INFLUENCE OF FAMILY SOCIO - ECONOMIC STATUS ON GIRL STUDENT ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN KISUMU EAST DISTRICT, KENYA

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ABSTRACT

Family socio-economic status affects children's education. It has been noted that the girl child is performing poorly in Kisumu East District when compared to the boy child in Kenya Certificate of Secondary Education Examinations. For instance in 2008, in Nyanza Province only 5 girls compared to 25 boys were ranked among the top 100 nationally. Among the 5 girls there was only one girl from Kisumu East District. In 2009, only 6 girls compared to 26 boys were ranked among the top 100 position nationally from Nyanza Province; and there was no girl while there were 4 boys from Kisumu East District. Therefore the purpose of this study was to find out the influence of family socio-economic status on academic achievement of secondary school girls in Kisumu East District. The objectives of the study were to: examine the influence of parental level of Education; find out the influence of family income; establish the influence of family size and birth order and find out the influence of cultural factors on girl student academic achievement. The theory used was Pearson's gender relations theory (Pearson, 1995). The research designs used were correlation and descriptive survey designs. The study population consisted of 1560 form four girls and 33 head teachers. Simple random sampling technique was used to select 300 form four girls. Saturated sampling technique was used to select 30 head teachers. Data collection instruments included questionnaire, interview schedule and document analysis guide. To ensure face validity of the research instruments, experts from the Department of Educational Management and Foundations, Maseno University were consulted and their input included in the final draft of the instruments. Pilot study was conducted in three (10%) schools and Pearson Product Moment correlation coefficient was used to determine the reliability of the questionnaires at alpha level of significance of 0.05. Students' questionnaire had a Pearson r 0.75. Quantitative data was analyzed using descriptive statistics in form of percentages, means and frequency counts. Inferential statistics that is Pearson Product Moment correlation coefficient was used to establish the relationship of family's socio-economic status and academic achievement of girls. Qualitative data was analyzed in emergent themes. The study established that the father's and mother's levels of education influenced positively girl students' academic achievement. The Pearson product coefficient were 0.777 and 0.423 respectively. Family income had a strong positive influence on girl students' academic achievement with a Pearson r coefficient of 0.871. Large family size had a strong negative Pearson r coefficient of -0.648 while birth order positively influenced girl student academic achievement as it had a Pearson r coefficient of 0.844 with an implication that earlier borns having higher academic achievement. Cultural factors also influenced girl student's academic achievement depending on whether they were academically oriented or not. For example positive community attitudes enhanced girl students academic achievement while domestic chores negatively impacted on girl students academic achievement. The study concluded that parental level of education, family income; birth order, and cultural factors influenced academic achievement of girls. The study recommended that the government should sensitize parents on the need and importance of supporting girl child education for better performance, parents should also be sensitized by the school on the importance of providing for the needs of the girl student. The findings of this study are significant to stakeholders in education on issues of gender equity in education and family socio-economic factors that influence academic achievement of the girl student in secondary education.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education is valued because it contributes to National Development through provision of an appropriate human resource that helps to spur productivity and eliminate poverty, disease and ignorance (Republic of Kenya, 2005). Education of girls, in particular, contributes to the various aspects of their lives such as increased productivity, family health and nutrition, reduced fertility rates and related child mortality rates (Psacharopoulos & Patrinos, 2004).

Parental influence has been identified as an important factor affecting girl student' academic achievement; parents' education and encouragement are strongly related to improved student achievement (Wang, Wildman & Colhoun, 1996). Parental education and social economic status have an influence on student achievement. Students with parents who were both college – educated tended to achieve at the highest levels. Children whose parents are of high educational status have a better statistical chance of participating in secondary Education (Oloo, 2003). Important factors include parental involvement in their children education, how much Television children are allowed to watch and how often students change schools (Hammer, 2003). This is further supported by Ahawo (2009) who observed that in modern society parents' influence played a very important role in the academic life of a student. Otula (2007) supported this by stating that effective learning involves partnership of students, teachers and parents. Ahawo (2009) observed that parents' involvement determines the emotional and material input that further determined the motivation level in children towards education. Unlike many studies that are focused

on gender disparity in Education, this study examined the influence on family's socio-economic status on girl student academic achievement in education within Kisumu East District which has both urban and peri-urban setting.

Socio-economic status of parents affects academic achievement. Omoraka (2001), noted that children with rich parents have sociological and physical needs which when met contribute positively to their academic performance. These needs may include a conducive reading atmosphere, good food, playing ground, provision of books and other material and attendance at the best schools available. All these help to promote effective learning and good performance in schools. Quality Education is the key to providing the right human resources for social and economic production sectors facilitating wealth creation and improving living standards, Abdullah (2011).

Post primary education for a girl has important individual benefits in terms of her options and resources over her lifetime. These benefits extend beyond the girl in affecting her family and the society as a whole, the benefits to society include enhanced economic development, education for the next generation, healthier young girls and families and fewer maternal deaths (UNICEF, 2004). The benefit of education for a girl and society can be explained by the effect that education has on empowering girls to acquire and use new personal, social and economic behavior that in turn, affect societal change (Moulton, 1997).

According to Wanjiku (1994) where resources are limited, education of boys comes first. Girls have been socialized to accept this and usually drop out of school for the benefit of their brothers. Kelly (1998) had the same view in his study. He reveals that

when parents are confronted with constraints of limited opportunities or resources for schooling, they generally favour the education of male children. Emphasis was placed on boys because boys were seen as a vehicle of continuity in the lineage and the girl was on transit. Property inheritance, social recognition and therefore empowerment are accorded to the boy (Udo, 1979). Psacharopoulos and Woodhall (1985) concur with Udo in that they also noted that parents, especially mothers favor boys' education because they depend on adults for old age insurance. This in the end may lead to low girl student academic achievement in National examinations, which will influence negatively on the society because lack of education for girls has a negative influence on child mortality, economic growth and fertility rate (Kitaev, 1999).

Ayodo (2010) observes that the quest for the provision of quality education continues to be a matter of leading concern to both consumers and providers of the education service in Kenya and other developing countries. This is supported by the UNESCO (1994) report that reveals that concerns for quality education has dominated the education debate from the early eighties and has remained a central issue in the twenty first century. Therefore the girls should not be left out in the quest for this education.

Socio-cultural attitudes, practices and school-related factors which include irrelevant school curriculum and materials, inadequately trained teachers, unfriendly approaches in training and lack of role models are among the factors that have been obstacles to girl student academic achievement (Mbilinyi, 2003).

Educated parents with high income are able to provide for their children with a conducive home environment, provide all the necessities of the school and pay fees. Galgalo (2002) observes that education is valued as an important component of any society's social, political and economic well-being. Education is classified as a basic need, which is a basic necessity for a decent life alongside adequate nutrition, shelter, clothing and good health.

Family socio-economic status in Nyanza province is believed to have a big influence on girl student academic achievement than boy students (Provincial Director of Education, 2009). Thus the girl child is subjected to domestic chores daily in case of day schools. As for boarding schools, the girl student is affected mostly during school holidays. Furthermore, the boy child is given preference where financial resources are scarce. Hence the girl student does not attend school regularly as desired. The girl child is also affected more by incidents of HIV and AIDS pandemic as the girl student is compelled to take care of the sick siblings and parents as the case may be in serious cases of loss of income, they are forced to drop out of school temporarily to look for food, clothing and at times shelter. When they are readmitted back to schools their performance in class work is generally below average.

The Kenyan Government Sessional paper number 1 of 2005 (Republic of Kenya, 2005a) calls for affirmative action to enhance women participation in education and other areas of employment; it was entrenched in the country through the affirmative action bill in 2007. It is also included in the constitution of Kenya (2010), chapter 8 article 100 (a) and 197(a). The current study will attempt to investigate how

applicable the affirmative action is to girl student academic achievement whose status indicates that academic excellence is the panacea for advancement.

International reports, for example the EFA Global Monitoring Report (UNESCO 2003), indicate that at the national level, Kenya has virtually attained gender parity in enrolment at both the primary and secondary education levels. However, close scrutiny reveals that serious gender disparities in enrolment exist between regions in favor of males with regard to access, retention, completion, performance and transition. Nevertheless, the boy child is also affected in one way or the other. Thus all this has led to low academic achievement in Nyanza Province as shown in Tables 1.1 and 1.2.

Table 1.1

Students who attained Grade C+ (Plus) and above

Year	Entry	No. of Candidates	Percentage
2003	39,213	9,482	24.18
2004	43,506	11,410	26.22
2005	50,293	13,098	26.04
2006	41,117	10,19	24.8
2007	48,341	15,021	31,.07
2008	**54,756**	**13,526**	**24.7**
2009	59,912	14,695	24.52

Source: PDE's Office, Nyanza 2010

From Table 1.1 it can be revealed that performance in Nyanza province is low as in 2003 only 9,482(24.38%) attained the mean grade of C+ and above, in 2009, 14,695 (24.52%) scored C+ and above and in 2010 17,404(27.8%) attained a mean grade of C+ and above.

Table 1.2

Grade 'A' Distribution in Nyanza Province – 2003-2009

Year	Total KCSE 'A' in the Province	Boys	Girls
2003	44	42	2
2004	36	35	1
2005	65	63	2
2006	104	96	8
2007	122	116	6
2008	93	84	9
2009	110	102	8

Source: PDE's Office, Nyanza 2009

From Table 1.2 it can be observed that girls who scored grade 'A' in 2003 were 2(4.5%) compared to boys who were 42(9.5%) whereas in 2009 girls who scored grade 'A' were 8(7.3%) compared to boys who were 102(92.7%). Kisumu East being in Nyanza Province is not exceptional and the girls perform poorly compared to the boys.

Kisumu East District which houses Kisumu municipality is expected to perform better than neighbouring districts, yet analysis of 2008 and 2009 revealed that only one girl was ranked among the top 100 students nationally in 2008 and in 2009 the district did not have any girls among the top 100 nationally. According to the Republic of Kenya (2005b), the high expectations for better academic achievement in

Kisumu East District are due to the fact that it has better infrastructure and generally affluent society with high level of literacy and availability of electricity. However it provides labour market for children particularly girls who serve as house girls, kiosk vendors to generate income for their parents. Since most secondary schools are mixed day schools the girl student is highly vulnerable to motor bikes and bicycle operators, this in the end affects their performance in secondary school examinations. There was therefore a need to conduct a study to establish the influence of family socio-economic status on girl student academic achievement.

The study sought to establish the performance of Kisumu East vis a –vis neighbouring Districts as shown in Table 1.3.

Table 1.3 Kisumu County's Districts KCSE Results, 2009

DISTRICT	Gender			K.C.S.E Grades													Mean Scores
	Boys	Girls	Total	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	
Kisumu East	2073	1439	3512	1	50	102	175	299	398	527	620	610	447	240	28	11	0	5.234
Kisumu West	1043	595	1638	29	80	69	88	127	185	289	307	251	156	42	0	8	7	5.290
Nyando	2664	1330	3994	3	46	143	222	359	451	581	767	699	481	205	10	16	11	5.541
County Total	5780	3364	9144	33	176	314	485	785	1034	1397	1694	1560	1084	38	28	29	0	5.355

Source: PDE's Office, Nyanza, 2010

Table 1.3 shows that the mean score for Kisumu East was 5.234 which was lower than Nyando District's 5.541 and Kisumu West District's 5.290. Based on data in this background it was conceived that there was a need for a study to establish the influence of family socio-economic status on girl student academic achievement in Kisumu East District.

1.2 Statement of the Problem

The national education system has been characterized by gender disparities at the national level, and between the various regions, in favor of males. Gender disparities in performance in national examination are also evident. In the Kenya Certificate of Secondary Education (KCSE), boys tend to perform better in key subjects such as English, Mathematics, Biology, Physics and Chemistry. These disparities need to be addressed in order to achieve social equality and empower women, as there are obvious benefits that accrue from investing in educating women.

The socio – economic status of people in Kisumu East is generally low as indicated by the poverty index of 65.5%. This implies that the income levels are low for most people living in Kisumu East. It also implies that most people and their families do not enjoy the essential services as they should and these services include; education, medical services, balanced diet, recreational facilities among others. These factors have a direct effect on their education and that of their families. Kisumu East District was a relevant area for this study because people who live below poverty line in the district are estimated to be 65.5%.

According to Kisumu District Strategic Plan 2005-2010, Kisumu District had an adult literacy rate of 48%, with 24.6% of urban poor having attained secondary school

education. The unemployment rate was 30% with 52% of the working population engaged in informal activities had their monthly wage in the range of Kshs. 3,000 - 4,000.

