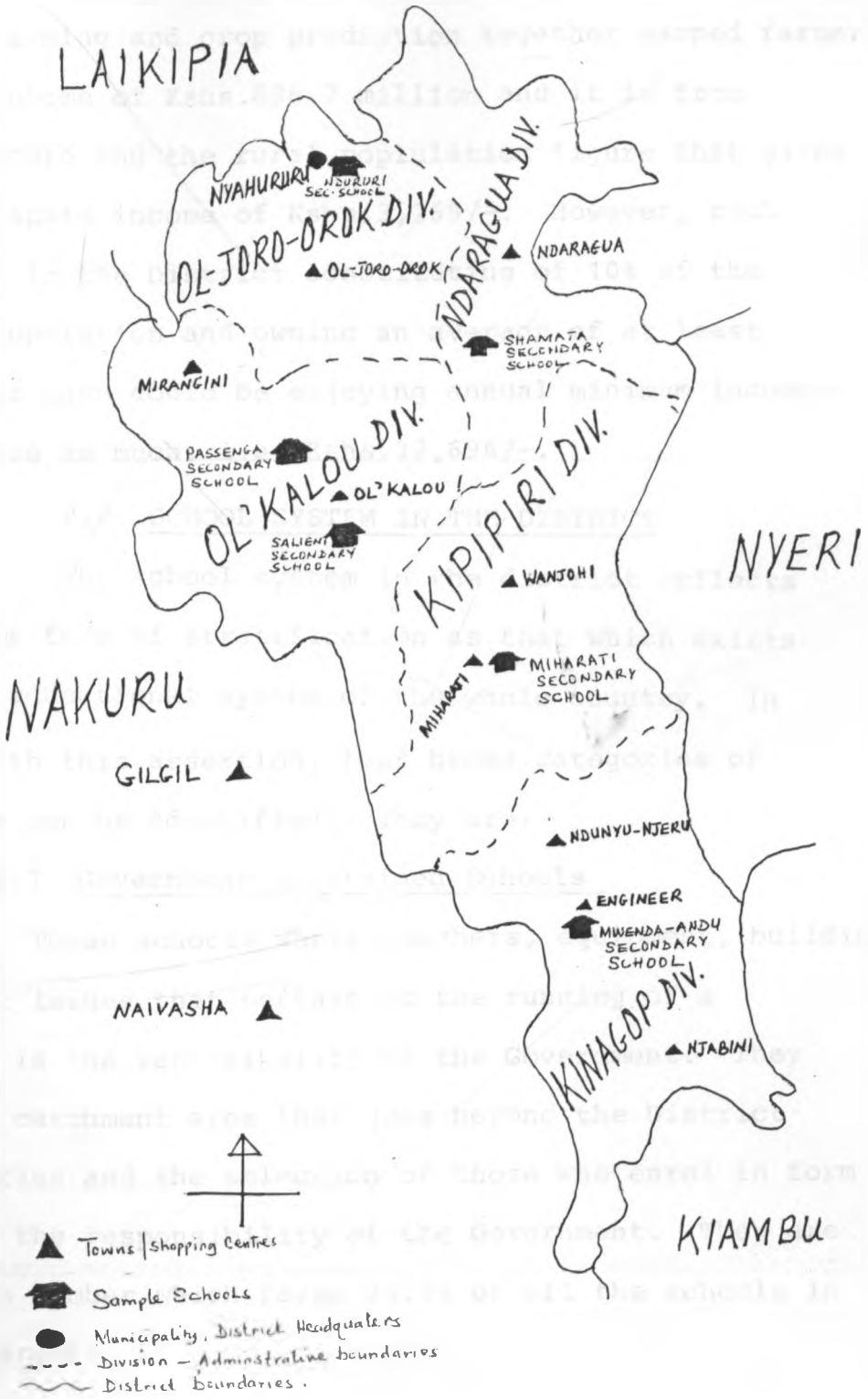
1. See map

NYANDARUA DISTRICT

ADMINSTRATION AND SAMPLE SCHOOLS.

Not Drawn to Scale



According to the District annual report for 1982, farming and crop production together earned farmers a net income of Kshs.838.7 million and it is from this figure and the rural poplulation figure that gives a per-capita income of Kshs.3,269/-. However, rich farmers in the District constituting of 10% of the rural population and owning an average of at least 50 acres each could be enjoying annual minimum incomes ten times as much, i.e. Kshs.32,696/-.

2.2 SCHOOL SYSTEM IN THE DISTRICT

The school system in the district reflects the same form of stratification as that which exists in the educational system of the whole country. In line with this assertion, four broad categories of schools can be identified. They are:-

2.2.1 Government maintained Schools

These schools where teachers, equipment, buildings and all issues that pertain to the running of a school is the reponsibility of the Government. They have a catchment area that goes beyond the District boundaries and the selection of those who enrol in form one is the responsibility of the Government. They are nine in number which forms 25.7% of all the schools in the district.

2.2.2 Assisted Harambee Secondary Schools

These are schools where the Government helps the community by making available part of the teaching staff. All other issues pertaining to the running of the schools including putting up buildings, equiping the school with books, desks, libraries etc is the responsibility of the community. The catchment area is designed on the basis of geographical area from which people contributed towards putting them up and in most cases, it is an administrative location. Form one recruitment is the responsibility of the headmaster and the school committee. Sometimes, especially where boarding facilities are available, students from without are allowed to enrol but are charged relatively higher than those who come from within the bounds that worked towards putting up the schools. In the district, they are eleven in number, form 31.4% of all the schools.

2.2.3 "Pure" Harambee (Non-Assisted) Schools

These are schools for which all the responsibility of running them lies in the hands of the community. The catchment area is similar to that of assisted harambee schools and follow similar recruitment methods. However, they are commonly strongly biased to the community that put them up when recruitment is being done. In the district, they are ten 28.6 most of which are new with very low

enrolments and attempting K.C.E. for the first time.

2.2.4 Private and Missionary Schools

These are schools owned by private individuals, companies, associations, churches etc. In the district they are five in number 14.3% . The responsibility of running the schools lies with its owners and the catchment area is not restricted. All those who can afford are enrolled whenever there are vacancies especially in private owned schools. Missionaries do consider religion when enrolling students and a student wishing to enrol into them is required to have recommendations from his or her church leader.

For all the school categories listed above, the Government participates in supervision and inspection of the curriculum taught in the schools.

2.3 JUSTIFICATION OF SITE SELECTION

The District was selected because of the following reasons.

(i) Performance in K.C.E.

The table below shows K.C.E. (E.A.C.E.) results for both Government maintained and assisted harambee schools in Nyandarua district between 1978-1982.

Table 3: K.C.E. (E.A.C.E.) Results 1978-1982 in Government and Assisted Harambee Schools in Nyandarua District

Group of School[2]	Name of School	Candidates		Percentage Division I-III 1978 - 1982					School Type
		1981	1982	1978	1979	1980	1981	1982	
GROUP A	Nyahururu	82	118	99.1	92.6	80	82.9	88	Government
	Karima Girls	82	84	97.4	82.1	93	78	77	"
	Nyandarua	110	120	84.4	63.2	81.3	70	78	"
	Njambini	84	82	74.4	83.7	93	59.5	68	"
GROUP B	Nyakiambi	124	34	55.45	29.4	30	50	21	"
	Leshau	49	83	-	72.2	18.5	33.8	43	"
	Kangui	76	79	73.3	20.2	43.3	32.2	32	"
	Ndaragwa	90	119	82.6	52.4	36	27.8	32	"
	Wanjohi	99	95	23.4	22.9	18.1	12.1	19	"
GROUP C	Magomano	72	70	50	64	47.4	26.4	64	Assisted
	Ndururi	49	65	-	-	34.3	22.4	34	Harambee
	Passenga	36	50	-	-	31	25	24	"
	Miharati	31	39	31.2	21.4	27.7	19.4	21	"
	Mwenda-Andu	56	48	25.0	18.5	19.4	19.6	25	"
	Geta	25	35	-	-	147	20	24	"
	Salient	22	43	-	16.2	25.6	9.1	16	"
	Bongo	20	29	-	17.6	25.5	5	10	"
	Kalou	41	46	-	-	18.4	14.6	11	"
	Gathanji	-	26	-	-	-	-	4	"
	Shamata	-	28	-	-	-	-	4	"

Source: Nyandarua District Education Office: Nyahururu.

2. Grouping is to facilitate analysis

The following general observations can be made from the table:-

(i) That on the whole, performance in the District has been deteriorating irrespective of school type.

(ii) That group "A" schools had the highest number of candidates according to 1981/82 enrolment figures and have been doing well over the years reviewed.

(iii) That group "B" schools were relatively better than group "C" with the exception of Magomano which appears better than group "B" schools and Wanjohi Secondary School which was similar and almost worse than group "C" schools.

(iv) That all group "C" schools except Magomano have had below 35% division one to three passes in K.C.E. over the years reviewed.

(v) That besides group "A" schools, performance in the district has been poor and more so in assisted harambee schools.

These observations justified the selection of the District for the purpose of this study.

Another justification lay with the history of education in the District. Before 1963, there was only one secondary school (Njabini) and the rest 34 secondary schools are a post independence phenomena. Most of these schools are pure or assisted

harambee with the implication that the Nyandarua community attaches much importance to education.[3] As such, there was need to research on these schools which did not appear to have been doing very well.

As the review of literature has shown, almost all problems that face harambee schools are closely related and in this case, research in Nyandarua was seen as a spring-board from which reesearch in other Districts could follow or hopefully, research findings in Nyandarua could form a base for generalization for similar schools in other areas.

Other considerations that determined the selection of the district were as follows:-

(i) That the common language spoken by people in the area could be understood by the researcher which was necessary for effective interviews.

(ii) That the researcher had observed disatisfaction of the parents, pupils, and teachers with K.C.E. results. Each group tended to blame each other for the poor results. In this case, investigations on determinants of performance became an urgent need.

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3. Assisted and pure harambee schools form 60% of all the schools in the District.

(iii) Lastly, as far as the researcher was aware, no study of this nature had been carried in the district. This study was therefore meant to pave the way for other interested social researchers in the area of secondary school education.

CHAPTER THREE

METHODOLOGY

The study focused on assisted harambee schools because of the following observations.

(i) In 1983, the distribution of teachers in assisted harambee schools in the District was as follows:-

Table 4: Distribution of Teachers in Nyandarua District In Assisted Harambee Schoools, 1983.

Level of Education	Teachers' Employer		Total
	T.S.C. Government	Board of Governors	
Approved Teachers	2	0	2
Graduates	3	0	3
Diploma	0	0	0
S.I. Teachers	18	2	20
U.T. Form 6 level	0	61	61
U.T. Form 4 level	0	0	0
Total	23	64	87

Source: Nyandarua District Education Office: Nyahururu

The table clearly shows that the Government provides an average of 2.2 teachers most of whom are of S.I. calibre as compared to 5.8. teachers provided by the board of governors who are predominantly untrained form six school leavers. This indicates that Government assistance is quite small. We also note that the distribution of the 23 Government teachers is not even. Twelve are in three schools (one has five, another four, and another three). The others have one government teacher each except two others with two teachers each. In addition, the quality of the teachers provided by the Government are essentially S.I. calibre i.e. eighteen compared to three graduates and two approved teachers. We can therefore conclude that only a small proportion of teachers in Government assisted schools are paid by the Government and that they are essentially of low calibre.

Another justification for selecting assisted harambee schools was based on the observation that of the ten pure harambee schools in the district, only four had form three classes in 1983 and the total enrolment with respect to this class was 58 students. This was seen as a potential sampling problem for the study focused on form four class. (Fifty eight students would have been a very small number for a study of this nature).

A final justification for selecting this type of schools was related to enrolment and teachers. According to 1983 enrolment figures with respect to form three class (1984 form 4 class) there were 300 boys and 229 girls in these schools as compared to 33 boys and 25 girls with respect to pure harambee schools. As indicated above, the number of Government paid teachers was small and again, pure harambee schools had a small number of students and consequently, the decision to work with assisted harambee schools. It was also taken into consideration that only two pure harambee secondary schools had attempted K.C.E. and the first attempt for these schools was in 1982. It was therefore felt that if the pure harambee schools were selected, the researcher could not be in a position to compare performance over the past five years which was necessary in order to determine the quality of each school.

3.2 SAMPLING

The study worked with a sample of only 205[1] respondents due to the following unavoidable constraints.

(i) Finance: The money available could not allow one to work with a larger sample.

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1. The intended sample was 200 but due to rounding 205 respondents were obtained.

(ii) Time available for data collection was limited to about three months.

(iii) Data from interviews were reinforced with available (secondary) data. To be exact, data on school quality was obtained through searching into school records and interview with teachers.

(iv) The study necessitated travelling widely throughout the district.

Below is a list of assisted harambee schools and their 1983 form three (3) enrolment in the district. The 1983 form three class was selected because it would form the 1984 form four (4) class. (The enrolment of form four (4) class in 1984 is given below with respect to the sampled schools).

Table 5: Assisted Harambee Schools Enrolment 1983 with respect to form 3 class

Name of School	Enrolment form 3, 1983			
	Boys	Percentage	Girls	Percentage
Magomano	60		26	
Ndururi	41		25	
Passenga	38		46	
Miharati	24		15	
Mwenda-Andu	28		33	
Geta	23	56.7	10	43.3
Salient	10		15	
Bongo	13		11	
Ol'Kalou	19		25	
Gathanji	33		17	
Shamata	11		6	
Total	300	56.7	229	43.3

N = 529

Out of the eleven schools above, six were selected using a table of random numbers. The schools were assigned numbers one to eleven as listed above for the purpose of sampling. Six schools were selected as listed below.

Table 6: Sample schools enrolment 1984 and Status of School

Name of School	Enrolment 1984				Status of School	
	Boys	% Boys	Girls	% Girls	Day/Boarding	Day only
Shamata	11		6		X	
Mwenda-Andu	28		33		X	
Passenga	38		46	48	X	
Salient	10	52	15		X	
Ndururi	41		25			X
Miharati	24		15			X
Total	152	52	140	48	4	2

N = 292

Source: School Attendance Registers in form 4 in sampled school.

Since we wanted a sample of 200 students, a proportionate sample internal to every school was drawn as shown below

	Boys	Girls	Total
Shamata $\frac{200}{292}$ x17 =12	8	4	12
Mwenda-Andu $\frac{200}{292}$ x 61 = 42	20	22	42
Passenga $\frac{200}{292}$ x 84 = 60	29	31	60
Salient $\frac{200}{292}$ x 25 = 18	8	10	18
Ndururi $\frac{200}{292}$ x 66 = 46	29	17	46
Miharati $\frac{200}{292}$ x 39 = 27	17	10	27
Totals	111	94	205[2]

2 Adds to 205 due to rounding

The schools were then stratified into two on the basis of boarding and day scholar students and since there were more day than boarding and day schools combined, the total number of day students who fell into the sample were more than boarding students. Initially, it was hoped that internal to the schools that had both day and boarding facilities, the number of boarding students and those of day scholars would have been made equal and the following distribution was therefore anticipated.

Chart 1: Anticipated number of boarding and day students in the sampled schools.

Shamata		Mwenda-Andu		Passenga		Ndururi		Salient		Muharati	
12		42		60		46		18		27	
6	6	21	21	30	30	0	46	9	9	0	27
B	D/S	B	D/S	B	D/S	B	D/S	B	D/S	B	D/S

where B = Boards

D/S = Day scholars

However, when schools were visited, the following distribution of boarding and day scholars was obtained.

Chart 2: Distribution in the sample according to status of student and sex[3].

Shamata	Mwenda-Andu	Passenga	Ndururi	Salient	Miharati
12	42	60	46	18	27
6B 6D/S	34B 8D/S	16B 44D/S	0B 46D/S	5B 13D/S	0b 27D/S
8M 4F	20M 22F	29M 31F	29M 17F	8M 10F	17M 10F

where D/S = Day scholars

B = Boarders

M = Males

F = Females

The decline in the number of boarding students who fell into the sample was a result of some schools having less boarders than was expected. All the boarding students in the schools (Passenga and Salient) were taken into the sample. For the case of Mwenda-Andu secondary school, the number of boarding students proved to be higher than that of the day scholars. All the day students and 34 boarders were picked. However, it was impossible to cover the deficit of boarders created by Salient and Passenga Secondary Schools and consequently the distribution of boarders and day-scholars in the sample was 61 and 144 respectively.

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3. Adds to 205 due to rounding

3.3 DATA COLLECTION TECHNIQUES

The following methods of data collection were employed

(i) Time budget schedules

(ii) Secondary data (school records)

(iii) Observation tables

(iv) Questionnaires

(i) TIME BUDGET SCHEDULES

Data on student labour contributions was collected using time budget schedules where students were requested to indicate the approximate time they spent on different labour activities. Various chores were listed and students requested to record the time spent on any of the chores they engaged in among the ones listed. An allowance was given to the respondents to include any other chore they engaged in and was not included in the list.

The list of chores was in two parts. The first included non-school labour chores such as farm, domestic and leisure chores. Part two was on school related chores. Further, the schedule sought information on whether the respondents worked before or after school for both parts. The sum total of time units recorded in one week divided by seven was recorded as time spent by the respondent in non-school labour and school labour activities respectively per day.

The rationale behind using this technique was that besides giving an approcimate time unit on various chores, one was also able to know which were the most frequent types of chores the respondents engaged in, when these chores were performed (before or after school or during the weekend), differences in nature of chores performed by students in different areas, differences by type of chores on the basis of sex and fainally, the chores that consumed most time.

(ii) AVAILABLE DATA AND SIMPLE OBSERVATION

Data on school quality was obtained through searching into school records. Data on students C.P.E. grades prior to joining their respective schools, number of text books available, laboratory equipment, desks, library and reference books radios, vans, beds, lamps, and other physical facilities was obtained from school files and ledgers. This was reinforced by simple observations to ascertain theavailability and conditions of these facilities. In this vein, two days were devoted to each shcool to collect this information. Notes on the conditions of these facilities were made in the evenings when the headmasters had left in order to avoid suspicion on the part of the headmasters that the researcher was an inspector.

(iii) INTERVIEW

Four questionnaires were used in the course of

the study.

The first was adminstered to all the 205 students who fell into the sample. When a school was visited and a sample drawn the sampled students were assembled into a classroom in the evening before they went home. Each was then given a questionnaire and after reading through it, they were requested to fill it overnight at home or in the dormitories in the case of boarding students. The filled questionnaires were then collected the following morning. This was done in an attempt to prevent students copying reponses from each other.

For the day students, they were also given a questionnaire on the parents in which they were requested to write their parents address, the name of the parents, and the approximate distance from the school to their homes. After this information was recorded, the questionnaires were recovered from the students.

The students were also asked to detouch the time budget schedule which was affixed at the end of their (students) questionnaire which they were requested to fill over a period of one week after which they were to hand them in to the researcher.

The second questionnaire was administered to the parents of the day scholars. By sampling the students, it was easy to follow them home and interview

the parents. Boarding students' parents were not interviewed for almost all came from far distances, sometimes beyond the district boundaries. All the parents were interviewed by the researcher in person.

The third questionnaire was given to heads of the sampled schools. Two copies of this questionnaire were made for each school. One was filled by the researcher using the school records while the other was given to the school headmaster. It should be noted that the headmasters were not made aware that a similar questionnaire to theirs was being filled by the researcher. The purpose for this was to countercheck their information.

The last questionnaire was given to all staff members who were actively engaged in teaching form four class. They were requested to respond to it and hand in to the researcher in person. This was meant to prove the confidentiality of the information they were to give.

