# A STUDY OF FACTORS AFFECTING ACADEMIC PERFORMANCE OF GIRLS IN MIXED DAY PUBLIC SECONDARY SCHOOLS IN NYAMIRA DISTRICT, NYAMIRA COUNTY, KENYA 

## BY

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A Research Project Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Education in Sociology of Education

UNIVERSITY OF NAIROBI

## DECLARATION

This research project is my original work and has not been presented for a degree award in any other university

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This research project has been submitted with my approval as university supervisor

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## DEDICATION

I dedicate this work to my loving parents Samuel Nyamweya and Sophia Kerubo who always wished the sky to be my limit. This study is also dedicated to my husband Boniface who strenuously paid my way through university education. I also dedicate it to my loving children Lillian and Brian for their support and patience throughout these long years.

May this work inspire my children and their children in their pursuit of knowledge and may Almighty God grant us this prayer.

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I thank the Almighty God for giving me the will, strength, good health and insight to produce this work. May he bless all those who contributed and facilitated towards this study.


#### Abstract

The study was conceived on realization that girls in mixed day secondary schools performed poorly at KCSE in Nyamira District.It set to find out factors affecting academic performance of girls in mixed day secondary schools in Nyamira District,Nyamira county.

The study was conducted in fourteen secondary schools covering two educational divisions. The researcher used stratified random sampling covering each division. Two schools were used for pilot for the purpose of pretesting instruments for data collection and to ensure their reliability and validity.

The instruments for data collection included questionnaires for students, teachers, and head teachers. Data was analyzed using descriptive statistics, multiple correlation and regression analysis. The SPSS statistical package was used to determine correlation and regression results.

The study elicited a number of factors which affect academic performance of girls in mixed day secondary schools. Some factors emanated from school and others from home environment of the learners. They include; type of school, physical facilities, parental involvement in education and parental level of education, proximity of the school and influence of social economic background. These factors impacted negatively towards performance of girls in mixed day secondary schools in Nyamira district.

The study made far reaching recommendations to arrest factors which affect performance of girls in mixed day secondary schools. They geared towards the well- being of improving academic performance of girls in mixed day secondary schools. The recommendations made include; government establishing more single sex boarding public secondary schools for girls, provision of social and public education to parents, strengthening Parents Teachers Associations through legal enactment and provision of adequate teaching staff into the area, especially those favored by girls like English and History.


The study also made far reaching suggestions for further researcher. These include a critical examination of decreasing number of boy child in schools, a comparative study within context of secondary schools on factors that lead to poor performance in secondary schools and a replica study should be carried out incorporating more variables that lead to poor academic performance.

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## LIST OF ABBREVIATIONS AND ACRONYMS

CAMFED Campaign for Female Education
EFA Education for All
FAWE Forum for African Women Empowerment
KCPE Kenya Certificate of Primary Education
KCSE Kenya Certificate of Secondary Education
KNEC Kenya National Examination Council
MOEST Ministry of Education Science and Technology
ROK Republic of Kenya
SPSS Statistical Package for Social Scientists
TSC Teachers Service Commission
UNESCO United Nations Education, Scientific and Cultural organization
UPE Universal Primary Education

## CHAPTER ONE

## INTRODUCTION

### 1.0 Background to the study

Education is the total process of developing human behavior hence it is said to be an organized and sustained instruction designed to communicate a combination of knowledge, skills, attitudes and understanding value for all the activities of life. It is also said to be a social process in which one achieves social competence and individual growth, carried on in a selected and controlled institutionalized setting. Education is generally regarded as a key tool for development and an invaluable means of addressing structural inequality and disadvantage through provision of life skills that enable people to prosper later in life. The skills help them to maintain a healthy and productive existence, hence grow into resourceful and socially active adults who can make cultural and political contributions to their communities (Sifuna and Otiende, 1994).

After independence in 1963, the Kenyan government recognized education as a basis to improve the lot of Africans who had been neglected by colonial education policies. It was also recognized as a human right and as a powerful tool for fostering economic, social and political development. The government laid more emphasis on education so as to produce human resources for the purpose of developing the nation's economy and laying foundation for the newly independent country (Sifuna and Otiende , 1994).

In order to succeed, the government had to craft policies in education to act as a guide and tool for economic development (GOK, 1965). Therefore, the government formed/appointed Kenya education commission chaired by Ominde popularly referred to as Ominde commission. The commission was to introduce changes in education that would reflect the nation's sovereignty. It focused on identity and unity which were critical issues at that time. It also stipulated among other issues the need to bring to school all age going children from age
three to five years, expansion of primary schools, encouraging building of harambee schools with the assistance of government working with local communities, provision of free primary education and ending racial segregation in schools. Consequently, the Seasonal Paper No. 10 of 1965 on African socialism and its application to planning in Kenya adopted the Ominde report.

In the early years of independence, demand for secondary education was very high as Court (1974) noted that perhaps the outstanding factor about education in Kenya has been that everyone has wanted it than any other thing. The provision of free primary education and high demand for human resource led to high school enrolment at primary level and increased need for secondary education. As a result (The Gachathi Report 1976) was set to redefine Kenya's education policies and objectives. The report resulted in government support for harambee schools which started as mixed day schools. The policies led to rapid expansion of education and many harambee schools were opened by parents. The government supplied teachers and parents subsidized provision of schools' necessary facilities. The report further paid a substantial attention to gender issues and it noted that majority of female lacked access to education

According to Sessional paper No. 6 of (1988), development and maintenance of physical facilities in secondary schools by communities, parents and sponsors was to continue to be encouraged. Their contribution was important as one of the means of expanding and maintaining the quality and relevance of secondary education. The report also noted that mixed day public secondary schools were cheaper to develop and maintain. Therefore, establishment of such secondary schools was seen to be a cost effective way of providing and expanding secondary education.

Both the Gachathi and Kamunge report recommended establishment and maintenance of mixed day public secondary schools. In the Kenyan education system of the secondary level
of education, different categories of schools exist. The categories of schools include; single sex public boarding schools, mixed sex day public secondary schools, mixed sex public boarding schools and private secondary schools. The schools are equipped differently and this affects performance of student in general and girls in particular.

The education of female is paramount to the development of a nation since they are involved in all kinds of activities both at community and regional level. Activities such as Farming, trading, child bearing and general household chores are all associated with women. Therefore, there is an urgent need to make education accessible to them to enable them contribute meaningfully to nation development. Numerous studies have shown that female education is very crucial for socio-economic development and improvement of their families’ status. Lack of their education leads to low birth weight, poor health and high mortality rate in children, high fertility rates, poor family nutrition, low life expectancy, poor sanitation and high illiteracy rates (Kombo, 2005).

In Africa, female education gained more emphasis in 1990 after the Jomtien Conference at Thailand on Education for All (EFA). World leaders agreed that the most urgent priority was to ensure access and improve the quality of education for girls and women and remove obstacles that hamper their active participation. They were to make efforts to end gender disparities within the educational system. This led to formation of organizations like FAWE. (Kombo and Waiyaki, 2002).

In 1992, a pan African Non-governmental organization known as FAWE (Forum for African Women Educationists) was founded to promote girls and women's education. It was to ensure girls have access to education, perform well and complete their studies so that gender disparities in education are eliminated. This was to be done by promoting gender equity and equality in education in Africa by fostering positive policies, practices and attitudes towards girls' education.

The World Education Forum held 2000 in Dakar, argued that children should complete "Compulsory primary education of good quality", by 2015. There was also concern about gender disparities in education, pledging to eliminate them by 2005. The UN's millennium summit, heads of state adopted these targets as two of the eight Millennium Development Goals (MDGs) for reducing world poverty. It was indicated that since education was so crucial to improving health and increasing incomes, girls had an effect on all of the other Millennium Development Goals (Kombo, 2005).

The recent government policy on free and universal education and subsidizing of secondary school fees has occasioned opening of more mixed day public secondary schools. There is also mushrooming of day secondary schools through the Constituency Development Fund (CDF). The schools play a very crucial role of absorbing primary school graduates but, it is important to address the performance of girls in mixed day public secondary schools since female education has been given emphasis in recent years.

Achievement of women in higher education particularly in information technology has improved but still female illiteracy is high especially in rural areas. Interest accorded to girl's education in Africa for the past twenty years should have already resulted in improved parents and community's attitude approaches. The improvements should in turn have led to change in girl's behavior and performance in school and thus greater female survival, confidence, achievement and retention (Otiende and Njoroge, 2001).

Most girls enrolled in mixed day public secondary schools drop out before completion and the level of achievement they attain is very low. Girls in single-sex schools tend to perform better in KCSE than those in mixed day public secondary schools, particularly in science, mathematics and technology. The learning environment in mixed day public secondary schools is usually hostile towards girls. They are sexually harassed, teased and ridiculed by boys and teachers, when one is too intelligent or not too intelligent. Sometimes boys in
coeducational institutions are very aggressive towards girls and they often use physical force and threats to silence them in class. Therefore educational attainment of girls is associated with the type of educational institution one attends (Kombo, 2005)

Analysis of KCSE examination results in Nyamira district indicated that academic performance of girls in mixed day public secondary schools was low compared to counterparts in girls boarding public secondary schools. As a result, the researcher sought to examine factors that affected girls' academic performance in mixed day public secondary schools in Nyamira district, Nyamira County.

The data of sampled schools in appendices 2, 3 and 4 indicated that girls from single sex boarding schools in Nyamira district performed better in KCSE as compared to those in mixed day public secondary schools in the same area. In the area, there were forty eight secondary schools in total. Out of these, two are girls public boarding, two are boys public boarding, one is a private secondary school and the rest are mixed day public secondary schools.

The KCSE analysis on appendices 2,3 and 4 shows that over $50 \%$ of girls who sat for examinations in single sex public boarding schools attained mean grade $\mathrm{C}+($ minimum university admission grade in Kenya) and above. A small percentage of girls who sat for examinations in mixed day public secondary schools (less than $30 \%$ ) attained mean grade $\mathrm{C}+($ plus) and above. This observation was a clear indicator that important gaps still exist in our knowledge at the school level.

It is apparent that girls in single sex public boarding secondary schools continued to perform better than counterparts in mixed day public secondary schools in KCSE, Nyamira district. Poor performance of girls in mixed day public secondary schools is a problem that needs to be addressed and amicable solutions sought. As a result, the researcher sought to examine
factors that affect performance of girls in mixed day public secondary schools in Nyamira district, Nyamira County.

