# CONTRIBUTION OF SELECTED STAKEHOLDERS TO EDUCATIONAL RESOURCES AND ACADEMIC PERFORMANCE OF GIRLS IN PUBLIC GIRLS SECONDARY SCHOOLS IN SIAYA COUNTY, KENYA

#### $\mathbf{BY}$

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### DEPARTMENT OF EDUCATIONAL MANAGEMENT AND FOUNDATIONS

**MASENO UNIVERSITY** 

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#### **DECLARATION**

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This thesis is my original work and has not been presented for a degree in any other
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#### **DEDICATION**

I dedicate this work to my children Martin Onyimbi, Lynn Akinyi and Kevin Odhiambo. Their patience, encouragement and support made my work easy and enjoyable. I also dedicate this work to my parents Mr. and Mrs. Nichola Ahawo who have been a source of inspiration since my childhood and for encouraging me not to give up even when things seemed difficult.

#### **ABSTRACT**

The government of Kenya in partnership with religious sponsors and parents provide financial, human and physical resources to enhance education of girls and boys in schools. However with all these measures in place, girls' performance in Kenya Certificate of Secondary Education examinations (KCSE) was just average and below that of boys in Siaya County for the years 2011 to 2013. The mean scores were 6.21, 6.90 and 6.05 compared to those of boys which were 7.73, 7.73 and 7.56. The girls' performance in Siaya County was also below that of neighbouring Kisumu County whose mean scores were 7.46, 7.02, and 6.98. The purpose of the study was therefore to establish contribution of selected stakeholders to educational resources and academic performance of girls in pure public girls' secondary schools in Siaya County. Objectives of the study were to; determine selected stakeholders' contribution to infrastructure development, establish selected stakeholders' contribution to provision of teaching /learning resources and determine selected stakeholders' contribution to co-curricular resources in enhancement of girls' academic performance. A conceptual framework showing the relationship between independent variables (contribution of selected stakeholders) and dependent variables (girls academic performance) was used to guide the study. Descriptive survey, ex post facto and correlational research designs were adopted. The study population was 155 consisting of 21 principals, 21Deputy Principals (DP), 21 Directors of Studies (DOs), 21 Board of Management (BOM) chairpersons, 21 Parents Teachers Association (PTA) chairpersons, 42 Form Iv class teachers, 6 Sub County Quality Assurance and Standards Officers (SCQASOs) and 2 Church Education Secretaries (CES). Sample size was 133 consisting of 18 principals, 18 DPs, 18 DOs, 36 form four class teachers, 18 BOM chairpersons, 18 PTA chairpersons, 5 SCQASOs and 2 CES. Data was collected using questionnaires and interview schedules. Validity of the instruments was determined by experts in Educational Administration. Reliability of the instruments was determined by test re-test method and Pearson's r coefficients were .78 and .81 for principals and form four class teachers at set p- value of .05. Quantitative data collected was analyzed using frequency counts, percentages, means and regression analysis. Qualitative data from interviews and open ended questions were transcribed, analyzed and reported in emergent themes and sub themes. The study established that government, religious sponsors and parents contributed 20.3%, 20.6% and 44.2% respectively of the variation in infrastructure development in enhancement of girls' academic performance as signified by coefficients .203, .206 and .442 respectively. Regression analysis revealed that contributions of government, religious sponsors and parents to infrastructure development were significant predictors of girls' academic performance. Government and parents contributed 42.8% and 74.5% respectively of the variation in teaching /learning resources in enhancement of girls' academic performance as signified by coefficients .428 and .745 respectively. Government and parents' contributions were significant predictors of girls' academic performance. Government and parents contributed 53.3% and 78.6% respectively of the variation in cocurricular resources in enhancement of girls' academic performance as signified by coefficient .533 and .786 respectively. Regression analysis revealed that government and parents contributions were significant predictors of girls' academic performance. The study concluded that parents' contribution was moderate and had the highest influence on girls' academic performance. The government and religious sponsors contributions were moderate but the influence on girls performance was weak. The study recommended that the stakeholders should improve on their contributions to enhance the girls' academic performance. The findings of this study are significant to stakeholders in education by informing them in areas that require review of their efforts and strategies for enhancement of girls' academic performance.

#### TABLE OF CONTENTS

Content	Page
Title	i
Declaration	ii
Acknowledgments	iii
Dedication	iv
Abstract	v
Table of Contents	vi
Acronyms	ix
List of Tables	X
List of Appendices	XV
CHAPTR ONE: INTRODUCTION	1
1.1. Background to the Study	1
1.2. Statement of the Problem	14
1.3 Purpose of the Study	15
1.4. Objectives of the Study	15
1.5. Research Questions	16
1.6. Significance of the Study	16
1.7 Assumptions of the Study	17
1.8 Scope of the Study	17
1.9 Limitation of the Study	17
1.10 Conceptual Framework	18
1.11 Operational Definition of Terms.	21

CHAPTER TWO: LITERATURE REVIEW	23
2.1 Introduction	23
2.2 Stakeholders' Contribution to Infrastructure Development in Enhancement of	Girls
Academic Performance	23
2.3 Stakeholders' Contribution to Teaching and Learning Resources in Enhance	ment of
Girls Academic Performance	28
2.4 Stakeholders' Contribution to Co-Curricular Resources in Enhancement of G	irls
Academic Performance for Girls	32
CHAPTER THREE: RESEARCH METHODOLOGY	37
3.1 Introduction	37
3.2 Research Designs	37
3.3 Area of Study	38
3.4 Study Population	39
3.5 Sample and Sampling Technique	39
3.6 Instruments for Data Collections	41
3.7 Reliability and Validity of the Instruments	43
3.8 Data Collection Procedure	46
3.9 Data Analysis	46
3.10 Data Analysis Matrices.	49
3.11 Ethical Considerations.	52

CHAPTER FOUR: RESULTS AND DISCUSSIONS	53
4.1 Introduction	53
4.2 Stakeholders' Contribution to Infrastructure Development in Enhancement	
of Girls Academic Perfmance in Public Secondary Schools	54
4.3 Establish Selected Stakeholders Contribution to Teaching / Learning Resource	s in
Enhancement of Girls Academic Performance	92
4.4 Stakeholders Contribution to Co-Curricular Resources in Enhancement of G	irls
Academic Performance	122
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATION	<b>NS</b> 145
5.1 Introduction	145
5.2 Summary	145
5.3 Conclusions	148
5.4 Recommendations	149
5.5 Suggestions for Further Research	149
REFERENCES	151
APPENDICES	170

#### LIST OF ABBREVIATIONS AND ACRONYMS

**AMREF** American Medical Research Foundation

**BOM** Board of Governors

**CDF** Constituency Development Fund

**DEO** District Education Officer

SCQASO Sub County Quality Assurance and Standards Officer

**EFA** Education For All

**GOK** Government of Kenya

JAB Joint Admission Board

KCSE Kenya Certificate of Secondary Education

**LEF** Laboratory Equipment Fund

MOEST Ministry of Education Science and Technology

**PTA** Parents Teachers' Association

SIDF School Infrastructure Development Fund

**TSC** Teachers Service Commission

**TEAP** Total Extracurricular Activity Participation

#### LIST OF TABLES

Table	Page
1.1: Performance of girls compared to boys in Siaya County for the period 2011-2013	12
1.2: Performance of girls in Public Secondary Schools in Kisumu and Siaya Counties	
for the period 2013.	13
3.1: Study Population	39
3.2: Sample Frame	41
3.3: Interretation of Pearson Corrleation coefficients (r)	48
3.4: Quantitative Data Analysis Matrix	50
3.5: Qulitative Data Analysis Matrix	51
4.1: Return Rate of Questionnaires	53
4.2: Government's Contribution to Infrastructure Development	55
4.3: Religious Sponsors, Parents and Government contributions to Infrastructure	
development, Teaching /learning resources, Co-curricular resources and Girls	
Academic Performance	63
4.4: Interpretation of Pearson's Correlation Coefficients (r)	67
4.5: Relationship between government contribution to infrastructure development	
and girls academic performance	67
4.6: Regression analysis of government' contribution to infrastructure development	
and girls academic performance	68
4.7: ANOVA of government contribution and girls academic performance	68
4.8: Linear regression analysis of governments' contribution to infrastructure	
development and girls academic performance	69

4.9: Contribution of Religious Sponsors to Infrastructure Development	71
4.10: Relationship between religious sponsors' and students academic	
performance	75
4.11: Regression analysis of Religious Sponsors' contribution to infrastructure	
development and girls academic performance	76
4.12: ANOVA of Religious sponsors' contribution to infrastructure development	
and girls academic performance	76
4.13: Linear regression analysis of Religious Sponsors' contribution	77
4.14: Contribution of Parents to Infrastructure Development	78
4.15: Relationship between parents contribution to infrastructure development and	
girls academic performance	87
4.16: Regression analysis of Parents contribution and girls academic performance	87
4.17: ANOVA of Parents contribution and girls academic performance	88
4.18: Linear regression analysis of parents contribution and girls academic performance	88
4.19: Relationship between Government, Religious sponsors and parents	
contributions to infrastructure development	89
4.20: Regression analysis of government, religious sponsors and parents contributions	90
4.21: ANOVA of Government, Religious sponsors and Parents contributions to	
infrastructure development	90
4.22: Multiple regression analysis of Government, Religious sponsors	
and Parents contributions to infrastructure development	91
4.23: Contribution of Government to Teaching/Learning Resources	92
4.24: Relationship between Government contribution and girls' academic performance	98

4.25: Regression Analysis of Government contribution and girls academic performance	99
4.26: ANOVA of Government contribution to teaching /learning resources and girls	
academic performance	100
4.27: Liner Regression analysis of Government contribution and girls academic	
performance	.100
4.28: Contribution of Religious Sponsors to Teaching /Learning Resources	.101
4.29: Contribution of Parents to Teaching /Learning Resources	.111
4.30: Relationship between parents' contribution to Teaching /Learning resources	
and girls academic performance	.117
4.31: Regression analysis of Parents contribution to teaching /learning resources	
and girls academic performance	.118
4.32: ANOVA of Parents contribution and girls academic performance	.118
4.33: Linear regression analysis of parents contribution and girls academic performance.	.119
4.34: Relationship between government and parents contribution to Teaching /Learning	
Resources and girls academic performance.	120
4.35: Regression analysis of government and parents contributions to teaching /learning	
resources and girls academic performance	.120
4.36: ANOVA of Government and Parents contributions to teaching /learning	
resources and girls academic performance.	.121
4.37: Multiple regression analysis of Government and Parents contributions to	
teaching /learning resources and girls academic performance	121
4.38: Contribution of government to girls' co-curricular resources in enhancement	
of Girls academic performance	123

4.39: Relationship between government contributions to co-curricular resources and	
girls academic performance	128
4.40: Regression analysis of Government contribution and girls academic performance	ce128
4.41: ANOVA of Government contributions to co-curricular resources and girls	
academic performance	129
4.42: Linear regression analysis of government contribution and girls academic	
performance	129
4.43: Contribution of Religious Sponsors to girls' co-curricular resources in	
enhancement of girls academic performance.	130
4.44: Contribution of Parents to Co-curricular resources enhancement of Girls	
academic performance	135
4.45: Relationship between parent's co-curricular resources and girls	
academic performance	140
4.46: Regression analysis of Parents contributions to co-curricular resources and	
girls academic performance.	141
4.47: ANOVA of Parents o-curricular resources contribution to c and girls	
academic performance	141
4.48: Linear regression analysis of parents contribution to co-curricular resources and	f
girls academic performance.	142
4.49: Relationship between government and parents contribution to co-curricular	
resources and girls academic performance.	142
4.50: Regression analysis of government and parents contributions to curricular	
resources to co- and girls academic performance	143

4.51: ANOVA of Government and Parents contributions to co-curricular resources
and girls academic Performance
4.52: Multiple regression analysis of Government, Religious sponsors
and Parents contributions to co-curricular resources and girls academic
performance

#### LIST OF APPENDICES

Ap	pendix Page
<b>A</b> :	Principals' Questionnaire
<b>B</b> :	Four Four Class Teachers' Questionnaire
<b>C</b> :	Principals' Interview Schedule
D:	Directors of Studies Interview Schedule
E:	SCQASO Interview Schedule
F:	P.T.A Chairman's Interview Schedule
G:	Education Secretary's Interview Schedule
<b>H</b> :	Deputy Principals' Interview Schedule
I:	Form Four Class Teachers' Interview Schedule
J:	Boards of Management Interview Schedule
K:	Document Analysis Guide
L:	Religious Sponsors, Parents and Government contributions to Infrastructure
	development, Teaching /learning resources, Co-curricular resources and Girls academic
	Performance 187
M:	Introduction Letter
N:	Map of Location of Siava County

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1. Background to the Study

The Ministry of Education (2005) states that the government is fully committed to an education system that guarantees the right of every learner to quality and relevant education. It is in this light that the ministry of education deemed it necessary to improve its inspection wing by restricting it and changing its name from the inspectorate to Directorate of Quality Assurance and Standards (Ministry of Education Science & Technology, 2004).

According to the Basic Education Act of 2013 the government of Kenya ensures good academic performance by providing adequate teaching and non-teaching staff according to the prescribed staffing norms for example for every 30 students in the school, the government pays one-teaching staff to take care of their needs in school. The government is charged with the responsibility of providing infrastructure—such as building classrooms, laboratories, learning and teaching equipment and appropriate financial resources. To ensure good discipline for good academic performance, chairman of Board of management comes from religious sponsor to spearhead the faith of their church hence good discipline in enhancement of academic performance (Republic of Kenya, 2013).

In Kenya education is provided mainly by the government in partnership with the parents and religious sponsors (Republic of Kenya 1988, 2000, 2001, 2005, 2007, 2008, 2010, 2012 & 2015). Besides provision of human resource, the government funds secondary education through Free Secondary Education (FSE), Bursary and Constituency Development Fund

(CDF) programmes. The religious sponsors are the founders of most schools in Kenya, these include; The Catholic Church, Anglican Church of Kenya, Friends Church, Pentecostal Assemblies of God Church, African Inland Church, Seventh Day Adventist Church, Salvation Army Church among others (Republic of Kenya, 2013). Parents have the obligation of ensuring that children of school going age are admitted to schools and meet their basic requirements like personal effects, uniform, shoes, levies as required from time to time (Republic of Kenya 1988, 2001, 2010, 2013). This is provided for in the Basic Education Act (2013) Republic of Kenya, 2013). Specifically the act states that;

- a) It is the responsibility of the government through the department of education to provide monies to pay salaries, allowances, pension, gratuity, the acquisition, maintenance, repair and replacement of equipment, facilities, ground and other contingency liabilities in respect of replacement of buildings or equipment as may be deemed appropriate.
- b) The sponsors' role is to participate in review of syllabus, curriculum, books, teaching aid, provide supervisory and advisory services regarding spiritual development while safeguarding the denomination or religious adherence of others, to offer financial and infrastructural support.
- c) Parents' role is to ensure that his/her child attends school regularly with required basic needs, enhance character development of the child, give appropriate incentive to learn, pay levy approved by the Cabinet Secretary in consultation with the County Education Board. Despite these stipulated roles, it has been doubted as to whether these stakeholders are playing their roles fully. Indicators of doubt in role performance included; dilapidated infrastructure, inadequate infrastructure, lack of inadequate educational resources such as textbooks and just average students performance in KCSE.

In a nutshell these stakeholders are required to promote students' academic performance through provision of teaching /learning resources (Republic of Kenya, 2005, 2010 & 2013). It is against this backdrop that these three stakeholders were selected.

Students' performance in KCSE is important because it is on this basis that students make choices in their careers. This means that the stakeholders' input is highly valuable. Nevertheless the literature reviewed did not focus on the contribution of the stakeholders to educational resources which influenced academic performance. This was the knowledge gap that this study attempted to fill.