Kisumu East District performance in KCSE compared with other districts in Kisumu county was found to be rather low in 2009 (Table 1.3). Furthermore the trend in girl student's performance in KCSE was of great concern as it was very low compared to that of boys from 2003 to 2009 (Table 1.2). The disparity in girl student's academic achievement as indicated by KCSE results was indeed a matter that needed investigation. Given the fact that family socio-economic status plays a crucial role in the education of children, it was desirable that a study be done to find out its influence on academic achievement of girl students. The focus on girl student was also informed by the fact that an educated girl plays a crucial role in society.

1.3. Purpose of the Study

The purpose of this study was to find out the influence of family socio-economic status on academic achievement of secondary school girls in Kisumu East District.

1.4. Objectives of the Study

The objectives of the study relating to Kisumu East District were to:

i. Determine the influence of parental level of education on girl student academic achievement in secondary education.
ii. Find out the influence of family income on girl student academic achievement at secondary education.
iii. Establish the influence of family size and birth order on girl student academic achievement in secondary education.

iv. Find out the influence of cultural factors on girl student academic achievement at secondary education.

1.5 Research Questions

The study was guided by the following research questions relating to Kisumu East District:-

i. What is the influence of parental-level of Education on girl student academic achievement in secondary school education?

ii. What is the influence of family income on girl student academic achievement in secondary school education?

iii. What is the influence of family size and birth order on girl student academic achievement in secondary school education?

iv. What is the influence of cultural factors on girl student academic achievement in secondary school education?

1.6 Significance of the Study

The findings of the study provide information that can be used by teachers, head teachers, Parents Teachers Association and Boards of Governors on ways of improving academic achievement of girls in secondary schools.

The findings of the study provide information to educational practitioners on the factors that contribute to girls' academic achievement in secondary schools. Policy makers will find the information useful as they formulate policies that contribute to girl student academic achievement.

1.7. Scope and Limitation of the Study

i) The study covered public secondary schools in Kisumu East District.

ii) The study focused on family socio-economic factors that influenced form four girl student's academic achievement.

1.8. Assumptions of the Study

The study was carried out on the basis of the following research assumptions.

i) All schools completed the syllabus in time.

ii) Families use their income to educate girls.

iii) Parents assist their daughters in academic work.

iv) Family size and birth order influence academic achievement of the girls.

1.9 Theoretical Framework

This study was based on Pearson's gender relations theory, this theory was originated by Ruth Pearson in 1995 (Pearson, 1995). Theory postulates that the society views all activities that are carried out to be based on social roles and interactions of men and women. The society seems to have ultimate authority on the precise nature of what women and men actually do, and their real contribution to production and reproduction which turns out to be biased against women (Orodho, 2004).

Pearson's gender relations theory was appropriate for this study because it emphasizes the various social, cultural and economic norms and standards which must be considered for women to take the opportunities to participate in social activities such as education. These cultural and economic norms emphasized in the theory are the

factors that affect girl student academic achievement in school. This theory is relevant for this study because it captures the variables.

In the traditional set up the family is headed by a house head, a position accepted by the male parent. The patriarchal ideology is thus dominant. The roles assigned to women are narrowly defined. They are expected to be good wives and mothers, girls and women are seen as subordinates and education for them is less important. Studies on the situation of girl's education shows that, disadvantage and discrimination starts even before birth with parental and societal negative attitudes which stress the value of sons against daughters (Wamahiu, 1995 & Heneveld, 1995).

The benefits of education for girls can be explained by the effect that education has on girl student achievement. Educated girls acquire and use new personal, social and economic behaviours that in turn affect societal change (Moulton, 1997). Thus gender becomes a crucial factor in deciding who goes to school and for how long (Psacharopoulous & Woodhall, 1985) before parents make the decision, considerations are taken concerning family priorities. In most cases, girls are more disadvantaged by factors operating within the home and school than boys. They include socio-cultural and economic considerations for example, parental level of education, occupation, family size, traditional division of labour, early marriages and negative perception by parents regarding girls education, and hence this hampers girl student academic achievement. From the studies and the literature cited above, various factors either independently or dependently influence pupils learning.

1.10 Definition of Operational Terms

The following terms are defined.

Academic Achievement: A measure of cognitive abilities and knowledge demonstrated by knowledge in KCSE.

Attitude: Means readiness to react towards or against some situation, a person or thing in a given manner for example with love, hatred or fear or resentment to a particular degree of intensity.

Economic factors: These have to do with finance and monetary factors that hinder or enhance girls from excelling in schools.

Education: The process of acquiring desired knowledge, skills and attitudes.

Head teacher A person heading educational institution also referred to as the Principal, senior principal or chief principal.

Home Environment Factors: These are the factors within the home which enhance girls' academic achievement.

Social Factors: Comprises the students' background, parental/guardians' education.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

In this chapter, related literature on the influence of the family socio-economic status on the academic achievement of girl student in secondary schools were reviewed under the following sub-headings: the influence of parental level of education on girl student academic achievement in secondary schools, influence of family income on girl student academic achievement in secondary schools, the effect of family size and birth order on girl student academic achievement in secondary schools and the influence of cultural factors on girl student academic achievement in secondary education.

2.2 Influence of Parental Level of Education on Academic Achievement of Girl student in Secondary Education

Parental level of education has an influence on academic achievement of girls' in secondary education. A study on the influence of maternal factors, gender stereotypes, age of the girls', sex roles and attitude was carried out among 150 girls from a working class background in rural Ohio, aged 6-8 and 10-12 participated. Using the Pearson product moment correlation coefficient, it was found that younger girls had significantly more sex – typed role prescription than older girls. The researcher maintained that the older girls' attitudes were significantly correlated to their mothers' sex role attitudes and goals for their daughters in future (Kennedy, 1987).

Evans (1999) on gender achievement at secondary education in Jamaica found out that socialization within the home and the community contributed to their motivation

to achieve in academics. Deserrollo (2007) also asserts that, in Latin America, the extent to which parents or other family members are actively engaged in a students' education had a positive influence on students' achievement. The way a parent perceives his child's capabilities will influence pupil participation (Mukonyi, 1987). It determines his emotional and material input which further determines the motivational level towards the child in education.

According to Plomin, Defries and Mclean (1990), the parents' educational level could play an important role in determining a child's intellectual performance on academic achievement. Parents with higher educational level could motivate the intellectual potential within children that may lead to better performance in school and in return strive for further education (Haveman and Wolfe, 1995). Parents' educational level may foster higher parental involvement in adolescents' school achievement (Patrikakov, 1997), which in turn may influence high school completion (Astone, 1992). Educated parents were also found to be able to make constructive decisions, such as how much time to spend with their children. And then given their income may decide how much income to devote to their children's education (Haveman and Wolfe, 1995).

Parental level of education is very important to their children's education. Mingat, (2003) argues that children of mothers with formal education have an attendance rate of seventy one percent compared to forty seven percent for children whose mothers did not attend primary school. Kasonde, (1999) supports the argument that parental education and support have a very positive influence on their children participation in education.

Juma (1994) carried out a study on participation of females in education in Kwale and Taita Districts. She studied 120 households, 120 Head teachers, 10 Islamic religious groups and 2,035 pupils of whom 1,037 were girls. She collected data through interview schedules and questionnaire methods and found out that school participation of girls is lower than that of boys due to parental attitude that tend to discourage girls' schooling and encourage them to participate in domestic and farm work. The data was analyzed both qualitatively and quantitatively. Her findings revealed that educational experience and out look of parents are transmitted to their offspring. There is a direct relationship between parental level of education and girls' academic achievement in examinations. Garikai (2010) concurs with Juma (1994), the researcher noted that parents with no or low education levels are not keen on learning of their young ones and have nothing educational for their children to emulate. He observed that students whose parents have superior education are high achievers at school because the parents understand requirements for learning and cooperate fully with teachers in their effort to provide quality education.

According to Chege (1983) parental level of education seems to be a major influencing factor in participation and performance of girls. Papanek (1985) also observes that the educational status of the family affects the daily life of the child. For many families, children are expected not only to contribute to household chores but also engage in productive and wage earning activities. Papanek observes that, in countries where children's schooling faces many barriers of direct and indirect costs as well as accessibility of schools, family decision about children schooling depends on what is hoped that education will do for the children as individuals and collective interest of their household. Unlike studies that focused on the effect of parental level

of education in their children academic achievement, this study investigated the parental-level of education and its effects on girls' academic achievement.

Parental attitudes towards girls and their participation in household chores are not the only impediments to girl student academic achievements in Secondary Education.

According to Chege and Sifuna (2006) importance of institutions such as bride price, polygamy, and adultery fine continue to interfere with education of girls. A study on the influence of maternal factors, gender stereotypes, and age of the girls, sex roles and attitude was carried out where 150 girls from a working class background in rural Ohio, aged 6-8 and 10- 12, participated. Using the Pearson Moment correlation coefficient, it was found out that younger girls had significantly more sex-typed role prescription than older girls. The researcher maintained that the older girls' sex role attitudes were significantly correlated to their mothers' sex role attitudes and goals for their daughters in future (Kennedy, 1987).

Okoije (2001) in a study among the people of Benin noted that many parents, especially illiterate ones, have low academic expectations for their daughters. Some believe that higher education is for boys only. Others think that boys like studying more than girls, while others think that boys are more brilliant than girls and perform better than girls. Okoije (2001) on gender issues in Benin continues to report that gender gap is more pronounced in the rural and less economically developed areas where sacrifices for education are not easy to achieve. In such a situation, any possible sacrifices will be given to a male child thus perpetuating inequality of opportunity. Female children according to studies conducted in (Kenya, Mali, Nigeria & Democratic Republic of Congo) are disadvantaged and discriminated in large

households. The larger the number of children of school age, the lower the chances of empowering girls to do well in school and higher female drop out rates; finally this leads to low academic achievement among girls.

Mingat (2003), Chege (1983) observe that children of mothers with formal education have an attendance rate of 71% compared to 47% for children whose mothers did not attend primary school. This view is supported by Kasonde (1999) who observed that parental education and support have a positive influence on the children education. These studies did not cover girl student academic achievement vis –a- vis parental level of education in Kisumu East district which was the focus of this study.

2.3 Influence of Family Economic Status on Academic Achievement of Girl student in Secondary Education

The Family's economic status influences the academic achievement of girls, this view has been supported by a number of researchers. According to UNESCO (2004) a number of girls are not in school because of poverty. Opportunity costs are a determinant for poor households. Children's labour is often part of household survival and sending girls to school may mean less food on the table. This in the end may lead to low academic achievement among girls. UNESCO (2004) further notes that reasons for girls low academic achievement vary across the regions, but a key factor is poverty. Low academic achievements are increasing in Central Asia and central and Eastern Europe, often due to increased poverty, especially among women head households (UNICEF, 2004). Economically the changing global economy is particularly significant for girls in developing countries as females make up a smaller, but growing, percentage of the smaller workforce (UNICEF, 2004) specific

considerations therefore needs to be given on how quality education can prepare girls to be part of this changing economy.

According to Mingat (2003) in his study of the richest families seventy six percent of their children attend school compared to forty percent of the poorest household. This means children from poor households have much lower attendance than those from richer households. It is in those poor families that girls have a higher risk of not attending school and this in turn leads to low academic achievement.

According to Kelly (1999) and Tembon (1997), studies done in Malawi, Ghana, Zambia, Ethiopia and Tanzania reveal that in most African countries, children and in most cases, girls are hindered from effective participation in schooling due to inability to pay costs for schooling. Such costs are school fees and materials, uniforms, transport to and from schools. Inability to pay the costs has a heavy bearing on girls' education as it bars them from enrolling in school. Additionally, it contributes to high dropouts, child labour and low performance due to irregular attendance. World Bank (2002) observes that due to a high demand for the girls' service at home, parents are reluctant to send them to school, or to give them time for school activities.

FAWE (2000) notes that girls are more likely to be pulled out of school incase of economic hardship, since they provide cheap labour for the family. UNESCO (2006) concluded that when faced with limited resources and competing financial demands, parents prefer to invest in the education of their sons. This, in the end, results in girls not performing well in academics.

Kinyanjui (1982) found that in the very early stages of life, wealthy parents are able to provide a home environment which has a significant educational advantage. Such parents have been known to sacrifice for their children's education but the reverse is true for poor parents who do not have much sacrifice to make and if they do, then the first priority goes to the male child, the girl is not provided with necessary material for school hence this may lead to low academic achievement.