### 1.1 Statement of the problem

Year after year results of Kenya Certificate of Secondary Education (KCSE) in Nyamira district reveal that girls in single sex public boarding schools performed better in national examinations than girls in mixed day public secondary schools. Poor performance of girls in mixed day public secondary schools is a problem which needs investigation and possible solutions sought. The researcher therefore aimed at finding out factors which affect academic performance of girls in mixed day public secondary schools in Nyamira district, Nyamira County.

### 1.2 Purpose of the study

The purpose of this study was to investigate factors that led to poor academic performance in KCSE by girls in mixed day public secondary schools in Nyamira district, Nyamira County. The study looked into home and school factors that affected performance of girls in such schools. It also identified problems facing head teachers, teachers, students and parents in an attempt to improving academic performance of girls in mixed day public secondary schools in Nyamira district. On the conclusion of the study, the researcher has recommended ways of improving academic performance of girls in mixed day public secondary schools.

### 1.3 Objectives of the study

The objectives of the study were:

1. Determining the extent to which school related factors affect the quality of education of girls in mixed day secondary schools as measured by examination performance.
2. Investigating how parental involvement in education affects girls' academic performance in mixed day secondary schools.
3. Establishing ways in which parental level of education affects academic performance of girls in mixed day public secondary schools in Nyamira district.
4. Examining effects of proximity to school on girls' academic performance in mixed day public secondary schools.
5. Analyzing the influence of social economic background on girls' academic performance.

### 1.4 Research questions

The research questions that guided this study were:-

1. To what extent does school related factors affect the academic achievement of girls in mixed day public secondary schools?
2. Does parental involvement in education affect academic performance of girls in Nyamira district?
3. How does parental level of education affect the academic performance of girls in mixed day secondary schools in Nyamira district?
4. What are the effects of proximity to school on girls' academic performance in Nyamira District?
5. What is the influence of socio-economic background on girls' academic performance in Nyamira District?

### 1.5 Significance of the study.

The study elicited information useful to principals, Parents’ Teachers’ Associations (PTAs), Board of Governors (BOGs) and Ministry of Education (MOE) on the ways of improving academic performance of girls in mixed day public secondary schools. It will help narrow the knowledge gap by providing useful information to parents and teachers in the girls' local community.

The findings of this study will, also, enable educationists and parents to come up with ways of solving the problems facing girls so as to improve their academic performance on national examinations. Further, it will provide an objective assessment of the effects of school inputs in mixed day public secondary schools on girls' academic performance. Conclusions reached in this study may stimulate further research in the area of problems facing girls in mixed day public secondary schools both regionally and nationally.

### 1.6 Assumptions of the study

1. Mixed day public secondary schools admit qualified girls from primary schools to form one.
2. Kenya Certificate of Secondary Education (KCSE) results are a true reflection of academic achievement in secondary schools.
3. Mixed day public secondary schools offer a similar curriculum as required by the Kenya National Examination Council (KNEC) in conjunction with Kenya Institute of Education (KIE).
4. The respondents used gave honest answers.
5. The examination data availed was reliable for use.

### 1.7 Limitations of the study

The study relied on KCSE results as a measure of academic achievement without taking into consideration other variables like discipline in determining examination performance. The study mainly focused on Nyamira district.

### 1.8 Delimitations of the study

The study was delimited to girls' academic achievement in Nyamira district in KCSE examinations in the period covering 2008-2010. It only considered head teachers, teachers, parents and students. Other people and factors not related to the study were left out.

### 1.9 Definition of terms

Mixed day public secondary schools: Refers to second level of day educational institutions which comprises of both sexes (male and female) and whose students commute to school every school day and any other day they are required to be in school.

Kenya Certificate of Secondary Education (KCSE): Refers to an examination taken at the end of the four years of secondary education at fourth form in Kenyan education system.

Academic performance: Refers to success in standardized national examination at critical stages of life. For example, KCPE and KCSE, where one must succeed in order to proceed further in education or a sample of achievement of a student with respect to attained skills or knowledge.

Public boarding schools: Refers to the schools where the government assists partially in finances and supply of teachers and students are housed in the schools.

Resources: Refers to both learning and physical facilities in the school e.g. laboratories, library, computer labs, text books etc.

Motivation: Refers to the forces that provide direction to behavior and in this case, it is academic performance.

Poor performance: Refers to sample of achievement that is inadequate of what is expected to enable one proceed to the next level.

Mean score: Refers to the average point showing individual or group achievement in examination performance.

Quality education: Refers to an education system with high level of achievement and efficient management of education resources.

Quantitative education; Refers to provision of large outputs.
Teacher qualification: This refers to the sample of achievement of the teacher in respect to attained skills and knowledge.

Gender equity: This is the process of being fair/impartial/just in treatment of men and women.

Gender equality: This refers to equal access to resources and opportunities in all spheres of life for both men and women.

## CHAPTER TWO

## LITERATURE REVIEW

### 2.0 Introduction

Literature review is a study of what has been published on a topic by accredited scholars and researchers. It helps the researcher to identify and articulate the relationship between the literature and the field of study. It also illustrates how the subject has been studied previously and shows why the research fits into the existing body of knowledge (Ryan and Case, 2010).

This section covers the literature review for the study under the following sub-headings: government policy on education and the importance of education, in school and home or community factors that generally affect academic performance, a theoretical framework and conceptual framework of the study.

### 2.1 Government policy on education and the importance of education

The government of Kenya recognizes education as a basic human right and is enshrined in chapter four of the constitution of Kenya 2010. Her policy documents continue to emphasize the importance of female education in eliminating poverty, disease and ignorance. The government is committed to provision of quality education and training as a human right for all Kenyans in accordance with Kenyan law and international convention like Education for All (EFA). It is also developing strategies of ensuring attainment of this goal. The implementation of Universal Primary Education (UPE) is one of the strategies towards realization of EFA. The government, communities, development partners and other stakeholders continue to make substantial investments to support education programs within the sector (Sessional paper no.1, 2005).

Education is considered a vital instrument because it paves way for socio-economic, political and cultural advancement. In this regard, governments in developing countries give a larger portion of their yearly budget to education (World Bank 1988; Oluoch 1972). In Kenya, it has been the government's policy to continue expanding secondary education and the government noted that to undertake such expenditure in the most effective way, there should be establishment of mixed day public secondary schools. These schools are cheaper to develop and maintain hence the government proposed that communities and parents should be encouraged to build such schools. The government was to provide them with adequate facilities and equipment in order to maintain high standards of quality teaching and learning (Sessional paper No. 6 1988).

The government recognizes that education of the female is paramount to the development of a nation. Women are involved in all activities both at community and regional levels. The activities associated with women include; farming, trading, child bearing, child rearing and general household chores hence there is urgent need to make education accessible to them to enable them contribute meaningfully to nation development. It is noted that countries with smaller gender gaps in education have better indicators of social welfare. There are social benefits that will arise if more females are provided with proper education. The benefits may include lower infant mortality rates, improved nutrition, increased life expectancy and better opportunities for their children in the next generation (Kombo, 2005).

The government also recognizes the strategic importance of improving the overall education level of Kenyans within the context of poverty reduction and economic growth. In this
regard, education is not only an indicator of development but it is also a key determinant of earnings and therefore an important exit route from poverty (Sessional Paper No.1, 2005).

Despite the government's commitment to the development of education and training through sustained allocation of resources, the sector still faces a number of challenges. The challenges are related to access, equality, quality, relevance, costs of financing education, efficiency in management of resources, teacher quality and utilization, gender and regional disparities. For instance, inequality in female access to education has continued despite commitments by various governments to the goal of formal education. Many girls are not in school and those who are lucky enough to be enrolled in secondary schools in form one, either drop out before completion especially in mixed day public secondary schools or perform poorly in Kenya Certificate of Secondary Education (KCSE). These problems affect girls more than boys. For instance, in Kenya, girls' secondary enrollment accounts for only $57 \%$ of the school age population compared with $75 \%$ of the boys (Kombo, 2005).

Some researchers have identified a number of factors that contribute to poor academic performance. The factors can be divided into two groups that is, in school factors and home or community factors. The in school factors that affect academic performance include teaching and learning resources, physical facilities, class size, curriculum and instructions, proximity of the school, type of school, teacher experience and commitment. Home or community factors that affect performance include parental level of education, family size, social class of the learner, parental participation in education (Evans, 1999; Jagero, 1999).

### 2.2 In school factors that affect performance

## a) Teaching and learning resources

The availability of teaching and learning resources make a difference in achievement of learners and is generally agreed that better facilities in a school lead to high academic achievement (Kathuri 1984). It was also pointed out by Court and Ghai (1974) that the distribution of resources like books and equipment account for scholastic difference among schools. In the learning process, learning resources ought to be incorporated; organized and exploited otherwise learning will be passive and boring. Use of appropriate teaching and learning strategies enhances the acquisition of the subject matter.

The presidential working party on education and manpower training for the next decade and beyond (Republic of Kenya 1988) report stated that the resources should be properly utilized in an effective manner to bring about efficient provision of quality and relevance in education. According to Eshiwani (1992), schools which lack resources like laboratories, libraries and textbooks often performed poorly in national examinations. Availability of adequate teaching materials often made teaching easy and enhances retention of about $80 \%$ of what is learnt. Instructional materials like textbooks, visual and audio enhance communication between teachers and learners facilitate child-central learning and learning through discovery. They also motivate and encourage participation of learners and help clarify concepts and add meaning to texts.

The technical working group by Ministry of Education, Science and Technology (MOEST, 2003), recognized the fact that availability of educational materials has a major bearing on
academic achievement. The group found out that there was a critical shortage of textbooks, equipment and physical facilities which was a major contribution to poor performance in national examinations. Additionally, a study carried out by Obura (1991) on subject textbooks revealed that female images are hardly present in textbooks and the few present are negative in relation to female. For example science books rarely show girls doing science and boys rarely appear in Home Economics books. According to him this suggested and gives an impression that some subjects are more suited to one gender rather than another.

## b) Class size

The question whether smaller classes are better than large classes continue to be debated among teachers, administrators and research community. Hussein and Postethwaite (1985), the proponents of small classes, argue that both teacher's morale and individual attention given to pupils is increased through smaller classes. A World Bank Report (1987) on school learning in Thailand reported that students in schools with higher student ratio learn less than students in schools with lower student ratio. Maengwe (1985) in the study on factors affecting performance in KCSE noted that overcrowding in classrooms affected learning negatively. Class sizes in Kenyan secondary schools vary. Schools with small classes have posted good results while large classes (over 40 students) have been cited by teachers to negatively affect teaching.