The stakeholders' contributions are limited to provision of infrastructure, teaching/learning resources and co-curricular resources in enhancement of students' performance. This means that stakeholders contribution is an antecedent variable. An antecedent variable comes before the independent variable (Mugenda & Mugenda, 2003). Antecedent variable does not interfere with the established relationship between an independent and dependent variable. Rather, an antecedent variable clarifies the influence that proceeds such relationship, which must be related in some logical sequence, its relationship with the independent and dependent variables should not disappear, rather it should be enhanced, but when the independent variable is removed there is no relationship between the antecedent variable and the dependent variable. The independent variables are infrastructure development, provision of teaching /learning resources and co-curricular resources. Thus there is a link between these variables and students performance.

Literature review was used to generate knowledge gaps from which objectives were formulated. The reviewed studies were on contribution of stakeholders to educational resources in enhancement of students' academic performance using inverted pyramidal approach based on objectives of the study.

The existing knowledge indicates that school infrastructure affects quantitative growth and the provision of quality education since a certain minimum space in a classroom per learner, adequate science rooms, well stocked library, recreational facilities and boarding facilities are pre-requisite in providing quality education in Girls Secondary Education (UNICEF, 2005). According to World Bank (2005), if the world is to achieve Education For All (EFA) there is serious need for individual nations governments to develop holistic education sector plans and allocate sufficient national budgetary resources to develop related school infrastructure for quality education. Adequacy of school infrastructure is not only a problem in Africa, but also in the whole world. Atherton and McNaughton (2008) observed that many schools in America are suffering from incidences of peeling paint, crumbling plaster, leaking roofs, poor lighting, inadequate ventilation and inoperative heating and cooling systems among other problems that limit provision of quality education as they negatively affect students academic performance.

Fisher (2006) in his study on the impact of school infrastructure on student outcomes and behavior in Georgia, established that academic achievement improves with improved building conditions, lighting levels, air quality and temperature. He further established that a correlation between school class size and student achievements. Having large classes can affect the quality of teaching as the teacher cannot provide individual attention as well as frequently evaluate learning.

A study conducted by Owoeye (2010) looked at the provision of facilities as it relates to academic performance of students in agricultural science in Ekiti State of Nigeria between 1990 and 1997. The study population was results of the West African School Certificate Examinations (WASCE) conducted between 1990 and 1997 in 50 secondary schools in both rural and urban areas of the state. One validated instrument was used for data collection. Data were analyzed using mean and t-test. The results showed that there were no significant differences in the performance of students between rural and urban secondary schools in terms of availability of library facilities, availability of textbooks and availability of laboratory facilities. It was established that facilities were potent to high academic achievement of students. The present study had the same variables as those of Owoeye's study as it looked at physical facilities and teaching learning resources in schools. However, it is different from Owoeye's (2010) study which investigated the impact on the provision of facilities as it related to academic performance of students in agricultural science. The studies by Fisher (2006) and Owoeye (2010) did not deal with the contribution of government, religious sponsors and parents to infrastructure development for enhancement of girls' academic performance. This was the knowledge gap that the study sought to fill.

According to Ng'otie (2009), the central government and the Local Education Authorities (LEA), which constitute the public sector, are the major financiers of education in developed countries. Ng'otie (2009) in his study noted that in USSR the majority of the urban schools have neighboring industrial plants or factories, which act as sponsors or patrons and make equipment and finances available for the promotion of education. In developing countries like Kenya and other African countries, the provision of education is a cooperative effort

involving central governments, local government authorities, the private sector and local communities (Ng'otie, 2009). A report by the Free Primary Education task force (Ministry of Education, 2003), stated that it was the responsibility of parents and communities to provide for physical facilities, payment of teachers' salaries and learning material to the institutions.

The government allocates about 40% of her total recurrent expenditure on education (Republic of Kenya, 2003). Subsequently, the government appointed a presidential working party on education and training in 1988 to study the education sector and recommend ways of ensuring the delivery of education and training services, within the limits of the constrained economic conditions (Republic of Kenya, 1988). The report recommended the introduction of cost sharing in education by the government and other stakeholders like parents and local communities. The report was accepted by the government in Sessional Paper No.6 on Education and Training for the next decade and beyond (Republic of Kenya, 1988).

In cost sharing strategy, the government committed itself to reducing the burden on its budget by shifting educational expenses to parents and local communities. Recurrent expenditure such as purchase of books, uniforms, building costs and private costs such as transport were transferred to parents and local communities. One of the challenges facing the education system in most countries is how to meet demands for high quality public education within the increasingly national economic and fiscal constraints (Mobegi, 2007). She further

explains that the concern for quality dominated the education debate from the early eighties and remained a central issue in the twenty first century.

The Government of Kenya has heavily invested in various interventions geared towards expanding school infrastructure which include the introduction of Constituency Development Fund (CDF) in 2003, the Laboratory Equipment Fund (LEF) in 2004, and School Infrastructure Development Fund (SIDF) in 2008 (Republic of Kenya, 2008). Due to financial constraints facing Kenya's education system as a result of reduction of government budgetary allocation, it would be necessary to assess the stakeholders' contribution on management of Girls secondary schools and how they influence academic achievement in Siaya County which seems not to be doing very well. According to Bondo District Development plan of 2008-2012, there are low education standards which have close relationship with understaffing in schools, lack of enough classrooms, dormitories, toilets (Republic of Kenya, 2009). The plan recommends serious need to rehabilitation of water supplies and sanitation facilities. The same challenge is also echoed in Siaya District development plan 2008 – 2012 that reports that there are overstretched facilities for both teachers and students. The development plan also explains that it is important for stakeholders to provide infrastructure like buildings and address poor workmanship and misappropriation of funds.

Poor environmental factors affect all learners. However, girls have special needs. Especially during puberty period, which if not provided for, the girls' academic achievement will be dismal. Such facilities are toilets, latrines with adequate privacy and water for girls' comfortable stay in school and learning (FAWE, 2002). Kereri (2003), in his study on the

impact of public primary schools on access and retention in Kajiado District, noted that infrastructure such as improved lighting system; good meals eaten from a clean environment, lead to retention and good academic achievement. He looked at factors that mitigate against retention and academic achievement.

The reviewed studies indicate that there is a link between the contribution of stakeholders to infrastructure development and students academic performance. Thus studies worldwide have supported this assertion. For instance Fisher (2006) established that academic achievement improves with improved buildings in Georgia. That is, improvement in lighting levels, air quality and temperature. Owoeye (2010) in his study in Ekiti State Nigeria found that provision of facilities influenced academic achievement of students in secondary schools. Dahar and Faize (2011) in a study on the effect of availability and use of science laboratory equipment in Punjab, established that, they played an important role in student teaching-learning process and academic achievement. These instructional materials were provided by the government and other sponsors.

According to Bregnman and Stallmeister (2001) the struggle to achieve academic performance for girls still remains a major concern in many countries in Sub – Saharan Africa and it is overshadowed by other pressing and urgent educational needs. UNESCO (2002) observed that the introduction of modern technology in Egyptian Secondary Schools where each classroom was equipped with computer sets, overhead projectors and high speed internet resulted to improved performance. These teaching learning resources were provided by the government and parents.

A study conducted by Dahar and Faize (2011) which investigated the effect of the availability and the use of science laboratory equipment academic achievement of students in Punjab (Pakistan). Science laboratory equipment play a very important role in teaching – learning process of science subjects. Population of the study comprised all secondary and higher secondary schools, secondary teachers and secondary students in Punjab. The sample of the study was a total of 288 schools, 20 students and 10 teachers from each school which were randomly selected. The study employed questionnaire and interviews in data collection. The study of Dahar and Faize (2011) investigated effect of the availability and the use of science laboratory on academic achievement of students but did not investigate the contribution of government, religious sponsors and parents to provision of teaching /learning resources in enhancement of girls academic performance. This was the knowledge gap the study attempted to fill.

Olendo (2008) argues that students' performance is affected by the quality and quantity of teaching and learning resources, hence schools with adequate facilities such as laboratories and text books stand a better chance in performing well in examinations than those which are poorly equipped. Ahawo (2010) concurs with Olendo and suggests that every school should be equipped with relevant textbooks since this affect variation in academic performance. Textbooks can be used as teaching aids that provide concrete experiences to promote child centered learning. Parents and teachers are therefore required to purchase instructional materials, reference materials and science equipment (Olendo, 2008).

From the literature reviewed there is a link between contribution of the government, religious sponsors and parents to teaching /learning resources and academic performance. Thus studies

world over have supported this. For instance Faize (2011), UNESCO (2002) and Ng'otie (2009) established that teaching /learning resources (textbooks, chemicals, computers provided for use in schools) enhanced academic performance. The discrepancy was that despite the governments, religious sponsors and parents contributions, girls still performed below expectations. The contribution of these stakeholders was not known. The knowledge gap this study sought to fill using girl students and Siaya County as the site for the study.

According to Total Extracurricular Activity Participation (TEAP) is associated with high GPAs. It increases the attendance and reduces the absentees from the class (Bro, 2002). Researchers have found positive associations between participation in co-curricular activities and academic performance of the students (Guest & Schneider, 2003). Most of the co-curricular activities have been found to be good in constructing and enhancing academic performance of the students although they do not have direct relationships with their academic subjects (Marsh & Kleitman, 2002). The research explored this fact that students who participate in co-curricular activities also perform well in their academics as compared to those activities (Marsh & Kleitman, 2002).

The researcher who have carried out study on the co-curricular activities divided them into formal and non formal activities. The formal activities includes the involvement of students in sports, dramas, or debates competition among others. On the other hand, the activities such as listening to music or watching television are classified as in informal activities. Study has suggested that both formal and non formal activities have different effects on academic performance (Guest & Schneider, 2003). One research observed that more you spend time in

leisure activities the poorer academic performance and poorer working habits are developed while more time you spend in formal activities like sports, debate and dramatic activities, the more grades you get in studies (Marsh & Kleitman, 2002).

A study by Omoke (2009) examined the role of co-curricular activities in social and academic development among students in Suneka Division of Kisii South District in Kenya. The study showed that co-curricular activities contributed towards students' social development in a number of ways instilling discipline, building tolerance, enhancing co-operation, creating a sense of responsibility improving in judgment, accepting defeat and improving moral values; Bakhda (2006) holds the same opinion by showing that games and sports activities keep the learner out of counterproductive leisure activities.

Odhiambo (2015) in his study of stakeholder's perceptions on co-curricular activities, effectiveness and challenges in enhancing student discipline, found that co-curricular were perceived to be effective in enhancing students' discipline precursor of good academic performance. However, Odhiambo's (2015) study did not deal with contribution of government, religious sponsors and parents in enhancement of girls' academic performance.

From the literature reviewed there is a link between the co-curricular resources contributed by stakeholders to facilitate co-curricular activities and academic performance. For instance Broh (2002). Guest and Schneider (2003); March and Kleitman (2002), Omoke (2009) and Odhiambo (2015) established that co-curricular activities and by extension co-curricular resources normally contributed by the government. Religious sponsors and parents enhanced

academic performance. What was not determined by the reviewed studies was the specific contributions of the stakeholders to academic performance. This was the knowledge this study sought to fill using Siaya County as the site for the study.

Girls' performance in KCSE in Siaya County had been of great concern. In KCSE results of 2005, the first girls' school in Siaya County took position 133 nationally with no girl in top 100. In 2007, the same trend continued with the best girls' school in Siaya District ranked position 74 without any girl in the top 100 (Siaya Sub County Office, 2014). This was because there were 26 girls in top 100 nationally but none of them came from Siaya County. It had also been established that girls perform below par compared to boys in Siaya County (Table 1.1).

Table 1.1

Performance of Girls compared to Boys in Siaya County for the period 2011-2013

Category of schools	No. of	2011	2012	2013	Overall mean	
	Schools				score	
Girls	20	6.21	6.90	6.05	6.39	
Boys	16	7.73	7.73	7.56	7.67	

Source: County Director of Education Office, Siaya (2014)

From Table 1.1 it can be observed that girls' performance was 6.21, 6.90 and 6.05, the overall mean being 6.39 for the years 2011, 2012 and 2013 compared to boys 7.73, 7.73 and 7.56, the overall mean being 7.67. This means that it is the girls' who needed much assistance than boys for enhancement of academic achievement. Furthermore, since quality inputs guarantee quality output, the contribution of stakeholders have an important role to

play in the provision of girls academic performance in secondary schools. Indeed, government, religious sponsors and parents contribute to provision of girls academic performance. What was unknown was the contribution of these stakeholders to provision of educational resources for enhancement of academic performance for girls in public secondary schools. This is the knowledge gap this study sought to fill using Siaya County as a site for the study.

Table 1.2

Performance of Girls' in Public Secondary Schools in Kisumu and Siaya Counties for the period 2011- 2013

	No. of	2011	2012	2013	Overall
	schools				mean
Girls schools in Siaya	21	6.21	6.90	6.05	6.39
Girls school in Kisumu	19	7.46	7.02	6.98	7.15

Source: County Director of Education Office, Siaya 2014 and Kisumu 2014

From Table 1.2 it can be observed that girls performance in Siaya was 6.21, 6.90 and 6.05 compared to girls in Kisumu which was 7.46, 7.02, 6.68 and 6.98 for the years 2011, 2012, and 2013. This means that girls in Siaya County had relatively lower means than girls in Kisumu County. For example, the overall mean score of girls in Siaya was 6.39 and the overall mean score of girls in Kisumu county was 7.15 meaning that performance of girls in Siaya county lagged behind that of girls in Kisumu County. There was therefore a need to carry out a study on girls' performance in Siaya County.

#### 1.2. Statement of the Problem

The contribution of the government, religious sponsors and parents to education is the driving force that actualizes desired academic performance. This collaborative effort is highly valued by all partners. However the actual contribution of government, religious sponsors and parents had not been clearly documented and linked to enhancement of girls' academic performance. Studies have revealed that in Kenya, the girl-child rates, graduation rates and academic performance at form four level. The government, religious sponsors and parents' contribution to secondary schools is usually in form of money. These financial resources are used in the development of infrastructure, teaching/ learning resources and co-curricular resources. These resources play a key role in enhancement of students' academic performance. In Siaya County, just as at national level the girls' performance is below that of the boys and also their counterparts in Kisumu County. Furthermore, it is important to note that quality inputs in terms of infrastructure development, teaching /learning resources and co-curricular resources guarantee quality output in terms of learning outcomes measured by performance in KCSE.

To date with cost sharing measures in place, public girls' schools in Siaya County performance in KCSE was generally average for the last four years with corresponding mean scores of 6.21, 6.90, 6.05 and 6.80 for the years 2011, 2012, 2013 and 2014 compared to the boys schools mean scores of 7.73, 7.73, 7.56 and 8.27 for the same period. The performance of girls' was below that of their counterparts in Kisumu County for the same period. That is, 7.46, 7.02, 6.98 and 7.15 respectively. This is despite the fact that the government of Kenya provides trained teachers, allocates financial resources, provides quality assurance and standards officers' besides the contribution of religious sponsors and parents to enhance

education of the girl child and the boy child. This was the justification for the choice of this study on the actual contribution of government, religious sponsors and parents to educational resources in enhancement of academic performance of girls in public girls' secondary schools in Siaya County.

#### 1.3 Purpose of the Study

The purpose of the study was to establish the stakeholder's actual contribution to educational resources in enhancement of academic performance of girls in girls public secondary schools in Siaya County.

#### 1.4. Objectives of the Study

Objectives of the study relating to Siaya County were to;

- i) Determine selected stakeholders' contribution to infrastructure development in enhancement of girls academic performance
- ii) Establish selected stakeholders' contribution to teaching /learning resources in enhancement of girls' academic performance.
- iii) Determine selected stakeholders' contribution to co-curricular resources in enhancement of girls' academic performance.

#### 1.5. Research Questions

The study was guided by the following research questions relating to Siaya County:

- i) What is the contribution of selected stakeholders' contribution to infrastructure development in enhancement of girls academic performance?
- ii) What is the contribution of selected stakeholders to teaching/ learning resources in enhancement of girls' academic performance?
- iii) What is the contribution of selected stakeholders' to co-curricular resources in enhancement of girls' academic performance?