All questionnaires were scheduled standardized with the same order and phrasing of questions. This was meant to ensure that there was the same flow of questions, and same stimulus to all the respondents.

OBSERVATION TABLES

An observation table was included in the questionnaire to the parents. Here, facilities such

as reading tables, lamps, reading rooms, etc recorded as available at home by the students in their questionnaire were counter-checked and recorded. The same question was repeated to the parents to enable the researcher record without creating an impression of being a detective. Notes on the general appearance of the homestead were also made on the observation tables.

PROBLEMS ENCOUNTERED

Among the problems encountered were as follows:-

(i) The anticipated number of boarding students (67) could not be achieved since some schools proved to have fewer boarders than expected.

(ii) Some students were not keen on filling the time budgets schedules and filled them for five days instead of seven days. About fifteen students had this problem.

(iii) The research involved walking long distances to get to the parents and in fifteen cases, the researcher had to make revisits because of missing a respondent (parent) during the first visit.

(iv) Some students could not express themselves effectively in English. This forced the researcher to interview them again in order

to fill some gaps they had left unanswered. Thirty students had this problem.

3.4 HYPOTHESES AND CONCEPTS

The study was meant to test the following hypotheses.

(i) The home environment from which a child (student) came from was to determine his or her performance in K.C.E. In this vein,

(a) Students who engaged themselves more in non-school work (labour) related activities will tend to perform poorly in K.C.E. Consequently, boarding students will tend to perform better than day scholars.

(b) Students from households where the parents have provided adequate facilities to enable them study properly at home will tend to perform better than those without such facilities.

(c) Students from households where immediate relatives have attained secondary school level of education and above will tend to perform better than those from households without such relatives.

(d) That in regions where the socio-economic status of households is high students will tend to have better quality schools than

those of low socio-economic status and consequently, performance in the former regions will tend to be better than the latter.

(2) The students' primary school background, as reflected by his or her selection grade prior to joining secondary school, will also determine his or her later performance in K.C.E.

(3) The school environment will determine performance in K.C.E.

(a) The physical and non-physical facilities found within the school will determine students performance in K.C.E.

(b) In schools where the physical and non-physical facilities are poor, performance of the students will tend to be poorer than in those schools where the physical and non physical facilities are good.

(4) The atitudes held by parents and students towards school will determine performance in K.C.E.

(a) Students and parents with favourable attitudes towards school and teachers will tend to perform better than those with unfavourable ones.

(b) Students and parents with unfavourable attitudes towards school and teachers will tend to perform poorer than those with favourable ones.

3.5 OPERATIONAL DEFINITIONS AND SPECIFICATION OF VARIABLES

(1) Home Environment

This included the total conditions that prevailed at home as a result of the socio-economic status of households. They included the following:-

(a) Students labour contributions

Where labour was seen as all work activities that students engaged in at home or outside home before, after school, and during the weekends when the school was in session. The labour activities were categorised broadly into two as follows:-

(i) Non-school labour activities- These included the following categories of work activities.

- Household chores such as cooking, fetching water, child care, cleaning dishes, kiddling fire etc.
- Farm or shamba chores such as cultivating, weeding, watering plants, milking, gathering fodder for tethered animals etc.
- Cash labour - which included all work activities done outside home for a wage.
- Trading activities - e.g. helping in shops, selling farm produce etc.

(ii) School related labour activites - These included doing home-work given in school at home

or in school after classes.

- Studying privately at home or in school
- Discussing school work with fellow students, relatives, parents or teachers.
- Consulting teachers privately
- Getting coached privately at home and any other school related activity such as debating, games, other clubs etc.

Time spent walking to school was also considered as non-school work while basic hygiene chores such as brushing teeth, combing hair, bathing etc. were not.

Social duties such as attending secular activities or religious activities such as dancing, attending church choirs, chatting with friends and other were considered as leisure activities.

Time units such as minutes and hours spent doing different activities above were seen as indicators of student labour contributions.

(b) Education levels attained by immediate relatives

This was seen as the academic levels of education attained by brothers, sisters, and other relatives staying in the household. These included formal schooling which relatives have attained from standard one level of education to University education.

(c) Occupation and income of parents.

The actual occupations of heads of households and their actual incomes (approximate) per month as reported to the researcher were considered. The monthly earnings where parents were in formal employment, incomes from sale of farm produce, business and transfer payments from any source were considered. However, given the fact that most respondents are not always willing to state their actual incomes, the researcher probed the respondents on such lines as acreage of farm holdings, number of livestock reared on the farm, acreage on cash crops, designation held on the job, and type of business run. This enabled the researcher to approximate the actual income of the respondents.

(2) Primary school background factor

This was seen as the total number of points a student obtained prior to joining secondary school. For purposes of analysis, the following categories were adopted.

(a) 6-24 points - poor primary school background.

(b) 25-36 points - good primary school background.

Students who fell within category "a" were considered as having had poor school bakcground while

those from category "b" were seen as having come from good primary school backgrounds.

(3) School environment (Quality)

This was seen in the light of the total conditions prevailing in the schools students attended. The conditions were reflected by the facilities available in schools which were categorised into two namely,

(a) Physical facilities as indicated by:-

(i) Number of recommended books that were available (student book ratios)

(ii) Availability of laboratories, libraries, classrooms, lighting system and the conditions of these facilities.

(iii) Availability of radios, projectors, school vans, recreational facilities and their conditions.

(b) Non Physical facilities as indicated by:-

(i) Teacher academic and professional qualifications.

(ii) Teacher experience as reflected by number of years in active teaching.

(iii) Time spent by teachers in active teaching per week.

(iv) Teacher pupil ratios.

(v) Trend of K.C.E. performance in the past five years.

(4) Attitudes held by parents and students towards school and teachers.

This was seen in the light of how favourably or unfavourably parents and students rated the teachers and schools the students were attending. When parents and students thought of teachers as "very competent" or "competent", this was seen as favourable rating, and if they rated teachers as "fairly competent", this was seen as a moderate attitude; and if they rated them as "incompetent" or "the worst" this was seen as unfavourable attitude. In the same vein, if parents and students thought of the schools as "the best" and "good one" this was seen as favourable attitude, when seen as "fair school" this was considered to be a moderate attitude, and when seen as "a poor one" or "the worst" this was seen as an unfavourable attitude.

(5) Performance

This was seen as the grade a student managed to obtain in K.C.E. In this vein, Division one to Division three was seen as good performance, while division four and failures were seen as having performed poorly.

CHAPTER FOUR

OVERVIEW OF THE MAJOR VARIABLES

4.1 (DATA PRESENTATION)

In this chapter, we attempt to give a descriptive account of all the major variables in this study. No attempts will be made to relate the variables and only percentages will be discussed. What this chapter does is only to submit data in general terms but providing the basis for further analysis in chapters five and six.

The variables will be discussed under the following sub-topics

a. Home background and background factors
b. Primary school background factors
c. Attitude factors
d. School quality factors
e. Performance in K.C.E.

4.1 Home Background and Background Factors

4.1.1 Background factors

The study worked with a sample of 205 students. Of these, 111(54%) were males (boys) and 94 (46%) females (girls). Further, the sample constituted of 61(29.8%) boarding students of whom 25 were males and 36 females, while 144 (70.2%) were day scholars constituting of 86 males and 58 females. One hundred and sixty three students (79%) were aged between fifteen and twenty years and fourty two (25.5%) were over twenty years.

4.1.2 Home background factors

The students as described above irrespective of whether boarding or day scholars were asked whether they considered the atmosphere at home as condusive for proper learning with the following results

Table 7(a) Whether the students thought of home as condusive or not condusive for proper learning

Response	Yes: Home is Conducive	No: Home is not conducive	No Response	Total
Number of cases	64	138	3	205
Percent-ages	31.2	67.3	1.5	100.0

Most students did not consider their respective homes as condusive for proper learning. A consideration of the reasons behind the feelings presented above revealed that the quality of life was the major reason behind these feelings as brought forward by the table below.

Table 7(b) Major reasons cited by students as to why they considered their Homes as condusive or not condusive for proper learning

	Home not condusive		Home condusive	Others
1 Disturbances	(a) Internal	(b) External		
	-Noise from children and parents	- Noise from drunkards in nearby bar	Nobody disturbs me at home	- Fear of studying privately at night
	- Noise from visitors	- Noise from neighbours		
2 Facilities	- Home is very cold - cannot afford charcoal	-	- Parents have provided the following (a) Reading light, chair and table (b) Supplementary text books	-
	- There is inadequate space at home - can only study in the living room			
	- Parents cannot afford parafin and supplementary books			

Table 7: cont/d..

cont/d..

	Home not condusive	Home condusive	Others
3 Labour (work) contributions	- Parents and or relatives insists that I should work at home. - The work I do at home consumes most of my time - The work is too tiring to free one for studies	- No work at home - Little work at home does not inhibit me from doing my school work.	

From the reasons given, we noted that the quality of life a student led at home was an important factor in influencing his or her perception of the home in relation to its contribution to his or her studies.

Asked whether they preferred to be boarding or day scholar students, the results below were obtained.

Table 8: Preference of being a Boarder or Day-Scholar

	Prefer to be a Boarder	Prefer to be a Day-Scholar	Total
Number of Cases	187	18	205
Percentages	91	9	100

The table revealed that even among those students who thought of their homes as being condusive for proper learning, there was evidence indicating that some would have preferred to be boarders if given the chance. The reasons given by the students for preferring to be boarders were related to the advantages of being a boarder as opposed to being a day-scholar; while the opposite was the case with respect to those who preferred to be day-scholars.

The table below summarises these reasons.

Table 8b: Major reasons given by students who preferred to be either Boarders or Day-scholars

	Boarders	Day-Scholar
Advantages	(1) Enough reading time (2) Good Atmosphere in school for studies (3) Easier to consult teachers around school (4) Easier to discuss school work with friends (5) Ample reading time, space, and facilities (6) No work or very little work in school	(1) Adequate and good quality food (2) No feeling of missing home (3) Better sleeping facilties (4) Healthier environment with no fear of contacting diseases from other students (5) No restriction on reading time by the school authority
Dis-Advantages	(1) Not enough food in school	

Simply, we noticed that those who would have preferred to be boarders were more concerned with academic matters while those who preferred to be day-scholars were more concerned with social matters. The former saw the status of being a boarder in relation to facilities that are necessary towards good academic achievement, a fact that tallied or concurred with the reasons that most students gave as to why they considered their homes as not being condusive for proper learning (see Table 7b above). This

observation strengthened the fact that the quality of life was not very good for most of the students.

As for those who preferred to be day-scholars, the quality of life at home was better than that provided in school, and as our observation above in relation to preference of being a boarder or day scholar points out, we thought of these responses as being of a justifactory nature than being genuine. We noted that even those students who led better quality life at home than in school, some would have preferred to be boarders for there were many advantages which pointed to academic matters than those of being a day scholar.

Asked if they engaged in any labour activities at home, 155(75.6%) said they did, 22(10.7%) indicated that they did not work, while 28(13.7%) did respond to this question. We went further and asked the students whether the work they did interferred with their studies (school work) with the results below.

Table 9: Whether the work students did at home interfered with their studies

	Yes	No	No Response	Total
Number of cases	144	46	15	205
Percent-ages	70.2	22.4	7.4	100

The above responses revealed that students considered the work they did at home as detrimental to their school work. As we have noted above, one of the major reasons behind the feeling of home as being not condusive for proper learning was labour contributions, and again, one of the reasons behind preferring to be boarders was the fact that the students could be freed from labour contributions. This is in conformity with the figures in table nine where 144(70.2%) of the students thought that the work interfered with their studies. This also supports the findings of Anderson (1969:187) as presented above.

The major reasons given by the students pointed to the fact that work at home interfered not only with their school work but also that it left them very tired even to think of concentrating in their homework. However, the 46(22.4%) who felt

that work was not detrimental to their studies gave reasons relating to role expectations from both the parents and themselves. For example, the students felt that it was right to help the parents in all sorts of work and considered the work they did as part of their normal duties. Consequently, they indicated that they were able to put some time aside for studies even while helping in household work. Thus work was seen by the student as his or her role within the family.

On the other hand, some students indicated that the parents did not allow them to work even when they were willing. They argued that they were expected to work on their school work or school assignments. Consequently, the few chores they willingly engaged in outside school work did not really matter. Here, we found a situation where parents prescribed the role of being a student to their children so long as they were in school and thus expected children to play this role only.

As the discussion above indicates, most students engaged themselves in non-school labour related activities. This work was done before school, after school, and also during the weekends. One hundred and seventy eight (86.8%) worked both before school and after school while nine (4.4%) before school only,

and eleven (5.4%) after school only. Seven (3.4%) indicated that they did not work at all.

The distribution of work chores is as shown in table 10 below. However, it should be noted that, to get the number of chores performed by the students per day, the total number of chores recorded per week were divided by five to get the average per day for all categories of chores. In the case of the week-ends, the total was divided by two, that is, Saturday and Sunday inorder to get the average.

Table 10: Distribution of work chores

10(a) Distribution of chores before school[1]

Chore Category	Number of students according to Average chore incidence				
	None	Less than one (negligible)	1-4	5-8	Total
Domestic	44(21.5)	30(14.5)	111(54.2)	20(9.8)	205(100.0)
Farm (Shamba)	120(58.5)	12(5.9)	72(35.5)	1 (0.5)	205(100.0)
Leisure	110(53.7)	59(53.7)	32(15.7)	4 (2.0)	205(100.0

1. Some students performed very few chores such that when the average was worked out, we got less than one chore. This meant that although the students worked, they did not work in all the days and thus, we had a fraction of chores referred to as (Negligible).

10 (b) Distribution of Work chores after school

	Number of students according to average chore incidence				
	None	Less than one chore (Negligible)	1 - 4 chores	5 - 8 chores	Total
Domestic	30(14.6)	37 (18.0)	116(56.6)	22(10.8)	205(100.0)
Farm (Shamba)	105(51.2)	14(6.8)	81(39.5)	5(2.5)	205(100.0)
Leisure	55(26.8)	91(44.4)	57(27.8)	2(1.0)	205(100.0)

10 (c) Distribution of work chores: weekends

Chore Category	Number of students according to average chore incidence				
	None	Less than 1 chore (Neglibible)	1 - 4 chores	5 - 8 chores	Total
Domestic	12(5.9)	19(9.2)	133(64.9)	41(20.0)	205(100.0)
Farm (Shamba)	32(15.6)	4 (2.0)	110(53.7)	59(28.7)	205(100.0)
Leisure	12(5.9)	4(2.0)	188(91.6)	1 (0.5)	205(100.0)

From Table 10 above, we found that students engaged themselves in domestic chores both before and after school as well as during the weekends. These chores included such work as washing dishes, cooking, serving food, running errands and others. We noted that in the 1-4 chore category per day, the percentages rise from 54% before school to 56.6% after school and 64.9% during the weekends. This rise can be explained from the fact that in the mornings, most students recorded such chores as cooking breakfast, nursing young children and sometimes washing dishes. This was because there was little time to perform other chores such as washing clothes which sometimes took as long as one hour before school.

In the evenings after school, the number of domestic chores increased. This was seen in the light of the fact that besides simple chores such as cooking and washing dishes, students recorded such chores as fetching water, wood and running errands. During the weekends when students were not attending school, all their washing was done at this time and for the case of boarding students, general cleaning of the dormitories, dinning halls and the school compounds in general was done at this time.

We thus explained the rise in number of students in the 1-4 chore category on the basis of the time available where we found that there was little time before

school, a bit more after school and most on weekends when the number was highest.

Farm chores were also pronounced in the 1-4 chore category with 72(35.1%) engaging themselves before school, 81(39.5%) after school and 110(53.7%) during the weekends. The most pronounced farm chores included milking cows, feeding calfs, spreading pyrethrum in the sun to dry and selling milk at the dairy or to individual buyers.

As would be expected, most leisure chores such as visiting friends, attending choirs and church, dancing and chatting with friends were done during the weekends where we found the 1-4 chore category registering 188(91.6%).

In the 5-8 chore category per day, we noted that few farm chores were performed before and after school. However, domestic chores registered more than farm chores before and after school but fell behind farm chores during the weekends. This was because farm chores such as shamba work required more time which was not available before and after school. We also noted that most of the student were actually involved in more domestic chores than any other type of chore.

On the whole, we found a situation in which students contributed to family labour both in domestic and farm chores when the schools were in

session. This fact was better illustrated when we looked at the approximate time spent on various non-school-labour activities such as digging, milking cows, cooking, washing clothes and kiddling fire as given below.

Table 11: Approximate time taken by students to do non-school labour

	Approximate Number of hours per day				
	None	less than one hour	1 - 4 hrs	5 - 8 hrs[2]	Total
Number of cases	5	35	135	30	205
Percentages	2.4	17.1	65.8	14.6	(100.0)

Although the average time spent on non-school labour activities was as low as 2.678 hours per day, we found that a high percentage 135(65.8%) worked between one and four hours a day while those who worked between five and eight hours a day were also a good number 30(14.6%).

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2. The 5-8 hour per day can be explained by the fact that by the time the study was carried out, most schools had released their students from regular attendance of classes for revision purposes. Most students were not attending school.

A combination of 1-4 hours and 5-8 hours categories in comparison with no work and less than two hours categories combined revealed that, the latter two comprised only 40 students, that is 19.6%. This meant that most students put substantial amount of time to non-school labour activities.

From the discussion above, we found a situation in which students did not only perform various chores, that is, domestic, farm and leisure chores, but also put much of their time carrying out these activities. It suffices therefore that majority of students are important contributors to family labour.[3]

Apart from non-school labour contributions the students made, they also put some time to school related labour activities such as reading privately to mention only one. We thus looked at the time they spent on such activities and the distribution below was obtained.

Table 12: Approximate time spent by students performing school related work activities

	Approximate Number of Hours spent per day			
	Less than 1 hr	1 - 4 hr	5 - 8 hrs	Total
Number of cases	11	132	62	205
Percentage	5.4	64.4	30.2	100.0

3. This observation concurs with Mkangi (1978) see Chapter 8 Ph.D Thesis. Kayongo-Male (1978)

Generally, students put much time to school related labour activities. We noted specifically that when compared to time spent on non-school labour activities, school work took more time (see table 11 above). We however attributed this finding to the fact that when the study was done, students were busy preparing for examinations and thus recorded much time on school labour; this might not have been the case for the rest of the year when the examinations were still far ahead.

Further, we looked at the distance covered by students from home to school. Here, we noted that the average distance walked by day-scholars from home to school was 1.617 Kilometres and an average walking time of 38 minutes. However, we found that 148(72.9%) came from distances of between one and two kilometres, 20(9%) from distances ranging between five and nine kilometres and 37 (18.1%) from distances ranging from more than two to four kilometres from school. Similar variations were found when time taken to walk to school was considered. Here, we found that 120(57.9%) spent about half an hour to walk to school 46(22.8%) took between thirty minutes and one hour while 39(19.3%) took over one hour up to three hours.

It should be noted that the totals for those who walked to school exceeds the total number of day scholars who were in the sample. This was because some

boarders walked to school (classrooms) from their dormitories which were quite a distance. In one school, Passenga, the girls dormitory was about half a Kilometre away from the rest of the school compound. Even those boarders who stayed within the school compound recorded an average walking time of five minutes to get to their classrooms.

It suffices therefore to say that although the average distance and time taken to walk to school give low figures a good number of the students walked for long distances and spent much time to reach to their respective schools.

After the account given above on the students, we now look at some factors with respect to their parents and the family education levels of the students who were in the sample.