## c) Type of school

There are different categories of schools and different schools have their unique characteristics that exert positive or negative influence on academic achievement of the learners. Some schools are high cost while others are low cost, a factor which determines availability of facilities. There is also existence of mixed and single sex schools, day and
boarding schools (Abraham, 1995). In Kenya, examination results of many high cost schools and well established boarding schools are always better than those of low cost schools and mixed sex day schools. Most low cost schools are poorly equipped and due to inadequate resources and facilities such schools fail to attract best teachers (Eshiwani, 1992).

The population council of $\operatorname{Kenya}(1997)$ in a study that sought to establish the effect of material input on performance in examinations revealed that mixed day public secondary schools and most of which were formally 'Harambee' schools were poorly equipped while single sex schools had better facilities and recorded good examination results. It was noted that most single sex schools perform better than mixed schools in KCSE.

Njuguna (1998) in a research on Head Teachers' Leadership Styles and Students' KCSE performance in Public schools in Nairobi Province noted that it was more difficult handling students of both sexes in the same school than it was handling students of single sex schools in the administration of schools. The report also noted that head teachers in single sex schools found it easier to give direction and had more concern on the welfare of students than in mixed schools. He therefore concluded that the difficulties experienced in the administration of mixed schools to a large extent contributed to poor performance in KCSE examination.

Mutea (2000) reports that provincial and district schools in Kenya have been said to perform poorly in KCSE perhaps because the government policy requires that $85 \%$ of all the students in provincial schools come from the province where the school is located and $100 \%$ of the students enrolled in a district to be from primary schools in that district. This contributes to poor performance in English because students used their mother tongue and Kiswahili relegating English to second or third place.

## d) Teacher's experience and commitment

Studies on teacher experience and effectiveness in teaching consistently show that new teachers, those with fewer than three years of experience tend to be less effective than the more experienced teachers (Murname and Philips, 1981). It was also established that teachers' experience and commitment to student learning emerge as key characteristics to successful learning and achievement. Teachers' attitudes, self-concept, behavior and teaching practices are the most significant implications for learner's level of achievement. Students learn better, learn more and remember more if they find pleasure in the learning experience (Waweru, 1982).

Some schools employ teachers who are not trained in order to pay them cheaply. Most teachers in mixed day secondary schools are generally young, unqualified and inexperienced. 52.3\% of them have taught for less than two years (Eshiwani, 1992). These results in a high turnover as the majority of the teachers join university or greener pastures. The implication of frequent change of teachers on students is mainly negative resulting in poor performance.

Some teachers tend to marginalize girls in classrooms. For example, classroom studies in the United States and France have shown that even when girls make up majority of students, teachers pay less attention to them than to boys. Sometimes boys get attention because they are being disciplined for bad behavior while girls tend to be disciplined less because they are reserved and timid. Studies also show that most teachers hold lower expectations on girls (Slavian, 1990)

## e) Proximity of school

A study by Scharff and Brady (2007) found out that, there was low enrolment of girls in secondary schools due to inadequate supply of schools. They had to walk long distances to and from school which was discouraging and cumbersome. It also found out that, girls were more vulnerable to abuse than boys while on transit to and from school.

### 2.3 The out of school related factors that affect performance

## a) Social stratification/social class of the family

According to Ezewu (1983), society is divided into specific layers into which individuals are fitted and categorized. Each of these layers is called a stratum and the process of categorizing and the way members of each stratum relate to one another is called social stratification as "the presence of social groups that are ranked one above the other usually in terms of power, prestige, rewards and wealth that their members possess." Jary and Jary(1999) define social stratification as the hierarchically organized structures of social inequality which exist in society.

One of the most important factors that bear on academic achievement is the system of social stratification in a given country. Society is characterized by inequalities of wealth and other aspects. Such economic differences are accompanied by different material conditions, lifestyles, social prestige, ideas and attitudes, language and even patterns of infant and child care all of which have a bearing on academic performance (Holloway, 1990). According to Gillborn and Mirza(2000), one way in which family's socio-economical background affected school performance was through the type of school attended. Children from low socioeconomic status, despite their mental potential, tended to go to cheaper schools which
performed poorly while their counterparts whose ability could be average went to well performing schools because their parents had ability to pay. Ndiritu (1998) noted that children from well to-do social backgrounds tend to do better. This is as a result of high incomes of parents which enable them to buy supplementary text books and other study materials.

The Economic Survey Report of 2004, Ministry of Planning and National Development, observed that girls are pulled out of school and boys left in school when family income dictates that all children cannot be educated. Girls miss school when there are chores to be done at home or there is a sick family member to nurse. They are taken out of school when they mature to prepare them for marriage or to help supplement the family income by selling, farming or performing other money generating activities like being employed as domestic workers so as to support the family economically. The report further noted that girls are sometimes married off in order to educate the boys.

## b) Parental involvement in education

Parental involvement in student's work has been identified as a factor influencing school attendance and academic achievement. Parents can have a powerful effect on children's performance such as ensuring that pupils arrive at school on time, have suitable clothing, necessary books or equipment and ensuring that homework is done and completed on time. They also ensure school fees are paid on good time to avoid disrupting the children's learning (Griffin, 1996).

Cullen (1968) noted the importance of parental encouragement on academic performance. Parents of high achieving children seem to take more interest in the child's schooling than
those of low achieving children. Muola (1990) found that children whose parents encourage them to do well in school have interest in their schooling, are actively involved in their school work and perform better in the national examination.

A study by Corner and Haynes (1991) found out that parental participation in a child's education is essential for effective teaching and learning. Parental participation has also been stressed by Griffin (1996). He pointed out that parent's involvement is an important element in the learner's academic achievement and that this is consistently correlated with learner's test performance. This relationship was observed even when school level variables like class size, school student population, teacher qualification and experience were controlled.

## c) Parental level of education

Douglas (1964) in his study observed that parents who are unskilled are more often than not of low educational attainment. They take little interest in education of their children or their children's work. They have large families, live in grossly overcrowded homes lacking amenities like water, toilets and tend to send their children to schools which are ill equipped.

Kivito (1989) in his study looked at the relationship between secondary students' need to achieve and the educational level of their parents. Results from his study show that there is a positive and significant correlation between father's level of education and pupil's motivation to achieve. He also reported a further positive relationship between mother's level of education and girls' achievement motive. The student's need to achieve was further correlated to his/her academic performance which showed a positive correlation.

## d) Parental attitudes and interests

According to Coombes (1974), when a child's family and friends have little interest in education and state how education has no value or that they are better off than the educated, then the likelihood of such a child losing interest in education or dropping out of the system is increased. Parental attitudes have also a role to play in the academic attainment of a child. Acceptance of a child, rejection and overprotection or over indulgence will have different effects on schooling and academic performance. Positive parental attitude will lead to acceptance of a child and hence develop into an enthusiastic, responsible, calm, attentive, optimistic and relaxed child. Such positive parents will provide learning resources to their children to motivate them, follow up their performance leading to excellent results (Arnot, M. and Gubb, J.2001)

### 2.4 Summary of Literature Review

This section covers a period of about forty five years defining the period of after independence but female education gained more recognition in 1990. During this period, research has been done on factors affecting performance on various levels of learning like primary and secondary schools. There is also research conducted on specific subjects, for example Sessional paper No. 1 of 2005 points out that performance in Mathematics and Science subjects has persistently been poor. However not so much has been done on performance of girls in fourth form level in mixed day public secondary schools in Kenya. This explains why the Literature review does not have a global or continental perspective or a Kenyan perspective; hence the significance of the study as the country continues to experience the mushrooming of day secondary schools and the important role they will play in absorbing graduates of Free Primary Education (FPE) from the Kenya Certificate of

Primary Education (KCPE) level. Therefore there is urgent need to look into areas where performance of girls in Kenya Certificate of Secondary School (KCSE) may be affected especially when the government is trying to lay emphasis on girl child education.

### 2.5 Theoretical framework of the study

In this study, the researcher used Maslow's theory of human needs and motivation. Maslow advanced a theory of human needs referred to as a hierarchy of needs. In his theory, he pointed out some needs; particularly physiological needs must be satisfied before higher needs can be felt and fulfilled, hence the use of the term hierarchy. Maslow's view of motivation is that physiological needs are strongest and demands satisfaction first before other needs. Once they are satisfied, they no longer motivate and the child can be motivated by next need in the hierarchy. Maslow's theory helps us to understand different types of needs of students/learners and how they motivate them, hence relevance to the study.

Maslow's hierarchy of needs


The first four needs (physiological needs, safety needs, love and belonging, self-esteem) are called deficiency needs and their fulfillment greatly depends on other people. The uttermost-self-actualization is referred to as 'being need' because its' satisfaction is dependent on the
individual himself. In view of the importance of Maslow's theory of human needs and motivation (1943), the researcher examined it with regard to its application in school, classroom setting and home environment at large. The satisfaction of the physiological needs is a pre-requisite for satisfaction of all other higher needs. Therefore, the researcher established the extent to which physiological needs are met concerning learners both at home and in school.

Student's safety and security is very vital. Children are generally fearful of being bullied by peers or older students or being chastised by teachers or parents or being subjected to severe humiliation and discipline by others. The school should ensure that students are protected against those security threatening factors. Good school buildings at all levels of learning satisfy the safety needs of learners by protecting them against rain, wind and sun thus facilitating effective teaching and learning.

There is also need to love, be loved and to belong. This implies the need to have friends and family and being part of a group. It is crucial for teachers to establish good teacher-pupil relationship. There should also be good pupil-pupil relationship and good school-community relationship. These relationships promote teaching and learning. In the school and classroom set-up, the learners should be comfortable and also feel proud to belong to the school or class.

As concerns the esteem needs, learners should be helped to develop positive self-esteem concepts by treating them as individuals worthy of human dignity. They should be assigned class work that matches their intellectual ability since this boosts their self-esteem. Praises should be given to those who excel but those who don't excel should not be ridiculed but
assisted or be given individual attention. For the self-actualization need, the learners should be assisted to develop their potentials fully and to find fulfillment in life.