#### 1.6. Significance of the Study

The findings of this study are:

- i) Useful to religious sponsors to comprehend the importance of their contribution to academic performance of students.
- ii) Useful in helping the government and parents in understanding the importance of providing water to girls in enhancement of academic performance.
- iii) Useful in the provision of infrastructure development by stakeholders for enhancement of girls academic performance in Siaya County.
- iv) Useful in encouraging educational stakeholders to take active roles in provision of infrastructure in girls secondary schools in Siaya County.
- v) Vital in spelling out to the stakeholders the importance of providing teaching and learning resources in girls' secondary schools in order to improve on exam results.
- vi) Useful to school administration and sponsors in the management of co-curricular activities in enhancement of girls academic performance in secondary schools.

#### 1.7 Assumptions of the Study

The study was guided by the following assumptions.

- i) The sampled schools had enough teaching learning resources in enhancement of academic performance.
- There was adequate infrastructure in all public girls' secondary schools in Siaya County.
- iii) Teachers were dedicated to their work and prepared the students adequately for KCSE examinations.
- iv) The results of KCSE examination gave a true picture of the students' effort and no cheating took place.
- v) All public girls secondary schools used the same fees guidelines as recommended by the government.
- vi) The responses given by the respondents were not biased.

#### 1.8 Scope of the Study

- i) The study was confined to purely girls' public secondary schools in Siaya County.
- ii) The study focused on the contribution of selected stakeholders to provision of educational resources to girls in public secondary schools in Siaya County for the years 2011 to 2014.

#### 1.9 Limitation of the Study

One of the Deputy Principals (5.55%) did not provide adequate information during the interviews on the variables of the study. That is, the deputy principal was economical in giving information on religious sponsors contribution to educational resources and academic

performance of girls. This however did not affect the results so much as the other deputy principals provided full information on the contribution of religious sponsors on infrastructure development, teaching /learning resources and co-curricular resources as variables of the study. The findings of this study may not be generalized to other areas wholesale. This is because each area is unique in its own way which may only allow partial generalization.

#### 1.10 Conceptual Framework

Conceptual framework (Figure 1) showing selected stakeholders' contribution to educational resources in enhancement of girls' academic achievement.

The stakeholders' contributions are limited to provision of infrastructure, teaching/learning resources and co-curricular resources in enhancement of students performance. This means that stakeholders contribution is an antecedent variable. An antecedent variable comes before the independent variable (Mugenda & Mugenda, 2003). Antecedent variable does not interfere with the established relationship between an independent and dependent variable. Rather, an antecedent variable clarifies the influence that proceeds such relationship, which must be related in some logical sequence, its relationship with the independent and dependent variables should not disappear, rather it should be enhanced, but when the independent variable is removed there is no relationship between the antecedent variable and the dependent variable. The independent variables are infrastructure development, provision of teaching /learning resources and co-curricular resources. Thus there is a link between these variables and students performance.

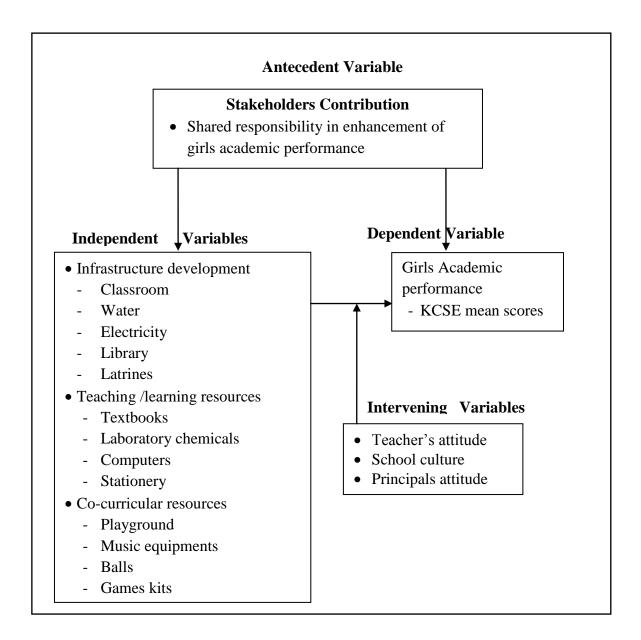


Figure 1: Conceptual framework showing stakeholders' contribution to educational resources in enhancement of academic performance of Girls in schools

Government has a chance to contribute to infrastructure development through FSE funds and constituency development fund; and advice on prudent management of school resources. Religious sponsors can contribute to academic performance through advice to the principals

on the best ways of solving conflicts among staff and students by encouraging co curricular activities.

Parents and religious sponsors have a chance to contribute to students co-curricular resources through payment of activity fees, controlling reading habits. The success of this contribution in enhancement of girls academic performance is moderated by teachers attitude and school culture. If the teachers have positive attitude and the schools enjoy high favourable culture, the contribution of government, religious sponsors and parents is bound to have a higher effect than when the teachers attitude is negative and the school culture is not good.

#### 1.11 Operational Definition of Terms

In this study the following terms were used as defined below.

**Academic performance** Total marks scored in KCSE rated on a scale of 1 to 12 points.

Contribution: Value addition to school infrastructure, teaching /learning resources

co-curricular activities and students academic performance.

Educational Resources Physical facilities and teaching learning resources that make

learning possible in the institutions.

**Infrastructure:** The basic systems and services that are necessary for a country or

an organization like schools to run smoothly, for example buildings,

transport, water and power supplies.

Good teaching Means adherence to professional conduct and efforts to help student

learn as best as the teacher knows how.

Parent One who pays school fees and provides for personal needs of the

learner.

**Public Secondary School**: A school maintained or assisted out of public funds.

Public girls secondary school Schools that admit only female students

for the purposes of learning

**Sponsor:** A religious organization that spearheads spiritual nourishment through

pastoral activities to the learning institution.

**Stakeholders:** An individual organizations or parents that have interest and add value

to the school. These stakeholders include the government, religious

sponsors and parents.

**Teaching /learning resources:** means materials, equipment, facilities, and apparatus used by teachers to enhance teaching /learning process in a class and laboratory.

#### **CHAPTER TWO**

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter discusses related literature on contribution of selected stakeholders to girls academic performance for girls in public girls' secondary schools. It is discussed under the following themes:

- Stakeholders' contribution to infrastructure development in enhancement of girls' academic performance.
- ii) Stakeholders' contribution to teaching / learning resources in enhancement of girls' academic performance.
- iii) Stakeholders' contribution to co-curricular resources in enhancement of girls' academic performance.

# 2.2 Stakeholders' Contribution to Infrastructure Development in enhancement of Girls Academic Performance

According to a survey report by Jeffry (2008) on cleanliness and learning in higher education in Boston, there is high correlation between levels of cleanliness and academic achievement indicating that clean environment promotes learning. While UNESCO (2005) also established that colour influences students' attitudes, behavior and learning particularly students' attention span. A carefully planned colour scheme can influence absenteeism, promote positive feelings about the school and also can influence muscular tension and motor control necessary in learning. Beeri (2005) observed that housing the teachers/learners in the school compound goes a long way to improve learner performance. She further

observed that teachers who stay in the school compound can get time to help learners after classes through remedial teaching sessions in the evening. It also helps the learners to save their energy and time.

Fisher (2006) in his study on the impact of school infrastructure on student outcomes and behavior in Georgia, established that academic achievement improves with improved building conditions, lighting levels, air quality and temperature. He further established that a correlation between school class size and student achievements. Having large classes can affect the quality of teaching as the teacher cannot provide individual attention as well as frequently evaluate learning. World Bank (2003) also emphasize that it is qualitative to teach small classes since it is easy to maintain class control and teachers can diversify their lesson according to the diverse capacity of their students.

In Ghana, the working and living environment for teachers and students is below expectation. Schools in many countries lack basic amenities such as piped water, electricity, staffrooms and toilets. Housing is a major issue for nearly all teachers – only 30% of teachers were housed by 2003 (Akeyeampong, 2003). In Kenya, the Ministry of Education Science and Technology (MOEST) in 2003 identified critical issues relating to infrastructure as: Major backlog of infrastructure provision and shortage of permanent classrooms, existing school infrastructure is in poor condition, poor construction standard, inadequate maintenance, poor water system and sanitation. Such critical issues are contained in the previous reports and commissions such as the Kamunge Report (1988), Sessional Paper No. 6 and the Koech Report (1999). They have all placed importance on the provision of school infrastructure.

Stakeholders in the education sector, including development partners, play crucial contribution in supplementing the voted Government expenditures in education. Devolved funds such as the Constituency Development Fund (CDF) have notable impact in constructing and renovating school facilities and providing water, electricity and other services. The private sector and religious organizations also complement government efforts in the provision of educational services at different levels of the educational system (Republic of Kenya, 2009).

According to Khaemba and Okemo (2007) the universities have developed their infrastructure in efforts to develop quality academic performance. For instance, Kenyatta University has introduced fiber optic cable to ensure quality teaching. All Kenyan Universities have introduced Information and Communication Technology (ICT) infrastructure towards effective teaching/learning. Oriedo (2011) noted that schools that ensure that the students access clean water and sanitation facilities do promote the teaching/learning process hence increasing chances of doing well in their final examinations. Mutuko (2010) explains that increased funding is needed for quality education. He reveals that dismal performance in KCSE emanates from lack of adequate housing for teachers. He notes with regret that due to the impassable roads during the rainy seasons, teachers are forced to report on duty late and leave early. He argues that the scenario compromises on the academic standards in the area since most of the time, learners and teachers are not together to discuss academic matters. Sambili (2008) and Mutuko (2010) noted that housing plays a critical contribution to the achievement of the Kenya vision 2030.

Poor environmental factors affect all learners. However, girls have special needs. Especially during puberty period, which if not provided for, the girls' academic achievement will be dismal. Such facilities are toilets, latrines with adequate privacy and water for girls' comfortable stay in school and learning (FAWE, 2002). Kereri (2003), in his study on the impact of public primary schools on access and retention in Kajiado District, noted that infrastructure such as improved lighting system; good meals eaten from a clean environment, lead to retention and good academic achievement. He looked at factors that mitigate against retention and academic achievement. Gogo (2002) findings in Rachuonyo District on the impact of cost sharing on access to secondary education established that class size of between 30 to 60 students is relatively modest in enhancing learning in secondary education. In addition, he further established that poorly equipped classrooms, laboratories, libraries, home science rooms and workshops make the learners fail to do the necessary practice thus affecting mastery of content as well as leading to poor performance.

A study conducted by Owoeye (2010) looked at the provision of facilities as it relates to academic performance of students in agricultural science in Ekiti State of Nigeria between 1990 and 1997. The study population was results of the West African school Certificate Examinations (WASCE) conducted between 1990 and 1997 in 50 secondary schools in both rural and urban areas of the state. One validated instrument (STQF) was used for data collection. Data were analyzed using mean and t-test. The results showed that there were no significant differences in the performance of students between rural and urban secondary schools in terms of availability of library facilities (t=1.79, P>0.05), availability of textbooks (t=1.20; P<0.05) and availability of laboratory facilities (t=1.83, P<0.05). It was established that facilities were potent to high academic achievement of students. The present study had

the same variables as those of Owoeye's study as it looked at physical facilities and teaching learning resources in schools. The studies reviewed did not focus on contributions of government, religious sponsors' and parents to teaching learning resources for enhancement of academic performance. This is the knowledge gap this study sought to fill.

According to Hallack (1990), facilities form one of the potent factors that contribute to academic achievement in the school system. They include the school buildings, classroom, accommodation, libraries, furniture, recreational equipment, apparatus and other instructional materials. He went further to say that availability, relevance and adequacy contribute to academic achievement. He however added that unattractive school buildings and overcrowded classrooms among others contribute to poor academic attainment.

Describing where these facilities should be located, he ascribed that educational facilities should be located in appropriate places, while the needs of the users should be put into consideration. A situation where there are overcrowded classrooms with insufficient number of desks and benches have negative effects on teaching and learning environment in the class (Republic of Kenya, 2003). In this perspective, Luvega (2007) observes that instructional materials are critical ingredients in learning and the intended curriculum cannot be easily implemented without them. In her study she established that lack of school infrastructure like classrooms, desks and toilets were major hindrances to quality teaching and learning.

Sambili (2008) and Mutuko (2010) looked at critical role of housing of teaching staff to improve academic achievement. They agree in their findings that housing teachers in the school compound enables teachers to have more time with students hence increasing contact

hours which contributes to good academic achievement. The reviewed studies did not focus on contribution of government, religious sponsors and parents to provision of infrastructure development in enhancement of girls' academic performance in public girls secondary schools. This is the knowledge gap this study sought to fill using Siaya County as the site for the study.

# 2.3 Stakeholders' Contribution to Teaching /Learning Resources in Enhancement of Girls Academic Performance

According to Ng'otie (2009), the central government and the Local Education Authorities (LEA), which constitute the public sector, are the major financiers of education in developed countries. Flemming (1957) as cited in Ng'otie (2009) carried out a study in USSR and noted that the majority of the urban schools have neighboring industrial plants or factories, which act as sponsors or patrons and make equipment and finances available for the promotion of education. In developing countries like Kenya and other African countries, the provision of education is a cooperative effort involving central governments, local government authorities, the private sector and local communities involved in fund raising (Mulasa, 1992) as cited in (Ng'otie, 2009). A report by the Free Primary Education task force (Ministry of Education, 2003), stated that it was the responsibility of parents and communities to provide for physical facilities, payment of teachers' salaries and learning material to the institutions. Olendo (2008) stated that the availability and effective use of teaching and learning resources highly contribute to performance of students in Kenya Certificate of Secondary Education Examination. He further explains that resources help the teacher to provide quality education to the students. It is for this reason that all schools are expected to be well equipped with educational resources. Schools that experience shortage of education facilities perform

dismally in such examinations in the county. Wango (2000) noted that education is seen as a means of training and producing the needed human resources to man the economic, social and political sectors of a country at a cost supportable by the resources available to the given county. Anderson (1991) as cited in Olendo (2008) asserts that any meaningful improvement in the quality of education that students receive is highly dependent on the quality of instructions that teachers provide. One reason for teacher emphasis is that teachers have immense power over innovation and change even in the most highly centralized systems of education.

Odhiambo (2000) maintains that textbooks also provide the first reading experience to many learners. This is particularly true in the third world countries where other forms of print materials such as newspapers, children's book, magazines and posters are difficult to come by especially in many rural homes. Olendo (2008) argues that students' performance is affected by the quality and quantity of teaching and learning resources, hence schools with adequate facilities such as laboratories and text books stand a better chance in performing well in examinations than those which are poorly equipped. Ahawo (2010) concurs with Olendo and suggests that every school should be equipped with relevant textbooks since this affect variation in academic performance. Textbooks can be used as teaching aids that provide concrete experiences to promote child centered learning. Parents and teachers are therefore required to purchase instructional materials, reference materials and science equipment (Olendo, 2008).

In the Republic of Kenya (1998) emphasis put on textbooks indicated that textbooks are fundamental to education and all children deserve the very best. As much as Ng'otie (2009)

focused on the contribution of PTA in financing secondary education in Baringo district. His work was not elaborated and left out the contribution of other stakeholders such as BOM, sponsor and others who are captured by the present study. On the other hand, Ng'otie (2009) was only concerned with financing while the present study captured all the activities conducted by the stakeholders from financing of education to include spiritual guidance and policy formulation.

A study conducted by Faize (2011) which investigated the effect of the availability and the use of science laboratory equipment academic achievement of students in Punjab (Pakistan). Science laboratories play a very important role in teaching/ learning process of science subjects. Population of the study comprised all secondary and higher secondary schools, secondary teachers and secondary students in Punjab. The sample of the study was a total of 288 schools, 20 students and 10 teachers from each school which were randomly selected. The study employed questionnaire and interviews in data collection. The study of Faize investigated effect of the availability and the use of science laboratory on academic achievement of students while the present study was out to establish the contribution of stakeholders to provision of equipment to enhancement of quality education.