Girls in Africa and almost in every region work at home more than boys, regardless of whether they are of school going age. It is reported that in Zambia, girls spend four times more than boys on direct productive work (World Bank, 2002). What is more striking is that the outcome of the productive work is not spent on the girls' development. This in the end affects their academic achievement in school. The girl is further disadvantaged by socio-cultural factors which defines who goes to school when funds are limited since educating a girl is like watering a neighbor's garden (Summer in Oloo, 2003). A study in Vietnam revealed that the level of education rises sharply with the level of income (World Bank, 2002).

Abagi and Sheila (1995) found that household income was a key determinant of social participation. Data available from Nairobi Province supports this, as findings showed that 64% of the girls studied performed poorly due to household failure to meet school expenses. There were marked preferences by parents to educate boys at the expense of girls during times of economic hardships. Kamaara (2005) asserted that women everywhere and at all levels suffer immensely from male dominated patterns of culture and social organization. Although women have contributed to the development of the third world countries, they have been accorded inferior status.

Guaranteed economic empowerment of women is critical to their liberation but approaches to this need should be strategic because certain empowerment procedures have worked against women's objectives.

A study by Kasante (1996) investigated factors responsible for maintenance of gender disparity in higher education and do describe the process through which the factors operate. Using questionnaires, interview schedule and classroom observation. She collected data from 266 respondents. The results indicated that mother's financial capability and support to meet educational requirements and their being available to offer effective guidance are reflected as contributing factors towards female performance and continuing with education more than males. The other factors she came up with include; stereotyped views of women's role, school environment, class dialogue and type of school. The number of children in a family also played a role on who should be sent to school. In case of little money, boys are given priority. The research was done at the higher education level. Therefore there is need for a similar research at the secondary level.

A study by Chege (1983) investigated the Socio-economic effects on education for Maasai Girls. The study revealed that parental level of education seems to be a major influencing factor in participation and performance of girls. Papanek (1985) concurs with Chege. She noted that the economic status of the family affects the daily life of the child. For many families, children are expected not only to contribute to household chores, but also, where possible to engage in productive and wage earning activities. Papanek observes, for instance, that in countries where children's schooling faces many barriers of direct and indirect costs as well as accessibility of schools,

family decision about children schooling depends not only on available resources but also on what is hoped that education will do for the children as individuals and collective interest of the house hold.

Girls are an important source of income for their families and the need for additional household income often takes priority over education. The high status accorded to marriage and motherhood in many communities impacts negatively on female participation in education (Carmmish & Brook, 1994). In poor households, this value certainly takes on a significant meaning particularly as girls approach puberty. Poor families discriminate against girls especially that the secondary education is paid for sacrificing for the sake of education of the girl child especially if she came from a polygamous family was not easy. But Kenya National Commission on Human Rights (KNCHR, 2002: p58) on funding education investments asserts that 'education must be viewed as an investment into a collective future rather than simply as an individual consumption for personal success.'

Education instills conscious awareness that plays a key role in empowering women, safeguarding children from exploitative and hazardous labour, which in most cases affects girls. KNCHR continues to note that if education has to be meaningful, it must aim at equipping people with certain levels and quality training. Conducive environment, affordability and availability of places for secondary education constitute key factors for overcoming this challenge.

The above study by Chege (1983) used descriptive survey. In this study apart from descriptive survey, correlation design was also used. The correlation design has an

advantage because it determined the relationship between the variables. Chege's research on socio-economic effect on Maasai girls differs from this one because it was done among the Maasai girls and this one was done in Nyanza Province, and the two provinces have diverse cultures and economic activities. The present study differs from UNESCO (2004), Mingat (2003), Kelly (1999), World Bank (2002), studies on global scene noted that the economic status of the family influences academic achievement of girl student in schools, because it focuses on the influence of family socio economic status on the girl student academic achievement in Kisumu East District which was not covered by these studies.

2.4 Influence of Family Size and Birth Order on Girl student Academic Achievement in Secondary Education

Family size and birth order of girls influences academic achievement of girl student. This view has been supported by a number of researchers such as Ronald (1976) who carried out a research among 306 girls and 247 boys from large and small families in four suburban Boston communities. After controlling for 1Q the research showed that first born girls had higher academic achievement than did later born girls. The research showed that first born girls were more likely to develop patterns of responsibility and hard work which helped them academically.

Caceres (2004) observed that large families are not able to invest or spend adequately on their children in a manner that would improve their chances of success in education, while parents with fewer children are able to adequately provide for their children's welfare and educational needs. However, in large family's life means

struggling and accessing basic requirements of life is an uphill task and is given more priority than investing resources in education to assure quality.

According to Abramson (1980) although children of the same family share a common environment and background, their experiences of that background will vary according to their birth order. He however, pointed out that birth order alone does not have an effect, but the situation in which the child finds himself and the way he interprets it, are the ones that bring about the observed effects.

Finlay (1981) reported as over representation of first born children among honours students, for females. Using a sample of 174 females with doctorate degrees aged between 26 and 60 years old, Melilo (1984) found that they came from families of all sizes but 46.6% of them were oldest children. This is evidence that family order plays a role on the academic achievement of students.

Kinyanjui (1982) noted that in the very early stages of life, wealthy parents are able to provide a home environment which has a significant education advantage. Such parents have been known to sacrifice for their children's education but the reverse is true for poor parents who do not have much sacrifice to make and if they do, then the first priority goes to the male child.

According to Zajonic (2001), later birth position is associated with lower educational achievement and career outcomes. Salvanes (2005) examined the effects of birth order on educational achievement using a sample of the population of Norway; he found that earlier birth position was associated with a significantly greater number of years

of education. Similarly, Herrera (2003) using data from a large representative cross-sectional sample in Poland, found that first and earlier born respondents reported a significantly greater number of years of schooling and higher levels of occupational prestige. Sputa and Paulson (1995) found a relationship between earlier birth order and school achievement especially among girls.

Paulhus, Traphell and Chem (1999) found in a series of four studies that individuals consistently reported first and earlier born children from their own families as being the highest achievers, even after controlling for 'participants' belief about birth order. These linkages between educational achievement and birth order may be explained in a number of ways. One explanation for these findings may be referred to as the family resources' (Hertwig, Davis & Zajonic, (2001). Salloway (2002) and Majoribanks (2001) tender this explanation that, any family has a given set of resources, and with increasing family size, families have decreasing resources to provide for the education and development of children. Later born children are therefore necessarily accessing a dwindling pool of resources.

A second explanation may be referred to as the "family niche' explanation, in which successive siblings tend to differentiate themselves from other siblings in an attempt to maximize outcomes and create a unique identity with the family (Feinberg, 2003). In this view of older siblings tend to favour scholastic and educational activities than younger siblings would be more likely to favour an alternative life course.

Despite the existing evidence for the links between birth order and educational achievement and outcomes, there are a number of issues not considered in existing

literature; one major issue concerns the potentially confounding role of family size on the effects of birth order. In particular, family size sets the upper limit of an individual's birth order. In turn this raises the possibility that the apparent associations between birth order and educational achievement may be a disguised association between family size and educational achievement. The methods in which family size has been controlled in studies of birth order have varied.

Many studies have failed to take family size into account (Andeweg and Van, 2003, Herrera, 2003, Majoribanks 1997, Sputa and Paulsons 1999). The current study aimed to illustrate how control for the effects of the family size can be achieved using K-Pearson product moment correlation method.

Further limitations in the literature include the fact that a number of studies have employed a cross sectional design (Herrera, 2003, Sputa and Paulson, 1995), and have used retrospective recall to estimate the influence of family and other risk factors in determining educational outcomes (Majoribanks, 1997). Other studies have not controlled for a range of personal and family related factors that may affect children as they develop into adulthood and that may be confounded with birth order (Herrera, 2003).

Groose (2002) noted that the position of a child in his family is a powerful predictor of personality and the academic achievements. Oluwole (2001) observe that first borns failure and refrain most of the time from where they cannot excel or make it. Uba (1989) and Becker (1981) concurs with the above statement by noting that the oldest child is usually advantaged by a good deal of alteration and warmth during the

early stage of life more attention and time are usually accorded to the first born this may lead them to do well in academic endeavours.

According to Tembiage (2002) and Spears (1982) there is a significant difference in the intelligent capacity between the first born and that latter born children were less capable than earlier siblings. These positions are indicators of birth order influence on academic achievement.

Birth order has been shown to have a small effect on educational motivation and academic achievement, even after dealing with social status (Majoribanks, 2003). The bulk of research shows that being a first born in a family has a positive implication. In addition to seeming to have an influence on academic motivation, being a first born may also have an influence on creativity (Bear and Jacobsolm, 2005).

Needman (2001) notes that there are exceptions to every idea about birth order, but there are also average outcomes. In general, first born children are seen as more responsible, with high parental expectations. Jamil (2011) observes that birth order has a strong effect on academic achievements of girls at secondary education in his research an attempt was made to find out whether there are chances of advancement for those children who are not first born and their parents have insufficient income. Birth order is correlated with a Childs education in Pakistan the parents spent less on the education of the first born and spent less on the second and third born because the source of income of the Pakistani is insufficient.

Jamil (2011), Groose (2002), Herera (2003), Zajonic (2001), Salvares (2005), Traphell & Chem (1999) observe that birth order, especially first and earlier born children reported a significantly greater number of years of schooling and higher achievement. These studies are different from the present one because most of them were carried out in developed countries. None of them examined the influence of birth order and family size in developing countries Kisumu East District inclusive.

2.5 Influence of Cultural Factors on Girl student Academic Achievement in Secondary Education

Parents have different attitudes towards their sons and daughters. Daughters are brought up for female roles such as child rearing while sons have a whole working life to devote to career building. Parents believe that females do not have qualities of independence, initiative and assertiveness (Mampele, 1994). Siegel (1987) argues that parents react differently whenever things go wrong for boys and girls in school performance. With this in view, the current research sought to find out whether the difference in reaction by parents is because of parental attitudinal differences due to culture.

Eshiwani (1986) noted that girls had not been encouraged to enter those academic disciplines that were historically dominated by men since cultural influence is still strong in many parts of Kenya. Girl's education is seen as a mere waste of time since girls will leave home and go to another family. Accordingly, Ademola (1989) noted that among the Sisala tribe of Ghana, girls are given powerful skills of being housewives yet denied that part of education that will make them compete favourably

in other sectors as opposed to their counter parts. In that way, girls shy off and hence develop some dependent attitudes.

On the other hand, Kihumba (1997) noted that in Lesotho, girls who would otherwise remain at home to be well fed and learn duties of good housewifery are taken to schools rather than boys who go to look after cattle. This is a totally different trend compared to what happens in most cultures where girls are left behind to take care of the children as maids while boys are sent to school. This situation in Lesotho depicts a disparity in the provision of education on the boy child. Some tribes in Kenya believe that the boy child education should be developed since they are going to be heads of families. He rightly concludes that the gender of a child should not be a fundamental issue when dealing with the provision of education. From the foregoing, the present study investigated whether cultural factors contribute to the inequality in the provision of education to boys and girls.

The Gachathi report (1976) concluded that the education of women is much less developed than that of men due to traditional believes and prejudices help by people in society. There is need to ensure that career prospects for women and men are made similar through guidance and counseling, increasing girls' opportunities and promoting compensatory enrolment for women at secondary and university levels. Karugu (1987) says that whether in school or not, girls of primary school age spend significantly more time on household chores than boys. Culturally prescribed roles for girls and women especially in the domestic sphere socialize girls to take the roles of deputy mothers. Owing to the cultural division of labour and allocation of duties between sexes, which in many societies start early, the opportunity cost of sending

girls to primary school tends to be higher than that of boys. Psacharopoulos and Woodhall (1985) noted that parents, particularly mothers favored boys' education because they depend on the sons for old age insurance. Investment in a son's education is seen as security in old age. They also rely on the daughters labour before marriage.

Bernard (2002) observes that lack of positive policy environment and structure for girls' education, including a lack of co-ordination between the education sector and other social sectors, inhibits girls' achievement in education. Chapman (2004) concurs with Bernard; he observes that the absence of policy to promote education for adolescent girls is a hidden obstacle to achieving in academics gender equality. For example, data collected on attendance, completion and achievement that are not desecrated by sex prohibits the formulation of policies for gender equality. Other policies act as specific barriers to girls' education. For example, policies limit the access and placement of girls in secondary schools (Wolf & Kainja, 1995).