Therefore the researcher investigated and established the extent to which all levels of needs in Maslow's theory of motivation were fulfilled in respect with the learners used and how this influenced their performance.
2.6 Conceptual framework of the study

| Home/ community related factors |  | School related factors |
| :--- | :--- | :--- |
| a) Social class and family <br> b) Parental level of education <br> c)Parental involvement in the <br> education of the learner <br> d) <br> Parent's level of income <br> e) <br>  <br> Duties performed at home | a) Teaching and learning resources <br> b) Type of school <br> c) Class size <br> d) Teacher experience and commitment. <br> e) Proximity of the school |  |
| Students in Teaching/Learning process |  |  |

In this study student's performance was conceptualized as an outcome of interrelated factors that is factors related to the school and home/community factors were seen to interact. This inter-relationship is indicated by the two sided arrow connecting the two sets of factors.

As students go through teaching and learning process, they are under the influence of the two sets of factors. This influence is indicated by the arrows that start from the two sets of factors towards the teaching and learning process. The effectiveness or ineffectiveness of teaching and learning process greatly determines student's performance in examinations.

## CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.0 Introduction

The chapter covers the methodology which the researcher used in studying factors affecting performance of girls in mixed day public secondary schools in Nyamira District, Nyamira County. It covers the following; research design, target population, sampling procedures, piloting, research instruments, data collection procedures and data analysis techniques.

### 3.1 Research design

According to Orodho J.A (2004), a research design is a specific plan for studying the research problem and it constitutes the 'blue print' for collection, measurement and analysis of data. Wiersma (1995) points out that a survey design is concerned with gathering of facts or obtaining pertinent and precise information concerning the current status of phenomena and whenever possible, draws conclusions from the facts discovered.

This study was carried out using descriptive survey research design. Orodho (2004) defines descriptive survey as a method of collecting information by interviewing or administering a questionnaire to a sample of individuals.

Descriptive survey design was appropriate for this study because it enabled the researcher to collect information concerning the current academic performance of girls in mixed day public secondary schools in Nyamira District. The researcher drew conclusions from the findings of the study which are crucial in narrowing the knowledge gap by providing information on Nyamira District Schools.

### 3.2 Target population

According to Mugenda and Mugenda(1999), a population is defined as a complete set of individual cases or objects with some characteristics that differentiate it from other populations. The study was carried out in Nyamira District, Nyamira County. There are two educational divisions in the district namely Nyamaiya and Nyamira.The district has forty eight (48) secondary schools which offer (K.C.S.E) examination at form four. Two(2) public girls boarding secondary schools, two(2)public boarding boys' secondary schools, two(2) mixed public boarding schools, forty one (41) mixed day public secondary and one(1) private secondary school. The schools targeted for the research were the forty one day secondary schools while others were left because they were not directly related to the study. Girls, teachers and head teachers in mixed day public secondary schools in Nyamira district, Nyamira County were the main concern.

### 3.3 Sample/sampling procedure

According to Gay (1992), a researcher selects a sample due to various limitations that may not allow the researcher to use the whole population. Based on this guideline, the research sought information from a total of fourteen samples (34.15\%) out of a population of forty one. The sample for this study was drawn from schools in Nyamira district where the study was carried out. The researcher used proportional stratified random sampling to select samples of schools from each educational division. Seven schools were sampled from each division. This method was chosen because it guaranteed desired representation of the two divisions thus increasing the efficiency of the population.

The simple random sampling involved assigning each school a number, writing each number on a piece of paper and putting them in a container from where the researcher picked the required number(fourteen).This ensured each school was appropriately represented. The
sampled schools formed the study sample for head teachers, teachers and students. All the fourteen (14) head teachers of sampled schools were respondents to the head teachers' questionnaire. Teacher respondents were sampled randomly from those who taught fourth form class. The researcher used seventy (70) teachers as a representative sample. The researcher sampled four hundred and ninety girls (490) from the fourteen schools derived from the current fourth form using PPs-probability proportionate to size, in this case the size of the classes. Fourth form students were considered appropriate for the study because they had spent at least three years in secondary school hence factors which affect their performance were easily be ascertained. Head teachers, students and their teachers formed a core group in this study because they are key players in the process of teaching and learning.

### 3.4 Research Instruments

According to Creswell (1994), questionnaires are widely used in education to obtain information about current conditions and practices and to make enquiries concerning attitudes and opinions quickly and in precise form. Orodho (2004) emphasizes the use of questionnaire. He points out that a questionnaire has the ability to collect large amount of information in reasonably quick space of time and the response can be easily analyzed.

The researcher developed open and closed questionnaires for head teachers, teachers and students. Both primary and secondary data collection methods were used in the study. Secondary data was obtained from the District Education Office and school records. Such data included the number of schools, number of teachers, number of students, performance results in KCSE in secondary schools.

The questionnaires for teachers sought to find out their qualifications, experience, availability of teaching and learning resources in their schools and some environmental problems around their schools. Another questionnaire was issued to head-teachers of sampled schools to find out the factors of school quality, that is number of girls who attained $\mathrm{C}+$ (plus) and above and
were eligible for university admission in the years 2008, 2009 and 2010. It further sought to find out teachers' qualifications and experience, physical facilities, role of Parents Teachers Associations (PTAs) on school development and general management because all these affect KCSE performance in Nyamira District.

The last questionnaire was issued to students. This was designed to elicit the students' background or home environment factors and the activities they are involved in before and after school which negatively affected their academic performance.

The researcher also observed the school facilities, resources and staff for every school visited.

## 3.5 piloting

Piloting was taken to ensure that instruments are of acceptable reliability and validity. It helped the researcher in determining whether the research items were correctly worded in order to avoid misinterpretation when administered to the population in the main study.

Gay (1992) and Wiersman (1995) observed that piloting is important as it helps identify misunderstanding, ambiguity and useless or inadequate items. In this study, a pilot study was conducted in two schools with similar backgrounds, for example, same number of streams, and same age. The respondents who took part in pilot study did not participate in the main study.

### 3.6 Instrument reliability

An instrument is said to be reliable when it can measure a variable accurately and consistently if used in similar conditions. According to Mugenda and Mugenda(1999), reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials.

The researcher used test-retest method to estimate the reliability of the questionnaires. In order to establish reliability, the split half method was used. The questionnaires were issued
to the same secondary schools which were used in pilot study within an interval of two weeks.

### 3.7 Instrument validity

Validity is the accuracy and meaningfulness of inference which are based on the research results, Mugenda and Mugenda(1999). Orodho A.J (2004) says validity is the degree to which results obtained from the analysis of data actually represent the phenomena under investigation.

First the researcher went through the research instruments in relation to set objectives to make sure that it contained all the necessary information to meet set objectives. Secondly the researcher sought for views as well as consulting the supervisor and other experts from the department of sociology. Then the researcher conducted a pilot study in two schools to help in establishing if the instruments were to measure the intended purpose and whether the respondents experienced any difficulty in their responses. This helped the researcher in establishing if the instruments were comprehensive enough to elicit the intended information exhaustively and whenever there was need, a revision was done accordingly.

### 3.8 Data collection procedures

The researcher travelled to each school under study for familiarization before administering the instruments to students, teachers and head teachers. After issuing the research instruments, the researcher explained clearly contents of questionnaires to the respondents. She also assured them of confidentiality and anonymity in reporting the findings of the study. Then they were given ample time to study and answer the questions accordingly. After that, the researcher collected the filled questionnaires for analysis.

### 3.9 Data analysis technique

Data was analyzed using descriptive statistics and the linear multiple regression. The researcher examined completed questionnaire, processed each item and reported through descriptive narrative. This was done using frequency means, calculating percentages and tabulating them appropriately. The researcher further used multiple regression analysis to show individual effect each independent variable had on the dependent variable. This helped in exploring the strength of the relationship between several independent variables and one dependent variable.

Information gathered from the discussions, unstructured interviews and observations was recorded, analyzed given a score and stored for two to three weeks after the act. The researcher then revisited the same interviewees and recapitulated the same items. The same process of recording, analyzing and coding used earlier was used. The scores from the two were correlated and a correlation coefficient was reached through computing using SPSS (Statistical Package for Social Scientists) in order to obtain the coefficient of reliability. This test-retest technique of analyzing data was used to analyze unstructured interviews, in-depth discussion and observation. This was followed by drawing of inferences which formed the basis of research findings of the entire process.

## CHAPTER FOUR

## DATA ANALYSIS AND INTERPRETATION

### 4.1 Introduction

This chapter covers data presentation, analysis and interpretation. The information gathered from head teachers, teachers and students was analyzed and laid out in form of tables. This was then followed by a detailed analysis of both multiple regressions and multiple correlation analysis. Data was analyzed using descriptive statistics, linear multiple regression and factor analysis methods using Statistical Package for Social Sciences (SPSS). Most girls in mixed day secondary schools had the following factors affecting their academic performance: lack of proper accommodation, lack of proper diet, a lot of work at home, bad company at home, home environment which is not conductive for learning, walking long distance to and from school, lack of reading materials at home.

### 4.2 Questionnaire Return Rate

The questionnaire for students was administered to 490 students and it covered key areas like their home environmental factors, daily routines and social amenities which affected their academic performance in Kenya Certificate of Secondary Education (KCSE). Out of the number of questionnaires issued, 430 were returned representing $87.8 \%$ which formed the basis of the analysis.

The questionnaire for teachers was administered to 70 teachers and it sought to find out their qualifications and experience, availability of teaching and learning resources, their opinion on what should be done to improve KSCE performance in girls' day secondary schools in Nyamira District. The return rate was high, 60 questionnaires were returned which translates to $86 \%$.

Table 4.1: Questionnaire Return Rate

| Respondent | Sample size | Responses | Return rate |
| :--- | :---: | :---: | :---: |
| Head teachers | 14 | 14 | $100.0 \%$ |
| Teachers | 70 | 60 | $85.7 \%$ |
| Students | 490 | 430 | $87.8 \%$ |
| Total | $\mathbf{5 7 4}$ | $\mathbf{5 0 4}$ | $\mathbf{2 7 3 . 5 \%}$ |

The questionnaire for head teachers sought to find out KCSE performance of schools visited; University admissions in 2007, 2008, 2009, 2010; students' admission scores; teachers' qualifications and experience. The questionnaire return rate for head teachers was $100 \%$ representing all the fourteen schools they head. The researcher held unstructured interviews with head teachers on various matters and issues related to improvement of girls' KCSE performance in Nyamira District. Questionnaires and interviews elicited very useful information.