In a study by Farombi (1998) on resource concentration utilization and management as correlates of students learning outcome in Oyo State, found that the classroom learning environment in some schools was poor. He cited examples of school without chalkboard, absence of ceiling; some roofing sheets not in place, windows and doors removed among others a situation which the researcher regarded as hazardous to healthy living of the learners. In his words Farombi (1998) reiterated that school libraries may not be effective if

the books therein are not adequate and up to date as its impact may only be meaningful if the library could be opened to the students always for a considerable length of time in a school day. This means that in Oyo State the stakeholders in education were not doing much in providing the materials and facilities required for effective teaching and learning. In normal circumstances the partners in promotion of education, that is government, religious sponsors, and parents are expected to avail these materials and facilities. Failure to provide these facilities results in low performance of students in academics. In this study the stakeholders were not identified and therefore is not easy to a portion this role to any.

Odhiambo (2006) focused on general provision of education resources in early childhood enrolment. His work was too broad that it did not look in details the contribution of the stakeholders in the management of schools. Moreover (Odhiambo, 2006) was concerned with the lowest level of education thus, the basic which is early childhood education while the present study focused on higher levels of education and that is at secondary level of education. His work did not consider the contribution of stakeholders which is the focus of this study. As much as his work recommended that availability and effective use of teaching and learning resources contribution performance, he did not go into details of the contribution of stakeholders in the provision of learning materials and how they help in the school management in order to realize better results in secondary school. The studies reviewed did not address the contribution of government, religious sponsors and parents to teaching learning resources in enhancement of girls academic performance in public girls secondary schools. This was the gap this study attempted to fill using Siaya County as the site for the study.

# 2.4 Stakeholders' Contribution to Co-curricular Resources in Enhancement of Girls Academic Performance

The involvement of the parents and co-curricular activities are the factors which have an important influence on students and how well they perform in their academics. There are different ways which can be chosen by the students to spend their—free time and this will affect their studies positively or negatively depending upon the activity they choose.

A research conducted by the education department of the United States of America discovered that the students who have actively contributed in the co-curricular activities are more likely to have a Grade Point Average (GPA) of 3.0 or more as compared to those who are not involved in co-curricular activities (Stephens & Schaben, 2002). This means that the contributions inform of co-curricular resources do enhance academic performance of students in educational institutions. The absence of these resources therefore reduces the academic performance of students. These findings are supported by Simol's (2001) study which revealed that regardless of the fact that students who belong to different areas, their achievements in past, the home participation, the involvement in positive activities, positively improve their GPA in the examination

Stephen and Schaben (2002), further emphasizes that administrations of different schools are interested in finding out whether there is an association between student academic performance and involvement in the co-curricular activities which show to some extent that there exist relationship between student performance and their involvement in co-curricular activities. It is for this reason perhaps that most school administrators in Kenya encourage students participation in co-curricular activities. This automatically demands for

co-curricular resources which are in turn provided by the government and parents. Whether the relationship is the same as that established by Stephens and Schaben (2002) in Kenya, was the subject of this study and therefore the knowledge gap that the study attempted to fill using Siaya County as the site for the study.

Total Extracurricular Activity Participation (TEAP) is associated with high GPAs. It increases the attendance and reduces the absentees from the class (Broh, 2002). Researchers have found positive associations between participation in co-curricular activities and academic performance of the students (Guest & Schneider, 2003). Most of the co-curricular activities have been found to be good in constructing and enhancing academic performance of the students although they do not have direct relationships with their academic subjects (Marsh & Kleitman, 2002). The research explored this fact that students who participate in co-curricular activities also perform well in their academics as compared to those that do not participate in these activities (March & Kleitman, 2002). These findings are generally a reflection of the perceptions of curriculum developers and implementers in Kenya thus cocurricular activities are incorporated in the school curriculum and teaching timetables. Besides, they are also reflected in school fees structures indicating that both the government and parents have to contribute to them by availing the desired co-curricular resources namely, balls, short-puts, discus, javelin, nets and games kits. The studies reviewed did not indicate the contribution of the government, religious sponsors and parents to these cocurricular resources. The knowledge gap this study sought to fill. Furthermore, the studies did not determine the actual relationships by use of individual statistics, which was the subject of this study.

The researcher who have carried out study on the co-curricular activities divided them into formal and non formal activities. The formal activities which include the involvement of students in sports, dramas, or debates competition among others. On the other hand, the activities such as listening to music or watching television are classified as formal activities. Study has suggested that both formal and non formal activities have different effects on academic performance (Guest & Schneider, 2003). One research observed that more you spend time in leisure activities the poorer academic performance and poorer working habits are developed while more time you spend in formal activities like sports, debate and dramatic activities, the more grades you get in studies (Marsh & Kleitman, 2002).

Broh (2002) thinks that involvement in sports activities enhances students' development and social bond among them, their parents and schools and these are the factors which produce positive impact on their performance in their studies. These activities are also undertaken in girls' school in Siaya County. However, the relationship has not been established with special reference to selected stakeholders contribution and academic performance of the girls.

Stephens and Schaben (2002) observed that students who actively participated in one of the sports activities performed well as compared to those who did not participate in one or less. In this respect Stephen and Schaben (2002) add that , internationally, school administrators and teachers view the inclusion of co-curricular activities in learning programme as a way of ensuring that learners receive an education of genuine quality which leads to the development of the learners self-confidence and self-esteem.

In America games and sports is considered to play a role of transmitting a general social value, knowledge and norms in creating social harmony which is vital in the achievement of academic performance (Chicott & Lodgers, 2009). This consideration is shared in Kenya and is evidenced in school policies whereby students in schools are required to participate in games and sports without exception. That is, even students who are challenged are required to participate in sports and games that soot their form of disability. This is a true reflection of what is being undertaken in girls schools in Siaya County.

In India, students' participation in sports activities is regarded as highly beneficial and therefore emphasized as part of continuous and comprehensive evaluation in schools because the activities help in building students' behaviour for good academic achievement (Joshi, 2010). School administrators and teachers in preparatory school in Johannesburg in the Republic of South Africa view the inclusion of co-curricular activities in learning programme as a way of ensuring that learners receive an education of genuine quality which leads to the improvement of the learner's discipline for good academic performance.

In higher co-curricular is a very important and essential part of an education system. It is the co-curricular aspect of the education that prepares and holds the student to be holistic. The task force report on student discipline and unrest in secondary schools (Republic of Kenya, 2001), gives the views though without data on how games and sports enhances student discipline which is the long run helps to promote good academic achievement.

According to Otula (2007), activities like games, sports and clubs and societies form part of learning programmes. Such programmes aim at assisting school administrators and teachers in providing a holistic quality education and training that address emerging challenges in

learning institutions as violence, in order to ensure safety and peace for children in schools (Republic of Kenya: Sessional Paper No. 1 of 2005).

A study by Omoke (2009) examined the role of co-curricular activities in social and academic development among students in Suneka Division of Kisii South District in Kenya. The study showed that co-curricular activities contributed towards students' social development in a number of ways instilling discipline, building tolerance, enhancing co-operation, creating a sense of responsibility improving in judgment, accepting defeat and improving moral values; Bakhda (2006) holds the same opinion by showing that games and sports activities keep the learner out of counterproductive leisure activities.

The reviewed literature according to Stephens and Schaben (2002), Broh (2002) March and Kleitman (2002), Guest and Schneider (2003), Otula (2007), Joshi (2010), Omoke (2009) all agree that co-curricular activities enhances good academic performance, however, none of the studies reviewed focused on the contribution of government, religious sponsors and parents provision of co-curricular resources in enhancement of girls academic performance. This is the knowledge gap that the present study tempted to fill using Siaya County as the site for the study.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

In this chapter, the focus is the research methodology. It focuses on research design, area of study, study population, sample and sampling techniques, instruments, data collection procedure and data analysis.

### 3.2 Research Designs

The researcher employed descriptive survey, ex post facto and correlational designs. A descriptive survey design involved asking a large group of respondents' questions about a particular issue (Mugenda & Mugenda, 2003). The information is obtained from a sample rather than entire population, if the population is too large. The design has an advantage because it is easy to apply research instruments such as questionnaires and interview schedules which also allow for the collection of data from large number of respondents in a relatively short period of time with minimum cost. Kerlinger (1975) states that ex-post facto is a systematic, empirical inquiry in which the researcher does not have direct control of independent variables because their manifestations have already occurred. In this study, the KCSE results of girls from 2007 to 2011 will have occurred by the time data was collected. The advantage of ex post facto design is that the data cannot be manipulated by the researcher or the respondent (Fraenkel & Wallen, 2009). According to Mugenda and Mugenda (2003) correlational research design is used to establish relationship between variables. Correlational involves collecting data in order to determine whether and to what degree a relationship exists between variables. The degree of relationship is expressed as a correlation coefficient (r). The design was relevant in this study because it assisted in

establishing the contribution of stakeholders to educational resources in enhancement of girls academic achievement in public secondary schools in Siaya County.

## 3.3 Area of Study

The area of study was Siaya County in Western Kenya (Appendix M). Siaya County is located between  $34^{0}$ E and  $34^{0}33''E$  and  $00^{0}32''S$  and  $00^{0}35''N$ . It boarders Busia County to the West, Vihiga to the East, Kisumu County to the South East and Kakamega County to the North East. The county's main economic activities are subsistence farming and fishing in Lake Victoria, Rivers Nzoia and Yala. There is also cash crop farming along river Yala for example Dominion Rice farm. Educationally, there are institutions of higher learning within the county like Odera Kang'o Campus and Jamogi Oginga Odinga University of Science and Technology. In an inspection report at PDE Nyanza (2009), most girls' secondary schools had libraries which were not well stocked to serve students, classrooms overcrowded and inadequate space where girls can carry out games activities to keep fit and alert. The contributors to provision educational resources are government, religious sponsors and parents. The performance of girls was below par compared to boys in KCSE. For instance performance of girls in mean scores were as follows; 6.21, 6.90 and 6.05 for the years 2011, 2012 and 2013 compared to the boys schools mean scores of 7.73, 7.73 and 7.56 for the same period. Eleven pure girls schools are sponsored by the Catholic Church and ten schools are sponsored by the Anglican Church of Kenya. The total being 21.

## 3.4 Study Population

The study population comprised of 21 Principals, 21 Deputy Principals, 21 BOM Chairpersons, 21 PTA Chairpersons, 21 DOS, 42 form four class teachers from pure girls public secondary schools, 6 SCQASOs and 2 Education Secretaries (Table 3.1).

Table 3.1
Study Population

Category of Respondents	Target Population
Principals	21
Deputy Principals	21
Board of Governors	21
PTA	21
DOS	21
Form 4 Class Teachers	42
Education Secretaries	2
SCQASOs	6

**Source: Siaya District Education Report, 2010** 

## 3.5 Sample and Sampling Technique

Respondents that participated in the pilot study were selected as follows; 3 (14.28%) principals and 6 (14.28%) form IV class teachers. Saturated sampling technique was used to select all 18 principals, 18 deputy principals 18 BOM chairpersons, 18 PTA chairpersons, 5 SCQASO, 2 Education Secretaries representing the Catholic Church and Anglican church of Kenya and 18 DOS Examinations and 36 form four class teacher. Form four class teachers

were chosen because they had taught students and linked their parents with administration for four years therefore qualified to respond to issues that concerned contribution of parents to quality education for girls. Principals were chosen because they were well informed on matters pertaining to contribution of various stakeholders to provision of quality education for the girls. This is because they are the recipients of the contribution, implementers of government policies at school level and accounting officers. Deputy principals were chosen because they deal with school discipline and coordination of curricular and co-curricular activities in the schools. The Directors of Studies were chosen because they coordinate value added progress activities in the school. The PTA chairmen are financiers of infrastructure development in schools and therefore well placed on matters concerning contribution of stakeholders to the provision of quality education for girls. Boards of Management are mandated to manage the schools on behalf of the MOEST. They were therefore well placed to provide information on the contribution of stakeholders. The Education Secretaries were chosen because they are the executive officers of the religious sponsors on matters pertaining to the role of the sponsor to the development and management of schools where they are sponsored.

Table 3.2
Sample Frame

<b>Category of Respondents</b>	Target Population	Sample Size	
Principals	21	18	
Deputy Principals	21	18	
Board of Management	21	18	
PTA	21	18	
DOS	21	18	
Form 4 Class Teachers	42	36	
Education Secretaries	2	2	
SCQASO	6	5	

## 3.6 Instruments of Data Collection

The instruments used for data collection in this study included questionnaire, interview schedule and Document analysis guide. Each questionnaire comprised of open-ended and closed- ended questions. Questionnaires were used for data collection because they enabled the researcher to gather information from a larger number of respondents within a limited time. Questionnaires also enabled the researcher to get responses that some respondents would feel shy to give in face- to- face interviews (Fraenkel & Wallen, 2009). The interview schedules were administered to the head teachers and BOM chairpersons. Interviews helped to solicit more detailed information from the respondents as it gave the researcher opportunity to probe the respondents for more information.

## 3.6.1 Questionnaire for Principals (QP)

The head teacher questionnaire was used to solicit information on the contribution of government, religious sponsor and parents on infrastructure development, teaching /learning resources and co-curricular resources in enhancement of girls academic achievement.

## 3.6.2 Questionnaire for Form Four Class Teacher (QT)

The teachers' questionnaire was used to collect data about the contribution of stakeholders on provision of teaching/learning resources, provision of infrastructure and management of students' discipline for quality performance (Appendix B).

#### 3.6.3 Interview

Kathuri and Pals (1993) defines an interview schedule as an outline of questions that form a basis for and guide for the interview process. The schedule provides a structure that aids in obtaining the necessary information efficiently and business—like atmosphere. It enables one to gather in-depth information to counter-check the information obtained through questionnaires. An interview schedule is carried out to determine the head teacher's views on stakeholders' contribution to girls' academic achievement. In this study, the researcher used interview schedule because it allowed her to clarify terms that were unclear, to control the order in which the questions were presented and to probe for additional information and detail.

## 3.6.4 Principals Interview Schedule (PIS)

In-depth interview was used to collect information on how stakeholders contribution to development of infrastructure, teaching /learning resources, co-curricular development for enhancement of academic performance in Siaya County (Appendix C).

#### 3.6.5 Directors of Studies Interview Schedule

In-depth interview was used to collect information on contribution of stakeholders to quality leadership, development of infrastructure, teaching learning resources and how they contribute to quality performance of girls in public secondary schools in Siaya County (Appendix D).

## 3.6.6 SCQASO Interview Schedule

The SCQASO interview schedule was used to collect information on how much the government, religious sponsors and parents contributed to infrastructure development, teaching /teaching resources and co-curricular resources in enhancement of quality education for girls in public secondary schools (Appendix E).

### **3.6.7** PTA Chairmen Interview Schedule (PTACIS)

PTACIS was to collect information from parents' contribution to infrastructure development, teaching learning resources and co-curricular resources in the improvement of the learning process in girls' secondary schools in Siaya County (Appendix F).

## 3.6.8 Education Secretary Interview Schedule (ESIS)

The Education secretary interview schedule collected information from the sponsors' activities and how such activities contribute to performance in girls' secondary schools in Siaya County for example daily and weekly prayers (Appendix G).

## 3.6.9 Deputy Principals Interview Schedule (DPIS)

In-depth interview was used to collect information on how stakeholders contribution to development of infrastructure, teaching /learning resources, co-curricular development for enhancement of academic performance in Siaya County (Appendix H).

#### 3.6.10 Form Four Class Teachers Interview Schedule

Class teachers interview schedule was used to collect information on contribution of stakeholders to development of infrastructure, provision of teaching /learning resources, co-curricular resources and how they contribute to academic performance of girls in public schools in Siaya County (Appendix I).

## 3.6.11 B.O.M Chairperson Interview Schedule (B.O.G CIS)

The B.O.M CIS was used to collect information about how head teachers and deputy head teachers were appointed and how they contributed to academic performance Siaya County (Appendix J).

## 3.6.12 Document Analysis Guide

Document Analysis Guide was used to collect information on contribution of selected stakeholders to infrastructure development, provision of teaching/learning resources and provision of co-curricular resources in enhancement of girls' academic performance. (Appendix K).