4.1.3 Home Background factors (Education levels of household Members)

Education levels of parents revealed that 42(29.1%) of the parents had no education at all, 62(43%) had attained education ranging from standard one to eight, 28(20.5%) between form one and six and 6(4.2%) were attending adult Literacy classes. We observed that although the literacy level of parents as reflected by the education levels attained could be described as high, a majority had only primary

school level of education and only a small group, that is, those with form six level of education and above could possibly assist their children in school work.

Education levels attained by household members indicated that most parents had children in primary and secondary schools. We noted that the majority of those children that had left school had attained secondary level (form 1-4) and few had dropped out at the primary school level. There were also very few who had attained form six level and beyond. The tables below illustrate this point.

Table 13: Education Levels Attained By Parents

	Level of education attained					
	None	Adult Literacy	Primary Std. 1-8	Secondary & High School Form 1-6	Over Form six	Total
Number of cases	42	6	62	28	6	144
Percentages	29.1	4.2	43	20.6	4.2	100.0

Table 14: Number of Parents with Children in different levels of Education

Level of Education	Number of parents with children in various levels of Education			
	No Children	1 - 4 Children	More than 5 children	Total
Primary	43(29.9)	84(58.3)	17(11.9)	144(100.0)
Secondary	-	142(98.6)	2(1.4)	144(100.0)
High School	130(90.3)	14(9.7)	-	144(100.0)
Above High School Diploma & Degree	136(94.4)	8(5.6)	-	144(100.0)

Table 15: Number of Parents with Children who have completed different levels of Education

Level of Education	Number of Parents with Children who have completed different levels of education			
	No of Children	1 - 4 children	More than 5 children	Total
Primary	106(73.6)	35(32.2)	3 (2.2)	144(100.0)
Secondary	50(34.7)	84(58.3)	10(7.0)	144(100.0)
High School	116(80.6)	24(16.6)	4 (2.8)	144(100.0)
Over High School	127(82.2)	17(11.8)	- -	144(100.0)

Education levels attained by household members indicated that both parents and other immediate relatives (Brothers and Sisters) had not attained high levels of education and that the majority of the relatives had completed secondary school level of education. We further noted that the majority of the parents had children in secondary school. We therefore observed that not many parents and relatives could possibly assist those who were already in Secondary School with their school work; and if availability of relatives who have completed form four level of education and above have any bearing on the eventual performance of those already in school, then we expected a similar trend to be observed when we relate the two variables in Chapter five.

After looking at the education levels attained by household members, we now look at occupations and incomes of parents.

4.1:4 Home Background factors: (Occupation and income levels of parents)

The distribution of occupations of parents was as shown below:

Table 16: Occupation of Parents

	Type of occupation					
	Business	Formal Employ-ment	Farm-ing	More than one of the preceding with farm-ing as an option	Unempl-oyed (Casuals)	Total
Number of cases	4	11	78	49	2	144
Percent-ages	2.8	7.6	54.2	34	1.4	100.0

Most parents were farmers while the next most popular type of occupation was farming combined with business or formal employment or farming business and formal employment. Only two parents were casuals and they were farm casulas. This distribution was in line with the general socio-economic profile of the district which as indicated above was essentially mixed farming.

The occupations described above revealed the distribution of incomes as presented on Table 17.

The distribution of incomes and occupations suggest that farming is a lucrative business in the studied area. Further, we noted that fluctuations in income levels were not common given that most parents were farmers whose major source of income was livestock products and specifically milk sales which

Table 17: Monthly Incomes of Parents in Shillings

	Monthly income in shillings							
	1-500	501-1000	1001-1500	1501-2000	2001-2500	2501-3000	3000+	Total
Number of cases	25	24	13	11	17	13	41	144
Cumulative Frequency	17.4	34	43.1	50.7	62.5	71.5	100	100
Percentage	17.4	16.7	9	7.6	11.8	9	28.5	100

fetches high prices during the dry season when the supply is low.

We further noted that if the incomes of parents were to reflect the school type attended by their children, we would expect that in areas where the incomes of parents were high, they (parents) would have made their local school better by providing the necessary facilities and consequently, their children would be attending good quality school in relation to those children whose parents incomes were low and could therefore not be in a position to provide adequate facilities in their local secondary school. It was therefore anticipated that performance of the children would be reflected on these lines. This arguement will be revisited later.

After the consideration of the parents occupations and incomes presented above, we now look at the students primary school background.

4.2 PRIMARY SCHOOL BACKGROUND FACTORS

Primary school background factors were seen in light of the total number of points students had managed to obtain in certificate of primary education (C.P.E.) which formed the basis for students selection into Secondary School. For the purpose of analysis, the categorization given below was adopted.

6 - 24 points - poor primary school performance.

25-36 points - Good primary school Performance.

These points were obtained from school records and the distribution below arrived at.

Table 18: Points obtained in C.P.E. by students prior to joining Secondary School.

	Performance in C.P.E.		
	Good 25-36 points	poor 6-24 points	Total
Number of cases	86	119	205
Percent-ages	41.8	58.2	100.0

We noted that the majority of the students had scored poorly in C.P.E. prior to joining Secondary School; and if C.P.E. background is a good predictor of K.C.E. performance (results) we would expect a similar trend when we look at K.C.E. results of the students later.

4.3 Attitude factors

An attitude scale ranging from most favourable to least favourable was adminstered to students and parents. The scale sought to know attitudes of students towards their schools and teachers while those of parents towards the school attended by their children and the teachers teaching in them.

The tables below gives the distribution of attitudes held by students and parents.

Table 19: Students attitudes towards teachers teaching in their schools

	Students attitude towards teachers						
	Very Compe-tent	Compe-tent	Fairly Compe--tent	Incomp-etent	The worst	Dont know	Total
Number of cases	10	50	117	13	13	2	205
Percent-ages	4.9	24.4	57.1	6.3	6.3	1.0	100.0

Table 20: Students attitudes towards school

	The Best	A Good one	A Fair one	A Poor one	The Worst	Total
Number of Case	4	35	132	23	11	205
Percen-tages	2.0	17.1	64.4	11.2	5.4	100.0

A consideration of the reasons given supporting the nature of attitude formed towards teachers and school revealed that among those students who had favourable attitudes towards both school and teachers, their perception of teachers was very good and they had confidence in them. These reasons revolved around three issues. Firstly, it concernced with teaching techniques where students viewed the approach the teachers used in teaching as

being good and easy to follow. Secondly, the examination results in the past in their school where students saw their school as having done well over the years and thus, they hoped that they too could do well. Thirdly, facilities found within the school were seen as being adequate.

The contrary applied to the students who had unfavourable attitudes towards school and teachers. Firstly, the students saw their teachers as incompetent and complained of high teacher turnover which did not allow continuity in teaching.[4] They also complained of lack of teachers for long durations which they thought was a major disadvantage on their part; further they argued that teachers were of low quality especially form six leavers who were not trained, and who, according to the students and also according to school records, had scored low points in Kenya Advanced Certificate of Education and had consequently failed to get admission into the universities . The students saw them as "failures" and could not believe (understand) how such teachers who

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4. Even the school heads complained of the high teacher turnover. They argued that they sometimes stayed for as long as three months without a teacher when one left without being replaced.

he had failed, could teach them and be expected to do well. They thus called for graduate and trained teachers.

Secondly, students saw past examination results in their school as poor. The argument here was that due to the past tradition of mass failure in their schools, the school could only be seen as a poor one.

Thirdly, students saw facilities found in their schools as inadequate. Here, books, especially text books, laboratories and libraries were cited as lacking and where available, students complained of the poor conditions they were in, especially libraries which were poorly equipped.

Lastly, those students with unfavourable attitudes towards school cited poor management of the schools as a problem. They argued that headmasters were unable to discipline teachers and students. This was seen as a problem in that where teachers were not disciplined, they failed to attend classes regularly and this left the students on their own

without guidance.[5]

A similar attitude scale was administered to the parents which sought their attitudes towards school and teachers. The tables below show the attitudes held by parents.

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5. For an objective observation of the accusations made by the students, see appendix 2. In summary you will note

   (1) Teachers:
   - That although most schools were taught by S.I., volunteers, and Diploma holders, all schools had form 6 untrained teachers.
   - That one school (Miharati) had only one approved teacher and all the rest were form 6 leavers.
   - That only three schools (Ndururi, Miharati and Mwenda-Andu) had a graduate trained Teacher or an approved Teacher.

   (2) Books:
   - That most schools had fairly adequate copies of Text Books, i.e. 2 students per copy.

   (3) Past examination results
   - This was poor in almost all schools

   (4) Libraries and laboratories
   - Only two schools had libraries and 3 schools had laboratories.

Table 21: Parents attitudes towards school their children were attending

	Attitude formed by parent towards school						
	The Best	Good one	Fair one	Poor one	The worst	Can't tell	Total
Number of cases	2	41	65	19	1	16	144
Percent-ages	4.1	28.5	45.1	13.2	0.7	11.1	100.0

Table 22: Parents Attitudes towards Teachers Teaching in Schools attended by by their children

	Attitude formed by the parents towards teachers						
	Very Competent	Competent	Fairly Competent	Incompetent	The worst	Cant Tell	Total
Number of cases	1	25	59	21	3	35	144
Percentages	0.7	17.4	41.0	14.5	2.1	24.3	100.0

Parents attitudes towards school and teachers were supported by similar reasons as those given by the students. While those with favourable attitudes cited issues such as good examination results in the past years, competent teachers, adequate equipment found in schools, low fees charged and willingness of the schools to admit their children when other schools could not, the contrary applied to those with unfavourable attitudes who saw past examination results in the schools as deplorable, poor teachers who were not trained and poorly qualified, inadequate equipments, and poor administration on the part of the teachers who were not capable of instilling discipline in the students.

As for those parents who could not rate the school or the teachers, we attributed this to the fact that most parents had attained education levels below those attained by students and teachers. Consequently, they argued that they could not rate either the school or the teachers because they were not aware of what went on in the schools. They felt that the students were the people who could be in a position to rate the schools and teachers.

The congruence in students and parents attitudes towards the school and the teachers suggested that the "home" was in agreement as far as the perception of the school was concerned.

This was best illustrated by looking at the direction of the blame in case performance in the schools was to be described as poor. Both parents and students were asked to indicate who would be to blame in case performance in school attended was to be described as poor. The response is as recorded in the table.

Table 23.

We found that if a situation like the one above arose, the heaviest blame would fall on the teachers with students blaming the teachers more than the parents. Further, students would put much blame to themselves and so would the parent. However, students would blame themselves more than the parents would blame them.

The Ministry of Education would also not be spared from the blame. Both parents and students would almost blame the Ministry equally. Parents saw the Ministry as having failed because it was incapable of not only providing adequate and well trained teachers and enough equipments but also its failure to supervise whatever went on in these schools. However, given the fact that the schools dealt with were assisted harambee schools, we noted that the failure of parents to blame themselves indicated that they expected the Government to provide facilities which they themselves were supposed to provide.

Table 23: Parents and students choice on who should be blamed in case of poor performance in school

(a) Students

	Person to be blamed					
	Teachers	Students	Parents	Government (M.E.S.T.)	God's will Don't know	Others
Number of cases	152	103	71	41	6	8
Percentage	71.4	50.2	34.6	20	2.9	3.9
Total	205	205	205	205	205	205

(b) Parents

	Person to be blamed					
	Teachers	Students	Parents	Government (M.E.S.T.)	God's will	Others
Number of cases	76	61	14	29	17	-
Percentage	52.7	42.3	9.7	20.1	11.8	-
Total	144	144	144	144	144	144

Students also indicated that the parents would also be to blame. The major reasons given by the students were that the parents did not allow them enough reading time at home and were demanding that they should work at home. The also cited the fact that parents had not provided enough facilities in their schools.

Further, we attempted to rank the blame as voiced by both parents and students. When this was done, the results below were obtained.

Table 24: Person to blame in case of poor performance by rank

Rank	Students	Parents
1	Teachers	Teachers
2	Students	Students
3	Parents	Government (M.E.S.T.)
4	Government	Don't know (God's wish)
5	Others	Parents
6	Don't know (God's wish)	

The ranking revealed that students and parents were in agreement of who would be to blame and most blame was leveled at teachers and the students themselves. We noted that the teachers held the highest blame, that is, they were ranked first by

both parents and students.

Parents levelled least blame on themselves, they ranked themselves as the last people on whom the blame would fall and a near similar situation was found among the students who ranked their parents third. We also noted that students would blame themselves more than the parents.

These observations supports our contention above that the home was in agreement as regards its perception of the school and saw the problems as largely lying within the school as reflected by the ranking of the blame and the congruence in reasons given for attitudes formed. This was thought to be the case because of the fact that parents would not want to appear to their children as failing in playing their role of making the schools better by providing the necessary supportive equipments and teachers. And therefore they blamed teachers, students and the Government (ranks 1, 2, and 3 respectively). On the other hand, students would not have wanted to blame the parents who provided for them and therefore levelled most blame on teachers, themselves and the Government; a fact that was already entrenched in the parents minds and thus the agreement.

In summary, we saw this situation as a "self protection" mechanism which worked because of the consensus that had been established amongst parents and students.

Teachers' attitudes towards parents and students were sought by asking thirty two teachers involved in active teaching of form four class who would be to blame in case of poor performance in their schools. This question was left open ended unlike that to the students and parents. The teachers responses gave the results presented below. (See Table 25).

An attempt to rank who would be to blame as voiced by the teachers gave the results below. (See Table 26).

A consideration of teachers' responses revealed that they would place much blame on the students parents and they themselves would only be third. They argued that students were indifferent to education and had believed that it was impossible to do well once one was admitted to a harambee school.

Parents were not also spared by the teachers. They were blamed for not facilitating the schools and it was alleged that they overworked their children at home. This was evidenced by the teachers argument that most students came to school late and sometimes absented themselves and when asked why, the students claimed that they had work to do at home.

Table 25: Person the teacher felt would be to blame in case of poor performance

Person to be Blamed	Frequency at which the blame is raised by the Teachers in Different Schools*					
	Shamata	Nduruti	Salient	Miharati	Passenga	Mwenda-Andu
Students	5 Teachers	2 Teachers	5 Teachers	4 Teachers	6 Teachers	7 Teachers
Parents	2 "	2 "	3 "	1 Teacher	5 "	5 "
Teachers	2 "	1 Teacher	1 Teacher	1 Teacher	5 "	4 "
Lack of facilities	3 "	1 "	2 "	-	1 Teacher	2 "
Headmaster	-	-	1	-	2 "	-
Government	-	1 Teacher	-	-	-	-

*Frequency refers to the number of teachers who gave the person to blame as a choice. Note that it is difficult to give the total per school because one teacher may have given more than one choice of who would be to blame and therefore the possibility of being counted more than one time.

Table 26: Whom to blame according to Teachers in case of poor performance by rank

School	Whom to blame in case of poor performance according to teachers					
S	Students	Parents	Teachers	Lack of facilities	Headmaster	Government
Shamata	5	2	2	3	-	-
Ndururi	2	2	1	1	-	1
Salient	5	3	1	2	1	-
Miharati	4	1	1	-	-	-
Passenga	6	3	5	1	2	-
Mwenda-Andu	7	5	4	2	-	-
Total of Teacher Respondent	27	16	14	9	3	1
Percentage	84.3	50.0	43.75	28.12	9.37	3.12
Total Teachers interviewed	32	32	32	32	32	32

Teachers also appeared to be aware of the fact that untrained teachers (and most of them were untrained) would be a hindrance to good examination results.

Associated to the blame on parents was lack of facilities within the schools. The nine teachers who saw this as a possible cause of poor performance argued that parents were not willing to contribute money to establish such facilities as Libraries. They also pointed out that lack of boarding facilities in their schools which would reduce absenteeism and minimize students labour contributions at home were lacking due to unwillingness of the parents to put them up.

Unlike the parents who ranked the Government third, only one teacher saw the problems of the schools as associated to the Ministry of Education discriminatory practices in providing teachers and facilities according to categories of schools, where assisted harambee schools were ranked last. The argument was that all schools should be treated equally if harambee schools were to improve their output in national examinations.

An interesting observation which was brought forward was that, although teachers saw the existence of untrained teachers in these schools as a possible cause of poor performance, only one cited the Government's need to provide such qualified teachers. Suffices to conclude that most teachers were protecting their jobs by not calling on the Government to provide trained teachers who would push them out of employment.

A comparative look at the direction of the blame between parents, students, and teachers revealed that while parents and students would level most blame on the teachers, the teachers on the other hand would level most blame on the students and parents. We concluded that the "school" and the "home" existed in a conflict situation in apportioning blame as to

who would be responsible for poor performance in K.C.E. We also noted that all had convincing reasons supporting their claims a situation we saw as scapegoatism that is, each party levelling the blame to the other for an undesirable situation (condition) that none of the parties would want to accept responsibility.

After the account on attitude factors above, we now look at the school quality factors.

4.4 SCHOOL QUALITY FACTORS

In order to determine the quality of the schools, a school quality index was constructed. Two types (categories) were derived and labelled good and poor quality schools depending on the index score a school obtained.

The table below shows the categorization of the schools based on the index described.

Table 27: School quality[6]

Name of School	Index score	Label of School
Ndururi		Good quality
Passenga		" "
Mwenda-Andu		" "
Salient		Poor quality
Shamata		" "
Miharati		" "

Types 106 points and below - Poor quality Schools
107 points and above - Good quality Schools

6. See Appendix 2 for the index and details

4.4.1 SOCIO-ECONOMIC REGIONS

To determine whether a particular school was situated in a high or low socio-economic region, we stratified parental monthly incomes into two categories. All parents whose incomes were below 1,500 shillings per month were considered as having low incomes and those with over this figure were seen as having high incomes. We argued that if the parents incomes were to reflect the school quality attended by their children we would expect that in areas where the incomes of parents were high, the parents would have made their local school better by providing the necessary facilities Consequently, their children would be attending better quality schools. The converse was to be expected of those parents with low incomes.

We then worked out the percentages of the parents who had children in every school on the basis of our stratification above, and in schools where the majority of the parents had low incomes, the region within which that school was situated was considered as low income region and vice versa.

The procedure was as presented in Table 28 below.

Table 28: Socio-Economic Differentiation of parents and their respective number of children in sample schools.

Income of parents	School name					
	Sham-	Mwenda-	P assenga	Ndururi	Salient	Miharati
Number of Parents with above 1,500/-	2(21.5)	4(50.0)	38(86.0)	29(60.0)	3(23.0	7(26)
Number of Parents with below 1,500/-	5(78.5)	4(50.0)	5(14.0)	17(40.0)	10(77.0)	20(74)
Total Number of parents with children in school	7(100.0)	8(100.0)	43(100.0)	46(100.0)	13(100.0	27(100)

N = 144

Low socio-economic regions were seen as all those areas represented by schools whose percentage of parents with low incomes was 49% and below, while high socio-economic regions were seen as all those areas represented by schools whose percentage of parents with

low incomes was more than 50%. Regions of medium economic standing were seen as those whose percentage of parents with low income was equal to those with high income, i.e. 50% low and 50% high. This gave us the distribution chart.[7]

Low socio-economic regions	The regions where Shamata Salient, and Miharati Secondary schools were situated.
Medium socio-economic regions	The region within which Mwenda-Andu Secondary School was situated
High socio-economic regions	The region where Passenga and Ndururi Secondary schools were situated

Other observations which supported the stratification of socio-economic regions were as follows:

(1) Low socio-economic regions
Shamata Secondary School

In the region where this school is located, the farm sizes range from seven to twelve acres. The major source of income is pyrethrum and dairy farming and subsistence crops such as maize compete with pyrethrum and dairying for the land available. Consequently, an average of two dairy animals were reared. Most parents here were farmers. Only one parent out of seven combined farming with formal

7. See map for the location of these schools.

employment, and their incomes were as presented in Table 28 above.