African countries largely have a male preference attitude. The boy child is expected to be able to do wonders in the world of knowledge and technology whereas a woman's place is at home, keep up with the livelihood of the family (Mischi, 2002). Family development efforts, including schooling are invested on the boys because they are makers of clans while the girls are expected to be married to husbands who will speak for them. As a result few efforts and resources are spent on girls' education (World Bank 2002). This may lead to low academic achievement among girls in examination. Ballara (1992) observes that households, fathers and men in general have a negative attitude towards women's education, especially when it results in the possibility of

learning new skills that give women a new role in the family, and in the society. These in turn impede the schooling of girls and hence cause low academic achievement in national examinations. A research done in Nigeria also points to the same direction. It reveals that many poor and large families preferred to educate boys for family continuity, headship of household and property inheritance since girls marry and go away from their homes (Okoju, Chiegwe & Okpokuno, 1990). Further more, the inability to pay fees and purchase books, large equipment and clothes compel parents to invest in education of their sons, whom they see as a source of future family support in preference to their daughters whose economic contribution could as well be to a different household (UNESCO-UNICEF, 1990).

Chege and Sifuna (2006) noted that parents tend to discourage too much education for their daughters. There is always the fear that if a girl is highly educated she may find it difficult to get a husband or be a good wife. They argue that women stay away from too much education in order to remain manageable and to avoid entering fields, which would make it difficult to follow their husbands incase of transfer of residence.

Patriarchal societies are affected by patriarchal systems, which give preferences for investment in schooling to boys who are believed to retain responsibility for their parents when they grow older, compared to girls, who are incorporated into their husbands' families (Eshiwani, 1993). This is why boys were expected to receive maximum training in order to attain the higher status as heads of the families and as successful heads of their respective families.

Boys were also expected to inherit their parents' property and hence maintain their family's status quo. Girls on the other hand, believed that their success and future depended on the success of their husbands and therefore it was used as an excuse for girls not to be taken to school (Maritim, 1990). Lack of vision and prospects for future life reduces girls' interest to participate, achieve and perform in education. Special efforts, therefore, need to be employed to cultivate girls' interest to education and provide an environment that will ensure their full participation and achievement in education.

Several authorities have discussed at varying lengths the cultural constraints as they operate to limit education for girls. Maleche (1972) argues that the cultural inhibitions include male prejudice. This is the belief that education will make girls discontented and immoral, less willing to engage in the heavy labour. The general attitude shows that education is undesirable for the women because it interferes with her cultural authenticity and to the dismay of men. This attitude therefore does not encourage education for women, let alone aspirations for a better place in society. This in the end may affect the performance of the girls'.

Abdulahi (2005) reported cases affecting girls in Maasai land. He noted that fathers do not wish to pay fees for their daughters; instead they would rather have them married. This has forced several of them to run away from home to seek refuge elsewhere. Otunga (1994) argues that the more popular theory advanced for the high dropout rates among girls is that parents still see boys as fetching greater financial gain upon successful completion of school and that culturally they are entitled to

family land as they remain in their birth homes. Additionally, boys are also given preference by parents when it comes to purchasing core textbooks.

According to Campell (2004), people still continue to value activities traditionally done by men more than they value those done by women. He further asserts that adults and children alike know that society is going to be more supportive of the girl who wants to be assertive and athletic or become a childcare work. "You act like a girl" is still one of the premier insults that can be hurled at a "good student" who is too closely identified with girls. Many boys want to be good students.

Wangechi (1996) observed that since women stayed at home while men went hunting, women indulged in idle chatter than men. She argues that colonization of Kenya provided an opportunity for traditional roles and rights of women to be eroded. Gender had for a long time muted a category with a male dominated and patriarchal character right through the colonial era. Rubin (1974) asserts that "Boys will be boys, as a fact of human nature, and girls will grow up to become mothers". Besides, he notes that for working class girls, the domestic curriculum was their only option. For most middle class girls, private education provided the academic opportunities for a few, but also created the social class solidarity and enabled them to get the "right" husband. Some middle class girls, however, had the opportunity of attending "uncompromising" secondary school education.

Konchora (2004) observes that gender violence has provided a grim picture of the rigid cultural practices that make the main concern of the pastoral communities. This

is especially rampant within the family, where complete violation against women rights are not adhered to.

Kanyuka (1990) noted that girls were enshrined as homemakers and this provided the rationale for post war girl's education by the middle of the 20th Century. The education of the girls included a lengthy chapter on domestic subjects, like needlework, cookery, laundry and housekeeping. This was due to the fact that, ones "knowledge" of such subjects is a necessary equipment for all girls as potential house makers. Two, domestic subjects had advantage of (offering) a practical approach to theoretical work; and finally, domestic subjects could be a qualification requirement "for girls likely to go on to domestic science colleges." For girls, domestic subjects provide a centre of interest natural and congenial to them. This study differs from Abdullah (2005), Bernard (2002), Chapman (2004) Ballara (1992) Chege (1983), Sifuna (2006) observe that lack of positive policy environment, structure for girls education and patriarchal societies are affected by patriarchal systems, which gives preferences for investment in schooling to boys who are believed to retain responsibility for their parents when they grow older, compared to girls who are cooperated into their husbands families. Besides, Sifuna (2006), Eshiwani (1993) observed that cultural factors affect the academic achievement of girls' student. These studies did not cover girl students and academic achievement vis avis cultural factors in Kisumu East which is inhabited by mostly by Luo or Luhyas and have different cultural practices from the ones reviewed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the main focus is the research methodology. It focuses on research design, area of study, study population, sample size and sampling techniques, instruments for data collection, validity of the instrument, data collection procedures and methods of data analysis.

3.2 Research Designs

The researcher used descriptive survey and correlation designs. Descriptive survey seeks to uncover the nature of factors involved in a given situation, the degree in which it exists and the relationship between them (Mugenda & Mugenda 2003).

Descriptive survey was adopted for four reasons. First it allowed the researcher to adopt a holistic approach in the study sampled schools. Secondly, it was easy to use research tools like questionnaires and interview schedules. Thirdly, this design allowed for the collection of data from a large number of respondents in a relatively short period. Fourthly, the design obtains information from a sample rather than the entire population at one point in given time.

Descriptive studies of survey are for description and to determine the relationship between the variables at the time of study (Mugenda & Mugenda, 2003). On the other hand, correlation design was appropriate for this study because it enabled researchers to analyze the relationships among a large number of variables in a single study (Borg & Gall, 2007). It allowed the researcher to analyze how these variables either singly

or in combination affect the pattern of behavior of girl student. They also provide information concerning the degree of the relationship between the variables being studied (Borg & Gall, 2007).

Mugenda and Mugenda (2003), states that correlation technique is used to determine the relationship between two variables. The bigger the coefficient, the stronger the association. It also determines the strength and direction of the association between the two variables. In this study, the researcher intended to establish the influence of family's socio economic status and academic achievement of girl student in secondary schools; therefore this design was appropriate for the study.

3.3 Area of Study

The study was carried out in secondary schools in Kisumu East District, Nyanza Province. Kisumu East boarders Nyando District to the East, Nandi District to the North East, Vihiga District to the North, Kisumu West District to the North West and Lake Victoria to the South.

The district lies within longitude $33^0\ 20^0$ and $35^0\ 20^0$ E and latitude $0^0\ 20^{0s}$ and $0^0\ 50^{0s}$. There are some notable features such as the Nandi escarpment in North East and Lake Victoria which is the largest fresh water lake in the World. The district has a mean annual rainfall of 1630mm. (Republic of Kenya, 2009).

According to Republic of Kenya (2008), in the poverty assessment report for Kisumu District. It was established that more than half the population is poor; the poverty level was established to be 53% and the poverty index 65.9%. The district lies heavily

on agricultural activities such as fishing, growing sugarcane, rice and cotton. However, due to poor infrastructure and lack of market no sufficient income is realized from these activities. A few factories for example textile and sugar have been closed hence many of their employees are jobless. Other economic activities in the district include wage employment, rural self employment and urban self employment.

3.4 Study Population

The population of the study was 1560 form four girl students' and 33 principals from Kisumu East District. The form four girl students were appropriate for the study because these are students who would have undergone adequate training in school for four years and sit for the national examinations. The table below shows the number of public schools, Head teachers and girl students in Kisumu East District.

Table 3.1

The Number of Head teachers and girl student in Kisumu East District

Category of Public schools	(N)	Headteachers Population	Girl student Population
Girls	4	4	442
Mixed	29	29	1118
Total	**33**	**33**	**1,560**

Source: DEO's Office Kisumu East District, 2010

3.5 Sample and Sampling Technique

The study used saturated sampling technique to select 30 head teachers as the remaining 3 were used to pilot the instruments. Simple random sampling technique was used to select 300, form IV girl students of 2010. The sample size of girl students' was determined by using the formula indicated by Kathuri and Pals (1993). The formula is as follows;

$$S = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

Where

S - Required Sample size

N - The given population size

P - Population proportion of 0.50

D - Degree of accuracy

$\mathbf{X^2}$ - Chi-square value for one degree of freedom at a confidence level of 0.95

The population of girls in the remaining 30 schools (3 schools used for piloting) was 1,346 out of which 300 girl students were used in this study.

The sample size of the form four girl students and Head teachers were distributed as shown below in Table 3.2.

Table 3.2

Sample Size of Headteachers, and Girl student in Kisumu East District

Category of school	Head teachers Population (N)	Sample size (n)	Girl Student Population (N)	Sample size (n)
Girls	3	3	402	90
Mixed	27	27	944	210
Total	**30**	**30**	**1346**	**300**

3.6 Instruments for Data Collection

The instruments that were used to collect data were the questionnaires, interview schedules and document analysis guide.

3.6.1 Questionnaires

A questionnaire was prepared to find out the influence of family's socio-economic status and girl student academic achievement in the schools selected in the sample. The students responded to the questionnaire.

a) Girl Students' Questionnaire

The girl students' questionnaire on the influence of family socio-economic status on academic achievement of girl student in secondary education (Appendix A). The students questionnaire consisted of open ended and closed ended items. This questionnaire was administered to 300 form four students' who participated in this study.

3.6.2 Interview Schedule for Head teachers

Kothari (1993) defines an interview schedule as an outline of questions that form a basis for and guide the interviewing process. The schedule provides a structure that aids in obtaining the necessary information efficiently and in business-like atmosphere. It enables you to gather in-depth information to counter check the information obtained through questionnaires. An interview schedule was carried out to determine the head teacher's view on the influence of the family's socio-economic status and the academic achievement of girl student at secondary Education.

3.6.3 Document Analysis Guide

The researcher used two sets of documents.

i) **Girl student personal files**

Personal files were used to collect data on girl students' family socio-economic variables, that is, parental level of education and siblings.

ii) **The 2010 KCSE Results Print out**

Analysis of these results was used to collect data on girl students' academic achievement variable.

3.6.4 Piloting of Research Instruments

Before the questionnaire was used to collect data, a pilot study was conducted in three schools. The questionnaire was administered to 10 girl students from each schools. The three schools were not included in the main study to avoid subjectivity of responses. The purposes for carrying out the pilot study were;

a) To determine whether the questionnaire would provide the data required.

b) To identify the problems which informants might encounter in completing the questionnaire.

c) To determine whether the items in the instruments were clear to the respondents. The instruments were corrected as per the results of the pilot study improved versions of the questionnaires were then prepared so that only items considered relevant to the study were taken and corrected for the purpose of the study.

3.7 Validity of the Instrument

Validity is the ability of the instrument to measure what it is intended to measure. According to Mugenda (2003) validity is the accuracy and meaningfulness of inferences which is made on the research results. If data is a true reflection of the variables, then inferences based on such data will be accurate and meaningful. To ensure face validity of the research instruments, the researcher consulted the supervisors and experts in the Department of Educational Management and Foundations of Maseno University for validation of questionnaires and interview schedules. Their suggestions and recommendations were used to improve on the instruments until acceptable level of validity was achieved.

3.7.1 Reliability of the Instruments

Reliability was ascertained through pilot study. The pilot study was conducted in three (10%) schools and Pearson Product Moment correlation coefficient was used to determine the reliability of the questionnaires at the set alpha level of significance of 0.05. Students' questionnaire had a Pearson r coefficient of 0.75. The questionnaire was administered to the same respondents twice after a period of two weeks. Thus test-retest method was employed to estimate the reliability of the questionnaires (Mugenda and Mugenda, 2003). The interviewees were tape-recorded (where the

participant consented) and transcribed accordingly. It was decided from the pilot study involving qualitative data that validity and reliability be ascertained through the qualitative paradigm: Credibility; Transferability; dependability; and conformability.