## 3.7 Reliability and Validity of the Instruments

## 3.7.1 Validity of the Instruments

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study (Mugenda, 1999). If such data is a true reflection of the variables, then the influences based on such data will be accurate and meaningful. To ensure face and content validity of the questionnaire, experts in education administration were consulted and their input incorporated in the final drafts.

## 3.7.2 Reliability of the Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results. It is the degree to which results obtained from the analysis of the data actually represent the phenomenon index study (Mugenda & Mugenda, 2003). Before the instruments were used to collect data for the study, a pilot study was conducted in 3(14.28%) of the schools. Test retest method was used whereby the instruments were administered twice at an interval of two weeks. The Pearson's r correlation was used to establish the reliability at a set p-value of 0.05. The principal's questionnaire had a Pearson's r coefficient of .78 while form four class teachers questionnaire had .81. Since the coefficients were above .70, the instruments were considered reliable (Leedy & Ormrod, 2005).

#### 3.8 Data Collection Procedure

The County Director of Education, Siaya was notified of the intent to collect data. Permission was obtained and letters notifying the principals of the intended research were dispatched two weeks before the researcher visited the schools. This enabled the respondents to prepare and set aside time for the researcher to collect data. The researcher personally visited all the schools, administered the questionnaires and conducted interviews.

The researcher administered questionnaires to a total of 18 principals and 36 form four class teachers totaling to 54 questionnaires. The researcher also conducted interviews with deputy principals, DOS, BOMs chairpersons, and PTAs chairpersons and made appointments with the SCQASOs from the six sub counties with whom interviews were conducted. A total of 133 respondents were interviewed. Each interview session took 30 to 45 minutes. Notes were taken during the interviews.

## 3.9 Data Analysis

Quantitative data collected using questionnaires were analyzed by use of descriptive statistics in form of frequency counts and means. The descriptive analysis was appropriate for this study because it involved analysis, interpretation and description of the contribution of stakeholders to girls academic performance in public girls secondary schools in Siaya County. Quantitative data was first coded and entered into the computer from the questionnaires and summarized using descriptive statistics to make meaningful description of scores and measurements using the ratings.

Rating scale was used in this study. Rating scales are used to measure perception, attitude, values and behaviour (Mugenda & Mugenda, 2003). Rating scales consist of numbers and

descriptions which are used to rate or rank the subjective and intangible components of research. In this study a five –point rating scale was used to measure the value, worth of contribution. The numerical scale helped to minimize subjectivity and made it possible to use quantitative analysis. The numbers indicate the presence or absence of the characteristics being measured, in this study, the contribution. The interpretation of the mean ratings are as follows 1.00 -1.44 = Very low contribution, 1.45 -2.44 = Low contribution, 2.45-3.44 = Moderate contribution, 3.45 -4.44 = High contribution and 4.45 -5.0 = Very High contribution. T-test for independent samples was used to compare on the whole significance difference between the two means, that is, principals means and teachers means. This was necessary to make the findings of the study conclusive for each objective.

Pearson product moment Correlation was used to determine the contribution of selected stakeholders to educational resources and academic performance of girls in public secondary schools. Pearson product moment Correlation coefficient is a measure of linear relationship between two variables (Creswell, 2009). According to Mc Burney and White (2010) defines it as a measure between variables and the correlation is expressed as a number that can take any value between +1.0 and -1.0. In this study the variables were stakeholders contributions in terms of infrastructure, teaching /learning resources and co-curricular resources and girls' academic performance that is, KCSE mean scores. Correlation coefficients (r) were therefore interpreted to determine the influence of stakeholders contributions on girls academic performance. The coefficients indicated directions and strengths of relationships between independent and dependent variables Elfison, Runyon and Haber (1990) interpretation guideline was adopted (Table 3.3).

Table 3.3

Interpretation of Pearson Correlation Coefficients (r)

Strength of the relationship	Positive (+)	Negative (-)	
Weak/low/small	0.01 - 0.30	0.01 - 0.30	
Moderate/ medium	0.31 - 0.70	0.31 - 0.70	
Strong/high	0.71 - 0.99	0.71 - 0.99	
Perfect relationship	1.00	1.00	
No relationship	0.00	0.00	

From Table 3.3, it can be observed that Pearson (r) between + or - 0.01 - 0.30 is a weak/low/small relationship, between + or - 0.31 - 0.70 is a moderate/medium, while relationship between + or - 0.71 - 0.99 is a strong/high relationship. Perfect relationship is where it is positive or negative 1.00 while 0.00 means there is no relationship. Coefficient of determination  $R^2$  is the square of the Pearson r which tells how much of the variance is accounted for by the correlation which is expressed in percentages while the other remaining percentage could be due to other factors (Leedy & Ormrod, 2005). This was adopted in the interpretation of Pearson (r) and coefficient of determination  $R^2$  in this study.

ANOVA was used to determine whether the independent variables were significant predictors or not.

Linear Regression analysis was used to determine the actual influence and provide a regression equation.

Qualitative data analysis means non- empirical analysis. It does not require quantifiable data. In this study it involved content analysis. The information was systematically analyzed for content and reported in verbatim in order to come up with logical conclusions and recommendations. In qualitative studies researchers obtain detailed information about the phenomenon being studied and try to establish patterns, trends and relationships from information gathered. In this study emergent themes and sub themes sufficed.

## 3.10 Data Analysis Matrices

The analytical tools that were used in this study to analyze quantitative data was qualitative data was analyzed for content as shown in Tables 3.4 and 3.5.

Table 3.4

Quantitative Data Analysis Matrix

Objectives	Independent	Dependent	Statistical		
	variable	variable	Tools		
Determine stakeholders' contribution to infrastructure development in enhancement of quality education for girls in public secondary schools.	Stakeholders contribution	Infrastructure development	Descriptive statistics in form of means and inferential statistics inform of regression analysis		
Establish stakeholders contribution to teaching / learning resources in enhancement of quality education for girls in public secondary schools.	Stakeholders contribution	Teaching learning resources	Descriptive statistics in form of means and inferential statistics inform of regression analysis		
Determine selected stakeholders' contribution to co-curricular resources in enhancement of girls academic performance.	Stakeholders contribution	co-curricular resources	Descriptive statistics in form of means and inferential statistics inform of regression analysis		

Table 3.5

Qualitative Data Analysis Matrix

Transcript	Themes/sub themes	Codes
"Our students squeeze a lot in their small dormitories. During	Infrastructure	ID
rainy seasons, their sleep is disturbed due to roof leakages	Development	
and during dry seasons, they sweat a lot due to overcrowding		
in the dorms. They wake up tired and even doze during dawn	Dormitory	ID
preps." Deputy principal 1		
"Girls from poor families who are lucky to have been	Teaching	TLR
awarded or got sponsorship were also affected since their	/Learning	
parents did not provide the required learning materials. This	Resources	
implied that the sponsor paid the fee but did not provide		
teaching materials and this affected the performance	Textbooks	RS
negatively."		
$SCQASO_2$		
"Games or sports have rules to be strictly followed by		C-CR
players as they play, there is good time management during	Co-curricular	
the match. This therefore checks the student's behaviour	resources	
which may lead to character formation or responsible		
behaviour for good academic achievement. <b>SCQASO</b> <sub>1</sub>		

Key: I- Infrastructure ID- Infrastructure Development

TLR – Teaching /learning resources RS – Resources C-R- Co-curricular resources

### 3.11 Ethical Considerations

The researcher sought and obtained an introduction letter from the Siaya County Director of Education office to collect data from public girls' secondary schools. The principals of sampled public girls' secondary schools were informed of the intended visit to collect data three weeks before the study was undertaken. The SCQASOs were given appointments to be interviewed. The Principals were also reminded to inform the Directors of Studies, PTA chairmen, Deputy Principals and BOM chairmen. The Education Secretaries were also informed of the intended visit for purposes of gathering information on the contribution of religious sponsors to provision of quality education for girls in public secondary schools. While in schools consent to participate in the research was sought and obtained from the respondents. The researcher then disclosed the real purpose of the research to allay fear and anxiety. The respondents were assured of the confidentiality and privacy of the information they would provide and that it would be used strictly for the purpose of the study. Thus, the data collected would not be mishandled to cause physical, emotional and psychological harm to the respondents. The researcher assured the respondents of their anonymity which encouraged honest responses. In some cases pseudonyms were used to conceal the identity of the respondents. The researcher also avoided asking embarrassing questions, expressing shock and disgust while collecting data. The researcher informed the respondents that the new knowledge generated would be shared with them.

## **CHAPTER FOUR**

## RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents results and discussion of the findings of the study relating to contribution of stakeholders to educational resources and academic performance of girls in public secondary schools in Siaya County, Kenya.

The objectives of the study were to;

- i) Determine selected stakeholders' contribution to infrastructure development in enhancement of girls academic performance
- ii) Establish selected stakeholders' contribution to teaching / learning resources in enhancement of girls' academic performance.
- iii) Determine selected stakeholders' contribution to co-curricular resources in enhancement of girls' academic performance.

The return rate of Questionnaires was as shown in Table 4.1.

Table 4.1

Return Rate of Questionnaires

Respondents	No. Issued	No. Returned	ned Percentage (%)		
Principals	18	18	100		
Class Teachers	36	36	100		
Total	54	54	100		

From Table 4.1 it can be observed that the return rate of questionnaires was 54(100%). This was ensured by the researcher employing research assistants, rescheduling the dates for collecting the questionnaire for whenever respondents were not available on the earlier arranged dates and giving time for those who had not completed questionnaires as required. According to Mugenda and Mugenda (2003) a return rate of 70% and above is very good provided the desired minimum sample size threshold is met. Therefore the return rate of 100% was excellent.

# 4.2 Stakeholders' Contribution to Infrastructure Development in Enhancement of Girls

### **Academic Performance**

The research question responded to was: What is the contribution of selected stakeholders to infrastructure development in enhancement of academic performance for girls' in public secondary schools in Siaya County, Kenya?

The principals and teachers of girls' secondary schools in Siaya County were asked to rate the contribution of stakeholders to infrastructure development that enhances girl child's quality education. Their responses were as shown in Tables 4.2, 4.7 and 4.12. This data was subject to descriptive statistics and inferential statistics analysis's for in-depth interrogation of data in order to establish the actual contribution of stakeholders contribution on the infrastructure development in enhancement of girls' academic performance. The descriptive statistics used were means and interpretation of means was follows:

1.00-1.44 = Very low

1.45 - 2.44 = Low contribution

2.45 - 3.44 = Moderate contribution

3.45 - 4.44 = High Contribution

4.45 - 5.00 =Very high contribution

This was measured on an increase scale of 1 to 5. Descriptive statistics was the first step in data analysis aimed at summarizing and describing data.

Table 4.2
Government's Contribution to Infrastructure Development in Enhancement of enhancement of Quality Education for Girls

Aspects of Contribution Government RES	n by	Mean	Overall Mean	Contribution indices	Decision
Teachers Houses	P	1.33	1.58	2	Low
	T	1.51			
Classrooms	P	2.33	2.42	2	Low
/Workshops	T	2.32			
Water	P	1.67	2.60	3	Moderate
	T	2.12			
Electricity	P	1.88	2.91	3	Moderate
	T	1.97			
Non teaching staff	P	1.20	1.56	2	Low
houses	T	1.60			
Library	P	1.73	1.92	2	Low
	T	2.12			
Dining hall	P	2.20	2.35	2	Low
	T	2.51			
Dormitories	P	2.38	2.39	2	Low
	T	2.41			
Offices	P	1.93	2.11	2	Low
	T	2.29			
Staffroom	P	1.73	2.06	2	Low
	T	2.39			
Latrines	P	2.00	1.98	2	Low
	T	1.97			

Washrooms	P	1.87	1.75	2	Low
	T	1.63			
Overall Mean	P	1.81	1.94		
	T	2.06			

**KEY: RES – Respondents** P- Principals, T-teachers n- Sample size

## **Interpretation of Mean Ratings:**

**1.00-1.44** = Very Low **2.45 -3.44** = Moderate

1.45 - 2.44 = Low 3.45 - 4.44 = High 4.45 - 5.0 = Very High

## **Interpretation of Contribution Indices**

1=Very Low 2= Low 3=Moderate 4=High 5= Very High

From Table 4.2 it can be noted that both principals and teachers indicated that the contribution of government to the development of infrastructure was generally low. This means that principals and teachers were unanimously of the review that the government's contribution to infrastructure development in enhancement of quality education for girls in Siaya County was low.

The interview findings indicated that government did not provide land but only assisted or made little contribution to construction on the land donated by the community or religious sponsors. Document analysis indicated that in new schools, the land was bought by a group of elites from the community and gave it out for the construction of schools. The old schools whose land was donated first to the missionaries, the wealthy community members had changed. In fact one wealthy member of the community had grabbed a portion of the school compound of one of the schools. The principal contested in court but there was no solution to the problem since the school had no land title deed that could define the size of the land owned by the school hence the school lost its land. The study revealed that

inadequate land for schools affected the students negatively. This was because 9(50%) of schools did not have playing fields in their school compounds. The games teachers made arrangement in the nearby primary schools to allow their students use the fields in primary schools. The borrowing of use of field affected time management since the students could only start using the fields after 4.10pm as soon as primary school pupils left the compound. One deputy principal complained; "It is hard to keep time for classes in the evening because games teachers delayed students in the field." It was reported that some students went further without games or only stood around the fields as spectators due to lack of play fields. It was also reported that students who did not participate in active activities during games got exhausted at night hence affecting their studies whereby some would sleep during preps.

Principals and teachers indicated that the contribution of government to provision of teachers' houses was very low and low as their means were 1.33 and 1.51 respectively. This means that both principals and teachers indicated that government contribute very little to provision of teachers' houses. The interview findings indicated that government does not provide the housing for teachers claiming that teachers have house allowance and should find elsewhere to stay. Document analysis revealed that on certain occasions, politicians criticized the teachers' stay in the compound. They even condemned the old houses in the compound where teachers were residing as good for demolition. This did not even go well with the teachers who felt they stayed there for security of the students.

Both principals and teachers indicated that the contribution of the government to provision of classrooms and workshops was low as their means were 2.33 and 2.32 respectively. This means that both principals and teachers indicated that the government contributes little to

provision of classrooms/workshops. The interview findings indicated that the government through the Constituency Development Fund (CDF) constructed the classes in the new schools. However they had not done much concerning workshops. Document analysis revealed that politicians relied so much on the CDF without their personal contribution towards the building of classrooms in the schools.

Principals and teachers indicated that the contribution of the government to provision of water in schools was low as their means were 1.67 and 2.12 respectively. This means that both principals and teachers indicated that the government contribute little to provision of water in schools. The interview findings indicated that government had constructed a borehole in one school out eighteen schools. Document analysis revealed that politicians even sent cheques that did not go through in the banks, a fact that did go well with the school principals hence indicated no contribution or very little government contribution concerning provision of clean water in the schools.

In many constituencies, the schools depend or rely on the contribution of the community to supply water to schools. It is the community or local politicians who give priorities to the projects being under taken by the CDF then girls in secondary schools suffer in order to get this most basic in the school. In South Africa, it has been pointed out that government's failure to provide water and sanitation is undermining the children's chances of obtaining education (Water Aid, 2004). Water Aid (2004) also revealed that 104 million worldwide children did not go to school due to lack of water. UNICEF (2004) revealed that in schools where girls were sent to fetch water, there was a high rate of absenteeism and the practice

negatively affected academic achievement. This means that the contribution of stakeholders to the provision of water enhances quality of education to the girl child.

Principals and teachers indicated that the contribution of the government to provision of electricity was low as their means were 1.88 and 1.97 respectively. This means that both principals and teachers indicated that the government contributes little to provision of electricity in schools. The interview findings indicated that the politicians gave a lot of promises that they did not come back to schools to fulfill their empty promises. As a result, some classes constructed by CDF in the upcoming schools, electrical wiring was done but electricity was not installed to supply students light during their studies. The finding concur with Murillo and Roman (2011) who revealed that the availability of electricity in the school has an effect on achievement of primary education pupils, while Bacolon and Tobias (2006) discovered that schools providing basic facilities such as electricity performed much better in achievement growth than schools that did not. This implies that the quality of air inside public school facilities may significantly affect the students' ability to concentrate hence negative effects of academic performance. This means that the contribution of the government to electricity is very important for enhancement of quality education to girl child. Since the politicians contribution was rated low it means their contribution to quality of education was low.