Salient Secondary School

Parents who sent their children to this School are former squatters in the former Ol'Kalou Salient who have been settled on five acre plots. Their major source of income is dairy farming. No cash crop is grown in this region. Out of thirteen parents interviewed, eight were engaged in farming, two were in formal employment and three combined formal employment and farming. Given the small land sizes and poor rains and soils in this region, most parents registered very low monthly incomes as indicated by Table 28 above.

Miharati Secondary School

Most parents who sent their children to this school, 19(70.4%), were farmers on farms ranging from five to twelve acres. Their major source of income was dairying and pyrethrum growing. The land also competed highly with food crops and consequently, few animals were reared. Four (14.8%) parents combined farming with formal employment or business, two (7.4%) were causual labourers living in a Government village awaiting to be settled and two (7.4%) other parents were businessmen. The occupations above gave the distribution of incomes presented in Table 28 above.

(ii) Medium socio-economic region

This was represented by the area where Mwenda-Andu Secondary School was situated. Farm sizes here were larger than in low socio-economic regions above and ranged from twenty to forty acres. The major source of income was dairy farming combined with vegetables such as cabbages and carrots. Five (62.2%) parents were full time farmers while the rest, 3(37.5%) combined farming with formal employment or business. These occupations gave the distribution of incomes as presented in Table 28 above.

High Socio-economic regions

Ndururi Secondary School

This school is located at the district head-quarters in Nyahururu Municipal Council. The parents who had their children in this school revealed that 21(45.6%) were engaged in formal employment combined with farming or business, 13(28.2%) were farmers around the Municipality, 10(21.7%) were in formal employment alone and 2 (4.5%) were purely in business. Those that combined farming and formal employment, or business and those who were farmers were engaged in growing food crops such as potatoes, vegetables for the urban population and at the same time, they kept dairy animals. The farm sizes ranged from five

to over twenty acres. These occupations gave the distribution of incomes as presented in Table 28 above.

Passenga Secondary School

This School is located on a large scale farmers zone with the smallest farm being 40 acres while the larger farms are 150 acres. The major activities include dairy farming, sheep rearing and potato growing. The occupations of the parents who had children in this school were as follows; 27(63.6%) were farmers and 18(36.4%) combined farming with formal employment or business. These occupations gave the distribution of incomes as presented in Table 28 above.

In the foregoing chapter, we have attempted to submit data in general terms. We have reviewed all the major variables which form the basis of this study by discussing percentages. In the next chapter, we will attempt to relate the independent variables discussed above in an effort to determine whether or not they are significantly related to our dependent variable. Those that will be seen to be significant will form the basis for further discussion in chapter six.

CHAPTER FIVE

5. DATA ANALYSIS

In the previous chapter, an attempt was made to submit data in general terms leaving its further analysis to this chapter. We now go a step further and relate all independent variables to the dependent variable. We also seek to determine which independent variables are significantly related to the dependent variable and those that will be seen to be significantly related will form the basis of part of our discussion in chapter six when we discuss their relative importance in determining the dependent variable.

We also attempt to present the relationships and associations of the independent and dependent variables. Theoretical explanations as well as explanations of the relationships that may arise will also be discussed. This chapter therefore alerts the reader on variables that are significantly or not significantly related to the dependent variable and theoretical explanations that go with these relationships.

Two statistics will be used. Chi-square test will be applied to determine whether the independent variable is significantly related to the dependent variable. We shall adopt 95% confidence limit for our variables to be seen as significantly related. This is because our dependent variables is (can be) influenced by many factors that are not under consideration here and a relationship of any of our

independent variable that shows significance at this level can be seen as an important variable that determines performance. Gamma will be used to help us assess the strength and direction of the relationships. This statistic was selected because most of our data was measured at an ordinal scale and it was therefore not possible to use other measures of association such as the correlation coefficients.

We adopt the format laid down in chapter four.

5.1.1 Home background factors: labour contribution

Labour contributions that students made at home was hypothesised to be an important factor that could influence their performance in school. Our hypothesis was that those students who engaged themselves more in non-school labour activities would perform poorly than those who did less of such work. We further hypothesised that since boarding students would be expected to be more free from non-school labour, they would be expected to perform better than day scholars. On the same premise, boarders were to be expected to put more time on school related labour activities than day scholars and consequently perform better. From this perspective, we related time spent on non-school labour activities and performance in

K.C.E. Table 29 below gives the results.

Table 29: Relationship between time taken to do non-school labour activities by students and their performance in K.C.E.

Approximate time Taken per day	Grade obtained in K.C.E.				
	Division 1-3		Div. 4 & Fail		Total
		%		%	
Less than 2 hrs	50	54.0	55	49.0	105
More than 2 hrs to four hours	29	31.5	41	36.0	70
More than 4 hrs	13	14.5	17	15.0	30
T O T A L	92	100.0	113	100.0	205

X^2 Cal. 0.71 with 2 df significant at 0.70

Gamma = 0.113

Time spent on non-school labour was not significantly related to performance and the association between the two variables was a weak one. Even after we attempted to express the number of students as a percentage of the total who scored various grades and who put given number of hours to non-school work, we noticed that the trend was similar for poor and good performers where percentages tended to decline with an increase on the number of hours put to non-school work.

The above observation was actually a negation of our hypothesis and in order to establish whether the two variables were actually related, we controlled

time spent on non-school labour and performance by whether students were boarders or day-scholars. See Table 30.

This stratification on the basis of boarding and day scholar students revealed that in none of the two groups was labour and performance related. We however observed that in the group of students who performed well in K.C.E., the number tended to decline with an increase on time spent on non-school labour for both boarders and day-scholars. Further, the number of students who spent less than two hours in non-school labour and ended up performing well were more than those who performed poorly among day-scholars while the reverse was the case with respect to boarders.

A consideration of the percentage based on the total number of students who obtained various grades and who worked for gien durations of time revealed that, though the two varibales were not significantly related, good performers among day-scholars were not comparable to boarders especially where students who put less than two hours was considered, that is 43.1% as opposed to 90.4% respectively. Further, we noted that in actual fact, very few boarders put more than two hours to non-school work while the majority of day-scholars put more than two hours to non-school labour. This, coupled with other advantages such as ample reading time, ample light, accessibility of teachers boarders and other advantages as discussed

Table 30: Relationship between time spent on non-school labour and performance in K.C.E. between boarders and day-scholars

Approximate time taken per day	Performance in K.C.E.					
	Day-scholars			Boarders		
	Div. 1-3	Div. 4 & Fail	Total	Div. 1-3	Div. 4 & Fail	Total
Less than 2 hours	43.1 31(59.6)	29.2 21 (40.4)	52(100.0)	90.4 19 (35.8)	85.0 34 (64.2)	53 (100)
More than 2-4 hours	38.9 28(43.7)	50.0 36(56.3)	64(100.0)	4.8 1(16.6)	10.0 5 (83.4)	6 (100.0)
More than 4 hours	18.0 13(46.4)	20.8 15(53.6)	28(100.0)	4.8 1(50.0)	5.0 1(50.0)	2(100.0)
Total	100.0 72(50.0)	100.0 72(50.0)	144(100.0)	100.0 21 (34.4)	40(65.6)	61(100.0)

Day scholars x^2 cal. = 2.99 with 2df Sig. at 0.30

Boarders x^2 cal. = 0.64 with 2df Sig. at 0.80

Key

Top percentages adds downwards
Bottom percentages adds horizontally

in chapter four were some of the explanations that were seen as accounting for this difference in achievement among the two groups.

Further, we wanted to verify whether time spent on non-school work could have an impact on performance when stratified on the basis of sex. When this was done, the results below were obtained. See Table 31.

Even after taking into consideration the gender variable, there appeared to be little difference between non-school work and performance. However, the female side showed typical expectations where more non-school labour led to more failures. Among males, this pattern of increased non-school labour leading to increased failure did not follow. The explanation of this will be borne out later when we consider primary school background and performance. We should note here that 60% of all the males as opposed to 20% of the females had good primary school grades prior to joining secondary school.

On the whole, boys performed better than girls that is, 31% as opposed to 13% with respect to good performers. Suffices therefore time spent on non-school labour is not a significant factor in determining K.C.E. performance.

After considering the effect of non-school labour on performance, we now look at time spent on school related work and performance. This was seen

Table 31: Relationship between time spent on non-school labour and performance in K.C.E. according to Gender

Approximate time taken per day	Performance in K.C.E.				
	MALES (BOYS)		FEMALES (GIRLS)		
	Div. 1-3	Div. 4 & Fail	Div. 1-3	Div. 4 & Fail	Total
Less than 2 hours	31.0 32 (68.0)	14.0 15 (32.0)	17.0 18 (31.0)	38.0 40 (69.0)	100.0 (105)
More than 2-4 hours	31.0 22 (49.0)	33.0 23 (51.0)	10.0 7 (28.0)	26.0 18 (72.0)	100.0 (70)
More than 4 hrs	37.0 11 (59.0)	27.0 8 (41.0)	7.0 2 (18.0)	30.0 9 (82.0)	100.0 (30)
Total	65 (131.0)	46 (22.4)	27 (13.0)	67 (33.6)	(205)

Boys X^2 Cal = 3.29 with 2 df. Sig. at 0.20 Gamma = 0.33

Girls X^2 Cal = 0.53 with 2 dt. Sig. at 0.80 Gamma = 0.148

Key

Top percentages adds horizontally)
Bottom percentages adds horizontally within strata) 65(31.0)

as time spent by students consulting teachers, studying privately, doing assignment, discussing school work with colleagues to mention only a few. We hypothesised that time spent on school related activities mentioned above was a good determinant of performance. We hypothesised that since boarders would be more free than day-scholars from non-school labour, they would in turn put more time to school work and consequently perform better. When we related time spent on school labour and performance, what came out is revealed in Table 32 below.

Table 32: Relationship between time spent on school labour in relation to K.C.E. performance

Approximate time taken per day	Performance in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
Over 4 hours	27 (29.3)	32 (28.3)	59(28.7)
2 - 4 hours	59 (64.1)	76 (67.2)	135(65.8)
Below 2 hours	6 (6.6)	5 (4.5)	11 (5.5)
Total	92(100.0)	113 (100.0)	205(100.0)

X^2 Cal. 0.413 with 2 df at 0.90

Gamma = 0.025

This variable was not significantly related to performance in K.C.E. as the table above indicates.

We noticed that the trend pointed to the fact that the more the time spent, the poorer the performance became. It was only among the students who put less than two hours to school work that we had more performing well, that is, those who scored division 1-3 than those who performed poorly. This observation was a negation of our hypothesis and we thus sought to establish whether this was the true situation by stratifying our distribution on boarding and day scholar basis. Table 33 gives the results.

Our distribution after stratifying on the basis of whether students were boarders or day-scholars showed that in none of the two groups was time on school work significantly related to performance. The general trend was that the more time the students spent in school work, the poorer the performance became and more among boarders.

One viable explanation for the observed trend above was associated with the time the study was done. It was noted that when the study was carried out all schools had stopped regular teaching in classrooms in order to give students time to revise for examinations which were only a month away. It was therefore possible that the students put more time to revision as indicated by their time budget schedules and consequently, this gave the false impression that in

Table 33: Relationship between time spent on school related labour activities and performance in K.C.E. between boarders and day scholars

Approximate time taken per day	Performance in K.C.E.					
	Boarders			Day scholars		
	Div. 1-3	Div. 4 & F	Total	Div.1-3	Div. 4 & F	Total
Over 4 hours	8 (30.0)	19 (70.0)	27(100.0)	15(47.0)	17(53.0)	32(100.0)
2-4 hours	10 (31.0)	22 (69.0)	32(100.0)	53(52.0)	50(48.0)	103(100.0)
Less than 2 hours	2(100.0)	- -	2(100.0)	4(36.0)	5(64.0)	9(100.0)
Total	20(33.0)	41 (67.0)	61(100.0)	72(50.0)	72(50.0)	144(144)

Boarders X^2 Cal. = 3.35 with 2df Sig. at 0.20

Gamma = -0.19

Day scholars X^2 Cal = 0.37 with 2df Sig. at 0.90

Gamma = -0.08

the studied region, students were putting a lot of time to private studies as is evident when we look at those who put more than four hours and over. We noticed that very few students put less than two hours. While this could have been a true picture for that particular period, it possibly might not have been the case for the rest of the year when students were still expected to attend classes and were not revising for examination.

Before we concluded on the relationship with respect to time spent on school work and performance, we attempted to check the effect points obtained in C.P.E. before enrolling in secondary school relate to time spent on school work and performance. This we felt was an important factor to control for because it could have been that time spent on school labour may not matter, what perhaps counted was the academic background of the student. When we stratified the distribution on the basis of C.P.E. background, the results were as presented in table 34 below.

After we stratified our distribution on the basis of students' primary school background, the two variables still remained not significantly related. However, we found out that among those students who had good primary school backgrounds, the number of hours put to school work had very little effect on

Table 34: Relationship between time spent on school labour and performance in K.C.E. as per student's school background

Approximate time taken by school work	Performance in K.C.E.					
	Good Background 25-36 Points in C.P.E.			Poor background 6-24 points in C.P.E.		
	Div. 1-3	Div. 4 & F	Total	Div. 1-3	Div. 4 & F	Total
More than 4 hours	64 18(27.2)	36 50 0	28	29 9	71 22	31
2 - 4 hours	82.6 4(65.1)	17.4 9 (45.0)	52	19.2 16 (61.5)	80.8 67 (72)	83
Less than 2 hrs	83.3 5 (7.7)	16.7 1 (5.0)	6	20.0 1 (3.9)	80.0 4 (4.4)	5
Total	76.7 66(100.0)	23.3 20 (100.0)	86	21.8 26(100.0)	78.2 93 (100.0)	119

Good primary school background

X^2 Cal = 3.41 with 2 df. Sig. at 0.20 Gamma =-0.48

Poor primary school background

X^2 Cal = 1.35 with 2 df. Sig. at 0.70 Gamma = 0.22

Key

Top percentages adds horizontally within strata
Bottom percentages adds downwards

their performance for almost all ended up doing well in K.C.E. We noted specifically that 5(83.3%) of the students who had good backgrounds and who put less than two hours to school work ended up doing well. The importance of primary school background was further illustrated when we considered the overall performance. Here, we noticed that 66(76.7%) of the students who had good backgrounds ended up doing well irrespective of the number of hours put to school work as opposed to 26(21.8%) who had poor primary school backgrounds. Related to this was the observation that among the students who had poor backgrounds, 9(29%) who ended up doing well also put more than four hours to school work as opposed to 16(19.2%) and 1(20.0%) who put 2-4 hours and less than 2 hours to school work respectively.

The conclusion drawn from these observations was that the number of hours did not really matter as far as performance among the students with good backgrounds were concerned but the hours put to school work partly influenced the performance among the students who had poor backgrounds. Notwithstanding the shortcomings discussed above as far as the relationship between these variables was concerned, we concluded that "intelligence" as reflected by points obtained in C.P.E. (here referred to as primary school background) could be a major determinant of K.C.E. performance. This argument will be revisited later in this

chapter when we look at the relationship between primary school background and performance.

5.1.2 Home background factors: Distance from home to school and time taken to walk to school

Distance covered from home to school was hypothesised to be an important factor in determining performance. We hypothesised that those students who came far from school would perform poorly than those who stayed in school or who came from near the school for they spent more time walking to school than using that time for school work. At the same time, those students would get tired and would therefore concentrate less on their school work. When distance and performance were related, the results below were obtained. (See Table 35).

Although distance covered from home to school was significantly related to performance, we noticed that the longer the distance covered, the better the performance became which was actually a negation of our hypothesis. This observation was interpreted to mean that only very determined and motivated students could manage long distances to school and as for those who came from nearby, it did not really matter. Long distances walked was therefore seen as an indicator of the childrens desire to get education despite the costs involved.

Table 35: Relationship between distance from home to school and performance in K.C.E.

Distance covered from home to school	Performance in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
Less than 2 km	68.0 63 (42.5)	75.0 85 (57.5)	72.0 148(100.0)
2 4 Km	19.5 18 (48.6)	17.0 19 (51.4)	18.0 37(100.0)
More than 4 Km	12.5 11 (55.0)	8.0 9 (45..0)	10.0 20(100.0)
Total	92(100.0)	113 (100.0)	205(100.0)

X^2 Cal. = 6.929 with 2 df. Sig. at 0.05

Gamma = - 0.205

Key

Top percentages adds downwards

Bottom percentages adds horizontally

To establish whether the above observation was a true picture of the situation, we attempted to control for the primary school backgrounds of the students. If students who came from far also had good primary school backgrounds, then they could be seen as being more motivated than those who came from nearby the schools. Good backgrounds in C.P.E. could be interpreted to mean as a driving force for the students to achieve well in K.C.E. irrespective of the school attended.

When we stratified our distribution on this basis, the results below were obtained.

Although the two variables were not significantly related after we stratified our distribution, we noted that students who had poor C.P.E. backgrounds and who walked to school from distances ranging between 2 and 4 kilometres and those over 4 kilometres, those who ended performing well among them tended to be coming from further away from school that is 6 (28.5%) and 5(50.0%) with respect to those who walked between 2 and 4 kilometres and more than 4 kilometres. We noticed that in this group, (poor primary school background students) those who walked for less than 2 kilometres did not do well. Only 15(18.2%) got divisions 1 - 3 in K.C.E.

Further, we noted that among the students who had good C.P.E. backgrounds, distance covered

Table 36: Relationship between distance covered from home to school and performance controlling for primary school background

Approximate distance from home to school	Performance in K.C.E.					
	Good C.P.E. Background			Poor C.P.E. Background		
	Div. 1-3	Div. 4 & F	Total	Div. 1-3	Div. 4 &	Total
Less than 2 Km	71.0 48 (72.7)	78.2 18 (27.3)	72.0 66 (100.0)	57.6 15 (18.2)	77.0 67 (81.8)	72.5 82 (100.0)
2 - 4 Kilometers	20.2 14 (87.5)	8.6 2 (12.5)	17.0 16 (100.0)	23.0 6 (28.5)	17.2 15(71.5)	18.5 21 (100.0)
More than 4 Km	8.8 7 (70.0)	13.2 3 (30.0)	11.0 10 (100.0)	19.4 5 (50.0)	5.8 5(50.0)	9.0 10 (100.0)
Total	69 (100.0)	2(100.0)	92 (100.0)	26	87(100.0)	113 (100.0)

N = 205

Good C.P.E. background X^2 Cal = 1.878 with 2 df Sig. at 0.50
Gamma = -0.163

Poor C.P.E. Background X^2 Cal = 5.089 with 2 df Sig. at 0.10

Gamma = -0.386

Key

Top percentages add downwards
Bottom percentages adds horizontally

did not have much effect on their performance, however, the majority who walked between 2 and 4 kilometres, that is 14 (87.5%) ended up performing well.

The observations above pointed to the fact that some students who had poor primary school backgrounds and who walked for longer distances were quite motivated to do well. This was interpreted to mean that unlike the students who had good backgrounds and were therefore intelligent enough to be able to do well, the students with poor backgrounds and who sacrificed to walk to school for long distances were out to exploit the second chance given to them in secondary schools to prove that they also could do well.

From here, we now look at the effects facilities provided by parents at home has on eventual performance of students.