### 4.3 Information from students

Table 4.2: Negative factors which affect performance of girls in KCSE in mixed day secondary schools in Nyamira District

| Factors | Frequency | Percent |
| :--- | :---: | :---: |
| Inadequate facilities | 126 | 29.3 |
| Students indiscipline | 75 | 17.4 |
| Chronic absenteeism | 160 | 37.2 |
| Indiscipline caused by home environment | 30 | 7.0 |
| Laxity by teachers and students | 39 | 9.1 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

Most day students in the study had the following factors affecting their performance: Chronic absenteeism from school because of fee balances with highest percentage at (37.2\%). It was followed closely by inadequate facilities at (29.3\%). Other reasons cited include; their own indiscipline resulting from home environment at (7.0\%), laxity for both teachers and students (9.1\%).

In the recent years, the area has experienced high population growth and therefore small pieces of land available do not even produce enough for consumption, hence it becomes extremely difficult for non working parents and guardian to afford fees and other financial requirements to keep schools running. Head teachers then lack an option except to send students home in order to collect fees. This makes them miss valuable learning time and it greatly affects their performance. Table 4.3 shows factors which can contribute positively to good/better KCSE performance of girls in mixed day secondary schools in Nyamira district.

Table 4.3: Positive factors for good performance of girls in KCSE in Nyamira District

| Factors | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Provision of adequate facilities | 75 | 17.4 |
| Initiating lunch programmes | 20 | 4.7 |
| Provision of experienced and qualified teachers | 115 | 26.8 |
| Not sending students home | 145 | 33.7 |
| Teachers, students and parents working together | 75 | 17.4 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

The girls gave some of the positive factors which could improve their academic performance. Some of the factors include; not being sent away to collect fees balances at $33.7 \%$, provision of qualified and experienced teachers at $26.8 \%$, provision of adequate facilities at $17.4 \%$. Having good rapport between teachers, students and parents at 17.4 and lastly initiating lunch programmes at 4.7. This then calls for effective administration from head teachers hence need for qualified and experienced leadership.

Table 4.4 shows the types of lighting used by girls in their homes which greatly affects their academic performance in Nyamira district.

Table 4.4: Types of lighting

| Devise | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Kerosene pump | 310 | 72.09 |
| Electricity | 60 | 13.95 |
| Candles | 30 | 6.98 |
| Pressure lamp | 30 | 6.98 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

The table above clearly shows that majority of the girls in day secondary schools use crude methods of lighting in their homes. Most of them use kerosene lamps (72.09\%) which at times are not affordable because of economic constraints. Very few girls have access to electricity (13.95\%) because electricity provision in Nyamira district has been wanting. However, the government policy on rural electrification will have a great impact on girls' performance in KCSE as time goes by since most people have shown great interest in the tapping of electricity.

A lot of engagements at home negatively contributed to girls' poor academic performance in KCSE in Nyamira District as indicated in the table below.

Table 4.5: Work that girls do at home

| Type of work | Frequency | Percent |
| :--- | :---: | :---: |
| Cooking and cleaning | 290 | 67.4 |
| Working in family farm/business | 65 | 15.1 |
| Looking after younger siblings | 24 | 5.6 |
| Casual work to earn income | 51 | 11.9 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

It emerged from this study, that domestic chores greatly affected academic achievement of girls in mixed day secondary schools. The study shows that majority of students (67.4\%) are charged with cooking and cleaning as part of their domestic chores. Others (15.1\%) indicated that they usually work in their family farms/business.

An examination of what girls engage in after school clearly indicated that they had little time for school work. The many activities they are engaged in impacted negatively on their academic performance in KCSE as shown in the table above. The findings concur with World Bank (1988) which observes custom demands that girls help in caring for the young, finding firewood, collecting water, cooking food and cleaning the house while less demands are placed on boys. This revelation is in agreement with the Global Monitoring Report's (2002) finding that most unrecognized chores including cooking, laundry, caring for younger siblings and fetching water are performed by women and girls.

Similarly it can be noted from Table 4.6 that, girls in mixed day secondary school were affected by other problems like lack of references and reading materials in their homes. Many of them come from poor homes and background hence cannot afford textbooks and supplementary materials to assist them in their studies. Some schools do not also have
enough text books. The few text books that are in schools have to be shared in the ratio of one to three and boys tend to take the books due to their masculinity. Therefore girls suffered both at home and in school. Other problems experienced at home include poor lighting systems, interference, noise pollution, lack of reading company, inadequate food and societal attitudes. These problems made it difficult for girls in day schools to excel in KCSE.

Table 4.6: Problems faced by students while studying at home

| Problems | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Lack of reading space | 72 | 16.7 |
| Lack of good lighting | 128 | 29.8 |
| Lack of reading materials | 100 | 23.3 |
| Interference from family members | 30 | 7.0 |
| A lot of work at home | 100 | 23.3 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

Additionally, sources of lunch affected performance of girls in mixed day secondary schools. A hungry student cannot fully concentrate in class and games in field. Table 4.7 shows sources of students' lunch and it clearly indicates that provision of lunch is a problem which needs to be addressed in order to help the students to cope with afternoon lessons.

A greater percentage of girls returned home for a poor lunch (41.9\%). Some of them do not take lunch at all (34.9\%). A small percentage carried packed lunch a long with them to school (11.6\%) while (4.7\%) are provided lunch by their schools and (7.0\%) bought lunch in kiosks around the school. This finding showed that food problem which emanates from
home backgrounds greatly contributed to the poor performance of girls in mixed day secondary schools in KCSE.

Table 4.7: Sources of lunch in mixed day sec schools

| Sources of lunch | Frequency | Percent |
| :--- | :---: | :---: |
| Buying | 30 | 7.0 |
| Return home for lunch | 180 | 41.9 |
| School provides lunch | 20 | 4.7 |
| Bring packed lunch | 50 | 11.6 |
| Go without lunch | 150 | 34.9 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |

Responses from questionnaire on sources of lunch clearly indicate a country side with problems of poverty at massive levels. Poverty contributes to poor dietary practices, inadequate housing which lacks basic facilities to offer a conducive learning environment, lack of adequate reading facilities and materials. The poverty levels allows for girls to drop out of schools. Some girls end up in forced marriages in order to support other family members through dowry. They sometimes drop out of school to work in other peoples' farms in order to earn income and support the family whereas others opt to work as house helps.

The table below shows other problems faced by girls in mixed day secondary schools which negatively affect their academic performance in KCSE.

Table 4.8: Problems encountered by girls in mixed day sec schools

| Problem | Frequency | Percent(\%) |
| :--- | :---: | :---: |
| Lack of proper accommodation | 10 | 2.3 |
| Ridicule and harassment from boys and teachers | 15 | 3.5 |
| Living far from school | 40 | 9.3 |
| Lack of adequate reading time | 50 | 4.7 |
| All the above | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0}$ |
| Total |  |  |
| In addition to the problems cited above, distance from and to school also impacted negatively |  |  |
| on girls' academic performance. Girls are more vulnerable to abuse than boys while on transit |  |  |
| to and from school. The information obtained from students on this item clearly shows that |  |  |
| most girls had to walk a distance of over 15km daily. To avoid lengthy walk, some girls make |  |  |
| their own lodging arrangement near community day schools that do not offer boarding |  |  |
| facilities. These self boarders are unsupervised by the school and are therefore at risk of theft |  |  |
| or self abuse. |  |  |

Table 4.9: The distance girls walk to and from schools

| Distance | Frequency | Percent |
| :--- | :---: | :---: |
| $1-2 \mathrm{~km}$ | 30 | 7.0 |
| $3-4 \mathrm{~km}$ | 50 | 11.6 |
| $5-6 \mathrm{~km}$ | 200 | 46.5 |
| Over 7 km | 150 | 34.9 |
| Total | $\mathbf{4 3 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

As mentioned earlier, the questionnaire for teachers involved 70 teachers. Sixty teachers submitted back their completed questionnaires on issues they were requested to respond to. This formed the basis of analysis and $80 \%$ of the teachers were male while the rest were female. Most teachers were untrained form four leavers $50 \%$, others were trained S1 or hold diplomas in education 6.7\%. The term trained teacher here refers to those teachers who have been inducted to teaching profession by being taught teaching methodology in education and other areas of specialization.

The table below shows the level of training of teachers in day secondary schools in Nyamira district.

Table 4.10: Professional training for teachers

| Level of education | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Post graduate | 4 | 6.7 |
| Trained graduate | 10 | 16.7 |
| S1 or diploma in education | 16 | 26.6 |
| Untrained form four | 30 | 50.0 |
| Total | $\mathbf{6 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

The comprehensive nature of 8-4-4 system of education requires teachers to be properly equipped with theory and applied knowledge especially science subjects. Due to inadequacy of teaching aids and learning resources, teachers may need/require a lot of in servicing in order to have ideas on how to handle such challenges as Kathuri (1986) noted that poorly inserviced teachers feel inadequate and threatened by new innovations hence need for institutions and ministry of education to offer in-servicing of teachers without demanding payment from teachers.

It was also observed that none of the day school provided any kind of housing to their teachers. Most of them were commuters hence experiencing similar problems as those experienced by their students. Some of them lived in market places near schools whereas others had to walk long distances to and from school.This resulted to much fatigue and not able to maximize time on school work, as if they were provided with housing in schools. Therefore teachers in day secondary schools in Nyamira district suffer from high transport cost and sometimes report to school late or leave early because of unpredictable weather conditions and distance. This affects performance of girls in mixed day secondary schools.

### 4.4 Information on teachers

Table 4.11: Teachers experience and commitment

| Teaching experience | Frequency | Percent |
| :--- | :---: | :---: |
| $0-2$ years | 35 | 53.3 |
| 3-5 years | 12 | 20.0 |
| 6-10 years | 10 | 16.7 |
| Over 10 years | 3 | 5.0 |
| Total | $\mathbf{6 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

The research established that most teachers in mixed day secondary schools were young and inexperienced, $58.3 \%$ have taught for less than two years and some of them were form four leavers who were waiting to join university or greener pastures hence not fully committed to teaching. These teachers also lack exposure to girls' sensitivity and needs. The frequent change of teachers, lack of commitment and exposure affects performance of girls in mixed day secondary schools. This finding concurs with the studies carried by Eshiwani (1992).

Table 4.12: Teaching load of teachers

| Lessons | Frequency | Percent |
| :--- | :---: | :---: |
| $21-30$ | 10 | 16.7 |
| 31 and above | 50 | 83.3 |
| Total | $\mathbf{6 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

The finding on this research item shows that most teachers in mixed day secondary have high teaching load with $83.3 \%$ having more than 31 lessons to teach. Inadequate teaching staff especially in subjects that are liked by girls such as English and history besides those that require enhanced teacher-learner contact such as physics, chemistry and mathematics compounded with limited stimulating educational experiences had a negative impact on performance of girls. It was also established that guidance and counselling services with regard to personal growth, social and personal issues were lacking in mixed day secondary schools in Nyamira district.