Credibility

The goal of internal validity or credibility is to show that the study was conducted in a manner as to ensure that the participants were accurately identified and described. The credibility of the study was achieved by:

i) Collecting data over a long period of time (8 months) to enable a researcher to overcome his biases and perceptions

ii) The researcher checked with informants whether the conclusions and interpretations were accurate.

iii) The researcher recorded data mechanically through audio-tapes.

Transferability

External validity or transferability is the extent to which results of the study were generalized to the population from which the sample was drawn or other similar contexts (Marshall & Rossman, 1989).Transferability of the study was achieved through:

i) Provided a detailed accurate focus of his study including the theoretical framework.

ii) Provided a description of the methodology.

iii) Described data collection and analysis methods.

Dependability

Dependability or external reliability refers to the extent to which a study can be replicated. It is the degree to which a procedure yields the same results each time and in each way it is measured. The researcher took the following measures to ensure the dependability of the results:

i) Provided a detailed description of the process of inquiring to induce the methodological steps

ii) Provided products of the research process through data presentation, interpretation and recommendations

iii) Provided an audit trail including the audiotapes, field notes and interview transcripts.

Conformability

Conformability, objectivity or internal reliability is the situation in which two or more people perceive the same meaning from the same categories (Field, 1980).The main concern was that the researcher developed meanings and categories not based on his/her own bias ,but as was seen in the data by others. It was achieved by:

i) Discussed and shared meanings, categories that emerged from the study with his /her colleagues to determine if they perceive the same meanings

ii) Published the thesis in a journal to be scrutinized by experts.

3.8 Data Collection Procedures

Before undertaking the actual study, an introduction letter from school of graduate studies Maseno University was sought and obtained. Permission to carry out the research in the schools within Kisumu East District was obtained from the MOEST through the Kisumu District Education officer. The DEO provided the researcher with

a letter of introduction, which enabled her to get the necessary information from the schools. The researcher then personally supplied the letters to the head teachers of the schools in the sample, requesting them to allow her to use the schools for the purpose of the study. This was done two weeks before the intended date of undertaking the study to ensure that the authorities of the schools found enough time to accommodate the researcher. The researcher visited the schools under study after two weeks when permission letters had been given out. The purposes of visiting the schools by the researcher were for the familiarization and introduction with the teachers under study; distributing questionnaires; and conducting the interview schedules.

In the main study, the researcher personally delivered the questionnaires to all the respective respondents. This approach enabled the researcher to:

a) Establish rapport with the head teachers to make appointment with them for interviews.
b) Assure the respondents about the confidentiality of their responses.
c) Clarify the items they did not understand well.
d) To overcome the possibility of students discussing among themselves the appropriate answers to write.

The researcher personally administered the girl students' questionnaires. The girl students were given enough time to respond to all the questions. The researcher also conducted interview schedules with the head teachers on different dates. With the help of in-depth interview schedules, the researcher interviewed respondents regarding some aspects on the questionnaire.

3.9 Methods of Data Analysis

Data analysis in descriptive survey studies involves descriptive and inferential statistics. This study used frequencies, means and percentages because they easily communicate the research findings to majority of the readers (Gay, 1992). Frequencies easily show the number of subjects in a given category. Percentages were used to compare sub-groups that differ in size and population. Data from interviews were read carefully, paying attention to comments, ideas and concerns from participants. Tables and figures were also used to summarize the collected data. Results from quantified data were also presented in figures and tables.

Descriptive statistics such as frequency distribution by tallying were used to enable the researcher to come up with clear counts concerning the responses. Responses obtained from closed ended questions were coded such that a question requiring a response of SA was coded as 5 and a question requiring a response of 'SD' was coded as 1. Once the coding was completed, the responses were transferred into a summary sheet by tabulating. These were then tallied to establish frequencies, which were then converted into percentages. Responses of the open ended questions were recorded word for word. To determine the frequencies of each response, the number of respondents giving similar answers was relative levels of opinion. This enabled the researcher to continue at valid conclusions about all the research objectives.

The basic analysis of the data concerning perceptions was done in terms of the mean scores gained on the attitude scale. To do these numerical scores were assigned to five response opinions given to such item in the likert type scale. From the positively stated items, score value on the likert scale were assigned as follows: Strongly Agree

(SA) = 5; Agree (A) = 4, Undecided (U) = 3; Disagree (D) = 2; Strongly Disagree (SD) = 1 and vice versa for negatively stated items.

Pearson Product Moment correlation coefficient was used to establish the influence of family socio – economic status on girl student academic achievement. In this study the independent variables were; parental level of education, family's economic status, family size and birth order and cultural variables. The dependent variable was girl student academic achievement.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the demographic data of the respondents, results and discussion of the data collected during the study. The purpose of the study was to find out the influence of family's socio-economic status on girls' academic achievement in public secondary schools in Kisumu East District. The chapter was organized according to objectives that guided the study which were to:

i) To determine the influence of parental level of education on girl student academic achievement in secondary school education.

ii) To find out the extent to which family income influence girl student academic achievement at secondary school education.

iii) To establish the influence of family size and birth order on girl student academic achievement at secondary school education.

iv) To find out the influence of cultural factors on girl student academic achievement at secondary school education.

The return rate for questionnaire was 300 (100%) for girl students.

4.2 Demographic Characteristics of Respondents

The respondents in this study included Head teachers and Form four female students of 2010. Demographic characteristics of the respondents that the study sought to establish were, age, sex, professional qualifications and teaching experience based on questionnaires. Background information of the students helps to promote girl student education. It helps to determine the procedures to be adopted, what vocabulary to use and even determine which examples are most likely to fit their age and experience

level. This information is therefore key to planning and organization on how to provide secondary education that will enhance girls' academic achievement.

The study sought to establish the ages and gender of head teachers. The findings were as shown in Tables 4.1 and 4.2.

Table 4.1

Head teachers Ages as reported by Head teachers (n=30)

Age Bracket	Head teachers	
	f	%
20 – 30 yrs	-	-
31 – 40 yrs	6	20
41 – 50 yrs	20	67
51 – 60 yrs	4	1
Total	30	100

As shown in Table 4.1, 20% of head teachers fell within the age bracket of 31 – 40 years, the majority (67%) of head teachers were in the age range 41- 50 years. As can be observed from Table 4.1, 50% of the head teachers fell above 40 years of age a sign that they were older enough to offer good advice to the girl student. Equally, most class teachers fell above 40 years of age an indication that they were capable of guiding the girls towards better academic achievements as they were mature enough.

Table 4.2

Gender of Head Teachers (n=30)

Gender	Head Teachers	
	f	%
Female	7	24
Male	23	76
Total	30	100

It can be observed from Table 4.2, that 23(76%) of head teachers were males and only 7(24%) of the head teachers were females. This may affect the performance of the girl student because they are few female head teachers that would act as role models to them.

The study also sought to establish head teachers' academic and professional levels of education and years of work experience. The findings were as reported in Tables 4.3 and 4.4.

Table 4.3

Head teachers Academic and Professional Levels of Education (n=30)

Academic Level of Education	Head Teachers	
	f	%
Diploma	-	-
BA/BSc with PGDE	-	-
BED	20	66.7
MED	10	33.3
Total	30	100

As it can be observed from Table 4.3, no head teacher had A-level with Diploma in Education, while majority (66.7%) had Bachelor Degree in Education and some 33.3% head teachers had Masters of Education.

Table 4.4

Head Teachers Years of Work experience as reported by Head teachers (n=30)

Experience in the Teaching profession	Head Teachers	
	f	%
1-5 yrs	-	-
6 -10 yrs	2	7
11-20 yrs	28	93
Total	30	100

As can be observed from Table 4.4, no head teacher has less than 5 years experience as a head teacher, while majority (93%) had more than 5 years experience as head teachers and were qualified enough to support academic performance of girls. From Table 4.4, it can be implied that the contributions of head teachers towards girl's performance is vital.

4.3 Influence of Parental Level of Education on Academic Achievement of Girl Student in Secondary Education

The research question responded to was: What is the influence of parental-level of education on girl student academic achievement in secondary school education?

To address this research question parental level of education and academic achievement of girls were first established as presented in Tables 4.5 and 4.6.

Table 4.5

Parents Level of Education by Gender as indicated by Girl students (n=300)

Parental level of Education	Frequency	Percentages
Father's Level of Education		
Primary	46	15.3
Secondary	84	28.0
College	94	31.33
University	76	25.33
Mother's Level of Education:		
Primary	65	21.66
Secondary	125	41.66
College	84	28.00
University	26	8.66

From Table 4.5 it was revealed that the level of education of fathers was generally higher than that of mothers as 170(56.6%) of the fathers had college and university education while only 110(36.6%) of mothers had college and university education.

Table 4.6

Kenya Certificate of Secondary Examinations Results for Girl student in Kisumu East District in 2010 as indicated by Head teachers (n=30)

Grades attained	Frequency	Percentage
A	1	0.3
A-	4	1.3
B+	9	3.0
B	8	2.7
B-	17	5.7
C+	30	10
C	55	18.3
C-	54	18.0
D+	50	16.7
D	45	15.0
D-	25	8.3
E	2	0.6

Source D.E.Os Office Kisumu, 2010

From Table 4.6 it can be observed that the girl student' performance was generally poor as majority 261(86.9%) scored C+ and below in the Kenya Certificate of secondary examinations. However, 39(13.1%) had good results for future career development. This meant that there were certain factors that affected negatively the academic achievement of the girl student. The study sought to establish the influence of parental-level of education on academic achievement of girl students in Kenya Certificate of Secondary Education Examinations. Pearson Product Moment correlation coefficient (Pearson r) was used to establish the relationship between

parental level of education and girl student academic achievement. To achieve this a null hypothesis (H_{01}) which stated, "There is no significant relationship between parental level of education and girl student academic achievement" was used in relation to father's and mother's level of education vis-à-vis girl student academic achievement. The results were as shown in Tables 4.7 and 4.8.

Table 4.7

Results of Pearson Moment Correlation Coefficient showing the Relationship between Fathers' Level of Education and Girl Student Academic Achievement

		Fathers highest level of Education	KSCE score
Fathers highest level of Education	Pearson Correlation	1	
	Sig. (2-tailed)	.	
	N	300	
KSCE score	Pearson Correlation	.777**	1
	Sig. (2-tailed)	.001	.
	N	300	300

** Correlation significant at the 0.01 level (2- tailed)

The Pearson Product Moment Correlation Coefficient for father's level of education and girl student academic achievement was 0.777. This meant that there was a strong positive relationship between parental level and girl student academic achievement. The relationship between father's level of education and girl students academic achievement was statistically significant as the p –value of 0.001 was less than the set significance level (α) of 0.05 for the analysis. The hypothesis was therefore rejected.

This meant that father's level of education significantly influenced girl student academic achievement. It was also noted that girls whose father's level of education was higher performed much better than those girls whose father's education level was below college level as was inferred from Tables 4.5 and 4.6 which indicate that 24.8% of the fathers had above university college education and 23% of the girls met the minimum university entry requirements. This finding is consistent with Plomin, Defries and Mclean (1990) findings that the father's educational level plays an important role in determining a child's intellectual performance on academic achievement. This is because parents with higher educational level motivate the intellectual potential within the child and lead to better performance in examinations.

Table 4.8

Results of Pearson Product Moment Correlation Coefficient showing the Relationship between Mothers' Level of Education and Girl Student Academic Achievement

		Mothers highest level of Education	KSCE score
Mothers highest level of Education	Pearson Correlation	1	
	Sig. (2-tailed)	.	
	N	300	
KSCE score	Pearson Correlation	.423**	1
	Sig. (2-tailed)	.004	.
	N	300	300

** Correlation significant at the 0.01 level (2- tailed)

The Pearson Product Moment Correlation Coefficient for mothers' level of education and Girl Student Academic Achievement was 0.423. This means that there was a moderate positive relationship between mother's level of education and girl student academic achievement. This relationship was statistically significant as the p-value of 0.004 was less than the set significance level (α) of 0.05 for the analysis.