5.1.3 Facilities provided at home and performance

Facilities provided at home such as reading light, reading tables, chairs, pens, books, and other important inputs for proper learning were hypothesised to be important in determining performance of students in K.C.E. We hypothesised that facilities that parents provide would influence their children's performance and that those students whose parents provided more of these facilities would perform better than those

whose parents were only able to provide few or no such facilities. When we related the facilities provided by parents and performance of the students, the results below were obtained. (See Table 37).

Facilities provided by parents at home were significantly related to performance in K.C.E. However, when we computed Gamma for our distribution, we noticed that the trend was such that the more facilities the parents provided, the poorer the performance became.

We further noted that most parents were only able to provide a reading table, chair and light and most students who had these facilities managed to do well. We also noted that performance among the students whose parents had provided reading light, reading table and chair, special reading room and had parents, relatives or hired teacher coaching them, the majority 6(54.5%) performed well. Further, where parents were not able to provide any facility, most of their children ended up in the category of poor performers, that is, 6(88.9%).

Going by the table below we noted that it was necessary for parents to provide basic facilities such as reading light, table and chair.

The distribution below also revealed that provision of facilities was not a necessary condition towards good performance. As scholars such as

Table 37: Relationship between home facilities and student performance in K.C.E.

Facilities provided by parents	Performance in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
1.2.3.& 4	6 (54.5)	5 (45.5)	11
2,3, & 4	2 (15.4)	11 (84.6)	13
1,2, & 3	1 (25.0)	3 (75.0)	4
1 & 2	53 (57.6)	39 (42.4)	92
3 & 4	2 (50.0)	2 (50.0)	4
1	5 (45.5)	6 (54.5)	11
None	3 (11.0)	6 (88.9)	9
Total	72 (50.0)	72 (50.0)	144

X^2 Cal. = 12.614 with 6 df. Sig. at 0.05

Gamma =-0.44

Where:- 1 = Reading light e.g. lamp for the student alone

1 = Reading light e.g. lamp for the student alone

2 = Reading table and chair

3 = Reading room

4 = Child is coached by parent, relative or hired teacher.

Combinations 1 & 4, 1 & 3, 2 & 4, and 2 & 3 were not found in isolation. No student had these combinations.

Somerset (1970), Prewit (1970) , and have pointed out, facilities provided at home have to be supported with parental commitment to school work where the parents endeavour to assist children in school work and ensure that the children also attend good quality schools.

Unfortunately, the education levels of the parents in the studied area (see table 13 above) was much lower than that of the children and only 28(20.6%) had education higher than or equal to that of their children. Further, the incomes of the parents was not that high to enable them provide adequate facilities as indicated by the table. As we have already noted, most of them were only able to provide reading light, chair and table. Those children who realised that their parents could not provide more facilities made use of those facilities which were available and managed to perform well.

We now look at the effect that the education levels attained by immediate relatives has on performance of the students.

5.1.4 Education levels attained by immediate relatives and performance

It was hypothesised that students who had immediate relatives (brothers and sisters) who had attained form four level of education and above end up doing better in school due to the motivation they

receive from such relatives than their counterparts who lack such relatives. This would be due to the fact that students with such relatives would be in a position to do well since the relatives could help them in school work and at the same time motivate them to do well. We also saw that such students could be subjected to social pressure to attain what the other relatives have achieved. When we related the two variables, the results below were obtained. (See Table 38).

The two variables were not significantly related and had a very weak association. We however noted that when the grades obtained were expressed as a percentage of the total number of those who had or had no relatives, we found out that 48(51.0%) of those students with relatives scored division 1-3 as opposed to 24(48.0%) among the students who had no relatives. However, the difference was very slight indicating that the number of relatives a student had who completed form four level of education did not have a bearing on his or her eventual performance in K.C.E.

We further looked at the relationship between performance and having relatives who had completed form six level of education or above. We sought to establish whether availability of such relatives would encourage the students to work for good grades to enable them reach the standards attained by their

Table 38: Relationship between number of immediate relatives a student has who have attained form four level of education and performance in K.C.E.

Whether student has relatives	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & F.	Total
Student has relatives	48 (51.0)	46 (49.0)	94(100.0)
Student does not have relatives	24 (48.0)	26 (52.0)	50(100.0)
Total	72	72	144

X^2 Cal = 0.347 with -1df Sig. at 0.90

Gamma = 0.06

relatives. When this was done, the results below were obtained. (See Table 39).

Lack of significant relationship between these variables and performance especially among those students who had relatives who had attained form four level of education was interpreted to mean that those who felt school at this level and could not proceed could have had poor grades and instead of motivating those that were still in school, they perhaps formed reference groups with which to identify in an event they also failed to do well. As for those who had attained form six level of education and beyond, they could have suffered the disadvantage of not having the relatives staying at home and consequently, they could not be able to help those already in school with their school work.

It was therefore found necessary to look at these relationships more closely by considering the grades attained by such relatives, whether they stay at home or not, their employment statuses and other characteristics which those already out of school have that could act as positive or negative motivating factors to those already in school in order to establish whether having relatives who have completed form four level of education and above truly influences performance of those that already are in school. However this study did not focus on such issues.

Table 39: Relationship between availability of relatives with form six level of Education and above and performance in K.C.E.

Whether students have relatives	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & Fail	Total
Student has relatives	14 (50.0)	14 (50.0)	28 (100.0)
Student does not have relatives	58 (50.0)	58 (50.0)	116 (100.0)
Total	72 (50.0)	72 (50.0)	144 (100.0)

X^2 Cal = 0.04 at 1 df Sig. at 0.90

We now look at the effects primary school background as reflected by points scored in C.P.E. prior to joining secondary school has on performance in K.C.E.

5.2 Primary School background factors

Primary school background factors were seen in the light of the total number of points a student had managed to obtain in C.P.E. prior to joining secondary school. We hypothesised that those students who had good primary school backgrounds, that is, those who had between 25 and 36 points in C.P.E. could be expected to perform better in K.C.E. than those who had poor primary school backgrounds, that is, those who had between 6 and 24 points in C.P.E. When we related primary school background and performance, the results below were obtained.

While the two variables were significantly related, we also noted that there was a strong association between them. Those students who had good primary school backgrounds ended up doing better in K.C.E. than those from poor backgrounds. We found out that all the good performers, 66(72%), came from good primary school backgrounds and out of all those who had come from good backgrounds, 77% ended up being good performers. The corresponding figures were 28% with respect to good performers who came from

Table 40: Relationship between primary school background and performance in K.C.E.

Points obtained in C.P.E.	Performance in K.C.E.				
	Div. 1 - 3		Div. 4 and Fail		Total
25 - 36 points		(72)		(17.6)	
Good background	66	(77)	20	(23)	86 (100)
13 - 24 points		(28)		(82.4)	
Poor background	26	(22)	93	(78)	119 (100)
Totals	92	(100)	113		205

X^2 Cal. = 61.24 with 1df. Sig. at 0.001

Gamma = 0.844

Key

Top percentages adds downwards
Bottom percentages adds horizontally

poor backgrounds and 78% of the students who came from poor backgrounds ended up doing poorly in K.C.E.

We sought to verify this relationship further and we thus controlled for it by sex to determine whether the two variables were really related. When this was done, the distribution below was obtained. (See Table 41)

Even after we controlled the sex variables the two still remained significantly related and the association between them remained strong. Among the students who had good primary school backgrounds, boys ended up doing better than girls where we noted that 54(80.5%) of the boys who had good backgrounds ended performing well (Division 1-3) while the corresponding figure for girls was 12(63%). We further noted that girls who came from poor primary school backgrounds ended performing well in K.C.E. were less percentage-wise than boys, that is 15(20%) as opposed to 11(25%) among boys.

We therefore concluded that although primary school background was a significant determinant of performance in K.C.E., the influence was stronger among boys than girls.

Further, we wanted to establish whether the strong association could persist if we controlled for students status in terms of whether they were boarders or day scholars. When this was done, we obtained the distribution. (See Table 42) .

Table 41: Relationship between primary school background and performance in K.C.E. by gender

Primary school background	Performance in K.C.E.					
	MALES (BOYS)			FEMALES (GIRLS)		
	Div. 1-3	Div. 4 & F	Total	Div. 1-3	Div. 3 & F	Total
25-36 points	(83)	(28)		(44)	(10)	
Good background	54 (80.5)	13 (19.5)	67(100)	12 (63)	7 (37)	19 (100)
13 - 24 points	(17)	(72)	44(100	(56)	(90)	
	11 (25)	33 (75)	44(100	15 (20)	60 (80)	75(100)
Total	65 (100)	46 (100)	111	27(100)	67(100)	94

X^2 Cal. boys = 33.83 with 1 df. Sig. at 0.001

X^2 Cal. Girls = 11.76 with 1 df. Sig. at 0.001

B. Boys = 0.85

G. Girls = 0.74

Key

Top percentages adds downwards
Bottom percentages adds horizontally

Table 42: Relationship between primary school background and performance in K.C.E. controlling for whether a student is a boarder or day scholar

Primary School background	Performance in K.C.E.					
	Day-scholars			Boarders		
	Div. 1-3	Div. 4 & F	Total	Div. 1-3	Div. 4 & F	Total
25 points and above	(73.6) 54 (76)	(23.6) 17 (24)	(48.6) 70(100)	(65) 13(81.25)	(7.3) 3(18.75)	(26.2) 16(100)
13 - 24 points	(26.4) 19 (25.6)	(76.4) 55 (74.4)	(51.4) 74(100)	(35) 7(15.5)	(92.7) 38(84.5)	(73.8) 45(100)
Totals	(100) 72(50)	(100) 72(50)	(100) 144(100)	(100) 20(32.7)	(100) 41(67.3)	(100) 61(100)

N = 205

X^2 Cal. Day scholar = 36 with 1df. Sig. at 0.001.G = 0.8

X^2 Cal. Boarders = 20.2 with 1 df. Sig. at 0.001.G = 0.73

Key

Top percentages adds downwards
Bottom percentages adds horizontally

We found out that the two variables remained significantly related and the strong association persisted. We further noted that among the students who had good primary school backgrounds, boarders performed better than day scholars when we restricted ourselves to those who got divisions 1-3, that is, 13(81.25%) and 53(76%) respectively. However, the reverse was noted when we looked at the students who had poor primary school backgrounds and who ended up performing well where we noted that day-scholars performed better than boarders, i.e. 19(25.6%) and 7(15.5%) respectively.

The tables above pointed to the fact that even where the primary school background was good, the societal expectation are borne out. In a society where one of the major aims of educating children is seen as a means through which parents look forward to the children caring for them when they grow old - see Eshiwani 1985:, Mkangi 1978; Kayongo-Male 1978 Society dictates that boys must do well for they are seen as better security by the parents in their old age than girls who at one time are expected to get married away from the family and go with the benefits that might have acrued from education. Thus, there is bound to be more social pressure on boys than girls and consequently, this perhaps explains the observed relationship.

As concerns the observation that boarders who had good primary school backgrounds performing better than day-scholars, we attributed this to the advantages enjoyed by boarders over day-scholars as brought out in chapter four above. The day scholars who came from poor backgrounds and performed well could possibly be in the category of those students who were seen to be motivated as the discussion on distance covered from home to school and performance above points out.

5.3 Atitudes and performance

Students attitudes towards teachers and school, those of parents towards teachers and school, and those of teachers towards students were hypothesised to be among the major variables that influence performance in K.C.E. We hypothesised that those parents with favourable attitudes towards school and teachers would encourage their children to work harder in school and as such, performance of the children of such parents would be expected to be better than that of students whose parents had negative. (unfavourable) and moderate attitudes. On the same premise, we hypothesised that students with favourable attitudes towards teachers and school would be expected to perform better than those with moderate or unfavourable attitudes. When we related the attitudes held by students and parents towards teachers

and schools, the results below were obtained (See Table 43).

Students atitudes towards their teachers were not significantly related to performance. The association between them indicated that the more unfavourable the attitude held, the better the performance became. A look at students who held different attitudes and who scored different grades revealed that among the students who held favourable attitudes, only 22(36.6%) performed well. As for those who had moderate attitudes, the number of good performers was almost equal to those who performed poorly while those with unfavourable attitudes, the trend was similar to that of the students with favourable attitudes where the majority 16(57.2%) fell within the category of poor performers.

We therefore noted that students attitudes towards teachers was not a significant factor in determining performance.

We further sought to establish the students attitudes towards school and their performance in school with the results below (See Table 44).

Attitudes held by the students towards school were not significantly related to performance and the two showed a weak inverse association indicating that the more unfavourable the attitude held, the better the performance became. We noted that the students who held unfavourable attitudes

Table 43: K.C.E. performance and its relationship with students attitude towards teachers

Attitude held by students	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & F	Total
Favourable	22 (36.6)	38 (63.4)	60(100)
Moderate	58 (49.5)	59 (50.5)	117(100)
Unfavourable	12 (42.8)	16 (57.2)	28(100)
Total	92 (44.8)	113(55.2)	205(100)

X^2 Cal. = 2.72 with 2df. Sig. at 0.30

Gamma = -0.32

Table 44: K.C.E. performance and its relationship with students attitudes towards their school

Attitude held by student	Performance in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
Favourable	17	22	39
Moderate	57	75	132
Unfavourable	18	16	34
Total	92	113	205

X^2 Cal. = 0.967 with 2 df. Sig. at 0.70

Gamma = -0.08

had the majority scoring division 1 - 3 while those with favourable and moderate attitudes had the majority in the group of poor performers, i.e., Division four and failures.

The observations above with regard to students' attitudes towards teachers and school were a negation of our hypothesis. We also noted that the association between the variables were inverse. These observations are contrary to Robert S. Feldmans who have argued that

> "Students performance was a function of Teacher's expectation. In addition, teacher's attitudes and related competence were affected by their expectation regarding the student and students' attitudes were affected by their expectation about the teacher".

We argued that a possible explanation of the inverse association could be that students who had negative attitudes towards school (Teachers, Physical and non-physical facilities found therein, the study atmosphere in school-) worked harder on their own and consequently performed well. The lack of confidence with the school was thus seen as a realisation on the part of the students that it was necessary to work harder and try to make out the best out of a poor situation.

This also meant that those students who saw the school as good (those students who had

favourable attitudes) could have relied on the teachers, and the facilities found in the school to such an extent that they assumed that being in a school they considered to be good or the best was a necessary condition of performing well.

Parental attitudes towards school and teachers were also hypothesised to be important in determing performance in K.C.E. We hypothesised that parents with favourable attitudes could encourage children to work harder on school work since favourable attitudes by parents could be seen as indication of the confidence they held towards the schools attended by their children. When we related the two variables, the results below were obtained. (See Table 45).

Again, we found that parental attitudes towards school was not significantly related to performance and that the association between them was weak and inverse. We noted that for those students whose parents had favourable attitudes, the majority fell in the category of poor performers and the same applied to those whose parents had moderate attitudes. We also noted that where parents had unfavourable attitudes, most of the students were in the category of good performers and that students whose parents could not rate the schools had no difference between poor and good performers.

Table 45: Relationship between parental attitudes towards school and their childrens performance in K.C.E.

Parental attitudes towards school	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & F	Total
Favourable	20	23	43
Moderate	32	33	65
Unfavourable	12	8	20
None	8	8	16
Total	72	72	144

X^2 Cal = 1.08 with 3 df. Sig. at 0.80

Gamma = -0.09

Parental attitudes towards teachers that taught in the schools the children attended were also hypothesised to be significant determinants of performance, where parents had favourable attitudes, it was expected that they would encourage students to cooperate with the teachers towards good examination results and vice versa. When we related the two, the results below were obtained.

Table 46: Relationship between parental attitudes towards teachers and performance in K.C.E.

Attitude formed by the parent	Performance in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
Favourable	13	13	26
Moderate	30	29	59
Unfavourable	13	11	24
None(no attitude)	16	19	35
Total	72	72	144

X^2 Cal. = 0.69 with 3 df. Sig. at 0.90

Gamma = 0.035

Parental attitudes towards school did not appear to be significantly related to performance. We noted that it did not matter what attitude parents held towards teachers teaching in the school his or

her child attended as far as performance was concerned. We noted that there was very slight difference between good and poor performers in all attitude categories.

On attitudes, we concluded that they did not appear to be important determinants of performance amongst both students and parents. We noted that having unfavourable attitudes was a realisation on the part of the students that the schools they were attending were not among the best and it was only through personal initiative that the student could do well. Consequently, those with unfavourable attitudes towards school and teachers ended up performing well due to this realisation. As we pointed out in chapter four, parental and students reasons given for the unfavourable attitudes held towards school and teachers were in agreement and they pointed to disadvantages the schools suffered which were a hinderance to good examination achievement.

This realisation on the part of the students and parents could be seen as an explanatory factor that supports the observed trend.

From the consideration of attitudinal factors, we now look at the effect of school quality and performance in K.C.E.

5.4 School quality factors

In this section, we look at individual school

performance in K.C.E. We shall relate the points students had in C.P.E. and performance in every sample school. This follows our categorization of the schools into good and poor quality schools basing this categorization on the index score each school managed to achieve.

By relating C.P.E. grades of students and performance, all facilities found within the school will have been considered because good quality schools will be expected to produce good quality results as a result of the facilities they have while bad quality schools will be expected to lag behind the good quality ones as a result of the poor facilities found therein. Thus, the ability of a school to play its role of preparing those students who enrolled in it will be seen as a function of the facilities found in every school which formed the basis of our index score and the subsequent categorization into types.

5.4.1 Good quality schools

1. Ndururi Secondary School

This school had an index score of 124 pts and was classified as a good quality school. We related points obtained in C.P.E. by those students who enrolled into it and their eventual performance with the results below.

Table 47: Relationship between points obtained in C.P.E. and performance in K.C.E. with respect to Ndururi Secondary School

Points obtained in C.P.E.	Grade obtained in K.C.E.		
	Div. 1-3	Div. 4&F	Totals
25 - 36 points	(72) 23 (92)	(28) 9 (42.8)	(100.0) 32
13 - 24 points	(14) 2 (8)	(86) 8 (57.2)	(100.0) 14
Totals	25 (100)	21 (100.0)	46

X^2 Cal. = 7.44 with 1df. Sig. at 0.01

Gamma = 0.877

The results were a significant relationship between the school quality and performance with respect to this school. Both the physical and non physical facilities that were found in this school were seen as capable of preparing the students into performing well in K.C.E. We noted that of all those students who had over 25 points in C.P.E. prior to joining the school, 72% ended up in divisions 1-3 and that all the students who managed divisions 1 - 3, 92% had 25 points and above in C.P.E.

2. Passenga Secondary School

The school had an index score of 109 points and was categorised as a good quality school. When we related C.P.E. points and grade obtained by students in K.C.E., the results below were obtained.

Table 48: Relationship between points obtained in C.P.E. and grade obtained in K.C.E. with respect to Passenga Secondary School

Points obtained in C.P.E.	Grade obtained in K.C.E. Div. 1 - 3	Div. 4 & F	Total
25 points and and above	(38.8) 16 (64)	(11.2) 2 (5.5)	(100.0) 18
13 - 24 points	(20.9) 9 (36)	(79.1) 34 (94.5)	(100.0) 43
Totals	25 (100)	36 (100.0)	61

X^2 = 24.08 with 1 df. Sig. at 0.001

Gamma = 0.935

In this school, C.P.E. grade was significantly related to performance and the association between the two variables was also a very strong one. We found that of all the students who had 25 points and above in C.P.E., 88% fell in the category of good performers and only 11.2% failed or got divisions four. On the other hand, only 20.9% of all those who had as from 13 - 24 points in C.P.E. managed divisions 1 - 3 while

the majority (79.1%) got divisions 4 or failed. We noted that this school had adequate facilities and thus, the physical and non-physical facilities found therein were capable of preparing the students to perform well in K.C.E.