Teachers also cited lack of parental support as a factor that contributed to girls' poor performance. Most parents were unable to offer help to their children because they lacked prior education and inability to use English. This view is supported by studies carried out by Jagero (1999), Oloo (2003), Dermie et al (2007) and Mackenzie (1997) which clearly showed that a major problem affecting academic performance of girls in mixed day secondary schools was their home environment which was not conducive for learning.

Other factors that were postulated by teachers as affecting performance of girls included inadequate teaching and learning materials and resources like laboratories which were completely lacking in some schools, absenteeism of girls from school, lack of motivation on part of teachers and students, home environments and family backgrounds, Poor leadership
exhibited by head teachers and weak admission score were factors cited by teachers as negatively impacting on girls' academic performance. An analysis of this factors reveals need to tackle areas they critically felt affected girls performance. The table below shows and explains this information.

Table 4.13: Why girls in mixed day secondary schools performed poorly in KCSE according to teachers

| Reason | Frequency | Percent |
| :--- | :---: | :---: |
| Inadequate facilities | 23 | 38.3 |
| Absenteeism of girls | 10 | 16.7 |
| Lack of motivation | 11 | 18.3 |
| Home environment and family backgrounds | 12 | 20.0 |
| Poor leadership exhibited by head teachers | 2 | 3.3 |
| Weak student admission score | 2 | 3.3 |
| Total | $\mathbf{6 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

When teachers were asked to give their opinion on what they thought should be done to improve the girls academic performance in Nyamira district, they came up with several inputs. Some affected them as teachers while others touched on parents/students. They were categorical that parents had top show concern for their children's education as they tended to leave that responsibility fully to the teachers. Poverty among parents and their lack of interest in what goes on in school leads to lack of basics and inadequate teaching/learning materials in mixed day secondary schools. They suggested that parents should be encouraged to participate in school activities like facilitating provision of teaching /learning materials. They further suggested bursaries to be given to bright and needy students, need to construct
houses for teachers and also agreed need to consider score along other variables in order to improve girls' performance.

### 4.5 Inferential findings

Given that the model was as follows:

$$
\mathbf{Y}=\boldsymbol{\beta}_{0}+\boldsymbol{\beta}_{1} \mathbf{X}_{1}+\boldsymbol{\beta}_{2} \mathbf{X}_{2+} \boldsymbol{\beta}_{3} \mathbf{X}_{\mathbf{3}}+\boldsymbol{\beta}_{4} \mathbf{X}_{4}+\boldsymbol{\beta}_{5} \mathbf{X}_{5}+\boldsymbol{\epsilon}
$$

$Y$ is the performance in KCSE while $\mathrm{X}_{1}, \mathrm{X}_{2}, \mathrm{X}_{3}, \mathrm{X}_{4}, \mathrm{X}_{5}$ represent the institutional factors, level of education (parental), parental involvement, distance from school and socio-economic factors respectively. $\beta_{0}$ is the constant while $\beta_{1}, \beta_{2}, \beta_{3}, \beta_{4}, \beta_{5}$ representing the institutional factors, level of education (parental), parental involvement, distance from school and socioeconomic factors respectively. $€$ is the error term.

Table 4.14: Regression coefficients

| Model | Unstandardized <br> Coefficients |  | Standardized Coefficients | T | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. Error | Beta |  |  |
| 1 (Constant) | 0.71 | 0.15 |  | 4.60 | 0.00 |
| Institutional factors | 0.09 | 0.03 | 0.59 | 2.73 | 0.01 |
| Level of education |  |  |  |  |  |
| (parental) | 0.14 | 0.04 | 0.45 | 3.60 | 0.00 |
| Parental involvement | 0.02 | 0.03 | 0.62 | 0.58 | 0.02 |
| Distance from school | 0.02 | 0.03 | 0.32 | 0.64 | 0.01 |
| Socio-economic factor | 0.53 | 0.03 | 0.73 | 16.22 | 0.00 |

A Dependent Variable: Academic performance
The model can then be generated as follows:-
$Y=0.71+0.59 X_{1}+\mathbf{0 . 4 5} X_{2}+0.62 X_{3}+0.32 X_{4}+0.73 X_{5}+\epsilon$

From the model, the constant value of 0.71 implies that the level of academic performance will have an index of 0.71 when coefficients for all variable factors are zero given a scale of 1 to 5 where 1 is the least influence and 5 is the largest influence. The results also indicate that a change in one unit of the institutional factors attended by the pupil will lead to a $59 \%$ change in academic performance in the same direction. At the same time, change in level of parents' education, parental involvement, and distance from school as well as socio-economic factors by 1 unit in each, will result to a positive change in academic performance by $45 \%$, $62 \%, 32 \%$ and $73 \%$ respectively. This is an indication that the five independent variables under investigation were positively related to the dependent variable (academic performance).

### 4.6 Multivariate R-Square

Table 4.15: Multivariate R-Square

| Model Summary |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | R | Adjusted | Std. Error of |  |  |  |  |
| R | Square | R Square | the Estimate | Change Statistics |  |  |  |
|  |  |  |  | R Square |  |  |  |
|  |  |  |  | Change | F Change | df1 | Sdf2 |
| 10.7781 | 0.6054 | 0.6008 | 0.3769 | 0.6054 | 130.116 | 5 | 424 |

$R^{2}$ is called the coefficient of determination and tells us the proportion of the change in Academic performance that is caused by the change in explanatory variables. From Table 4.15, the value of R square was found to be 0.605 indicating that institutional factors, level of parents' education, parental involvement, distance from school and socio-economic factors explained $61 \%$ of any change in academic performance in mixed day secondary schools. The
study also reveals that the remaining $39 \%$ could be explained by other factors affecting academic performance.

### 4.7 Pearson's Correlation and significance test

To determine the degree of relationship between the explanatory variables, the researcher performed a Pearson's correlation as illustrated by Table 4.16. Pearson's correlation coefficient (r) is a measure of the strength of the association between the two variables. This enabled the researcher to establish the level to which one variable moved together with the other in explaining changes in academic performance.

The results indicate that, with vast employment of socio-economic factors, institutional factors will insignificantly affect the success of academic performance. Socio-economic factors is particularly generation of an organization's overall objective(s), principles and tactics relating to the strategy that the organization uses. This implies that the degree of substitutability was highest for socio-economic factors and academic performance and lowest for socio-economic factors and institutional factors. This can further be explained that utilizing more of socio-economic factors by 1 unit would mean reduction on the emphasis of organizational institutional factors by $35 \%$.

Table 4.16: Pearson's Correlation

|  |  |  | Instit <br> ution |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |


|  | Academic <br> performance <br> Institutional <br> factors <br> Level of <br> education <br> (parental) | 430 | 430 | 430 | 430 | 430 |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |

Findings indicate that, the relationship between all the variables (that is, institutional factors, level of parents' education, parental involvement, distance from school, socio-economic factors as well as academic performance) with each other is significant since the significance level at $95 \%$ confidence level; one tail test is less than 0.05 given that all have a significance value of less than 0.05 and thus the confidence level is greater than $95 \%$ as illustrated in Table 4.16.

## CHAPTER FIVE

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Introduction

This chapter presents the summary of the study, findings, conclusions, recommendations and limitations of the study as well as suggestions for further studies.

### 5.2 Summary of the study

The purpose of the study was to investigate factors that lead to poor performance in KCSE by girls in mixed day public secondary schools in Nyamira district, Nyamira County. Specifically, the study determined the extent to which inputs like type of school, teacherpupil ratio, and student average admission score, physical facilities e.g. laboratories, curriculum and instruction affect the quality of education of girls in mixed day public secondary schools as measured by examination performance. The study was also to investigate how parental involvement in education affects girls' academic performance in mixed day secondary schools; determine the extent to which parental level of education affects academic performance of girls in mixed day public secondary schools in Nyamira district; examine how distance from school affect girls' academic performance in mixed day public secondary schools as well as analyze how social economic background of girls affect their academic performance.

Descriptive survey design was used in this study where girls in mixed day public secondary schools in Nyamira district, Nyamira County were the main concern. Out of forty eight (48) secondary schools in the district; forty one (41) are mixed day schools with most of them having emerged between the years 1988 and 2007. The researcher developed open and closed questionnaires for head teachers, teachers and students. Both primary and secondary data collection methods were used. Discussions, interviews and observation were also used in the study. Secondary data was obtained from the District Education Office and school records.

After issuing the research instruments, the respondents were given ample time to study and answer questions accordingly. The researcher then ensured contents of questionnaire were clearly explained to respondents as well as assuring the head-teachers, teachers and students of confidentiality and anonymity in reporting the finding of the study. The researcher examined completed questionnaire, process each item and report through descriptive narrative. This was done using frequency means, calculating percentages and tabulating them appropriately.

### 5.3 Findings of the study

The study indicated that, most girls in day secondary schools had chronic absenteeism from school because of fee balances with highest percentage at (37.2\%) followed closely by inadequate facilities at (29.3\%). The girls gave some of the positive factors which could improve their academic performance. Some of the factors include; not being sent away to collect fees balances at $33.7 \%$, provision of qualified and experienced teachers at $26.8 \%$, provision of adequate facilities at $17.4 \%$. Having good rapport between teachers, students and parents at 17.4 and lastly initiating lunch programmes at 4.7. Most of them use kerosene lamps ( $72.09 \%$ ) which sometimes is not affordable because of economic constrains.

It emerged from this study that, domestic chores greatly affected academic achievement of girls in mixed day secondary schools. The study shows that majority of student (67.4\%) are charged with cooking and cleaning as part of their domestic chores. Others (15.1\%) indicated that they usually work in their family farms/business.

Regarding teachers' competence in handling girls in mixed day schools, most teachers were untrained form four leavers. The research established that most teachers in mixed day secondary schools were young and inexperienced, $58.3 \%$ have taught for less than two years and some of them were form four leavers who were waiting to join university or greener pastures hence not fully committed to teaching. Inadequate teaching staff especially in
subjects that are favored by girls such as English and history besides those that require enhanced teacher-learner contact such as physics, chemistry and mathematics compounded with limited stimulating educational experiences had a negative impact on performance of girls. It was also established that guidance and counselling services with regard to personal growth and social issues were lacking in mixed day secondary schools in Nyamira district.