The hypothesis was therefore rejected. This meant that mother's level of education significantly influenced girl student academic achievement. This means that mother's level of education had a moderate positive influence on daughter's academic achievement. This finding is consistent with Mingat's (2003) findings that children of mother's with formal education have an attendance rate of 71% compared to 47% for children whose mothers did not attend primary school. This consistency in attendance could lead to high performance in examinations. There is a direct relationship between parental level of education and girl student academic achievement in examinations.

The finding that parental level of education influences academic achievement of girl student is consistent with Chege's (1983) findings that parental level of education is important and the way the parent perceive her/his Childs capabilities influences the student's performance. If the girl was led to believe that she is capable of performing low academically, she would have low expectations of herself would have little self motivation and would achieve very little. However, if the girl was made to believe that she is capable of performing well academically then she would be self motivated and excel in academics.

The study therefore calculated the mean rating of parental support in academic work as was revealed by the students who participated as can be observed from Table 4.9.

Table 4.9

Influence of Parental Support in School Academic work like doing Assignments (n=300)

Parental support	Mean Rating
My mother is the only one who helps me do home work in a number of subjects.	3.11
My father is the only one who helps me do home work in a number of subjects.	3.01
Both my parents help me do my homework in a number of subjects.	3.07
Both my parents and guardians help me do homework in a number of subjects	2.95
My guardian do help me do my homework in a number of subjects	2.94

Classification of influence of parental support

4.1 -5.0 Very high influence	2.1 -3.0 Low influence
3.1 – 4.0 High influence	1.0 -2.0 Very low influence

Table 4.9 reveals that mothers do assist their daughters in doing homework with a mean rating of 3.11. Equally fathers also do assist in homework with mean rating of 3.01. Parents who do not help their daughters are few with mean rating of 2.94.

From Table 4.9 it can be noted that class teachers indicated that educated parents had influence in their daughter's performance as reflected in the rating of 4.83. During the in-depth interview with the head teachers, all (100%) head teachers noted that parental level of education plays an important role on academic achievement of girl

student education. The head teachers further noted that the way the parent perceives his/her child's capability would influence the students' performance if girls were led to believe they are capable of very little academic achievement, then the girls would have low expectations of themselves, the child would have little self-motivation and would achieve very little. On the influence if educated parents do not have interest in their daughter's performance, the mean rate stood at 1.5; this disputes the fact that educated parents do not have interest in their daughter's academic performance.

During interviews with head teachers the study established that children whose parents co-operate with the teachers and school as a whole do perform better than those whose parents were indifferent. This finding concurs with Berger (1983) when he emphasized that the co-operation of parents has a lot to account for the academic outcome of children.

The finding of the study has revealed that family practices related to later school achievements vary within social classes. Parenting practices in the home strongly predict school performance in the students schooling. This in the end may affect the performance of the students in the national examinations. This also is supported by Juma (1994) whose study revealed that educational experience and outlook of parents is transmitted to their offspring and that educated parents with high incomes are able to provide their children with conducive home environment as they will provide all necessities of the school and pay extra tuition fees, hence encouraging access and better performance of girls because they understand the value of education and benefit to the child.

The findings further concur with studies in Latin America (Dessorollo, 2000) and San Francisco (Plomin, Defries and Mcleen 1990) which found that parental level of education could play an important role in determining a child's intellectual performance on academic achievement. Mukonyi, (1987) and Juma (1994) carried out their investigations in western and coastal regions of Kenya respectively. These later studies confirmed that a direct relationship exists between parental level of education and girls' academic achievement. The present findings reveal a positive relationship between the level of education and girl student academic achievement.

Head teachers further noted that, parents can offer academic stimulation to their children such that even though the children do not necessarily aim at having the same jobs as their parents, their desires to succeed in school and obtain respectable careers may reflect their parents' expectations. This finding is supported by Hewison (1985) that differences in the home explained more of the variations in children's school achievement than did differences in educational provision.

One Head teacher observed that;

> "the kind of interaction and feedback children receive from their parents, peers and teachers either in word or deed goes a long way to influencing the nature of evaluations that children make of themselves. These evaluation, they noted may be positive or negative."

According to Garzarelli and Lester (1989) there is a strong relationship between self-concept and academic performance in female and that parents were more ready to punish wrongdoing than reward diligence. This bred the 'as-good-as-nothing' attitude in the children, culminating in low self-concept hence low academic performance.

4.4 Influence of Family Income on Girl Student Academic Achievement in Secondary Education

The researcher also sought to find out the income range of the parents and its effects on girl student academic achievement. The response was as shown in Table 4.10.

Table 4.10

Family Income per Month as reported by Girl student (n=300)

Range of Family Income	Frequency	Percentage
Kshs 500 – Kshs.1000	32	10.7
Kshs.1001 – Kshs.2000	31	10.3
Kshs.2001 – Kshs.5000	58	19.3
Kshs.5001 – Ksh.15,000	27	9.0
Kshs.15,001 – Kshs.30,000	100	33.3
Kshs.30.001 – Kshs.60,000	34	11.3
Kshs.60,001 – Kshs.100,000	18	6.0
Kshs 100,000 and above		

As can be observed from Table 4.10 majority of the students are coming from low income families with a number of 148 (48.3%) students coming from families earning below 30,000/= per month. It can be observed that only 18 (6 %) students come from families with an income of between Kshs. 60, 0001 - 100,000 per month.

The study sought to establish the relationship between family income and girl student academic achievement by use of Pearson Moment correlation coefficient. To establish the influence of family income on girl student academic achievement a null

hypothesis (H_{02}) which stated that, "There is no significant relationship between family income and girl student academic achievement in secondary school education." was used. The results were as shown in Table 4.11.

Table 4.11

Pearson Moment Correlation Coefficient showing the Relationship between Family Income and Girl student Academic Achievement

Correlations

		Total Earnings of your parents	KSCE score
Total Earnings of your parents	Pearson Correlation	1	
	Sig. (2-tailed)	.	
	N	300	
KSCE score	Pearson Correlation	.871**	1
	Sig. (2-tailed)	.000	.
	N	300	300

** Correlation significant at the 0.01 level (2- tailed)

The Pearson Product Moment Correlation Coefficient for family income in Kenya shillings and girl student academic achievement in KCSE marks was 0.871. This was a strong positive relationship between family income and girl student academic achievement. This relationship was statistically significant as the p –value of 0.000 was less than the set significance level (α) of 0.05 for the analysis.

The hypothesis was therefore rejected. This meant that family income significantly influenced girl student academic achievement. This meant that girls whose parent's earnings were high performed better because they were in school most of the times as they were provided with learning materials and other essentials. This findings are consistent with the findings of UNESCO (2004) and Kasante (1996) which showed

respectively. A number of students are always sent from school due to lack of books, shoes, personal effects and other reasons other than failure to meet requirements like uniforms reflecting a mean rating of 2.68.

The findings reveals that girls from rich families are rarely sent home for fees and are performing better than those from low level income families. This is in agreement with Khan (1993) using data from a small survey in Bangladesh showed that students' education varied positively with their family's income and holding.

Private costs of education are those incurred by parents and it differs in different countries according to studies by O'donoghue, (1999). Equally according to Ayodo and Gatimu (1991) cost sharing has gained currency as a method of allocating educational costs to the beneficiaries such as families and communities instead of meeting the cost to be met from public funds as was the case with tertiary education after independence in most developing countries. These are the private costs paid by the parents currently. The private costs are the costs paid by the parents towards other requirements of the school and tuition fee which is currently paid by the government after the introduction of the Free Secondary Education in 2008. These costs can be boarding fees for those students in boarding schools and fees for lunch and other requirements for day secondary schools. Initially before the introduction of cost sharing in secondary schools the parents used to pay both boarding and tuition fees except few other expenses like paying the teachers and other expenses.

UNESCO (2004) states that a number of girls are not in school because of poverty. "Opportunity cost" is a deterrent for poor households. Child labour is often part of household survival and sending girls to school may mean less food on the table. The

issue of payment of school fees is a pressing issue in sub-Saharan Africa with the rising number of children orphaned by AIDS. However, even in the face of poverty, stigma and discrimination where school fees are removed few girls remain in school (FAWE 2000).

According to Graham (1998), Sudan experienced an increase in the cost of higher education during the 1980s. This increase became a deterrent to even those that managed to go through secondary level. Completion of schooling to higher education became a direct function of income rather than of the girl's ability. This can be supported by Kasante (1996) that mothers' financial capacity and support to meet educational requirements and their being available to offer guidance are reflected as factors that improve girl student performance.

4.5 Influence of Family Size and Birth order on Girl student Academic Achievement in Secondary Education

The research question responded to was: What is the influence of family size and birth order on girl student academic achievement in secondary education?

To address this research question the study first established the family sizes and birth order of girl students (Tables 4.13 and 4.14).

Table 4.13

Family Size as indicated by Girl Students (n=300)

Family size (No. of Siblings)	Frequency	Percentage
1	37	12.3
2	34	11.3
3	33	11.0
4	39	13.0
5	35	11.6
6	38	12.6
7	34	11.3
8	24	8.0
9	26	8.6

From Table 4.13, it was revealed that the family sizes in terms of siblings ranged from one sibling to 9 siblings. This implies that all the girls had at least one sibling.

The study sought to establish the influence of family size on girl student academic achievement in Kenya Certificate of Secondary examinations. Pearson Product Moment Correlation Coefficient test was used to find out if there is a relationship between family size and girl student academic achievement in examination in secondary education. To achieve this, a null hypothesis (H_{03}), that is, "There is no significant relationship between family size and girl student academic achievement was used". The results were as shown in Table 4.14.

Table 4.14

Results of the Pearson Moment Correlation Coefficient showing the Relationship between Family Size and Girl student Academic Achievement

		Number of siblings	KCSE score
Number of siblings	Pearson Correlation	1	
	Sig. (2-tailed)	.	
	N	300	
KCSE score	Pearson Correlation	-.648 **	1
	Sig. (2-tailed)	.004	.
	N	300	300

** Correlation significant at the 0.01 level (2- tailed)

The Pearson Product Moment Correlation coefficient for family size and girl student academic achievement was -0.648. This meant that there was a strong negative relationship between family size and girl student academic achievement. The relationship was statistically significant as the p value of 0.004 was less than the set significant level (α) of 0.05 for the analysis. The hypothesis was therefore rejected. This meant that family size significantly influenced girl student academic achievement. This meant that family size influenced negatively girl student academic achievement. That is children from large family sizes of six and above performed poorly than children from small family sizes of five and below.

This finding concurred with the views of head teachers. Head teachers during the interviews stated that majority of children from families of five and above performed below average generally compared to children from small families of one child to three children. In fact the head teachers expressed that as family size increases, the

girls from those families tend to perform below average. In this respect one head teacher observed,

> "As family size increases, the average intellectual scores decline and the parents seem not to care. However in cases of small families if one to two, parents are always pressuring and giving support to their only one or two children which enhances academic achievements."

The study sought to find out to the influence of birth order on girl student academic achievement in secondary education. In response to this research question the girls were asked to indicate their family sizes. The results were as shown in Table 4.15

Table 4.15

Birth Order as reported by Girl student (n=300)

Birth Order	Frequency	Percentage
First Born	41	13.7
Second Born	140	46.7
Third Born	36	12.0
Fourth Born	30	10.0
Fifth Born	24	8.0
Sixth Born	25	8.3
Seventh Born	2	0.07
Eighth Born	2	0.07

Table 4.15 shows that majority 247 (82.4%) girls were falling between first born and fourth born from their families. Only 53(17.6%) girls were falling between fifth born and eighth born in their families.

The study sought to establish the influence of birth order on girl students' academic achievement. Pearson Product Moment Correlation Coefficient test was used to find

out if there is a significant relationship between birth order and girl student academic achievement in examination in secondary education. To achieve this, a null hypothesis (H_{04}), that is, "There is no significant relationship between birth order and girl student academic achievement." was used. The results were as shown in Table 4.16.