3. Mwenda-Andu Secondary School

The school had an index score of 127 points and was categorised as a good quality school. The relationship between C.P.E. performance and K.C.E. performance in this school took the shape below.

Table 49: Relationship between C.P.E. Grade and performance in K.C.E. with respect to Mwenda-Andu Secondary School

Points obtained in C.P.E.	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & F	Total
25 points +	(81.8) 9 (53)	18.2 2 (8)	(100.0) 11
13 - 24 points	(26.6) 8 (47)	(73.4) 22 (92)	(100.0) 30
Totals	17 (100)	24 (100.0)	41

X^2 Cal. = 9.88 with 1df Sig. at 0.01

Gamma = 0.85

In this school the two variables were significantly related. We noted that of all the students

who had 25 points and above, 81.8% fell in the category of good performers and only 8.2% failed or got division four. On the other hand, those who had 13 - 24 points in C.P.E., only 26.6% got division one to three and 73.4% failed or had division four. The two variables were also strongly associated in this s school.

We concluded that among good quality schools, C.P.E. grade and performance in K.C.E. were significantly related and that the associations were very strong in the three schools. We noted that the physical and non-physical facilities found therein were capable of processing the students who had good primary school C.P.E. score towards good performance.

5.4.2 Poor quality schools

1. Shamata Secondary School

This school had an index score of 87 points and was categorised as a poor quality school. Only 12 students in form four fell in our sample and due to this small number, it was not possible to compute the statistics for this school for when we related C.P.E. points and K.C.E. grade, the distribution was as presented below. (Table 50).

We noticed that the majority of the students who had 25 points and above in C.P.E. ended up doing well and further, none of those students who had

Table 50: Relationship between C.P.E. grade and K.C.E. grade: Shamata Secondary School

Points obtained in C.P.E.	Grade obtained in K.C.E.		
	Div. 1 - 3	Div. 4 & F	Totals
25 points and above	2	1	3
13 - 24 points	0	9	9
Totals	2	10	12

13 - 24 points managed divisions 1 - 3 in K.C.E. We further noted that the majority of the students admitted to this school had poor primary school backgrounds and this calminated with poor performance in K.C.E.

2. Salient Secondary School

The school had an index score of 104 points and was classified as a poor quality school. When we related points obtained in C.P.E. and students' grade at K.C.E. the distribution below was obtained.

Table 51: Relationship between points obtained in C.P.E. and grade obtained in K.C.E. with respect to Salient Secondary School

Points obtained in C.P.E.	Performance in K.C.E.		
	Div. 1 - 3	Div. 4 & F	Total
25 points and above	6 (75)	2 (25)	8 (100.0)
13 - 24 points	5 (50)	5 (50)	10 (100.0)
Totals	11	7	18

X^2 Cal. = 1.152 with 1 df. Sig at 0.3

Gamma = 0.5

In this school, the relationship between the two variables was not significant at our set confidence limit. We also noted that the association between them was not as strong as among the good quality schools. However, we noted that of the students who had 13 - 24 points in C.P.E. prior to joining the school, 50% managed to perform well, a percentage that was higher than that found in the good quality schools. We also noted that the percentage of those who had 25 points and above and who managed to perform well was higher than in one good quality school, precisely, Ndururi Secondary School. The figures above denoted a student community that was determined to perform

well irrespective of the quality of the school they were attending. As our discussion on the quality of the school above points out, this specific school is attended by students whose parents' income are essentially low and own small pieces of land. It is perhaps this realization on the part of the students that make them see education as the only way out, and consequently, the observed distribution.

Going by the schools' index score, we noted that it was almost at the borderline of good and poor quality schools and this is a reflection of the parents committment to make their local school a good one in an attempt to educate their children. Thus, this could be seen to mean that the parents also, irrespective of their low incomes, see education as the only way out for their children.

3. Miharati Secondary School

The school had an index score of 83 points and was categorised as a poor quality school. When we related points obtained in C.P.E. and Grade obtained in K.C.E., the distribution below was obtained.

In this school, the two variables were significantly related and had a strong association. We noted that the percentages for those students who obtained divisions 1 - 3 were fewer than in good

Table 52: Points obtained in C.P.E. and grade obtained in K.C.E. with respect to Miharati Secondary School.

Points obtained in C.P.E.	Grade obtained in K.C.E.		
	Div. 1-3	Div. 4 & F	Total
25 pts. & above	(66.6) 10 (83)	(33.4) 5 (33.0)	(100.0) 15
13 - 24 pts	(16.6) 2 (17)	(83.4) 10 (67.0	(100.0) 12
Totals	12 (44.4)	15 (55.6)	27(100.0)

X^2 Cal. = 6.827 with 1 df. Sig. at. 0.01

Gamma = 0.81

quality schools. A look at the percentages based on the totals who managed division 1 - 3 or division 4 and failures and who had various points in C.P.E. revealed that very few (17%) who had 13 - 24 points managed division 1 - 3. This indicated that in this school, a child had to be intelligent right from the primary school in order to obtain a good grade in K.C.E.

To enable us determine the ability of different types of schools to prepare students towards good performance in K.C.E., we considered good and poor quality schools together and compared the passes in the two types of schools. We argued that the ability of the schools to prepare students who had poor grades in C.P.E. towards good performance would be an indicator of quality. On the same premise, we argued that schools which would be able to prepare students who had good grades in C.P.E. towards good performance in K.C.E. would also be seen as good quality schools. When we related the variables stratifying the distribution on the basis of our types, the results below were obtained. (See Table 53).

We found out that in both types of schools, the variables were significantly related and a stronger association among good quality schools than in poor quality schools.

We also noted that among the good quality schools, 78.6% of all the students who had 25 points and above ended up performing well in K.C.E. while the corresponding figure with respect to poor quality schools was 69.2%.

Further, in the category of students who had poor passes in C.P.E. (13 - 24 points) poor quality schools prepared the students better than good quality schools; 22.5% of this type of students ended up

Table 53: Relationship between C.P.E. Grade and K.C.E. Grade given the type of school attended by student

Points obtained in C.P.E.	Performance in K.C.E.					
	Good Quality School			Poor quality school		
	Div. 1-3	Div. 4&F	Total	Div. 1-3	Div. 4&F	Total
25 points and above	48(78.6)	13(21.4)	61	18(69.2)	8(30.8)	26
13-24 points	19(21.8)	68(78.2)	87	7(22.5)	24(77.5)	31
Totals	67(45.2)	81(54.8)	148	25(43.8)	32(56.2)	57

Good quality schools

X^2 Cal = 46.82 with 1df. Sig. at 0.001

Gamma = 0.85

Poor quality schools

X^2 Cal = 12.5 with 1df. Sig at 0.001

Gamma = 0.77

performing well as opposed to 21.8% with respect to good quality schools. We however noted that the difference was only 0.7% as opposed to a difference of 9.4% when we considered the performance of students who had good C.P.E. backgrounds, their performance by type of school attended.

Suffices to observe therefore that among good quality schools, performance was seen to be better than in poor quality schools among students who had 25 points and above in C.P.E. However, in poor quality schools, performance among students who had 13 - 24 points in C.P.E. was slightly better than in good quality schools. The association between the two variables was stronger among good quality schools than in poor quality ones. School quality was therefore seen as a good determinant of performance in K.C.E. and the better the school quality, the better the performance became.

In the foregoing chapter, we have attempted to relate all the independent variables to the dependent variable. We have established those independent variables that are significantly related to the depended variable and have also highlighted possible explanations on those that were not.

The findings in this chapter forms the basis of our discussion in chapter six where we discuss the relative importance of significant independent variables in determining the dependent variable.

CHAPTER SIX

6. RELATIVE IMPORTANCE OF THE INDEPENDENT VARIABLES IN DETERMINING SCHOOL PERFORMANCE

In Chapter five, attempt was made to relate all the independent variables to the dependent variable. We established those factors that were significantly related to the dependent as well as the strength and direction of those relationships. In this Chapter, we attempt an assessment of the relative impact of the variables discussed in Chapter five by comparing their Gammas.

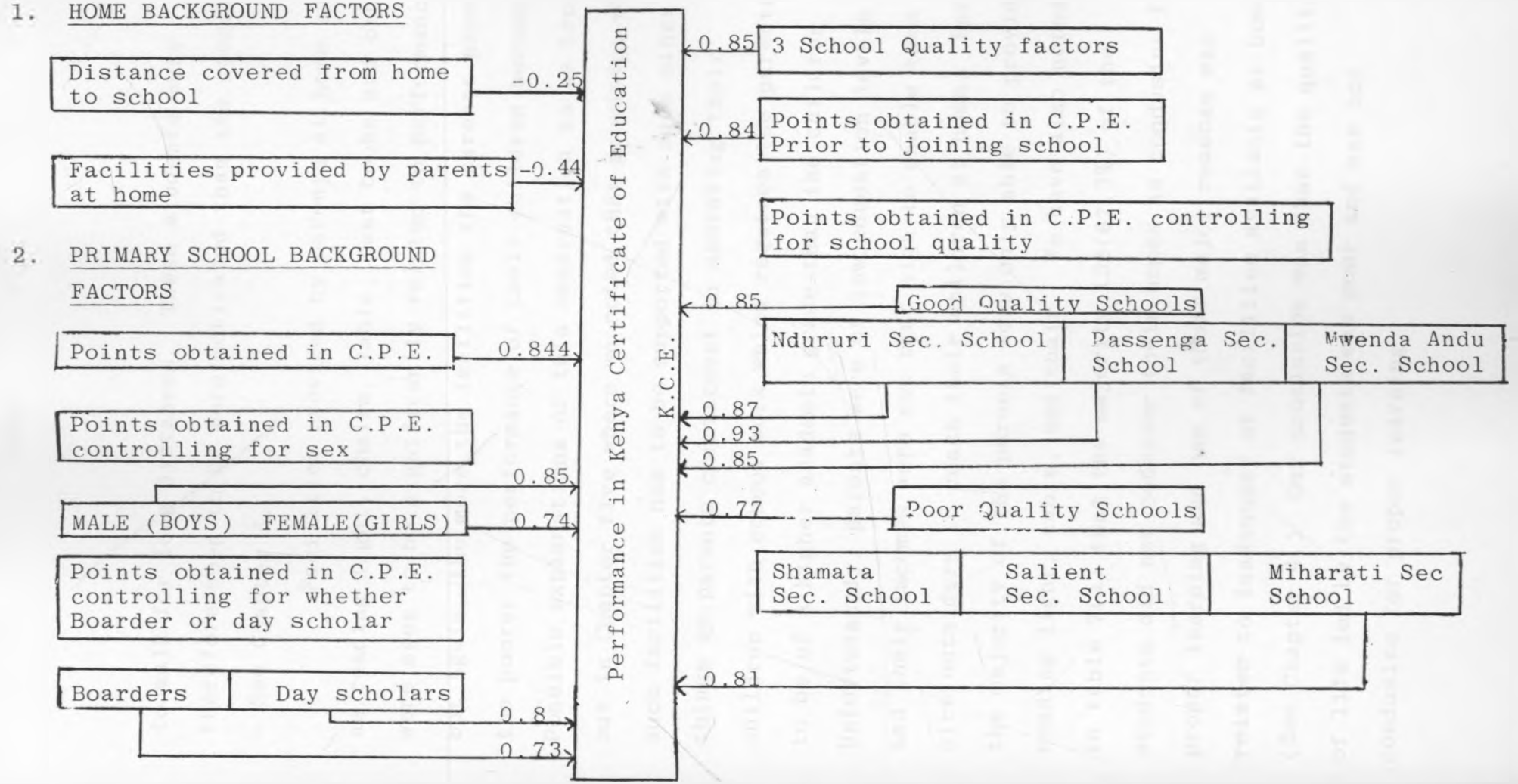
The model below summarises our major finding that were brought to light in Chapter five. We include only those variables that were significantly related at 95% confidence limit and beyond.

Among the home background factors, only distance covered from home to school and facilities provided by parents to enable their children study well at home were significantly related to performance in K.C.E.

On distance covered from home to school, the association was inverse implying that those students who came from far distances performed better than those who stayed in school or those that came from near the schools. We interpreted this to mean that far distance covered to school was an indicator of students' desire to get educated and hence the will

Schematic presentation of the strengths and direction of association of all significant relationship

(significance level = 95% confidence limit and beyond)



to walk for long distances. These students were therefore seen to be more motivated than the others - See Chapter 5.

Facilities provided by parents at home such as reading light, chairs, table, text books and others were seen to be significantly related to performance but again, the more the facilities the parents provided, the poorer the performance of their children became. Possible explanations of this observation is as brought out in Chapter five where we noted that provision of such facilities has to be supported with such other things as parents committment in assisting their children with school work which requires the parents to be of a higher academic grade than the children. Unfortunately, parents were of low education levels and their incomes were not that high to enable them hire outsiders to coach their children at home. Further, the majority of the parents were only able to provide reading light, table, and chair. We have also noted in table 7(a) that the majority 138(67.3%) of the students did not consider their homes as condusive for proper learning and one of their major reasons was related to inadequacy of facilities available at home (See Chapter 4.) Our conclusion was that the quality of life led by the students was poor and was not condusive for proper learning.

Primary school background factors were seen to be highly associated to performance in K.C.E. The association between these variables was a very strong one. Even after controlling for gender and whether students were boarders or day scholars, the variables remained significantly related to performance with high gamma figures indicating strong association.

However, we noted that the association was strongest among day-scholars than boarders and among boys than girls. We concluded that inorder to determine the role played by home background factors in determining performance, it is necessary to carry out research that seeks to find out how the home background factors influences primary school background. This has been successfully done by Somerset (1970) Banks (1980) Anderson (1969) - see literature review
It was found necessary that for children to do well, their primary school grades had to be good and as shown by the literature review, it was necessary for these children to have come from good-socio-economic backgrounds. This indicates that socio-economic factors do not only influence performance at the primary school level but the effect this has is carried forward to examinations such as K.C.E. and perhaps even beyond.

Related to primary school background was school quality factors. The quality of the school as reflected by the physical and non-physical facilities found in them were seen to be good determinant of performance in K.C.E. Even after stratifying harambee schools into good and poor quality schools, we found that good quality schools were better than poor quality schools. Although both categories were significantly related to performance, we noted that good quality schools had a higher association level to performance than poor quality schools.

Of much interest were the effects on performance after considering individual schools within the two types of schools. Here, we noted that while performance and the quality of school were significantly related in all the schools that were categorised as good, only one school among the poor quality ones showed significance with performance. We also noted that this school lagged behind good quality ones when the strength of the association was taken into account.

After the brief discussion on the variables that were significantly related to performance above, we now review the overall importance of these variables in order of priority. A comparison of Gamma for our distributions on significant variables revealed the order given below in terms of importance.

1. SCHOOL QUALITY FACTORS
   G= 0.85
   - PASSENGA — G = 0.93
   - NDURURI — G = 0.87
   - MWENDA-ANDU — G = 0.85
   - MIHARATI — G = 0.81

2. PRIMARY SCHOOL BACKGROUND (C.P.E. GRADE VERSUS K.C.E GRADE)
   G = 0.84
   - BOYS — G = 0.85
   - DAY SCHOLARS — G = 0.80
   - GIRLS — G = 0.74
   - BOARDERS — G = 0.73

3. FACILITIES PROVIDED AT HOME
   G = -0.44

4. DISTANCE FROM HOME TO SCHOOL
   G = -0.25

We noted that when we considered individual schools, our Gamma indicated that in two schools, the association was stronger than that of all good quality schools when not stratified by individual schools and was the same for one school. Further analysis on the basis of points obtained in C.P.E. Prior to joining these good quality schools (Passenga, Ndururi, and Mwenda-Andu) revealed that Passenga Secondary School had the highest number of students who had 25-36 points in C.P.E.[i.e. 18(29.5%)]while Ndururi had 13(28.2%) and Mwenda-Andu had 11(26.8%) respectively. This was interpreted to mean that Passenga Secondary School had better quality students body than the other two good quality schools while Ndururi had better students than Mwenda-Andu. The same trend was observed when we considered the incomes of parents who had students in these schools. We noted that Passenga had 86% of the parents who had 1,500 shillings and above per month and the corresponding figures for Ndururi and Mwenda-Andu Secondary Schools were 60% and 50% respectively -[see Table 28 -]

Given that primary school background was related to performance after our categorisation of the schools into good and poor quality, we concluded that a student has to first have a good grade in C.P.E. then join a good secondary school inorder to perform

well in K.C.E. Suffices therefore that those harambee secondary schools that are of good quality attracts better qualified C.P.E. candidates than the poor quality schools which have to contend with yet poor C.P.E. candidates.

Where poor quality schools attract good quality C.P.E. candidates as was the case of Miharati Secondary School[1] and which was the only poor quality school that showed significant relationship between school quality and performance, we found a situation in which the parents incomes were quite low to allow them possibly send their children to good quality harambee schools. While the percentage of parents who had over one thousand five hundred shillings and above with respect to Passenga, Nduruti, and Mwenda-Andu were 86%, 60% and 50% respectively, Miharati Secondary School had only 26% of such parents[- see table 28 above].

This indicated that parents incomes were instrumental towards creation of good quality schools and that having good C.P.E. grade was not a necessary condition towards good performance in K.C.E. Suffices therefore that good primary school background has to be coupled

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1. In this school, 15(55.5%) of all the candidates had 25 points and above in C.P.E.

with attendance of a good quality school. Further, given the catchment area of assisted harambee schools - see Chapter two we may conclude that parents have to play their role of facilitating their local school if they wish that their children should perform well in K.C.E. This can only be possible if their income are high enough as was the case with respect to good quality harambee secondary schools. We also concluded that good quality schools attracts better quality teachers. Out of 47 teachers teaching in the six schools, 21 teachers were trained and of these, 15 were in good quality schools as opposed to only 6 who were in poor quality schools. The six who were in poor quality schools were headmasters and deputy headmasters and were housed by the schools. Of those who were in good quality schools, all were housed by the school, that is, parents had constructed teachers' quarters which perhaps attracted trained teachers to their schools. Suffices therefore that the ability of a school to provide facilities such as teachers' quarters acts as an incentive to attract better qualified teachers who are instrumental to good performance in K.C.E.

Our next most important variable that showed significance with performance was the primary school score prior to joining secondary school. Irrespective of school quality, we noticed that the relationship between performance and primary school score was strongest among boys, then day scholars, followed by girls and lastly boarders.

Table 41 indicates that out of 86 students with good points in C.P.E. 67(77.9%) were boys and 19(21.9%) were girls and that out of 119 students with poor points in C.P.E., 44(36.9%) were boys and 75(63.1%) were girls. The fact that girls had poor grades in C.P.E. than boys could be explained by observations made by Eshiwani (1985: 93-94) Monstead (1976) and Gachuhi (1970) who observe that girls are expected to put more work at home than boys and therefore drop out of school and perform relatively more poorly than boys.

From our data, we therefore concluded that it is possible to predict the performance of those students with good C.P.E. backgrounds at a more advanced level of examination such as K.C.E. Those students with good C.P.E. grades ended up performing well in K.C.E. even in schools which were considered as being of poor quality. This was especially so among the students whose parents had poor incomes

as was the case of Miharati Secondary school discussed above. Suffices therefore that students with good C.P.E. grades are intelligent enough to perform well in other more advanced examinations.