### 5.4 Conclusions

The study revealed that, lack of adequate facilities such as science laboratory, classes, dormitories and other physical facilities can reduce the number of subjects offered in mixed day secondary schools. Adequate resources and facilities may have an advantage over those that lack them in the national examination performance. It was disclosed that, very few girls have access to electricity because electricity provision in Nyamira district has been wanting but the government policy, on rural electrification will have a great impact on girls' performance in KCSE as time goes by since most people have shown great interest in the tapping of electricity.

It was also observed that, girls in mixed day secondary school were affected by other problems like lack of references and reading materials in their homes. Many of them come from poor homes and background hence cannot afford textbooks and supplementary materials to assist them in their studies. Some schools do not also have enough text books. The few text books that are in schools have to be shared in the ratio of one to three and boys tend to take them due to their masculinity.

Responses from questionnaire on sources of lunch clearly indicate a country side with problems of poverty at massive levels. Poverty contributes to poor dietary practices, inadequate housing not equipped with basic facilities to offer conducive learning environment, lack of adequate reading facilities and materials. The poverty levels allows for girls to drop out of schools. Some girls end up in forced marriages in order to support other
family members through dowry. They sometimes drop out of school to work in other peoples' farms in order to earn income and support the family whereas others opt to work as house helps.

Most day secondary schools in Nyamira district are not equipped with the relevant text books which may explain girls 'poor academic performance among students enrolled in mixed day secondary as compared to other districts. Therefore the availability and use of teaching, administrative and managerial could control certain level of quality education provided to students.

### 5.5 Recommendations

- The Kenyan government should establish additional single sex government boarding secondary schools that are least expensive so that most Kenyan parents can afford them. The schools will help girls avoid lengthy walk and making own lodging arrangements in the communities which are unsupervised causing risk of theft or self-abuse. They can also help girls to be fully educated at the same time to be guided in forming and shaping personal characteristics to become responsible and good to the society.
- Environmental and home background problems can be tackled through social and public education of parents. This can be done through the use of administrative meetings and stake holders' forums. Parents can be educated on the importance of making environments and backgrounds conducive for studying. For instance, parents should be educated not to assign a lot of tasks and chores to their girls while at home during school days because it makes them tired hence they cannot do their assignments on time and effectively. They should also be educated on need to provide acceptable lighting regardless their poverty status. Parents should be encouraged to pay fees for their girls on time to avoid being sent home to collect schools because chronic absenteeism from school negatively affected performance of girls in mixed day secondary schools The
government has introduced bursaries to help bright and needy students in addition to other funds like Constituency Development Fund (C.D.F.) but their misuse, mismanagement and misappropriation leaves a lot to be desired. Therefore as much as many day secondary schools should benefit, the administration of these funds should be streamlined at head teacher level and the source.
- The government should also look towards revising the secondary schools syllabus to the relevance in order to favor girls as well. This would also ensure that, coverage of syllabus by second term of the fourth year is realized such that girls would have enough time for revision on the KCSE.
- The Teachers Service Commission (T.S.C) should deploy more experienced teaching staff into the area especially in subjects that are favored by girls such as English and history besides those that require enhanced teacher-learner contact such as physics, chemistry and mathematics. These subjects lacked teachers and as a result contributed negatively to the performance of girls in Kenya Certificate of Secondary Education (K.C.S.E) believing that it is not only in Nyamira district but generally throughout the country. Teachers with limited stimulating educational experiences had a negative impact on performance of girls to facilitate adequacy in managerial, teaching and administrative facilities. At the same time, qualification of teacher should be considered before posting is done. The Teachers Service Commission (TCS) should consider promoting head teachers, deputies and heads of departments indiscriminately. Many teachers complained that they were considered last when it came to promotions because they teach in mixed day secondary schools which didn't offer room for them to excel in their fields of specialization as compared to their counterparts in boarding secondary schools, this affected their motivation greatly hence most of them kept looking for transfers to join single sex secondary schools.
- Teachers should develop a variety of activities and methods to enable girls of different ages and background to acquire proper knowledge, skills, behaviour and attitudes. The child needs to be mentally and physically stimulated and helped to mix and live with others, as well as learning how to control his/her emotions. This then calls for establishment of strong guidance and counselling services in secondary schools.
- The role of Parents Teachers Associations should be strengthened through a legal enactment as that of Board of Governors so that together with the government they can contribute to the development of the schools especially in provision of physical infrastructure and instructional and learning materials. The bodies should construct laboratories and libraries and ensure they are adequately equipped. They should also put up some houses for teachers in mixed day secondary schools, this will relieve them the burden of walking to and from school making them tired and prone to environmental problems like their students. In turn they can use their extra time in marking students' work, as this will impact positively on the performance of girls in K.C.S.E.in Nyamira district, Nyamira County.
- As we come to the end of findings and recommendations of the study, it is important to appreciate the government's efforts to introduction of free education in all day secondary schools in the country since 2008 although there are several challenges. The realization should go a long way to improve performance of girls in K.C.S.E in mixed day secondary schools in the country and thus remove parental burden in provision of curriculum materials. The B.O.G.s, P.T.A.s, sponsors and Alumnus Associations should work together in order to supplement government efforts by providing physical and instructional infrastructures.


### 5.6 Limitations of the study

The researcher encountered difficulties during data collection and analysis. In particular, the time frame was a challenge since there were common cases of target respondents being in the field for exam supervision. At the same time, other respondents felt that the information needed was too confidential to be disclosed. To mitigate these effects, the respondents were given an assurance that findings would be made confidential and used only for the intended purpose.

### 5.6 Suggestion for further studies

Given the scope and limitations of this study, the following areas are recommended for further studies:
i. A study to investigate of factors that lead to poor performance in KCSE by boys in mixed day public secondary schools in Nyamira district, Nyamira County for comparison purpose.
ii. A comparative study should be carried out within the context of primary schools in order to draw comprehensive policy recommendations on factors that lead to poor performance in public schools.
iii. A replica of the study should be carried out incorporating more variables that possibly influence factors that lead to poor performance in secondary schools. These variables also include non-institutional factors as well as socio-cultural factors.

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## APPENDIX 1

## LETTER OF INTRODUCTION

HYLINE KEMUNTO NYAMWEYA, UNIVERSITY OF NAIROBI, P.O BOX 30197, NAIROBI.

THE DEO,
NYAMIRA DISTRICT,
P.O BOX 4,

NYAMIRA.
Dear Sir/Madam,
RE: A study of factors affecting performance of girls in KCSE in Mixed day public secondary schools in Nyamira District, Nyamira County

I am a post graduate student at the University of Nairobi in the Department of Educational Foundations (Sociology of Education).

I am currently conducting research on the above subject. This is a partial fulfillment for the requirements for the Degree of Master of Education.

Attached questionnaire will be issued to head teachers, teachers and students. They will seek information on factors affecting performance of girls in mixed day public secondary schools in Nyamira district with the view of making recommendations and suggestions.

All information will be treated with a lot of confidentiality.
Your positive response will be highly appreciated.

Yours faithfully,

Hyline Kemunto.

## APPENDIX 2

SAMPLED SCHOOLS SHOWING NUMBER OF GIRLS WHO OBTAINED MEAN GRADE C+ AND ABOVE IN KCSE NYAMIRA DISTRICT, 2008

| $\begin{aligned} & \text { SERIAL } \\ & \text { NO. } \end{aligned}$ | $\begin{array}{lr} \hline \text { NAME } & \text { OF } \\ \text { SCHOOL } \end{array}$ | $\begin{aligned} & \hline \text { CATEGORY } \\ & \text { OF SCHOOL } \end{aligned}$ | NUMBER OF <br> STUDENTS <br> WHO SAT <br> FOR KCSE <br> IN 2008 |  | NUMBER OF <br> GIRLS WHO <br> OBTAIN ED <br> MEAN GRADE <br> C+ AND ABOVE  | \% OF GIRLS WHO ATTAINED MEAN GRADE C+ AND ABOVE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{array}{ll} \hline \text { SIRONGA } \\ \text { GIRLS } & \text { SEC } \\ \text { SCHOOL } & \end{array}$ | $\begin{aligned} & \text { GIRLS } \\ & \text { PUBLIC SEC } \\ & \text { SCHOOL } \end{aligned}$ | 275 | 275 | 215 | 78 |
| 2 | NYAMAIYA SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC SEC } \\ & \text { SCHOOL } \end{aligned}$ | 41 | 15 | 1 | 6.67 |
| 3 | $\begin{aligned} & \hline \text { KEBIRIGO } \\ & \text { SEC SCHOOL } \end{aligned}$ | $\begin{array}{lr} \hline \text { MIXED } & \text { DAY } \\ \text { PUBLIC } & \text { SEC } \\ \text { SCHOOL } \end{array}$ | 106 | 35 | 3 | 8.57 |
| 4 | $\begin{array}{ll} \text { MASOSA } & \\ \text { MIXED } & \text { SEC } \\ \text { SCHOOL } & \end{array}$ | $\begin{array}{lr} \hline \text { MIXED } & \text { DAY } \\ \text { PUBLIC } & \text { SEC } \\ \text { SCHOOL } \\ \hline \end{array}$ | 87 | 21 | 5 | 23.81 |
| 5 | MARINDI SEC SCHOOL | $\begin{aligned} & \hline \text { MIXED } \\ & \text { PUBLY } \\ & \text { SCHOOL } \end{aligned}$ | 40 | 10 | 2 | 20.0 |
| 6 | BOMORITO <br> SEC SC HOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC SEC } \\ & \text { SCHOOL } \end{aligned}$ | 32 | 8 | 1 | 12.5 |
| 7 | ENCHORO <br> SEC SCHOOL | MIXED DAY PUBLIC SEC SCHOOL | 37 | 10 | 2 | 20.0 |
| 8 | KENYENYA SEC SCHOOL | $\begin{array}{lr} \hline \text { MIXED } & \text { DAY } \\ \text { PUBLIC } & \text { SEC } \\ \text { SCHOOL } \end{array}$ | 48 | 14 | 3 | 21.43 |
| 9 | BONYUNYU SEC SCHOOL | $\begin{array}{lr} \hline \text { MIXED } & \text { DAY } \\ \text { PUBLIC } & \text { SEC } \\ \text { SCHOOL } \\ \hline \end{array}$ | 53 | 17 | 4 | 23.53 |
| 10 | $\begin{aligned} & \text { RANGENYO } \\ & \text { SEC SCHOOL } \end{aligned}$ | $\begin{aligned} & \hline \text { GIRLS } \\ & \text { BOARDING } \\ & \text { PUBLIC SEC } \\ & \text { SCHOOL } \\ & \hline \end{aligned}$ | 75 | 75 | 40 | 53.3 |

SOURCE: DEO'S OFFICE, NYAMIRA.