Table 4.16

Results of the Pearson Moment Correlation Coefficient for Birth Order on Girl student Academic Achievement

		Position of birth in your family	KCSE score
Position of birth in your family	Pearson Correlation	1	.
	Sig. (2-tailed)	.	
	N	300**	
KCSE score	Pearson Correlation	.844	1
	Sig. (2-tailed)	.000	.
	N	300	300

** Correlation significant at the 0.01 level (2- tailed)

The Pearson Product Moment Correlation Coefficient for birth order on girl student academic achievement was 0.844. This was a strong positive relationship between birth order and girl student academic achievement. The relationship was statistically significant as the p –value of 0.000 was less than the set significance level (α) of 0.05 for the analysis. The hypothesis was therefore rejected. This meant that birth order influenced girl students' academic achievement such that earlier borns performed better than the latter borns in the same families. This finding concurred with head

teacher views. Thus during interviews with head teacher's, it emerged that birth order had greater relationship with educational achievement. According to one head teacher'

> "the first born child comes into an environment with two grown parents consequently his/her usual intellectual level is found as high. The second child enters a comparatively lower intellectual environment, because the early child becomes part of his/her intellectual environment, thus decreases the average intellectual level. A third child enters an even lower intellectual environment than the second born because of two older siblings, who decrease the average intellectual level in the family"

They argued that there is positive correlation between birth order and educational attainment, because the intellectual environment declines with birth order. This finding concurs with Groose (2000) who asserts that the position of a child in his family is a powerful predictor of personality and academic achievement and it is a factor that parents and teachers need to consider as they look for ways to raise happy and well-adjusted children. The respondents noted that intellectual scores have been found to decline as birth order increases. According to head teachers the rates of school failure increased with increase in birth order.

In fact one head teacher also noted that in each family member in their schools, the last borns were at greater risk of school failure than the first borns because the oldest child is usually advantaged by a good deal of attention and warmth during the early stage of life. More attention and time are usually accorded them (the first born); this may lead them to doing well in their academic endeavors. MacDonald (1989) also shows that individuals who were first-born in their families are likely to be more socialized, more responsible and more favorably disposed to persons in authority than those who were later-born. This therefore suggests that the negative effects of birth

order on academic achievement are real and unaffected by socioeconomic background of the students.

The findings above are consistent with findings in many birth order researches which indicate that intellectual performance scores decline with increase in birth order except for the last born who performs more poorly than expected (Belmont and Marolla, 1973). The present study found a clear birth order gradient on KCSE exams among girls in secondary schools. During interviews, one of the head teacher argued that the effects of birth order on intellectual performance depend on the age of testing. They suggest that effects of birth order on academic performance are present more in older teenagers. This suggests therefore that there may be developmental differences with birth order exerting a "sleeper effect" on intelligence that does not surface until later in life with shifts in cognitive development.

According to head teachers, birth order effects appear only where there is close spacing between siblings but this they noted is only found where birth rates are high. The head teachers further noted that;

> "where the birth rates is low, the age gap between siblings is large and this helps to reduce the negative effects of birth order and in some cases may even reverse the relationship.

Higher birth rates are associated with shorter spacing between siblings. Shorter spacing between siblings is only beneficial for older children. They further noted that low birth rate with large gaps between children is only beneficial for later born children and may help to modify the negative effect of birth order on intellectual performance.

Head teachers observed that it is likely that the difference results from the fact that first-borns are treated differently by their parents than are children who come later. For one thing, the first-borns have a monopoly of parental attention and love until the appearance of the second-born child. As the first-borns siblings take their place in the family, he has to share more and more of this attention, but he/she always remains "the first" and achieves a degree of supremacy from that fact alone. He/she is more mature than the other children, more responsive, and more can be expected of him/her. When he/she becomes old enough, siblings are placed in his/her charge, he/she learns to play the role of the parent substitute, with all the opportunities for social learning that position implies.

Head teachers further noted that the more complacent a sibling is, the lower the Grade Point Average among girls. They observed that the probability of dropping out of school increases with each additional closely spaced sibling. This finding concurs with Munroe et al, (1983) when they noted that there was a markedly superior performance for birth ranks 1-3 and very poor scores from those at ranks 7 and lower. In supporting this view, head teachers also noted that second born child performed better than the first born child due to the role of first born where they are required to help their parents in taking care of their younger siblings and other duties.

One Head teacher further noted during interviews that'

> "the middle child is influenced by the elder child, the second or middle child usually imitate the first born and he/she is likely to be what the first born is. The second and middle borns differs greatly from the first borns in personality, interest and achievement and that they are the only children who are achievement oriented an most likely to attain academic success. They may be creative, sometimes, like the last borns, they may rely on services from others rather than put in their own efforts.

This observation concurs with Iaovou (2001) who noted that, middle or youngest child performs better than other siblings.

Head teachers however agreed that there was significant difference in intelligence capacity between the first borns and latter borns and that latter born children were less capable than earlier siblings. These positions are indications of birth order influence on academic achievement. The interview findings concurs with Tenibiaje (2002) and Spears (1982) who both agreed that there was significant difference in intelligence capacity between the first born and latter born and that, latter born children were less capable than earlier siblings. Parents and other stakeholders of education should be attentive and be warm to their children for good academic performance.

According to head teachers (90%) noted that the behavior of the parents towards first born is very much lenient, they have a soft corner towards the first born and spent more time and more on education of the first born, the parents often ignore the mistakes of the first born and take part in the different educational activities of the first born. Due to this too much care and checking the educational activities of the first born children make them acquire positions in the schools.

The research also sought to find out if the level of education of sisters and brothers influenced girl student academic achievement in secondary education. The results were as shown in Table 4.17.

Table 4.17

Level of Education of Sisters and Brothers at each Level as reported by Girl student (n=300)

Education Level	Frequency	Percentage
Primary	08	2.7
Secondary	100	33.3
College	57	19.0
University	10	3.3
Nil response	125	41.7

Table 4.17, reveals that some 167(55%) girls had their brothers and sisters in secondary schools, colleges and universities. It was only 8 (2.7%) girls who had their siblings in the primary level. Others 125 (41.7%) did not indicate the level of education of their siblings.

During interviews head teachers noted that most girls are motivated by their siblings' achievements. Most girls they noted were copying their sisters and brothers and were therefore working hard to either be like them or bypass them. It therefore shows that most students do take their elder siblings to be their role models on the academic arena, hence a motivating factor to them. On the other hand the head teachers noted that some students with brothers and sisters at low academic circles were motivated to show their ability by passing highly in order to be respected in their families by their younger siblings. It was due to these reasons that the level of education of siblings is considered to be an important determinant in influencing the girl student academic

performance. Table 4.18 shows employment of the siblings and its influence on the academic achievement of girl student.

Table 4.18

Siblings Employment Status as reported by Girl student (n=300)

Status of Employment	Frequency	Percentage
Brothers		
Employed	128	42.7
Unemployed	172	57.3
Sisters		
Employed	138	46.0
Unemployed	162	54.0

Table 4.18 shows that most girls have brothers and sisters who are not employed with majority 172 (57.3%) having unemployed brothers and only 128 (42.7%) employed. On the other hand only 138 (46.0%) girls had sisters who were employed and a majority 162 (54.0%) girls had got sisters who were not employed. This implies that, those girl students who were employment motivation seekers lacked impetus to work hard in their academics.

Employment of sibling was noted by head teachers to have greater positive influence on the performance of girls. During the interviews the head teachers further explained that;

> "most girls would either want to join the profession of their elder siblings or would want to be in a better employment than them. This factor was noted to be one of the greatest contributors towards girl student better performance."

The head teachers also added that it was due to the jobs of the elder siblings that made the girl students to work hard and that those girl students whose brothers or sisters were not working were demoralized and were not much interested in learning. They went further to explain that however much efforts that the teachers put in teaching the girl students their attitude did not change going by the experience of the unemployed siblings who were equally educated.

According to head teachers, girl students whose siblings were working were seen to be working hard because of the pressure either from the elder siblings or from their parents who would want them either to work like their elder sibling or to join better jobs than their elder sibling. The head teachers further noted that even the siblings who failed and were unemployed do stress for their sisters in schools to work hard fact that the teachers noted was being supported by the parents as was usually confessed by the girl students.

4.6 Influence of Cultural Factors on Girl student Academic Achievement in Secondary Education

The research questions responded to was: What is the influence of cultural factors on girl student academic achievement in secondary school education? Their views were presented in Table 4.19.

Table 4.19

Influence of Cultural Factors as reported by Head teachers (n=30)

Cultural Factors Influence	Mean Rating Head teachers
My community value girls who are educated more than those who are not educated.	3.35
Members of my community are strict on girls and want them to concentrate on studies.	3.33
Girls do more domestic chores like fetching firewood, water grinding maize, taking care of siblings while boys are free to do studies and school work.	2.99
My community wants their daughters to get married at an early age.	2.48
My community do not care whether girls indulge in night dances or not.	2.51

Classification of cultural factors influence

4.1 -5.0 Very high influence

3.1 – 4.0 High influence

2.1 -3.0 Low influence

1.0 -2.0 Very low influence

Table 4.19 reveals that most communities value girl student education with mean rating of 3.359 and that most members are strict on girl student studies with mean rating of 3.33. It was however revealed that domestic chores do hinder girl student academic performance especially in day schools. The table however reveals that only a few communities in Kisumu East District with mean rating of 2.48 wants their

daughters married at an early age. However, some communities did not care whether girls indulge in night dances or not.

The cultural factor that my community value girls who are educated more than those who are not educated influenced girl student academic achievement was rated at 3.35 by head teachers. This is because the community tries to empower the girl child by motivating them through mass media, they provide physical facilities like laboratories, libraries, boarding facilities and classrooms through CDF, so that the girl student feel secure and concentrate on studies.

Taking into consideration that municipality schools are mostly day schools, girl students have more household chores to attend to before and after school thus a setback to their academic achievement. At home girl students are involved in duties such as fetching firewood, cleaning the house, cleaning dishes and taking care of the younger siblings. Girls often become victims of circumstances when they fall pregnant. Eshiwani (1985) observes that 10% of female drop-out is due to pregnancy.

The findings from the study reveal great interference from cultural values on the girl student academic performance which concurs with UNESCO (1992), in their studies that there was a general trend across all countries which reported on the matter that girl student performance weakens relatively to the performance of boys at some point in the school cycle for example in Botswana performance by female starts to decline at the age of ten years. However, in Madagascar and Rwanda girls performance weakens at the age of thirteen years and nine years respectively.

The study employed the key as listed below for the Table 4.20.

X1- My community value girls who are educated more than those who are not educated.

X2 - Members of my community are strict on girls and want them to concentrate on studies.

X3- Girls do more domestic chores like fetching firewood, water grinding maize, taking care of siblings while boys are free to do studies and school work.

X4 - My community wants their daughters to get married at an early age.

X5 - My community do not care whether girls indulge in night dances or not.

The study sought to establish the influence of cultural factors on girl student academic achievement. Pearson Product Moment Correlation Coefficient test was used to find out if there were significant relationships between cultural factors and girl student academic achievement in examination in secondary education. The results were as shown in Table 4.20.

Table 4.20

Results of the Pearson Product Moment Correlation Coefficient showing the Relationship between Cultural factors and Girl student Academic Achievement

		x1	X2	X3	X4	X5	KCSE score
1	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	300					
2	Pearson Correlation	-.115(**)	1				
	Sig. (2-tailed)	.009					
	N	300	300				
3	Pearson Correlation	-.127(**)	.249(**)	1			
	Sig. (2-tailed)	.003	.000				
	N	300	300	300			
4	Pearson Correlation	-.144(**)	.276(**)	.397(**)	1		
	Sig. (2-tailed)	.008	.000	.000			
	N	299	299	299	299		
5	Pearson Correlation	.296(**)	-.246(**)	-.447(**)	-.479(**)	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	300	300	300	299	300	
KCSE score	Pearson Correlation	.664**	..831**	.-401**	-.342**	-.742**	1
	Sig. (2-tailed)	.001	.000	.001	.004	.000	
	N	300	300	300	300	300	300

** Correlation significant at the 0.01 level (2 –tailed)

The Pearson Product Moment Correlation Coefficient for cultural factor X1 on girl student academic achievement was .0.664. This was a strong positive relationship and was statistically significant as the p –value of 0.001 was less than the set significance level (α) of 0.05 for the analysis. The hypothesis which stated that there is no relationship between cultural factors and girl student academic achievement was rejected as the results showed that there is a positive relationship. This means that the positive attitude of the community on education enhances girl student academic achievement. The Pearson Product Moment Correlation Coefficient for cultural factor

X2 on girl student academic achievement was 0.831. This was a strong positive relationship and was statistically significant as the p –value of 0.000 was less than the set significance level (α) of 0.05 for the analysis. This meant that the community's concerns on girls and wanting them to concentrate on studies enhanced girl student academic achievement. The Pearson Product Moment Correlation Coefficient for cultural factor X3 on girl student academic achievement was -0.401. This was a moderate negative relationship and was statistically significant as the p –value of 0.001 was less than the set significance level (α) of 0.05 for the analysis. This meant that the domestic chores impacted negatively on girl student academic achievement. The Pearson Product Moment Correlation Coefficient for cultural factor X4 on girl student academic achievement was -0.342. This was a weak negative relationship and was statistically significant as the p –value of 0.004 was less than the set significance level (α) of 0.05 for the analysis. This meant that early marriages impacted negatively on the girl student academic achievement. The Pearson Product Moment Correlation Coefficient for cultural factor X5 on girl student academic achievement was -0.742. This was a strong negative relationship and was statistically significant as the p – value of 0.000 was less than the set significance level (α) of 0.05 for the analysis. This meant that the community's permissiveness impacted negatively on girl student academic achievement.