Principals and teachers indicated that the contribution of the government to development of houses for non teaching staff was very low and low as their means were 1.20 and 1.60 respectively. This means that both principals and teachers indicated that the government contribute very little to the development of non teaching staff houses. The interview findings

indicated that government did not construct any house for non teaching staff. Document analysis guide did not reveal any contributions to the development of non —teaching staff houses. It should be noted with a lot of concern that housing non teaching staff such as cooks, matron or school nurse helps a lot in both time management and good health. This means that in a boarding school, cooks may do some work in the night then wake up early to finish and get food ready in time so that students do not waste any time waiting for food. This means that the government can promote the quality of education to the girl child by aiding construction of houses for the non teaching staff.

Principals and teachers indicated that the contribution of the government to development of school libraries was low was their means were 1.73 and 2.12 respectively. This means that both principals and teachers indicated that the government contributes very little to the development of libraries in schools. The interview findings indicated that the government though used their influences to source for textbooks in the libraries, this did not participate in the construction of any library.

Document analysis guide revealed that in 9(50%) of schools, there were no libraries and even the books purchased using the government tuition money were poorly kept making them get torn. In one school, the books were packed in a carton up to third term without students using them. The implication is that due to lack of library to display the books, the students may not be in a position to know the kind of books the school has purchased hence they serve no purpose in the academic life of the students especially girls who even feel shy to enquire the kind of books available in the school. This is one area where the government should play a

major role in promoting quality education for the girl child by contributing to the construction of libraries as they were rated low in their contribution.

Principals and teachers indicated that the contribution of the government to the development of dining hall was low as their means were 2.20 and 2.51 respectively. This means that both principals and teachers indicated that the government contribute little to the development of dining hall in the schools. The interview finding indicated that in one school, the government through the CDF kitty sent a cheque of Ksh. 1,000,000 when the total amount for the construction was Ksh. 7,000,000/=. That was only 7<sup>th</sup> of the cost of construction which indicated that the government contribution was low and this concurs with the questionnaire finding. This implies that schools should also work as business entities may be in farming to create more income for the development instead of depending too much on the government.

Document analysis guide revealed that 10(56%) of girls schools did not have functional dining halls. Some dining halls in some schools were transformed into dormitories in 2011 with large number of students joining form one as a result of 2003 Free Primary Education. Due to inadequate space in the few existing dining halls, girls eat in shifts while some eat outside while standing. This in particular makes eating not enjoyable as late comers at times are forced to pour their food and go to class hungry when the bell for classes goes. This makes it difficult for the girls to concentrate in class and therefore the low contribution of the government affects negatively the quality of education for the girl child. This study agrees with Fisher's (2006) who conducted a research on the impact of school infrastructure on student outcome and behaviour in Georgia and established that academic achievement improves with improved building conditions, clean eating area, air quality and temperature.

Principals and teachers indicated that the contribution of government to the development of construction of offices in schools was low as their means were 1.93 and 2.29 respectively. This means that both principals and teachers indicated that the government contributes little to the development of offices. The interview finding indicated that even schools that were started as early as 1975 did not even have an administration block. One classroom was being used by teachers as the staffroom while the principal's office was along the corridor of classes. Document analysis guide did not reveal any contributions towards the development of offices in schools by government. To ensure good performance, the stakeholders like government have to provide required facilities like offices necessary for the teachers to sit and prepare as they wait for the next lesson. The implication here is that when the government ignore the construction of offices, they compromise quality education provided as teachers lack where to rest and prepare well.

Principals and teachers indicated that the contribution of government to the development of dormitories in schools was low as their means were 2.38 and 2.41 respectively. This means that both principals and teachers indicated that the government contributes little to the development of dormitories in schools. The interview finding indicated that government had only contributed towards the building of dormitories in two schools. This was only a contribution of 11%. However both principals and teachers had very high expectations from the government towards the development of dormitories and that was why they indicated low means. It can also be noted that politicians direct money from CDF kitty to areas where they have political support as appreciation of the overwhelming votes they got from the region. This means that the government discriminate in their construction of dormitories' which affects the quality of education of the girl child in schools which are neglected.

Principals and teachers indicated that the contribution of government to the development of staffroom was low as their means were 1.73 and 2.39 respectively. This means that principals and teachers indicated that the government contributes very little to the development of staffrooms in the schools. The interview finding indicated that the government had not built any staffroom in any of the eighteen schools visited. Document analysis guide revealed that government agent frequent schools when voting time was approaching hence very short time to construct staffrooms in the schools. Government contribution to staffrooms is not taken as a priority and therefore the contribution is limited.

Principals and teachers indicated that the contribution of government to the development of pit latrines was low as their means were 2.00 and 1.97 respectively. This means the contribution of government to latrines was rated low by both principals and teachers. The interview findings indicated that the government through their CDF kitty contributed towards construction of pit latrines in only two schools. In one school, a cheque of Ksh. 300,000 was issued to the school administration when the only pit latrine sank. This money was economically spent to construct six door pit latrines. This money was only given from their emergency fund meaning they only came in during the crisis.

In another school, the CDF gave Ksh. 500,000 for the construction of ten doors but the building sunk as soon as it was completed. Document analysis guide showed that the school administration had no say on which contractor to work in her school. This means the CDF brought their own person whom they gave instruction from outside and as long as he listened to their "voices" everything was "okay". The principals interviewed did not want anything to do with CDF funding pit latrines since the workmanship was bad and risky to the students.

This findings concur with the findings of Bullock (2007) who argued that school buildings must not only be a container of the educational programme but also friendly, attractive and stimulating place that imparts a feeling of security and a sense of pride to all whom it serves to which latrines contribute as a basic necessity in a school.

Principals and teachers indicated that the contribution of the government to the development of washrooms in the school was low as their means were 1.87 and 1.63 respectively. This means that both principals contribute very little to the development of washrooms. The interview findings indicated that there was no single washroom constructed by the government in any of the eighteen schools visited. There was no documentary evidence pointing towards the contribution of government to the development of washrooms. It is therefore important to note that inadequate washrooms affect learners particularly girls when they have to queue so as to relief themselves during break time. Girls are naturally shy and need privacy. The study agrees with the findings in South Africa's Eastern Cape schools. It found out that in South Africa's Eastern Cape schools, learners at the 400 schools have benefited tremendously, especially the girl learners, who have access to private, clean and hygienic toilets, and the sanitation improvements have seen an increase in attendance rates at schools which are being serviced (Bhagwan, 2012). This means that the contribution of government to academic performance of the girl child is low as their contribution to washrooms is low. Overall, principals and teachers indicated that the contribution of government to infrastructure development in enhancement of academic performance for girls was low (M = 1.94). To determine the actual contribution of religious sponsors to

infrastructure development in enhancement of girls academic performance, correlation and regression analysis were computed using inferential statistics.

Inferential statistics were computed to determine the actual contribution of the government to infrastructure development in the enhancement of girls academic performance. The level of significance was set at 0.05. Correlation technique was used because variable of study were continuous and the measurement used was ratio. Thus the government's contribution to infrastructure (Table 4.3) was correlated with the girls' performance. The results and interpretations were as shown in Table 4.4.

Table 4.3

Religious Sponsors, Parents and Government contributions to Infrastructure development, Teaching /learning resources, Co-curricular resource and Girls Academic Performance

	INFRSTRACTURE			TEACHING /LEARNING RESOURCES			CO-CURRICULAR RESOURCES		
SCH S/N	RELIGIOUS SPONSOR	PARENTS	GOVT.	RELIGIOUS SPONSOR PAR	RENTS	GOVT	PARENTS	GOVT	GIRLS' KCSE MEAN SCORES
1	1,250,000	9554000	562000	661	14740	4035160	1348800	674400	10.479
2	175,000	4108000	544000	790	01328	2905920	1588480	1433984	9.202
3	500,000	12112000	25548000	562	27960	3933376	2192000	657600	8.736
4	1,000,000	1386000	198000	153	38460	1421640	475200	237600	8.454
5	250,000	1764000	252000	195	58040	1809360	604800	302400	8.304
6	650,750	1899000	246000	141	19420	353256	590400	295200	8.25
7	192,500	8588000	684000	531	14680	4911170	1641600	820800	8.131
8		1344000	192000	110	07840	1378560	460800	230400	7.697
9	80,000	4524000	404000	313	39080	2900720	969600	484800	7.391
10	3,051,250	208000	44000	16	65880	315920	105600	52800	7.318
11	15,000	1014000	102000	28	82540	732360	244800	122400	5.902
12	30,000	3086000	158000	43	37660	934440	379200	189600	5.582
13	60,000	784000	72000	ç	91440	764960	172800	86400	5.5
14	22,500	608000	44000	22880	33000	63184	105600	52800	5.41
15		602000	86000	10	09220	617480	206400	103200	5.372
16	280,000	1988000	284000	36	60680	2039120	681600	340800	5.063
17	50,000	308000	44000	5	55880	315920	105600	52800	4.727
18	40,000	210000	30000	3	38100	245400	72000	36000	4.174

Religious sponsors' contribution was majorly limited to land and was excluded because this was the initial expenditure and was outside the scope of the study. The scope of the study was 2011 to 2014 dealing with the 2014 form IV cohorts of students. Infrastructure therefore did not include land for all the selected stakeholders. What was included in infrastructure therefore was expenditure on water, electricity, tuition facilities, administration facilities, boarding facilities, teachers' houses, libraries, pit latrines and washrooms.

Table 4.3 presents the contributions of religious sponsors, parents and government to school infrastructure development, teaching /learning resources, and academic performance of girls in public girls secondary schools in Siaya County. The data was collected from principals, religious organizations, education secretaries, and land registrars.

In order to interpret the correlations, Table 4.4 was used.

Table 4.4
Interpretation of Pearson's Correlation Coefficients (r)

Negative (-)	Positive (+)	Strength of the relationship
0.01 - 0.30	0.01 - 0.30	Weak/low/small
0.40 - 0.60	0.40 - 0.60	Moderate/ medium
0.70 - 0.99	0.70 - 0.99	Strong/high
1.00	1.00	Perfect relationship
0.00	0.00	No relationship

Source: Adapted from Elifson, Runyon and Haber (1990); Leedy and Ormrod (2005)

Table 4.4 was used to interpret correlation coefficients (r) in order to determine the contribution of the government to infrastructure development in enhancement of girls academic performance in terms of direction and strength of relationship. (Elifson, Runyon & Haber, 1990; Leedy & Ormrod, 2005).

The output of the correlations were as shown in Table 4.5.

Table 4.5

Relationship between government contribution to infrastructure development and Girls Academic Performance

		Performance	
Government	Pearson Correlation	.500*	
contribution	Sig. (2-tailed)	.035	
	N	18	

From Table 4.6 it can be revealed that there was a moderate relationship between government contribution and girls performance as signified by the coefficient of 0.035 which was less than the p-value of 0.05. This means that the relationship was moderate, positive and significant as the calculated p-value .035 was less than the set p-value 0.05.

To estimate the actual government contribution, coefficient of determination was computed and the results were as shown in Table 4.6.

Table 4.6

Regression analysis of government' contribution to Infrastructure development and Girls Academic Performance

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.500 <sup>a</sup>	.250	.203	1.604749

a. Predictors: (Constant), Government contribution

From Table 4.6 it can be noted that the contribution of the government accounted for 20.3% of the variation in girls performance as signified by the coefficient of .203. The other 79.7% could be explained by other factors. To determine whether government contribution was a significant predictor of girls academic performance, ANOVA was computed. The results were as shown in Table 4.7.

Table 4.7
ANOVA of government contribution and girls academic performance

			Mean		
Model	Sum of Squares	Df	Square	$\mathbf{F}$	Sig.
1 Regression	13.703	1	13.703	5.321	.035 <sup>b</sup>
Residual	41.204	16	2.575		
Total	54.906	17			

a. Dependent Variable: Girls Performance

b. Predictors: (Constant), Government contribution

From Table 4.7 it can be observed that government contribution was a significant predictor of girls academic performance (F (1,16) = 5.321, P<0.05) as the calculated p-value was .035< 0.05. This means that government contribution can be relied on as a predictor of girls academic performance.

To determine the actual contribution linear regression analysis was done. The results were as shown in Table 4.8.

Table 4.8

Linear regression analysis of governments' contribution to infrastructure development and girls academic performance

			Standardized			
	Unstandard	ized Coefficients	d Coefficients Coefficients			
Model	В	Std. Error	Beta	T	Sig.	
1 (Constant)	5.368	.796		6.746	.000	
	.070	.030	.500	2.307	.035	
Government						

a. Dependent Variable: Girls academic Performance. Regression equation  $\overline{Y = a+bX}$ 

From Table 4.8 it can be revealed that one unit increase in government contribution can lead to increase in girl's performance by .070 units as indicated by the coefficient .070 The regression equation is Y = 5.368 + .070X.

From regression analysis, it was established that the government contribution to infrastructure development in enhancement of girls academic performance had R<sup>2</sup> of .203. This means that the government's contribution to girls performance was 20.3%. Descriptive statistics also revealed that the government's contribution was low. Since inferential statistics is a more powerful technique for measuring the contribution this study concludes that governments contribution was low. However the government's contribution to girls academic performance through provision for infrastructure development was a significant

predictor though the contribution was low. These findings concurs with those of Water Aid (2004) in a study that revealed that worldwide availability of wholesome water enhanced children effective participation at school which enhanced their academic achievement. The study findings also agree with those of Bacolon and Tobias (2006) study in Philippines that revealed that providing basic facilities like electricity enhanced students outcomes. The findings were also in agreement with those of Fischer (2006) whose study in Georgia which established that students outcome improves with improved buildings, clean eating facilities, air quality and temperatures. The three studies concurred on the fact that improvement in infrastructure contribute to improved student outcome. The current study also concurred with the findings of these studies. However the current study went further and determined specifically the contribution of the government in terms of land, teachers houses, classes, electricity, library, dining hall, dormitories, offices, latrines and washrooms in enhancement of girls academic performance. The government's contribution accounted for 20.3% of the variation in girls academic performance through provision of infrastructure.

Table 4.9

Contribution of Religious Sponsors to Infrastructure Development in enhancement of Girls Academic performance

Aspects of Contribution by			Overall	Contribution	Decision
Religious Sponsor	RES	Mean	Mean	indices	
Teachers Houses	P	2.64	2.96	3	Moderate
	T	2.29			
Classrooms /Workshops	P	1.46	1.87	2	Low
	T	2.29			
Water	P	1.36	1.78	2	Low
	T	2.21			
Electricity	P	1.29	1.61	2	Low
	T	1.93			
Non teaching staff houses	P	1.27	1.63	2	Low
	T	2.00			
Library	P	1.50	1.89	2	Low
	T	2.29			
Dining hall	P	1.36	1.82	2	Low
	T	2.29			
Dormitories	P	1.83	2.05	2	Low
	T	2.27			
Offices	P	1.60	1.84	2	Low
	T	2.09			
Staffroom	P	1.73	2.02	2	Low
	T	2.32			
Latrines	P	1.38	1.78	2	Low
	T	2.18			
Washrooms	P	1.36	1.61	2	Low
	T	1.85			
Overall Mean	P	1.70	1.97	2	Low
	T	2.25			

KEY: RES – Respondents P- Principals, T-teachers n- Sample size

### **Interpretation of Mean Ratings**

**1.00-1.44** = Very Low **2.45 -3.44** = Moderate

1.45 -2.44 = Low 3.45 -4.44 = High 4.45 -5.0 = Very High

### **Interpretation of Contribution Indices**

1 = Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.9 it can be noted that principals and teachers indicated that contribution of religious sponsor to provision of teachers' houses was moderate and low as their means were 2.64 and 2.29 respectively. This means that both principals and teachers indicated that religious sponsors contribute little to provision of teachers' houses. The interview findings indicated that religious sponsor of some schools allowed some teachers to stay in their church compound. Two principals 11% interviewed reported that they were staying in the houses given by the church that sponsors their schools. From the two schools, their KCSE means were relatively high. One principal noted; "I am able to monitor both dawn and night preps since I stay within the compound." This means that students left on their own may not do their best without adult supervision. The study findings concur with Beeri (2005) who observed that housing the teachers /learners in the school compound goes a long way to improve academic performance. This is due to the fact teachers in the compound supervise preps enabling students to make good use of their study time without making noise. It was also observed that teachers who stay in the school compound can get time to help learners after classes through remedial teaching sessions in the evening. Staying in the school compound also helps the learners to save their energy and time.