## APPENDIX 3

SAMPLED SCHOOLS SHOWING NUMBER OF GIRLS WHO OBTAINED MEAN GRADE C+ AND ABOVE IN KCSE NYAMIRA DISTRICT, 2009

| $\begin{aligned} & \text { SERIAL } \\ & \text { NO. } \end{aligned}$ | GIRLS NAME SCHOOL | CATEGORY OF SCHOOL | NUMBER OF STUDENTS WHO SAT FOR KCSE 2009 | $\begin{array}{\|l\|} \hline \text { NO. OF } \\ \text { GIRLS } \\ \text { WHO } \\ \text { SAT } \\ \text { FOR } \\ \text { KCSE } \\ \hline \end{array}$ | NUMBER OF GIRLS WHO OBTAIN ED MEAN GRADE C+ AND ABOVE | $\%$ OF <br> GIRLS  <br> WHO  <br> OBTAINED  <br> MEAN  <br> GRADE + <br> AND  <br> ABOVE  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{array}{\|l\|} \hline \text { SIRONGA } \\ \text { GIRLS SEC } \\ \text { SCHOOL } \end{array}$ | GIRLS BOARDING PUBLIC SEC | 306 | 306 | 250 | 81.7 |
| 2 | NYAMAIYA SEC SCHOOL | MIXED DAY PUBLIC SEC SCHOOL | 40 | 10 | 1 | 10.0 |
| 3 | KEBIRIGO SEC SCHOOL | MIXED BOARDING PUBLIC SEC SCHOOL | 134 | 44 | 5 | 11.36 |
| 4 | $\begin{array}{\|l} \text { MASOSA SEC } \\ \text { SCHOOL } \end{array}$ | MIXED DAY PUBLIC SEC SCHOOL | 106 | 30 | 5 | 16.67 |
| 5 | MARINDI SEC SCHOOL | MIXED BOARDING PUBLIC SEC SCHOOL | 36 | 12 | 2 | 16.67 |
| 6 | BOMORITO SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 34 | 8 | NONE | 0.0 |
| 7 | ENCHORO <br> SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 38 | 10 | NONE | 0.0 |
| 8 | KENYENYA SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 60 | 15 | 1 | 6.67 |
| 9 | BONYUNYU <br> SEC SCHOOL | MIXED DAY PUBLIC SEC SCHOOL | 45 | 12 | NONE | 0.0 |
| 10 | $\begin{array}{\|l} \hline \text { RANGENYO } \\ \text { GIRLS SEC } \\ \text { SCHOOL } \end{array}$ | GIRLS BOARDING PUBLIC SEC SCHOOL | 80 | 80 | 50 | 62.5 |

SOURCE: DEO'S OFFICE, NYAMIRA.

## APPENDIX 4

SAMPLED SCHOOLS SHOWING NUMBER OF GIRLS WHO OBTAINED MEAN GRADE C+ AND ABOVE IN NYAMIRA DISTRICT, 2010

| SERIAL NO. | $\begin{array}{ll} \hline \text { NAME } & \text { OF } \\ \text { SCHOOL } & \end{array}$ | $\begin{aligned} & \hline \text { CATEGORY } \\ & \text { OF SCHOOL } \end{aligned}$ | NUMBER OF <br> STUDENTS WHO SAT FOR KCSE 2010 | NO. OF <br> GIRLS <br> WHO <br> SAT <br> FOR <br> KCSE | NUMBER OF  <br> GIRLS WHO  <br> OBTAIN ED <br> MEAN GRADE  <br> C+ AND <br> ABOVE  | $\begin{aligned} & \hline \% \text { OF GIRLS } \\ & \text { WHO } \\ & \text { OBTAINED } \\ & \text { MEAN GRADE } \\ & \text { C+ } \\ & \text { ABOVE AND } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | SIRONGA <br> GIRLS SEC <br> SCHOOL | GIRLS <br> PUBLIC <br> BOARDING | 260 | 260 | 240 | 92.3 |
| 2 | NYAMAIYA SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 38 | 14 | 3 | 21.43 |
| 3 | KEBIRIGO SEC SCHOOL | $\begin{aligned} & \text { MIXED } \\ & \text { BOARDING } \\ & \text { PUBLIC } \end{aligned}$ | 128 | 40 | 4 | 10.0 |
| 4 | MASOSA SEC SCHOOL | $\begin{array}{\|l} \hline \text { MIXED DAY } \\ \text { PUBLIC } \\ \hline \end{array}$ | 126 | 30 | 8 | 26.6 |
| 5 | MARINDI SEC SCH | MIXED BOARDING PUBLIC | 67 | 20 | 5 | 25 |
| 6 | BOMORITO SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \\ & \hline \end{aligned}$ | 12 | 2 | NONE | 0.0 |
| 7 | ENCHORO SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 40 | 12 | NONE | 0.0 |
| 8 | KENYENYA SEC SCHOOL | $\begin{array}{\|l} \hline \text { MIXED DAY } \\ \text { PUBLIC } \\ \hline \end{array}$ | 81 | 21 | NONE | 0.0 |
| 9 | BONYUNYU SEC SCHOOL | $\begin{aligned} & \text { MIXED DAY } \\ & \text { PUBLIC } \end{aligned}$ | 50 | 15 | 2 | 13.3 |
| 10 | RANGENYO SEC SCHOOL | $\begin{array}{\|l\|} \hline \text { GIRLS } \\ \text { PUBLIC } \\ \text { BOARDING } \\ \hline \end{array}$ | 76 | 76 | 40 | 52.63 |

SOURCE: SOURCE: DEO'S OFFICE, NYAMIRA.

## APPENDIX 5

## QUESTIONNAIRE FOR HEADTEACHERS

On factors affecting performance of girls in mixed day public secondary schools in Nyamira District, Nyamira County, Kenya.

Kindly respond to all questions honestly and accurately as possible. All responses will be treated with confidentiality. Please tick $(\sqrt{ })$ the information(s) most applicable to you or fill in the blank space.

1. What is the type of your school?

Public $\square$
Private $\square$
2. State whether your school is.

Mixed day


Mixed boarding $\square$
Girls boarding $\square$
3. What is your level of professional qualification

Post graduate


Trained graduate $\square$
S1 or diploma in education $\square$
Untrained form four $\square$
4. State the number of years you have worked. $\qquad$ yrs.)
5. State the average admission score in your school ( .yrs.)
6. How many students attained $\mathrm{C}+$ and above as minimum university entry point.

2008


2009

2010

7. What is average teacher-pupil ratio in your school

Between 1:20


Between 1:30


Between 1:40


Between 1:50

8. What is the average no. of lessons each teacher takes.

Below 20


20-30


Above 30

9. Do your teachers prepare

Schemes of work $\square$
Lesson plans


Record of work $\square$
Progress records

10. How often do you check teachers records

Weekly $\square$
Monthly $\square$
Termly

11. Is there a shortage of teachers in your school?

Yes $\square$
No $\square$
12. How would you rate parents participation in;

|  | Good | Fair | Poor |
| :--- | :--- | :--- | :--- |
| Paying fees |  |  |  |
| Attending PTA meeting |  |  |  |
| Discussing performance with teachers |  |  |  |
| Contributions to school development |  |  |  |

13. How do you rate your schools' performance?

Above average $\square$
Average


Below average

14. How can this performance be improved in your own opinion?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## APPENDIX 6

## QUESTIONNAIRE FOR TEACHERS

On factors affecting performance of girls in mixed day public secondary schools in Nyamira District, Nyamira County, Kenya.

Kindly respond to all questions honestly and accurately as possible. All responses will be treated with confidentiality. Please tick $(\sqrt{ })$ the information(s) most applicable to you or fill in the blank space.

1. Indicate the type of your school

Public


Private $\square$
2. Please indicate your gender

Male


Female $\square$
3. Indicate the highest level of education you have attained

Post graduate $\square$
Trained graduate $\square$
S1 or diploma in educatiq $\square$
Untrained form four

4. How long have you taught in secondary school?

Less than a year
$1-5$ years


6 - 10 Years $\square$
Above 10 years $\square$
5. How far do you live from the school?

In the school compound

$1-3$ kilometers


4-6 kilometers


Over 7 kilometers

6. How do you rate parents' participation in matters pertaining school affairs in general.

Good $\square$
Fair $\square$
Poor $\square$
7. Please indicate your teaching load.

Below 20 lessons


20-30 lessons


30 and above lessons

8. How would you rate your workload?

Heavy


Moderate


Light $\square$
9. What are the factors that influence girls' performance in mixed day public secondary schools in your own opinion?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
10. What do you think will be done to improve performance of girls in Kenya Certificate of Secondary Education in mixed day public secondary schools in Nyamira District?

## APPENDIX 7

## QUESTIONNAIRE FOR STUDENTS

On factors affecting performance of girls in mixed day public secondary schools in Nyamira District, Nyamira County, Kenya.

Kindly respond to all questions honestly and accurately as possible. All responses will be treated with confidentiality. Please tick $(\sqrt{ })$ the information(s) most applicable to you or fill in the blank space.

1. Please indicate your age years
2. Please indicate the category of your school


Girls' day


Mixed day $\square$
Boys' day $\square$
3. How many marks did you score in KCPE?

100-150 $\square$
$151-200$


201-250 $\square$
Above 250 $\square$
4. How far is the school from your home?
$1-2 \mathrm{~km}$


3-4 km


5-6 km


Over 7 km

5. Where do you get lunch?

Buying


Return home for lunch $\square$
School provides $\square$

Bring packed lunch $\square$
Go without lunch $\square$
6. What problems do you face while studying at home?

Lack of reading space $\square$
Lack of good lighting
Lack of reading materials


Interference from family memb- $\square$
A lot of work at home $\square$

All the above $\square$
7. What activities do you carry out while at home?

Cooking and cleaning house $\square$
Working in the family farm or business $\square$
Looking after young brothers and sisters


Engage in casual work to earn some incom $\square$
All the above $\square$
8. Indicate the type of lighting you use at home.

9. What problems do you face in a mixed school?

Bad company


Lack of proper accommodation


Ridicule and harassment from boys and teach¢
Living far from school


Lack of adequate reading time


All the above

10. In your own opinion what do you think should be done to improve performance of girls in KCSE in mixed day secondary schools?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