These findings concur with those of Egbuna (2006) who noted that traditionally, a woman's role was basically to be a good mother and wife and her primary responsibility was the nurturing task of training and bringing up children. Girls were seen as inferior in their homes since they would later be married to other households, where their husbands would be expected to speak for them even if they didn't perform

well in school. Parents believed that once married, girls became part of another family and their parents' investment on them, in the forms of education was lost.

The study established a great influence of cultural factors on the girl student academic performance which is in agreement with Eshiwani (1993) that the environment in which the individual student lives influence her/his aspirations, self-esteem and motivation. Eventually the environment can either enhance or hinder a girl student learning and educational attainment.

According to all (100%) head teachers, there are those girl student that are asked by their parents to quit school and help them with household chores, and there are those that go to school but due to the large number of idle young men preying on them and lack of guidance by parents and teachers, end up being pregnant and consequently drop out of school. This finding concurs with various studies conducted by other researchers; Oloo, (2003), indicate that involvement in domestic chores by the girls was found to be affecting their academic achievement negatively.

FAWE (2000) noted that cultural division of labour where girls are expected to participate more in farm work, marketing, domestic chores or care givers to siblings make them the least choice to be sent to school and the first to be withdrawn when need arises. This finally affects academic achievement of girl student. FAWE (2000) further noted that women in developing countries spend large amounts of time performing household chores and girls share this work with their mothers. This coupled with other factors, work against good performance of girls in secondary education.

Parents have different attitudes towards their sons and daughters. Daughters are brought up for female roles such as child rearing. Furthermore, parents believe that

females do not have qualities of independence, initiative and assertiveness. In some rural settings, parents fear that schooling will make their daughters disoriented from the cultural set up to become immoral.

According to head teachers, cultural impediments do provide them with less exposure to the information that allows individuals to develop self-efficacy hence it make girls loose morale for school since girls would traditionally depend on men. This finding can be supported by Kasante (1995) who noted that girl student's workload in their homes clearly has a detrimental influence on their academic performance, since their duties are a daily affairs. This study concurs with Abagi (1995) who notes that girls are normally overburdened with family and household chores thus do not enjoy plenty of time to study and freedom to choose what to engage in. This finally leads to poor academic performance in examinations.

The success of girl student secondary education will depend on the role of the secondary principals' by involving all stakeholders and emphasizing on the importance of girls' retention. To achieve this, the principal has a role to invite guest speakers and women role models during annual general meetings to educate the parents and make them aware of their responsibility in providing the necessary resources that will enable the girls' to complete basic education, (Republic of Kenya, 1999).

According to head teachers factors associated with the instructional process such as textbooks, teacher quality, teaching methods, school organizations, teachers' correction of pupils' books, school library activity, class room organization and

frequency of homework determined the level of participation. This assertion is supported by Eshiwani (1993) who noted that the presence of quality school facilities and services are some of the symbols of high educational quality. It is the role of the principal to put in place rules and regulations that will ensure that girls remain in school at all times unless they are participating in educational activities outside the school. She understands the curriculum establishment and plays a key role to increase retention by organizing, planning and coordinating school activities with the girl at the center (Ochieng', 1997).

According to head teachers, most girl students could do better than they were scoring if the facilities could be adequate for learning. Inadequacy of facilities forces girls to either share or improvise and this venture is never liked by girl students who finally give up and relax for nature to take its course. This finding can also be supported by Odaga (1992) when he noted that the availability of physical and instructional facilities has significant influence on girl student performance. The facilities include classrooms, workshops, dormitories, computers, school vehicles, text books, laboratories and lighting among others. In his study of quality of schools in Kisumu Municipality, Odaga further noted that physical facilities attract and motivate students to work hard and complete their education. He further observed that those schools with better facilities do better in examinations. Wanjiku and Wanjiru (1994) also noted that the quality and adequacy of these resources have direct influence on the girl student education.

One Head teacher noted during interviews that;

> "textbooks in Kenya do depict girls and women with sexist bias that does not only lead girls into traditional roles, but also contribute to their negative attitude to learning and withdrawal from school."

This finding is consistent with Obura's (1991) observation that in reference to mathematics texts, it is noted that they depicted a picture of active male engaging in active work and business in a wider range of fields, earning cash, buying land houses, farm, vehicles, food, and clothing, borrowing and taking loan to develop his financial capacity, savings and investing substantial profits. Women in contrast are mainly absent from these activities, but when they do appear in textbook, they are engaged in domestic or poultry activities (Obura 1991).

According to one head teacher during interview said;

> "The personality and attitude of the subject teacher far exceeds the methods and materials in teaching and some teachers in either mixed schools or girls schools regarded girls as academically inferior as they described girls as stupid and lazy, articulating lower expectations."

This finding is also supported by Kasente (1996), in a study of Uganda post-secondary institutions, who asserted that the way teachers criticized the student responses and other gender-based teacher-pupil relationships could lead to negative and limited perceptions of female academic ability and potential.

The findings can further be supported by various documented records that the majority of students admitted to pre-service training programmes did not choose education at all, but took teaching as the only available option (Republic of Kenya, 1999). Consequently, they joined teaching as a last resort (Indoshi, 2003) and were somewhat not stable and effective enough to promote girl-child participation. The head teachers equally noted that an unmotivated teacher is inappropriate personnel to promote girl-child participation since they might perpetuate gender stereotypes on role, occupation and behavior in the process of curriculum instruction. In addition to

that, it is important to note that less experienced teachers are less likely to use textbooks, which motivate learning among students, than more experienced ones (Psacharopoulos & Woodhall, 1985).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary, conclusions and recommendations of the study based on the findings.

5.2 Summary

The findings of the study were summarized as follows:

5.2.1 Influence of parental level of education on academic achievement of girls in secondary education

The study established that:

i) Parental guidance and concern on the girl student academic work did motivate the girl child and enhanced good results in examinations.

ii) The Pearson Moment Correlation Coefficient for Fathers' Level of Education and Girl Student Academic Achievement is 0.777, which was significant at 0.05 levels in a two-tailed test. This means that there is a significant relationship between fathers' level of education and girls' academic achievement. The implication is that father's level of education influences their daughters' academic achievement. Parents supported their daughters in academic achievement as the students rated their support at 3.07 which had a big influence as opposed to the guardians whose influence was rated at 2.94 meaning the influence was low. Specifically, parents supported their girls' education by guiding them in their homework in a number of subjects. The Pearson Moment Correlation Coefficient for Mothers' Level of Education and Girl Student Academic Achievement is 0.004, which was significant at 0.05 levels in a two-tailed

test. This means that there is a significant relationship between mother's level of education and girl's academic achievement. The implication is that mother's level of education has a strong positive influence on daughter's academic achievement.

iii) The kind of interaction and feedback children received from their parents in word or deed went a long way back to influence the nature of evaluations which in this case enhanced their performance as was reflected in their mean ratings at 4.83.

iv) Parenting practices and particularly education experience and outlook of parents inculcated the spirit of higher achievement in their daughters. This means that there was a positive relationship between the parental level of education and girl student academic achievement.

5.2.2 Influence of Family Economic Status to Girl student Academic Achievement at Secondary Education

The study established that:

i) Affluent families met the children's obligations by supporting their girl student academic achievement by paying school levies on time and this enhanced academic performance of the girls.

ii) Girl student from low level income families do lack some personal effects i.e. pocket money, uniform and this interfered with their academic performance.

iii) There was a significant relationship between family income and girl student academic achievement as was revealed by Pearson Moment correlation coefficient test. Parental income had a positive influence to the girls' academic performance with a correlation coefficient of 0.000. This shows that girls whose parents

earnings were high were likely to perform better because they were in school most of the time since they were provided with learning materials. which was significant at 0.05 levels in a two-tailed test.

5.2.3 Influence of Family Size and Birth Order on Girl Student Academic Achievement at Secondary Education

The study established that:

i) There was no significant relationship between family size and girls academic achievement as was established by Pearson Moment correlation coefficient test which showed that the family size had negligible positive influence on the girls' academic performance with a Pearson moment correlation coefficient of -.004, which less than the set significant level (α) of 0.05 for the analysis. From the findings this meant that the size of the family did not affect academic achievement of girl student.

ii) Girls who fell between first born to third born got closer attention from their parents than those beyond third born. This factor promoted their academic achievement in examinations.

iii) There was a significant relationship between birth order and girl student academic achievement as was revealed by Pearson Moment correlation coefficient test. The Position of birth in a family had a positive influence to the girls' academic performance with a correlation coefficient of 0.000. The implication is that birth order influences girl student's academic achievement, which was significant at 0.05 levels in a two-tailed test.

5.2.4 Influence of Cultural Factors on Girls' Academic Achievement at Secondary Education

The study established that:

i) Most communities' value girl student education with Pearson's moment coefficient of 0.002, domestic chores do influence student academic performance as indicated by Pearson's moment coefficient of 0.000. There is a positive relation of Pearson moment correlation coefficient of 0.001 between communities who want their daughter to get married at an early age and academic performance, low positive Pearson moment correlation coefficient of 0.005 between communities who do not care whether girls indulge in night dances or not and academic performance and there is a positive Pearson moment correlation coefficient of 0.000 between community who are strict on girls and want them to concentrate on studies and academic performance.

ii) Cultural factors are biased on girls as they perceive girls to be low achievers than boys and therefore girls become demotivated and perform poorly.

iii) The Cultural factor that, community value girls who are educated enhanced the girl student academic achievement.

5.3 Conclusions

Based on the findings of the study the following conclusions were made:

The academic levels of parents do greatly influence positively academic achievement of girls. Social status of a family greatly influence the academic achievement of girls Involvement in domestic chores which includes fetching water, fire wood, taking care of children and going to the market led to low academic achievement of girls in Kisumu East District.

Economic factors greatly influenced girls' academic achievement in secondary schools in Kisumu East District whereby girls from wealth families performed better than those from low income earners. Girls from well to do families were well facilitated in their academic endeavours which enhances their academic achievement. Birth order was found to influence academic achievement of girls in Kisumu East District such that the first three borns in a family performed much better than the latter births. The family size was found not to influence academic achievement of girls in Kisumu East District.

Cultural factors such as early marriages, night dances and negative attitude of parents towards girls' education negatively affected academic achievement of girls in Kisumu East District.

5.4 Recommendations

With regard to parental support the study made the following recommendations:

i) The teachers should sensitize parents on need and importance of supporting girls with academic work.

ii) Head teachers should advice parents on how to properly use their resources on supporting their daughters' academic performance other than making negative comments.

iii) Head teachers should encourage parents to assist girls in academic work.

iv) Stakeholders in education, that is, sponsors, Ministry of Education, teachers and politicians should sensitize parents on the need for family planning so that every child and particularly the girl child who is vulnerable is adequately entered to enhance her participation in education.

v) Schools should advice parents on how to properly use their resources on supporting their daughters' academic performance other than making negative comments.

With regard to family size and birth order the study recommended that family life programmes should be encouraged by the government and focus on encouraging families not to exceed five children and place emphasis on one to three children as the ideal family size for people living below poverty line.

With regard to interview with head teachers the study recommended that:

i) Head teachers should create girl friendly environment conducive to their academic work in schools.

ii) Head teachers should put in place rules and regulations that should protect the girls from harassment by hostile teachers and fellow student.

iii) School administrators should improve on teaching learning facilities in their schools to enhance academic achievement of students in general.

iv) Head teachers should cater for individual needs of girls by improving on the infrastructure in accordance with the Ministry of Education and the Department of Public Works rules and regulations. For instance having pit latrines in the opposite direction and provision of running water.

5.5 Suggestions for Further Research

The study exposed the following areas that require further research in Kisumu East District:

i) A comparative study should be done on the influence of birth order on the academic performance of girl students in County and District Secondary schools in Nyando District Kenya.

ii) Influence of gender on students' achievement in secondary schools in Nyando District, Kenya.

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