Principals and teachers indicated that the contribution of religious sponsor towards construction of classrooms was very low and low as their means were 1.46 and 2.29 respectively. The interview findings indicated that religious sponsor had not constructed any classroom for the students. In one school, the principal reported that the church had stopped them even from using a nursery classroom built in the church compound. This interfered with education since they were only learning under tree. The study also found that lack of good

classrooms discouraged bright girls from joining the schools. In line with this study, Roy (2008) observed that developing school infrastructure is necessary in improving school attendance and academic performance. A situation where there are overcrowded classrooms with insufficient number of desks and benches have negative effects on teaching and learning environment in the class (Republic of Kenya, 2003). It is therefore important to enlighten the religious sponsors on the significance of their contribution to school infrastructure development for enhancement of girls quality education.

Principals and teachers indicated that contribution of religious sponsors to the provision of water to schools was very low and low as their means were 1.36 and 2.21 respectively. This means that the views of teachers was that religious sponsors supply water in schools while principals felt religious were not doing much to ensure water supply to their sponsored schools.

The interview findings indicated that in two (11%) the principals recorded that the church pumped water to teachers' houses and even to the kitchen. This saved time that students would have wasted to go to the river to carry water for cooking. They also made life for teachers easier time to spend more time with students. In support to the study, Murillo and Roman (2011) found that the availability of water have effect on the academic achievement of primary education pupils but its relative weight varies significantly from country to country. These researchers concluded that there was need to continue investing in resources and basic facilities and to incorporate them into school effectiveness. Mashamba (2004) stresses the importance of water supply in the improvement of education.

Principals and teachers indicated had very little contribution towards supply of electricity to the schools as their means were 1.29 and 1.93 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to supply electricity in their sponsored schools. Interview findings indicated that religious sponsor did not even help the schools to get electricity.

Both principals and teachers indicated sponsors had very little contribution to development /construction of non teaching staff houses was very low as their means were 1.27 and 2.00 respectively. This means that both principals and teachers contribute very little towards the development of non teaching staff. Interview findings did not reveal any contribution to the sponsor towards the development of the houses occupied by non teaching staff.

Principals and teachers indicated that the religious sponsors' contribution to library was very low as their means were 1.50 and 2.29 respectively. This means that both principals and teachers indicated that religious sponsors contribution was very minimal. The interview findings indicated that no religious sponsor had constructed the library on its own. It should be noted that after starting a school by the religious sponsor; the sponsor should also include important facilities like libraries. This is in agreement with FAWE (2001) that states that schools that lack adequate classrooms, hold their lessons outside under trees. During bad weather such lessons are postponed or held together. This interferes with syllabus coverage and students in such schools do not perform well in examinations.

Principals and teachers indicated that the contribution of religious sponsors towards development of dining halls in their schools were very low and low as their means were

1.36 and 2.29 respectively. This means that both principals and teachers indicated the religious sponsors contribute very little towards the construction of the school dining hall.

The interview findings indicated that religions did not build the dining hall but contributed during the harambees to construct one.

Overall, principals and teachers indicated that the contribution of religious sponsors to infrastructure development in enhancement of quality education for girls was low (M = 1.97).

To determine the actual contribution of religious sponsors to infrastructure development in enhancement of girls' academic performance, correlation and regression analysis were computed using inferential statistics.

Table 4.10

Relationship between Religious sponsors' contribution to infrastructure development and girls academic performance

		Academic Performance
Religious Sponsors	Pearson Correlation	.512
contribution	Sig. (2-tailed)	.05
	N	16

From Table 4.10 it can be observed that there was a positive and moderate relationship between religious sponsors contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .05 which was equal to the set p – value of 0.05. This means that an increase in religious sponsors' contribution would increase girl student's performance. To estimate the contribution of sponsors'

contribution, coefficient of determination was computed. The results were as shown in Table 4.11.

Table 4.11

Regression analysis of Religious Sponsors' contribution to infrastructure development and girls academic performance

			Adjusted	Std. Error of the
Model	R	R Square	R Square	Estimate
1	.512 <sup>a</sup>	.262	.206	1.479234

a. Predictors: (Constant), Religious sponsors' contribution

From Table 4.11 it can be noted that religious sponsor's contribution accounted for 20.6% of variation in girl student academic performance as signified by the coefficient of .206. The other 79.4% was due to other factors such as government's contribution.

To establish whether religious sponsors' contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.12.

Table 4.12

ANOVA of Religious sponsors' contribution to infrastructure development and girl's academic performance

		Sum of		Mean			
Model		Squares	Df	Square	$\mathbf{F}$	Sig.	
1	Regression	10.123	1	10.123	4.626	.05 <sup>b</sup>	
	Residual	28.446	13	2.188			
	Total	38.568	14				

a. Dependent Variable: Performance

ANOVA revealed that religious sponsors' contribution was a significant predictor of girl student academic performance (F (1, 13) = 4.626, P<0.05). To confirm the actual

b. Predictors: (Constant), Religious sponsors' contribution

contribution, linear regression analysis was computed and the results were as shown in Table 4.13.

Table 4.13

Linear regression analysis of Religious Sponsors 'contribution to Infrastructure development and girls academic performance

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	6.806	.382		17.793	.000
	Religious sponsors contribution	.878	.408	.512	2.151	.05

a. Dependent Variable: Girls academic Performance. Regression Equation Y = a+bX

From Table 4.13, it can be revealed that for one unit increase in religious sponsors' contribution, the girls academic performance would improve by .878 units as signified by the coefficient of .878. The regression equation is Y = 6.806 + .878X. This means that increase in religious sponsors' contribution to infrastructure development would increase in girls academic performance by at least 1.0 mean score. This finding concurs with the finding that was revealed by descriptive statistics output which indicated that the contribution was low on a five point rating scale.

Table 4.14 Contribution of Parents to Infrastructure Development in enhancement of Academic performance

Aspects of Contribution by Parents	RES	Mean	Overall Mean	Condition Indices	Decision
Teachers Houses	P	3.29	3.02	3	Moderate
	T	2.75			
Classrooms /Workshops	P	3.73	3.66	4	High
	T	3.60			
Water	P	3.60	3.51	4	High
	T	3.43			
Electricity	P	3.69	3.51	4	High
	T	3.34			
Non teaching staff houses	P	3.21	3.08	3	Moderate
	T	2.86			
Library	P	3.94	3.58	4	High
	T	3.23			_
Dining hall	P	4.06	3.71	4	High
	T	3.36			C
Dormitories	P	4.35	4.03	4	High
	T	3.71			
Offices	P	4.29	3.73	4	High
	T	3.18			C
Staffroom	P	4.25	3.86	4	High
	T	3.47			8
Latrines	P	4.50	3.96	4	High
	T	3.42	2.20	•	
Washrooms	P	4.00	3.59	4	High
	T	3.19	3.57	•	111511
Overall Mean	P	3.88	3.56	4	High
Overall Meall	T	3.24	3.50	<b>-</b>	mgn

KEY: RES – Respondents P- Principals, T-teachers n-Sample size

## **Interpretation of Mean Ratings**

**1.00-1.44** = Very Low **2.45 -3.44** = Moderate

1.45 -2.44 = Low 3.45 -4.44 = High 4.45 -5.0 = Very High

## **Interpretation of Contribution Indices**

1=Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.14 it can be noted that both principals and teachers indicated that the contribution of parents to infrastructure was moderate with a mean of 3.24. This means parents contributed moderately to school infrastructure in enhancement of girls' academic performance. The interview findings indicated that parents contributed through "harambees" to improve school infrastructure towards the expansion of the school compound. Document analysis guide revealed that all parents were given 'Harambee' cards to raise money in order to improve infrastructure for the school. In some schools parents contributed to the tune of Kshs. 2 million while others Kshs. 500,000/= and above. The expansion of the school meant that there was even space for the field for students to go for games. This implied that the students were physically fit and mentally alert after running round their fields and this made their studies better as their absorption rate increased with activeness in the field.

This study found that the schools with good facilities had high academic achievement. For instance in one of the schools which had good physical facilities the mean scores were as high as 10.385 in 2013 and 10.48 in 2014. The findings mean that where there are more basic facilities in the form of toilets, electricity and water, academic achievement is likely to be higher. The small schools did not have enough basic facilities hence lower academic achievement. For instance Kagunja Girls (pseudonym) whose performance was 3.667 in 2013 and 4.200 in 2014. This confirms that the unavailability of water and electricity influences girls' academic performance negatively.

These findings concur with those of Filardo and Vincent (2010) that indicate that, there is a positive relationship between quality of school facility and schools academic performance. Schools that did not provide adequate water influenced academic performance negatively for

example, girls fetch water at the expense of their school work. UNICEF (2004) maintains that this situation contributes to absenteeism and the high dropout rates among girls.

Principals and teachers indicated that the contribution of parents towards building of teachers' houses was moderate as their means were 3.29 and 2.75. This means that principals indicated that parents contribute moderately to the development /construction of teachers' houses and teachers indicated low contribution of parents to the construction of teachers houses.

The interview findings indicated that teachers who occupied school houses paid for the maintenance. On the other side there was money for the development of the school being paid by parents and this may have been the reason why principals indicated moderate contribution by the parents. Document analysis revealed that principals even recover the money for rent from remedial money when teachers failed to pay their monthly rent.

The implication of recovering money of rent from remedial money meant that the money was not being used for what it was meant for. Some teachers were not teaching during the extra remedial classes claiming of being mishandled. However when asked why they did not remit their rents, they reported that houses had not been repaired and were in bad condition that did not deserve to be paid for. In one school, the teachers felt that the principal was eating their money while principal felt that the teachers did not deserve the money since they had not attended their remedial lessons. This implied that in a way contributed to low performance in some subjects where teachers were affected with the issue of rent.

Principals and teachers indicated that the contribution of parents to construction of classrooms /workshops was high as their means were 3.73 and 3.60 respectively. This means that both principals and teachers indicated that parents contribute highly to construct and maintain the existing classrooms and workshops. The interview findings indicated that parents through the PTA chairpersons make decisions on the projects to be developed in the school. In most cases, the PTA executive would agree on what to be constructed as a priority. Document analysis revealed that the PTA chairman even looked for the Guest of honour who contributed through the harambee where enough funds were raised to build classes in the school.

Principals and teachers indicated that the contribution of parents to the provision of water was high and moderate as their means were 3.60 and 3.43 respectively. This means that both principals and teachers indicated that parents contribute moderately to the provision of water in the schools where their daughters learn.

The interview findings indicated that parents pay for provision of water. This happens through the promptness in payment of school levies.

From interviews conducted with SCQASO, it was established that some parents were prompt in payment of school levies while some of them were not prompt.

One SCQASO, Mr. John Owiye (pseudonym) indicated:

Most of the parents will always pay school levies as early as required by the school. Some parents have even gone to the extent of paying a whole years' school levies so that the girl learns freely without interference to go for school levies every now and then. However there are some few parents who will only pay school levies once their girls have been sent from school several times.

From the study it was realized that parents were not prompt in payment of school levies and therefore the principals were not able to pay for water bills in time. At times, water was disconnected due to nonpayment of bills. This implied that girls had to go looking for water outside the school compound. Lack of water in school would therefore lead to students wasting learning time looking for water or even queuing for water. This would finally interfere with quality education since girls value water so much in search that when it is lacking they stressed and partially absent during the lessons. The current findings are in agreement with Murillo and Roman (2011) who found that the availability of water has an effect on the achievement of primary education, but its relative weight varies significantly from country to country. Whereas in South Africa, it has been pointed out that government failure to provide water and sanitation is undermining the children's chances of obtaining good education.

In the Eastern Cape, the Department of Education has stipulated that all schools must have water and sanitation for the improvement of education, while also in the Limpopo province, Mashamba (2004) stresses the importance of water supply in the improvement of education. However, it was observed that parents who were not prompt in payment of school levies affected quality education as sometimes girls delay for classes as they look for water.

Principals and teachers indicated that the contribution of parents to provision of electricity was high and moderate as their means were 3.69 and 3.34 respectively. This means that both principals and teachers indicated that parents contribute moderately to the provision of electricity.

The interview findings indicated that parents through their payment of the development fund to schools, they also contributed to the development of electricity in schools. Document analysis guide revealed that parents contributed in kind when one parent even talked to the officers from power house so that power would be dropped in the school after the wiring was completed. Document analysis guide revealed that the schools' academic achievement went up after electricity that had been brought. This implied that electricity facilitates learning for students.

Principals and teachers indicated that the contribution of parents to provision of houses for non teaching staff was moderate as their means were 3.21 and 2.86 respectively. This means that both principals and teachers indicated that parents contribute averagely to the provision of houses for non teaching staff. The interview findings indicated that parents through their parental obligation were able to raise funds for the construction of non teaching staff houses.

Principals and teachers indicated that the contribution of parents to the development of libraries was high and moderate average as their means were 3.94 and 3.23 respectively. This means both principals and teachers indicated that parents contribute satisfactorily towards the development of school libraries. The study established that schools with well stocked libraries did well in academic achievement. This implied that when students reading in the library have a wider knowledge of the subject content than the students that only go through their notes. It is therefore important to note that school libraries are vital in knowledge management as wide reading broadens the students knowledge hence she is able to argue out the points well.

Principals and teachers indicated that the contribution of parents to the provision of dining hall was high and moderate as their means were 4.06 and 3.36 respectively. This means that the principals indicated that parents contribute highly to the contribution of dining halls while teachers indicated that parents only contribute moderately towards the provision of dining halls in the schools. The interview findings indicated that parents contribute to the development of schools' dining halls through the payment of PTA development funds. In this respect, one BOM chairperson stated "New parents paid Ksh 8000/- and parents for continuing students paid Kshs 5000 towards the building of the new dining hall." From the interviews conducted with BOM chairpersons, it was established that most parents were prompt in payment of the PTA development fund. The payment by parents implied that principals had ample time to purchase the building materials which were used in the construction of the new dining hall until the completion.

From the findings of the study, principals, deputy principals, DOSs and form four class teachers indicated that the building or expansions of the existing dining hall affected the quality education of the students. This implied that all students would go for meals at once whenever the bell for meals goes and use only thirty minutes to eat and go back to class since the food was already served in the dining hall. This created enough time for the lunch time private reading before the afternoon lessons begin. The findings of this study is in line with Kereri (2003) who noted that good meals eaten from a clean environment, lead to retention and good academic achievement in schools of Kajiado District.

Principals and teachers indicated high contribution of parents towards the development of the dormitories as their means were 4.35 and 3.71 respectively. This means the principals indicated parents contribute highly to the development of dormitories while teachers said the parents contribute moderately to develop dormitories in schools. The interview findings indicated that parents on many occasions raised money through harambees organized by the schools to get money for the expansion of the existing dormitories and the building of new ones. Document analysis revealed that both parents and their children were issued with harambee cards to collect funds for the construction of the new dormitories.

Whenever a student or a parent or student failed to raise money indicated in the harambee card, such amount was transferred to school fees. This increased the school fee very high that some needy students dropped out of school since they could not raise the very high amount required by the school. One class teacher lamented; "Needy students seem to be brighter than others but many of them drop out of school when the school fee becomes too high for them."

The study found that the increase in the development fund made fee unaffordable to the needy students. A factor that made them to take too at home waiting for fee and when they came back to school, they were not able to catch up with the syllabus coverage since a lot of content had been taught when they were away. The implication of raising fee school is that only those from the rich or advantaged families manage to raise fee and stay in school throughout while those from disadvantaged families lag behind in fee payment and this in turn affect their academic achievement hence affecting quality education of the entirely school negatively.