On the fact that the second group that showed strong association between primary school background and performance in K.C.E. were day-scholars, we explained this from the fact that most students who had good scores in C.P.E; 70(81%) were day scholars as opposed to only 16(19%) who were boarders. Further, we noted that girls were more represented in boarding than boys in the sample. (25 boys and 36 girls). Given that the grade obtained in C.P.E. was highly related to performance, then day-scholars were observed to perform better than boarders. When this fact was taken into consideration. Further, given that girls were more represented in the boarding section than boys and that girls had poor grades in C.P.E. than boys, then day scholars, who formed the majority of the students with good backgrounds were seen to perform better than boarders irrespective of the advantages the latter enjoyed over the former. Related to this is our observation earlier on the distance covered from home to school. We noted that those students who walked from long distances to school were more motivated than those who stayed in school or

came from nearby, and since this group of students belong to the category of day-scholars, then this perhaps explains this observation that day scholars are seen to perform better than boarders when their C.P.E. grade is taken into consideration.

In summary, our consideration of variables that showed significant relationship with performance revealed the following. These are points in order of importance.

(a) That it is necessary for parents to play their role of making available adequate facilities such as teachers, books, desks, laboratories and libraries if they expect their children to perform well in K.C.E. This can only be possible where parental incomes are high, for as we have seen, all good quality schools were situated in regions of high and medium socio-economic potential We have therefore identified school quality as the most crucial variable in determining perf-ormance.

(b) That for students to be able to do well, their C.P.E. grades have to be good. We saw that where students had good C.P.E. grades, their eventual performance in K.C.E. was also good. We aluded to the fact that even where this was the case it was important that the school be of good

quality in order to prepare students for eventual good performance. Unfortunately, students who attended poor quality schools came from regions where parents had low incomes and we suspected that even their initial primary schools were of poor quality. This perhaps explains their observed low grades in C.P.E. We therefore saw this as a possible viscious cycle because parents who came from poor regions had to content themselves at sending their children to poor quality schools.

(c) That the longer distance covered from home to school was seen as an indicator of students desire to get education. This meant that only very highly motivated students could manage to make long distances to school.

(d) That it is not only the provision of facilities needed to enable students to study properly at home that matters to enable the students do well in K.C.E., but this has to be coupled with parental commitment to the childrens school work. We observed that most parents had low education levels that could not enable them to assist their children with school work and this was seen as a possible explanation of the observed inverse relationship between these two variables.

7. CHAPTER SEVEN

7.1 CONCLUSIONS

The objectives of this study were twofold: first, we sought to identify those factors that determine performance in K.C.E. and secondly, we sought to establish the relationship that exists between the students home background, the student, the school and examination results. In this section, we attempt to present the major findings of this study as well as point out areas that would require attention for future research purposes. We also attempt to suggest some recommendations that could hopefully help improve performance in harambee secondary schools.

Most of the factors that were hypothesised to to be important determinants of performance in this study were rejected. We noted that students labour contributions at home did not affect their performance in K.C.E. However, we saw that the students felt that the work they engaged themselves in was detrimental to their school work. Further, we saw that students were important contributors to family labour and school attendance regulated the extent of their contributions. To this end, we found out that less work was done in the mornings, a bit more in the evenings after school and most during the weekends.

Another rejected hypothesis was in relation to time spent by students doing school-related labour activities and performance. Here, we found that although they put substantial amounts of time

to school related work, the more the time spent, the poorer the performance became. However, we alluded to the fact that the number of hours put to school work did not really matter as far as performance among students who had good primary school backgrounds were concerned but the hours put to school work partially influenced performance among poor primary school background students. We therefore saw that the time put to school work did not really matter among the intelligent students but the less intelligent students need to put substantial amounts of time to school work if they are to perform well.

Availability of relatives who had completed form four level of education and above was also found not to be an important factor that determines performance for those students who are already in school. In this respect, we argued that it would be important to find out the grades obtained by those relatives already out of school to determine whether they act as positive or negative motivators to those already in school. In our case, we suspected that those relatives who were already out of school and had dropped at form four level could have had poor grades and instead of motivating those already in school positively, they perhaps formed a reference group with which those in school could identify if they also failed to obtain good grades. This therefore becomes an area that requires

further research.

Attitudes held by students towards their schools and teachers, those of teachers towards students, and those of parents towards teachers and the schools their children attended did not feature out as critical in determining performance. To this end, we suggested that the school and the home exists in a conflict situation for the parents and students tended to place much blame on the school and the teachers while the teachers blamed the students and the parents. This state of affairs implies that these schools will continue with the observed trend of poor performance for the parties concerned will hardly come together to try and improve the schools towards good performance. Parents will hardly see the fact that it is because of inadequate facilities that they are supposed to provide that brings about poor performance while the teachers will hardly see their incapacitated positions given that most are not trained, lack of adequate facilities in their schools, and their low academic standards as long as they have a scapegoat when poor results are observed.

One interesting finding in relation to attitudes was the observation that those students who held unfavourable attitudes towards their teachers and school tended to perform better than those with favourable attitudes. We interpreted this to be an

indication of students' level of awareness of the fact that they were attending poor schools and it was therefore only through personal initiative that they could expect to perform well in K.C.E.

The factors discussed above were among those that did not feature as important in determining performance. However, we were able to confirm some hypotheses as discussed below.

School quality factors featured out as the most critical factors that determine performance. We observed that the quality of a school was related to the socio-economic status of the community around which a school was situated. Consequently, in regions where parental incomes were high, all the good quality schools were also found. This was found to be the case because in these schools, the physical facilities such as staff houses attracted good teachers and at the same time, parental incomes had allowed the community to provide fairly adequate facilities e.g. books, libraries, classrooms and laboratories.

We therefore concluded that harambee schools are not homogenous but are differentiated in terms of resources found in regions where they are located. Further, we concluded that rewards that may accrue from education for harambee school graduates if any, can therefore be expected to be reflected along these lines where more benefits will always go to good

socio-economic regions.

Primary school background factors as reflected by grade obtained in C.P.E. prior to enrolling in secondary school were also seen as a good determinant of performance in K.C.E. We found out that one can argue that if a student has a good C.P.E. grade, it is likely that that students will also score a good grade in K.C.E. This was made more explicit when we compared the performance of these students in both good and poor quality schools. We noticed that out of 61 students who had good primary school backgrounds and who found places in good quality schools, 48(78.6%) ended up performing well in K.C.E. A similar trend was also observed with respect to students who had good primary schools backgrounds and enrolled in poor quality schools. Here, out of 26 students, 18(69.2%) ended up performing well in K.C.E. While we can observe that good quality schools prepare good background students better than poor quality schools, primary school background still remains an important factor. We therefore concluded that a student must be intelligent enough right from the primary school level if he/she is to be expected to do well in higher examinations. Primary school can therefore be seen as the base of a good student.

We also observed differencies in terms of the strength of association between boys and girls and between boarders and day scholars.

These variation are in line with the primary school background where we noticed that out of 111 boys who fell into the sample 67(60.4%) had good primary school backgrounds, and out of 94 girls, 19(10%) had good primary school backgrounds. We concluded that in the studied area, the society placed more pressure on males to succeed even at a primary school level. This is in line with the argument put across by Kayongo-Male (1980) who has argued that most farming parents in East Africa see children as security in their old age and males (boys) are seen as better security than girls. If education is seen as a vehicle through which children can curve their way up the social ladder, then society dictates that boys have to succeed and hence more social pressure is put on them to succeed.

Eshiwani (1985: 93-94) acknowledges that girls achieve lower than boys in school due to high demands on their labour, and although our hypothesis on the relationship between non-school labour and performance was rejected, Eshiwani's observation can be taken and a good explanation in this case.

The differences in terms of the strength of association between boarders and day scholars can be explained along similar lines. Our sample constituted of 61 boarding students out of which 36(59%) were girls. This suggests that the majority of the boarding were represented by girls while the majority of the day

scholar students were boys.

Distance covered from home to school also featured as an important factor that determined performance. However, we noticed that the long distance covered to school was selective of the most motivated students for we saw that those students who had poor primary school backgrounds and who walked for long distances ended up performing well. We therefore concluded that achievement in examination has something to do with personal determination.

Other conclusions drawn from this study were as follows:-

First the level of Government assistance to harambee schools is insignificant (see table 4 and appendix II). The implications are such that the expectations of parents especially those from low socio-economic regions who cannot be in a position to supplement effectively the little the Government provides will always be left behind from those from high socio-economic regions.

Secondly irrespective of school type, the teachers were of poor quality. Most were found to be form six leavers who took to teaching in harambee schools out of lack of other opportunities in the labour market. This was brough to light by the students complaints on high teacher turnover. Arising from this observations

the reality of harambee school performance is that they will never measure up to Government school standards if teachers are a critical factor in boosting the morale of students towards good school achievement. This is made more serious by the fact that the Government is not in a position to provide enough teachers and the parents are not able to provide good quality teachers as a result of their low incomes. On the other hand, so long as the the parents continue to fail to see why they should provide teachers, these schools will always remain poorly staffed and consequently continue to perform poorly.

Thirdly the student body in these schools depend on teachers and facilities that are not adequate. Most students fail to realise that dependence on such teachers and facilites would never yield fruitful resutls. This in turn results in poor performance in these schools.

Fourth, if education is to be seen as a means to upward social mobility for the less wealthy in this country, then this study implies that harambee school graduates will find it hard to get opportunities in this counry.

This is because of the fact that in Kenya, examination results act as job recruitment devices favouring those with good grades. Similar methods are applied by training institutions which offer places to form four graduates.

Last but not least, we have seen that economic variables are important determinants of quality of harambee schools and only rich communities can hope to yield benefits from harambee schools in the long run.

72. RECOMMENDATIONS

In order to improve performance in K.C.E. in the studied area, we think important to recommend the following:-

There is need to improve the school quality. This means that the physical facilities such as libraries, laboratories, text books, stationery, desks, beds, food, and all other facilities necessary in a school be made available and adequate for the number of of students to be found in a school. It is also very necessary to improve the non-physical facilities. The Government or the communities which sustains these schools should endeavour to provide enough, well educated preferably graduate trained teachers whose turnover should be reduced to at least two years. The school administration should also ensure that the

student ratios to these facilities are kept as low as possible to allow the students to benefit from these facilities.

It is important to caution the students that the facilities found in these schools are inadequate. Students should be informed that it is only through personal initiative that they can expect to achieve well at the end of their four year course.

In order to save parents money that they use in educating their children, it is necessary that those students who score below 24 points in C.P.E. be put to vocational training where they should be taught practical trades and not academic subjects. This follows from our finding that very few students who had poor primary school background in either good quality or poor quality schools performed well in K.C.E. It is also necessary that communities and the Government endeavour to make primary school better by providing all the necessary facilities. This is in line with our finding that primary school background proved to be a critical factor that determines performance. Suffices that primary school background forms the backbone of student academic success not only at secondary school level but perhaps even beyond.

7.3 AREAS OF FUTURE RESEARCH

One of the factors that was seen not to be significantly related to performance and was hitherto thought to be important was time spent on on-school work in spite of the students' complaints that they considered non-school work at home as detrimental to their school work. With this in mind, we feel that research is needed in this area and recommend that data be collected over a longer period of time. This might enable us determine the relationship existing between these variables if any. Similarly, data on time students spend on school related activities should be collected over a longer period and compared with time spent on school labour in an attempt to find out how the two relate to performance.

Given that primary school background featured as a critical factor in determining performance, we feel that it is necessary to recommend a study that seeks to determine whether there is any relationship between the quality of primary school and the socio-economic region within which it is located. This will allow us to determine whether or not the quality of schools and the quality of students in a school are determined by socio-economic variables or there are other factors that come into play.

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QUESTIONNAIRE

FORM FOUR TEACHING STAFF

Dear form four subject Masters

My name is Muthungu and I come from the University of Nairobi. I am interested in finding out the determinants of performance in K.C.E. in harambee secondary schools in Nyandarua district in order to write my M.A. Dissertation. I would therefore appreciate that you respond to the few questions below as truthfully as you can.

School Number_____

1. What subject(s) do you teach?
2. What problems do you face in the course of your teaching in this school?

3. What in your opinion are the major drawbacks towards good examination achievement in this school?

4. Who do you think would be to blame in case performance in this school was categorised as poor?

5. What do you think should be don to improve performance in this school?

Thank you very much and I wish you success in everything you do.

Muthungu, D. Mbugua Njaaga

SCHOOL QUALITY INDEX

SAMPLE SCHOOLS INDEX: NYANDARUA DISTRICT												
	VARIABE (ITEMS)	WEIGHT	VALUE	POSSIBLE SCORES HIGHEST	LOWEST	SCHOOLS (RESPONDENTS) 1	2	3	4	5	6
1	Age of school	1	1=1 to 10 years 2= over 10 years	2	1	1	1	1	1	1	2
2	Number of streams	1	1= 1 streams 2= 2 streams	2	1	2	1	1	1	1	1
3	Enrolment	1	1= Less than 100 students 2= 101 to 200 students 3= 201 to 300 students 4= 300+	4	1	1	4	2	2	4	3
4	Teacher quality	1	1= Diploma and form 6 untrained teachers	5	0	1	1	1	1	1	1
			2= Graduate untrained teachers			2	0	0	0	0	0
			3= S.I and volunteer trained teachers			3	3	3	0	3	3
			4= Technical and Diploma trained teachers			4	4	4	0	4	0
			5= Graduate and approved trained teachers			0	5	0	5	0	5
5	Teacher student ratio	2	1= 1: 31 students and above 2= 1: 21- students 3= 1: 1 - 10 students	6	2	6	4	6	4	2	4

	VARIABLE (ITEMS)	WEIGHT	VALUE	POSSIBLE SCORES		SCHOOLS (RESPONDENTS)					
				HIGHEST	LOWEST	1	2	3	4	5	6
6	Averange Number of point by student at admission in form one	1	1 = 18-20 points 2 = 21-23 points 3 = 24-26 points	3	1	1	3	2	3	3	2
7	Average Number of hours teachers are engaged in active classroom teaching per day	2	1 = 6-10 hours per day 2 = 1-5 hours per day	4	2	2	4	2	2	4	2
8.	Number of recommended Text books: Student Book ratios in terms of subjects offered. In Form 4 class	2	1 = 1:.05-1 Books 2 = 1:1.1-1.5 Books 3 = 1:1.6-2.0 Books	6	2	6	6	4	2	2	4
9.	Availability of text Books: Whether each student has a copy of text Book on his or her own: Form 1-4	1	1 = No students do not have 2 = Yes students have	1	2	1	1	1	1	1	1
10	Number of students sharing a copy of text book in the school	1	1 = 4 students per copy 2 = 3 students per copy 3 = 2 students per copy 4 = 1 student a copy	4	1	3	3	3	2	3	3

	VARIABLE (ITEMS)	WEIGHT	VALUE	POSSIBLE SCORES		SCHOOLS (RESPONDENTS)					
				HIGHEST	LOWEST	1	2	3	4	5	6
11	Classroom-Student ratio	2	1 = 1:35-44 students 2 = 1:25-34 students 3 = 1;15-22 students	6	2	6	2	4	4	2	4
12	Students Desks ratio	2	1 = 1:2 students 2 = 1:1 student	1	2	2	4	4	4	4	4
13	Availability of Library in School	2	0 = School does not have a Library 1 = School has a library	0	2	2	0	0	0	2	0
14	Availability of Laboratory in Scho School	2	0 = School does not have a Laboratory 1 = School has a Laboratory	0	2	0	4	0	0	4	4

	VARIABLE (ITEMS)	WEIGHT	VALUE	POSSIBLE SCORES HIGHEST	POSSIBLE SCORES LOWEST	SCHOOL (RESPONDENTS) 1	12	3	4	5	6
15	Other physical facilities in school	1	(1) = staff room	0	1	1	1	1	1	1	1
			1 = Lamps or electricity			1	1	0	0	1	1
			1 = Projector			0	1	0	0	0	0
			1 = Radio			1	1	1	0	1	1
			1 = Playground			1	1	1	1	1	1
			1 = Games kits			1	1	0	0	1	1
			1 = Balls			1	1	1	1	1	1
			1 = Workshops			0	0	0	0	0	0
			1 = School van(s)			0	1	0	0	0	0
			1 = School has 0 = School does not have								
16	Extra curriculum activities offered in school	2	0 = School does not offer 2 = School offers	1	0						
			Drama club			2	2	2	2	2	2
			Music clubs			2	2	0	0	0	2
			Young Farmers Club			0	2	0	0	2	2
			Christian Union/ Catholic Act			2	2	2	2	2	2
			Geographical clubs			0	0	0	0	0	2
			Wildlife clubs			2	2	0	0	2	2
			Cookery clubs			0	0	0	0	0	2
			Photography			2	0	0	0	0	2
			Debating clubs			2	2	2	2	0	0
			Scouting & Girl guides			2	2	0	0	0	0
			Science clubs			0	2	0	0	0	0
			Boxing clubs			0	0	0	0	2	0
			Green Belt Movement (Forestry)			0	0	0	0	0	2

	VARIABLE (ITEMS	WEIGHT	VALUE	POSSIBLE SCORES HIGHEST	POSSIBLE SCORES LOWEST	SCHOOL (RESPONDENTS) 1	2	3	4	5	6
17	K.C.E. Results (Trend in the last 5 years. 1979-1983)	2	0 = Failed 1 = Division 4 2 = Division 3 3 = Division 2 4 = Division 1	8	0						
			DIVISION I								
			1979			0	0	0	0	0	0
			1980			0	8	0	0	0	0
			1981			0	0	0	0	0	0
			1982			0	0	0	0	0	0
			1983			0	8	0	0	0	0
			DIVISION II								
			1979			0	0	6	0	0	6
			1980			0	6	6	6	6	6
			1981			0	0	0	0	6	6
			1982			0	6	0	6	6	6
			1983			0	6	6	0	6	6

	VARIABLE (ITEMS)	WEIGHT	VALUE	POSSIBLE SCORES HIGHEST	POSSIBLE SCORES LOWEST	SCHOOL (RESPONDENTS) 1	2	3	4	5	6
			DIVISION III								
			1979			0	0	4	4	4	4
			1980			4	4	4	4	4	4
			1981			4	4	4	4	4	4
			1982			4	4	4	4	4	4
			1983			4	4	4	4	4	4
			DIVISION IV								
			1979			0	0	2	2	0	2
			1980			2	2	2	2	2	2
			1981			2	2	2	2	2	2
			1982			2	2	2	2	2	2
			1983			2	2	2	2	2	2
			FAILURES								
			1979			0	0	0	0	0	0
			1980			0	0	0	0	0	0
			1981			0	0	0	0	0	0
			1982			0	0	0	0	0	0
			1983			0	0	0	0	0	0
		TOTALS	1 Shamata = 87 2 Ndururi = 124 3 Saherit = 104 4 Miharati = 83 5 Passenga = 109 6 Mwenda Andu = 127 GOOD QUALITY SCHOOLS = 107 POINTS AND ABOVE POOR QUALITY SCHOOLS = 106 POINTS AND BELOW						

QUESTIONNAIRE: STUDENTS

Dear Student

This Questionnaire is intended to collect information for research which seeks to find out what determines performance in K.C.E. in Harambee Schools in Nyandarua District. Please fill the answers to the questions as truthfully as you can.

The information you give will be highly confidential and will be used only by the researcher.

The Research has been approved by the Office of the President.

Date_____ Sample Number _____

Respondents sex (a) Male_____(b) Female_____

Are you a (a) Day scholar_____(b) Boarder_____

School Number_____

School Name _____

Parents Name _____

A. BACKGROUND INFORMATION

(1) How old are you Exact Age (1)_____

(1) Below 14 years

(2) 15 - 19 years

(3) Over 20 years

(2) How many points did you obtain in C.P.E. before joining this school? Exact points (2) .....

(1) Less than 10 points (4) 25 - 29 points

(2) 11 - 14 points (5) 30 - 34 points

(3) 20 - 24 point (6) More than 35 points.

B. LEARNING FACILITIES AT HOME

(3) My parents have provided the following for me to study properly at home (put a tick (✓) wherever applicable

(1) A reading lamp all by myself _ _____

(2) A reading Table and Chair _____

(3) A special reading room _____

(4) They have employed somebody to teach me _____

(5) They teach me themselves _____

(6) Others, specify _____

3(b) Do you find the atmosphere at home condusive for proper learning (3b)_____

(1) Yes_____

(2) No _____

3(c) Give reasons for your choice

(4) My parents (4)

(1) Buy me recommended text books _____

(2) Do not buy me recommended text books _____

(5) What problems do you face when you want to study at home?

(6) What do you think your parents are capable of providing to enable you study well at home that they currently do not?

(7) Do you engage in any labour activities at home before and after school and during the weekends?

(7)_____

(1) Yes (2) No

(8) If yes, do you think the work you do interferes with your studies? (8) _____

(1) Yes_____ (2) No_____

8(b) If yes, explain how the work interferes with your studies.

C. STUDENT'S ATTITUDES TOWARDS SCHOOL AND TEACHERS

(9) The teachers in my school are (9) ._____

(Tick (✓) where applicable)

1	2	3	4	5	6
Very Compe-tent	Compe tent	Fairly Compe-tent	Incomp-etent	The worst	I don't know

9(b) Give reasons

(10) My school is

(Put a tick (✓) where applicable)

1	2	3	4	5	6
The best	A Good one	A Fair one	Poor one	The worst	Can not tell

10(b) Give Reasons for your choice

D STUDENTS ASPIRATIONS AFTER K.C.E.

11. Your brothers and sisters who have completed form four level of education and above are employed as

Type of job	No. of brothers and sisters	Total
Teacher		
Clerk		
Mechanic		
Driver		
Plumber		
Welder		
Lawyer		
Doctor		
Engineer		
Pilot		
Nurse		
Administrator e.g. D.O.		
Business		
Agriculture Extension		
Soldier		
Waiter		
Cashier		
Manager		
Lecturer		
Cook		
Maid		
Others (Specify)		

(12) When you complete form four level of education or above, what would you like to become

_____

(13) What do you expect to obtain in K.C.E. examination?

(1) Division 1
(2) Division 2
(3) Division 3
(4) Division 4
(5) Fail

E. GENERAL QUESTIONS

(14) What do you think should be done to improve performance in K.C.E. in your school?

(15) Who should be blamed if performance in your school is observed as being poor? (15) _____:

(1) The teachers
(2) The Headmaster
(3) The Parents
(4) The Students
(5) Both the Parents and Teachers
(6) Both the Teachers and the students
(7) Both the parents and the students
(8) The Parents, Teachers, Students and the Headmaster
(9) The Government
(10) I do not know

15(b) Give reason for your choice

(16) What problems do you face in this school which you feel would affect your performance in K.C.E.?

(17) How best do you think the teachers can help you to perform well in K.C.E.

(18) How best do you think the parents can help you to enable you perform well in K.C.E.

(19) If given a chance, I would prefer to be (19)_____

(a) A boarding student

(b) A day scholar

19(b) Give reasons for your choice

(20) According to you, how best can harambee schools be improved in Kenya?

(F) STUDENTS' LABOUR CONTRIBUTION

(21) What time do you get up in the morning?

(1) Before 5.00 a.m.

(2) 5.30 a.m.

(3) 6.00 a.m.

(4) 6.30 a.m.

(5) 7.00 a.m.

(22) What time do you retire to bed at night?

(1) Before 9.00 p.m

(2) Between 9.00 p.m. and 10.00 p.m

(3) Between 10.00 p.m. and 11.00 p.m

(4) Between 11.00 p.m. and 12.00 p.m.

(5) After 12.00 a.m.

(23) Do you walk to school? (23)_____

(1) Yes_____ (2) No_____

23(b) If yes, how far is your school in kilometers

_____

23(c) How long do you taken to walk?

_____ (Give approximate time in hours or minutes)

(24) The question below seeks for information on labour activities you will engage in before leaving home for school, after school, and during the weekend in the coming week (from Monday to Sunday) Please put X against the column headed "STUDENT DOES" for every activity you mught engage yourself in. For every labour activity you might engage yourself indicate the approximate time you will take to perform it against the column headed "APPROXIMATE TIME TAKEN". For example

DAY = MONDAY - DATE 16/8/1984

TYPE OF ACTIVITY	STUDENT	APPROXIMATE TIME TAKEN	
	DOES	BEFORE SCH.	AFTER SCH.
Cooks	X	30 min.	1 hour
Picks pyrethrum	-	-	-
Gathers fodder	X	-	1 hour
Cultivates in the Shamba	X	-	20 min.
Milk cows	X	30 min.	30 min.
Fetches water	X	10 min.	20 min.

DAY_____ DATE_____

TYPE OF ACTIVITY	STUDENT DOES	APPROXIMATE TIME TAKEN	
		BEFORE SCH.	AFTER SCH.
Cooking			
Sweeps houses			
Kindles fire			
Cleans dishes			
Washes clothes			
Baby sits (Nurses)			
Serves meals			
Feeds calves			
Milks cows			
Sells mild (Dairy)			
Feeds Tetterd Animals			
Waters animals			
Nurses crops			
Manures crops			
Picks cash crops			
Spreads pyrethrum			
Gathers fodder			
Dips/Spray/animals			
Shaves sheep			
Drenches animals			
Dehooves sheep			
Collects fuel			
Shops (run errands)			
Cultivates			
Visits friends			
Attend secular activities			
Leisure activities			
Others (specify)			
e.g. herding animals			

SCHOOL RELATED ACTIVITIES

DAY_____ DATE_____

TYPE OF ACTIVITY	STUDENT DOES	APPROXIMATE TIME TAKE	
		BEFORE SCH.	AFTER SC
1. Studies privately			
2. Does homework			
3. Discuss school work with friends			
4. Coached privately by hired teacher, parent, relative etc.			
5. Consults teacher privately			
6. Recites poems			
7. Attends clubs e.g. Drama, Debating etc.			
8. Others specify			

Thank you very much and I wish you success in K.C.E. and everything you do in life.

Muthungu, D.Mbugua Njaaga

QUESTIONNAIRE

PARENTS

My name is Muthungu and come from the University of Nairobi. I am interested in finding out what determines performance of children in K.C.E. in this District. Your child is one among the many who have been selected for this purpose and I would therefore appreciate that you answer as truthfully as you can some questions that I want to ask you. The information you give will be treated as highly confidential.

Date of interview_____

Respondent's sex (a) Male _____ (b) Female _____

Sample Number _____

School Number _____

Child's name _____

Child's school name _____

A BACKGROUND INFORMATION

1. How old are you? (1) Age_____

(1) Below 30 years_____ (5) 45 -49 _____

(2) 30 - 34 _____ (6) 50 - 54 _____

(3) 35 - 39 _____ (7) 55 - 59 _____

(4) 40 - 44 _____ (8) 60 +

2. Are you? (1) Single _____ (2)

(2) Married _____

(3) Divorced _____

(4) Widowed _____

B EDUCATIONAL LEVEL OF HOUSEHOLD

3. How many children do you have? (3)_____

   (1) Males _____

   (2) Females_____

4. What level of education did you complete? (4) _____

(1) None	(5) Form 3 - 4
(2) Std 1 - 4	(6) " 5 - 6
(3) Std 5 - 8	(7) Over form 6 - Diploma, degree, post graduate
(4) Form 1 - 2	(8) Adult education
	(9) Technical education

5. What level of education are your children in, or have completed? (5)_____

(a) In School		(b) Completed school	
(1) Std 1 - 8 (No)	_____	(1) Std 1 - 8 (No)	_____
(2) Form 1-2	_____	(2) Form 1-2	_____
(3) Form 3-4	_____	(3) " 3-4	_____
(4) " 5-6	_____	(4) " 5-6	_____
(5) " 6+	_____	(5) " 6+	_____
(6) None	_____	(6) None	_____

C. SOCIAL-ECONOMIC STATUS

6. Are you in 6(a) _____

   (1) Formal employment? (Teacher, Chief, Nurse Doctor etc.)
   (2) Business?
   (3) Farming?
   (4) More than one of the above?

6(b)(1) Formal employment Total income 6(b)_____

Type of Employment and person employed	Income per month in KSh.
(1) Teacher	
Husband	
Wife	
(2) Extension Officer	
Husband	
Wife	
(3) Others	
Total income	KSh.

Business

Type of business	Average (app) Income per month
Shopkeeper	
Transport (Matatu etc)	
Private Clinic	
Hotel	
Others (specify)	
Total income from Business (es)	KShs.

FARMING.

Acreage of Farm _____

Farming activity	Number of Animals or acreage on crop	Approximate income (KSh.)/ Month
(1) Livestock rearing and Poultry	(1) Cows (2) Sheep (3) Chicken	
(2) Crops	(1) Pyrethrum (2) Potatoes (3) Carrots (4) Peas (5) Wheat (6) Barley (7) Others	
Total income (farming)		KSh.

OTHER SOURCES OF INCOME

Activity	Approximate income per month
(1) Shares in business	
(2) Goodwill from friends	
(3) Assistance from children & relatives	
(4) Others (Specify)	
Total (others sources)	KShs.

cont/d.

Total income per month (est.) 8b 1 + 2 + 3 + 4

B9b)_____

(1) 0 - 500 _____ (5) 2001 - 2500 _____

(2) 501 - 1000 _____ (6) 2501 - 3000 _____

(3) 1001-1500 _____ (7) 3001 +

(4) 1501-2000 _____

(D) LEARNING FACILITIES AT HOME

(To be supplemented through observation)

7. Indicate what items on the list below you have made available for your child here at home to enable him/ study properly.

Item or service available to student	Have supplied or facilitated	Have not supplied or facilitated	Observed by Researcher	
			Yes	No
1. Separete reading Room from others				
2. Special reading ligh (Has his/ her own lump				
3. Employed a teacher to coach the child				
4. Coach the child in person or brothers and sisters coaches				
5. Others - observed by researcher or reported by interviews				

8. Apart from paying the school fees for your child, what other form of assistance do you give?

(E) PARENTAL ATTITUDES TOWARDS SCHOOL, TEACHERS AND STUDENTS.

9. Did your child have a chance of attending another Harambee School? (1) Yes _____ (2) No _____

10(a) The School my child is attending is

(1)	(2)	(3)	(4)	(5)
The best	A Good one	Fair one	Poor one	The worst

Compared to other harambee schools in the districts?

10(b) Give reasons for your choice

11(a) The School your child is attending has ... teachers

1	2	3	4	5	6
Very Competent	Competent	Fairly Competent	Incompetent	The Worst	Don't Know

11(b) Give reasons for your choice

12(a) Most students in the school your child is attending are likely to pass

(1)	(2)	(3)	(4)	(5)
Very well	Well	Marginally	Fail	Don't Know

12(b) Give reasons for your choice (answer)

(F) HOME SCHOOL INTERACTION

13(a) How often do you visit the school your child is attending? 14(a) _____

(1) Weekly

(2) Termly

(3) Yearly

(4) Whenever invited by the headmaster/ teacher(s) or whenever there is a general meeting for parents

(5) Never

(6) Others (specify)

13(b) What are your major reasons behind visiting the school?

13(c) Who do you talk to when you visit the school?

(1) The Headmaster

(2) The class teacher

(3) Both (1) and (2) 14(c)

13(d) What issues do you discuss with the people you talk to in school? 14(d) _____

(1) Student's progress

(2) Student's discipline

(3) General issues on school development (specify)

(4) Others (specify)

14(a) Do you receive reports from school on the progres of your child or any other report?

(1) Yes_____ (2) No_____ 15(a) _____

14(b) If yes, in what form do you receive the reports?

(1) Verbally

(2) Through post (written)

(3) Through student (verbal)

(4) Through student(written from school)

14(c) If yes, how often do you receive the reports.

14(c)_____

(1) Monthly

(2) Termly

(3) Yearly

(4) Others (specify)

(G) GENERAL QUESTIONS

15. As a parent, what are the major reasons behind sending your children to school?

16. According to you what should be done to improve performance in harambee secondary schools.

17. Among the following, who is to be blamed in case of poor performance in harambee schools especially the one your child is attending.

(1) Teachers

(2) Teachers and the headmaster

(3) The pupils

(4) The parents

(5) Both students and teachers

(6) Both parents and students

(7) Teachers, parents and pupils

(8) The Government

(9) Don't know.

17(b) Give reasons for your choice or choices

18. What do you think is the role of harambee secondary school in the education system in Kenya.

19. Give any other information that you feel is necessary to allow improvement in harambee secondary schools.

20. What grade do you expect your child to obtain in K.C.E?

(1) Division 1 _____ (4) Division 4 _____
(2) Division 2 _____ (5) Fail _____
(3) Division 3 _____ (6) Cant tell

21. Would you be satisfied with that Grade?

(1) Yes _____
(2) No _____

21(b) Reasons.

Thank you.

SCHOOL QUALITY (ENVIRONMENT) QUESTIONNAIRE

Dear Mr. Headmaster,

Miss)
) Headmistress,
Mrs)

My name is Muthungu and I come from the University of Nairobi. I am interested in finding out the determinants of performance in harambee schools in Nyandura district in order to write up my M.A. Dissertation for the Department of Sociology. I would therefore appreciate that you answer some questions that I have on your school and allow me to look at some of your school records. I would also appreciate that you allow your staff members to respond to questions related to the nature of my study. The information you give will be used for the purpose of this study only and will be treated with high confidence. This study has the approval of the office of the President.

(A) BACKGROUND INFORMATION

School Number _____

1. When was your school started? (1) Year____ Age ___
2. How many streams do you have per class (2) _____
   (1) One (2) Two (3) Three (4) Four.
3. What is the total enrolment?

FORM	MALE	FMELA	TOTAL
ONE			
TWO			
THREE			
FOUR			
FIVE AND SIX			

B TEACHER QUALITY AND QUALIFICATIONS

5

SEX OF TEACHER	PROFESSIONALLY QUALIFIED									PROFESSIONALLY NOT QUALIFIED TEACHER										TOTAL
	GRADUATE	APPROVED TEACH.	DIPLOMA	TECHNICAL I	TECHNICAL II	S.I	P.I TRAINED	VOLUNTEERS	OTHERS	TOTAL	GRADUATE	APPROVED	DIPLOMA	TECHNICAL I	TECHNICAL II	S.I	P.I TRAINED	VOLUNTEERS	FORM SIX	FORM FOUR	OTHERS	
MALE																						
FEMALE																						
TOTAL																						

6. Teacher's Experience

	PROFESSIONALLY QUALIFIED TEACHERS										PROFISSIONALLY UNQUALIFIED										
	GRADUATE	APPROVED	DIPLOMA	TECHNICAL I	TECHNICAL II	S.I	P.I (T)	VOLUNTEER	FORM 6	FORM 4	OTHERS	GRADUATE	APPRCVED	DIPLOMA	TECHNICAL I	TECHNICAL II	S.I	P.I (T)	VOLUNTEER	FORM 6	FORM 4	OTHERS	TOTAL
Number of years in Teaching																						
Number of years in present school																						

4. What were the C.P.E. Grades of the children that have fallen into my sample at the time of enrolling in your school in Form One (indicate Grades for those who might have joined in forms 2, 3 and 4)

STUDENT'S NAME	SAMPLE NUMBER	C.P.E. GRADE AT THE TIME OF ENROLMENT				
			ENGLISH	MATHS	GENERAL SUBJECTS	POINTS TOTAL

7. On the average, your teachers are engaged in active classroom teaching for (7) _____

(1) 1 - 4 hours a day

(2) 5 - 9 hours a day

(3) Above 10 hours a day

8. According to your school records, please indicate the number of recommended books which are used by form four class in the various subjects that your school offers.

SUBJECTS OFFERED	NUMBER OF BOOKS	TITLES OF THE RECOMMENDED BOOKS AVAILABLE IN SCHOOL
Engl. Language		
Eng. Literature.		
Mathematics		
Biology		
Physics		
Chemistry		
General Science		
Agriculture		
History		
R.R. Education		
Kiswahili		
Fasili ya Kiswahili		
Commerce		
Typing		
Geography		

9. Does each student have a copy of the recommended books in all the subjects? (9) _____

(1) Yes _____

(2) No _____

9 (b) If no, how many students share a copy?

SUBJECT OFFERED	TITLE OF RECOMMENDED TEXT BOOK	NUMBER OF STUDENTS SHARING THE COPY
Eng. Language		
Lit. in English		
Mathematics		
Biology		
Physics		
Chemestry		
General Science		
Agriculture		
History		
Geography		
C.R. Education		
Kiswahili		
Fasili ya Kiswahili		
Commerce		
Typing		
Others (specify)		

10. Please indicate the number of the following facilities available in your school.

TYPE OF FACILITY & EQUIPMENT	NUMBER AVAILABLE	NUMBER OF TEACHERS USING THEM	CONDITION OF THE FACILITY / EQUIPMENT								
			PERM-ANENT	WELL EQUIP-ED	POORLY EQUIPED	GOOD COND-ITION	WORKING	WELL KEPT	SIZE	ADEQ-UATE	INADE-QUATE
CLASSROOMES											
DESKS											
DINING HALL											
LABARA TORIES											
DOMITORIES											
BEDS											
LIBRARIES											
STAFF ROOMS											
LAMPS/ BULBS											
PROJECTORS											
RADIOS											
PLAY GROUNDS											
GAMES KITS											
BALLS											
WORKSHOPS											
SCHOOL VAN											
CHAIRS											

10 (b) If your school has a Library, please indicate the books you have against each subject.

SUBJECT	COPIES AVAILABLE	TOTAL
Eng. Language		
Lit. in English		
Mathematics		
Biology		
Physics		
Chemestry		
General Science		
Agriculture		
History		
Geography		
C.R. Education		
Kiswahili		
Commerce		
Reference books eg. Dictionaries		
Others (specify)		

10 (c) If your school has laboratories, please indicate against each subject the apparatus available and their conditions.

SUBJECT	APPARATUS AVAILABLE BY NAME (NUMBER)	NUMBER WORKING	NUMBER BROKEN DOWN	TOTAL
Physics				
Chemistry				
Biology				

11. Do your students make proper use of the Library?

(11) Yes _____ No _____ (11) _____

11(b) Explain your answer

12. Which of the following extra-curriculum activities are offered in your school?

ACTIVITY	NUMBER OF STUDENTS INVOLVED	APPROXIMATE TIME TAKEN BY ACTIVITY PER WEEK
Drama		
Music		
Young farmers club		
Christian clubs		
Geographical clubs		
Wild-life clubs		
Cookery clubs		
Others specify		

13. Please indicate K.C.E. results in your school for the last five years.

YEAR OF EXAMIN-ATION	TOTAL NO. OF CANDIDATES WHO SAT THE EXAMINATION	GRADES OBTAINED				
		DIV. I	DIV. II	DIV. III	DIV. IV	FAILE
1979						
1980						
1981						
1982						
1983						

14. What do you think should be done to improve the quality of harambee schools in Kenya?

15. Give any other information that you feel can be of help to a research of this nature.

16. Do you think that harambee schools will be able to do better and come up to or approximate the Government School standards in future?

Thank you very much

Muthungu, D. Mbugua Njaaga