Principals and teachers indicated high and moderate contribution of parents towards the development of offices as their means were 4.29 and 3.18 respectively. This means that principals indicated parents contribute highly to the development of offices while teachers indicated only moderate contribution of parents towards development of offices.

The interview findings indicated that parents contribute a lot towards the development of offices through the payment of their PTA development fund which is paid yearly. The document analysis also revealed that PTA executives meet and prioritize the school projects which will always to one at a time.

Principals indicated that the contribution of parents towards the construction of pit latrines was high while teachers indicated moderate contribution as their means were 4.50 and 3.42 respectively. This means that principals indicated that parents contribute a lot to the development of pit latrines in the schools while teachers indicated parents contribute moderately towards the development of pit latrines in the schools.

Overall, principals and teachers indicated that the contribution of parents to infrastructure development in enhancement of quality education for girls was high (M = 3.56).

To determine the actual contribution of religious sponsors to infrastructure development in enhancement of girls academic performance, correlation and regression analysis were computed using inferential statistics.

Table 4.15
Relationship between parents contribution to infrastructure development and girls academic performance

		Girls academic Performance
Parents	Pearson Correlation	.689
contribution	Sig. (2-tailed)	.002
	N	18

From Table 4.15 it can be observed that there was a positive and moderate relationship between parents contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .002 which was less than the set p – value of 0.05. This means that an increase in parent's contribution would increase girl student's performance. To estimate the contribution of parents' contribution, coefficient of determination was computed. The results were as shown in Table 4.16.

Table 4.16

Regression analysis of Parents contribution to infrastructure development and girls academic performance

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.689 <sup>a</sup>	.475	.442	1.342441

#### a. Predictors: (Constant), Parents contribution

From Table 4.16 it can be noted that parents contribution accounted for 44.2% of variation in girl student academic performance as signified by the coefficient of .442. The other 55.8% was due to other factors such as government and sponsors' contribution.

To establish whether parents contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.17.

Table 4.17

ANOVA of Parents contribution to infrastructure development and girls academic performance

		Mean						
Mo	del	Sum of Squares	Df	Square	$\mathbf{F}$	Sig.		
1	Regression	26.072	1	26.072	14.467	.002 <sup>b</sup>		
	Residual	28.834	16	1.802				
	Total	54.906	17					

a. Dependent Variable: Girls academic Performance

ANOVA revealed that parents contribution was a significant predictor of girl student academic performance (F (1, 16) = 14.467, P < 0.05). To confirm the actual contribution, linear regression analysis was computed and the results were as shown in Table 4.18.

Table 4.18

Linear regression analysis of parents contribution to infrastructure development and girls academic performance

	Unstandardized		Standardized			
	Coefficients		Coefficients			
Model	В	Std. Error	Beta	t	Sig.	
1 (Constant)	4.969	.617		8.058	.000	
Parents	.001	.000	.689	3.804	.002	

a. Dependent Variable: Girl academic Performance. Linear regression equation Y = a + bX From Table 4.18, it can be revealed that for one unit increase in parents contribution, the girls academic performance would improve by .001 units as signified by the coefficient of .001. The regression equation is Y=4.969+.001X. Parents contributed to girl students' performance by providing land on which infrastructure development takes place and other activities for enhancement of girl students' academic performance. This means that parents contribution to

b. Predictors: (Constant), Parents contribution

infrastructure development in enhancement of girls academic performance was 44.2% (Table 4.16) and could be relied upon in prediction of girls academic performance. The findings through descriptive statistics slightly differed from those of inferential statistics, with inferential statistics revealing that the contribution was moderate while descriptive statistics indicating it was high. Since inferential statistics is more powerful that descriptive statistic this study concluded that parents contributed moderately to girls academic performance through provision of infrastructure development.

Since government, religious sponsors and parents contribution are made simultaneously it was necessary to compute a correlation matrix involving the three variables and regression analysis. The output was shown in Tables 4.19, 4.20 4.21 and 4.22.

Table 4.19
Relationship between Government, Religious sponsors and parents contributions to infrastructure development and girls academic performance

		Performance
Religious sponsors	Pearson Correlation	.512
contribution	Sig. (2-tailed)	.05
	N	16
Parents contribution	Pearson Correlation	.689
	Sig. (2-tailed)	.002
	N	18
Government contribution	Pearson Correlation	.500
	Sig. (2-tailed)	.035
	N	18

From Table 4.19 when the three related stakeholders contribution to infrastructure development was correlated with girls academic performance it emerged that the government, religious sponsors and parents contribution to girls academic performance was

moderate. This means that an increase in the contribution of the three stakeholders would increase the girls academic performance. To estimate the actual contribution of the three stakeholders together, coefficient of determination was computed the results were as shown Table 4.20.

Table 4.20
Regression analysis of government, religious sponsors and parents contributions to infrastructure and girls academic performance

		Adjusted R					
Model	R	R Square	Square	Std. Error of the Estimate			
1	.854 <sup>a</sup>	.729	.661	1.081802			

a. Predictors: (Constant), Government, Religious sponsors and Parents contributions

From Table 4.20 it can be noted that Government, Religious sponsors and Parents

contributions together accounted for 66.1% of variation in girl student academic performance

as signified by the coefficient of .661. The other 33.9% was due to other factors. To establish

whether Government, Religious sponsors and Parents contributions were a predictor of girl

students' performance, ANOVA was computed and the results were as shown in Table 4.21.

Table 4.21

ANOVA of Government, Religious sponsors and Parents contributions to infrastructure development and girls academic performance

M	odel	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.708	3	12.569	10.740	.001 <sup>b</sup>
	Residual	14.044	12	1.170		
	Total	51.751	15			

a. Dependent Variable: Performance

b. Predictors: (Constant), Government, Religious and Parents

From Table 4.21, ANOVA revealed that government, religious sponsors and parents contribution was a significant predictor of girl student academic performance (F (3,12) = 10.740, P< 0.05). To confirm the actual contribution, multiple regression analysis was computed and the results were as shown in Table 4.22.

Table 4.22

Multiple regression analysis of Government, Religious sponsors and Parents contributions to infrastructure development and girls academic performance

	Unstandardized Coefficients B Std. Error		Standardized Coefficients		Sig.
Model			Beta	t	
1 (Constant)	4.140	.633		6.540	.000
Religious	.001	.000	.499	3.290	.006
contribution					
Parents contribution	.002	.000	.795	3.240	.007
Government	027	.034	199	-809	.434
contribution					

a. Dependent Variable: Girls academic Performance. Regression Equation  $Y = a + bX_1 + cX_2 + dX_3$ 

From Table 4.22, it can be revealed that for one unit increase in religious contribution, the girls academic performance would improve by .001 units as signified by the coefficient of .001. For one unit increase in parents contribution would increase girls' performance by .002 units as signified by the coefficient of .002. The governments contribution was not significant as the p-value calculated was .434 greater than the set p-value of .05. The regression equation is  $Y = 4.140X_1 + .001X_2 + .027X_3$ . Government, religious sponsors and parents contributed to girl students' performance by providing land on which infrastructure development takes place and other activities for enhancement of girl students' academic performance.

# 4.3 Establish Selected Stakeholders' Contribution to Teaching / Learning Resources in enhancement of Girls Academic Performance.

The research question responded to was; To what extent do stakeholders provide the teaching/ learning resources in enhancement of girls academic performance in Public secondary schools in Siaya County? The responses were as shown in Tables 4.23, 4.24, 4.25, 4.26 and 4.27. The first step in data analysis involved descriptive statistics.

Table 4.23

Contribution of Government to Teaching/Learning Resources in enhancement of girls academic performance

<b>Aspects of Contribution by</b>			Overall	Contribution	Decision
Government	RES	Mean	mean	<b>Indices</b>	
Textbooks	P	4.00	4.07	4	High
	T	4.14			
Laboratory Equipments &	P	2.71	2.86	3	Moderate
Chemical	T	3.00			
Computers /printers	P	3.50	3.75	4	High
	T	4.00			
Photocopying paper	P	2.27	2.35	2	Low
	T	2.43			
Exercise books	P	4.40	3.85	4	High
	T	3.29			
Writing materials	P	4.20	3.70	4	High
	T	3.20			
Instructional materials e.g.	P	3.25	3.30	3	Moderate
past papers, revision materials	T	3.35			
Overall Mean Rating	P T	3.48 3.34	3.41	3	Moderate

KEY: RES – Respondents P- Principals, T-teachers n- Sample size

Interpretation of Mean Ratings

1.00-1.44 = Very Low 2.45 -3.44 = Moderate 1.45 -2.44 = Low

3.45 -4.44 = High 4.45 -5.0 = Very High

Interpretation of Contribution Indices

1=Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.23, it can be noted that both principals and teachers indicated that the contribution of government to provision of textbooks was high as their means were 4.00 and 4.14 respectively. This means that both principals and teachers indicated that government contributes highly to the provision of textbooks in enhancement of academic performance. Interview findings indicated that the government contributes directly to the provision of textbooks through emitting funds to schools meant for purchasing textbooks. The study revealed that sufficient supply of textbooks by government promoted collaborative work and language development resulting to improved academic performance. This finding concur with Achola (2012) who established that textbooks to a large extent determine the quality of education and lack of enough textbooks hampers the teaching/learning of mathematics and languages.

On the same note, Olendo (2008) argues that students' performance is affected by quality of teaching /learning resources, hence schools with adequate textbooks stand a better chance in performing well in examinations than those which are poorly equipped. The study also revealed that textbooks enabled the teachers to make teaching the student centred learning. This is because the textbooks when availed, students are able to do their own research and get new points which were not given in their notes by the teacher during the class teaching and learning.

From the interviews conducted with SCQASO, it was also established that availability of enough textbooks improve academic performance. SCQASO noted "A good principal puts priority to good academic performance by purchasing more textbooks to improve the ratio of textbooks to students." The provision and good use of textbooks is one way of ensuring

good academic performance. The findings of this study is supported by Odhiambo (2000) who maintains that textbooks provide the first reading experience to many learners. Odhiambo (2000) explains that this is true particularly the third world countries where other forms of print materials such as newspapers, magazines and posters are difficult to come by especially in many rural homes.

Principals and teachers indicated that the contribution of government to provision of laboratory equipment and chemicals was moderate as their means were 2.71 and 3.00 respectively. This means that both principals and teachers indicated that government contributes averagely to the provision of laboratory equipments and chemicals. The interview findings indicated that principals of small schools wrote proposals to the government through the Ministry of Education Science and Technology.

Document analysis guide revealed that at least two schools in every sub county were given Ksh. 190,000/- to purchase laboratory equipment. Other two schools from every sub-county collected laboratory equipment already bought by the government worth Ksh. 200,000/=. This implied that students do start their practicals quite early from form three. This means the availability of laboratory equipments and chemicals in schools enabled teachers to guide students well especially candidates who get courage after doing many practicals. Document analysis revealed that government remits Ksh. 293/= for every student yearly for the purchase of laboratory equipment. The study also revealed that in some small schools, the laboratory equipment were provided but young inexperienced teachers did not use them due to ignorance. This is in agreement with the findings of Birgen (2005) who asserted experience and qualifications is the best asset for handling a task. The implication is that

teaching require both qualification and experience for better delivery of the content for good academic achievement.

Principals and teachers indicated that the contribution of government to provision of computers /printers to schools was high as their means were 3.50 and 4.00 respectively. This means that principals and teachers indicated that government contribute highly to the provision of computers /printers to public schools. The interview findings indicated that principals worked hard to avail computers /printers using the government funds remitted to their schools from interviews conducted with DOS, they indicated that availability of computers /printers in their schools improved academic achievement particularly the form four.

One DOS stated "Teachers have had the opportunity to give several tests as they prepare the candidates for KCSE. This exposes the candidates to variety of questions which some even appear in the KCSE. This was only possible due to the availability of computers/printers by the government. This view was shared by the class teachers who explained that the availability of computers/printers made the preparation of the candidates easier since some questions were just printed with marking schemes and given to the students to use in their discussion groups.

Principals and teachers indicated that the contribution of government to provision of photocopying papers was low as their means were 2.27 and 2.43 respectively. This means that both principals and teachers indicated little contribution of government to provision of photocopying papers in schools.

Interview findings indicated that government provided only Ksh. 38/= per student per year for teaching/learning resources like photocopying papers. This implies that the school has to find more from parents. In big schools, each candidate carried at least five reams of photocopying papers for their internal exams. However, in small upcoming schools, fee payment was very poor and most parents did not avail the photocopying papers. This affected their academic performance negatively. The findings of this study agree with that of Mutai (2006) who asserts that learning is strengthened when there is enough stationery such as printing papers for production of many regular examinations' papers. The study further explained that academic performance illustrates per excellence the correct use of the teaching /learning resources like photocopying papers. This implies that the provision of photocopying papers can positively change teachers' attitude to the teaching particularly when learners improve due to a lot of exercises.

Principals and teachers indicated that the contribution of government to provision of exercise books was high and moderate as their means were 4.40 and 3.29 respectively. This means that the principals indicated high contribution of government on the provision of exercise books while teachers indicated average contribution of government on the provision of exercise books.

The interview findings indicated that the government supported the teaching and learning through the provision of exercise books to enable learners to do as many assignments as possible. The fact that class teachers indicated only average contribution by the government meant that there were inadequate exercise books. However the interview with principals, they clarified that the government releases funds to schools in piece meal way. They explained that government allocates Kshs. 718/= for each student for exercise books. However only

50% of the money is disbursed to schools in term one when many form ones are reporting and exercise books are required.

At times, the government funds delayed making the purchase of exercise books also to delay hence class teachers felt the provision was only average. The study revealed that exercise books were vital and backborne of the teaching and learning activities. This is because subjects like mathematics can only be learnt better by doing hence inadequate supply of exercise books hinder the teaching /learning of mathematics and students may not do well in their final exams if they fail to do a lot of practice. The study concurs with Olendo (2008) who stated that availability and effective use of teaching/learning resources influence academic performance of students at KCSE. The study further explains that resources help the teacher to provide quality teaching to students. The study concluded that schools that experience shortage of education facilities perform dismally in KCSE.

Principals and teachers indicated that the contribution of government to provision of writing materials was high and moderate as their means were 4.20 and 3.20 respectively. This means the principals indicated high contribution while teachers indicated average contribution of government to provision of writing materials such as fullscarps in enhancement of academic performance. The findings concur with Achola (2012) who established that instructional materials to a large extent determine the quality of education and inadequacy hampers the teaching/learning of science subjects hence poor performance. The difference in the means of the principals and teachers may have been due to the fact that teachers may not be aware of all contributions made to the schools therefore the high contribution as indicated by the principals was more realistic.

Principals and teachers indicated that the contribution of government to provision of instructional materials such as past papers, revision materials was moderate as their means were 3.25 and 3.35 respectively. This means that both the principals and teachers indicated that the government contributes averagely to the provision of instructional materials such as past papers, revision materials among others. The interview with DOs indicated different schools vary greatly in the instructional materials they have. This leads to great disparity in students' participation, and performance, particularly in mathematics and science subjects. Not only is the learning of subjects greatly affected, but students examination performance must be severely dependent on whether they have had the opportunity to see and handle the equipment, chemicals and specimens to which examination questions refer.

Overall principals and teachers indicated the contribution of government to provision of teaching /learning in enhancement of girls academic performance was moderate with an overall mean rate of 3.41.

To determine the actual contribution of government to teaching /learning resources in enhancement of girls academic performance, correlation and regression analysis were computed using inferential statistics.

Table 4.24
Relationship between Government contribution to teaching /learning resources and girls academic performance

		Performance	
Government	Pearson Correlation	.680	
contribution	Sig. (2-tailed)	.002	
	N	18	
contribution			

From Table 4.24 it can be observed that there was a positive and moderate relationship between government contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .002 which was less than the set p – value of 0.05. This means that an increase in government contribution would increase girl student's performance. To estimate the contribution of government contribution, coefficient of determination was computed. The results were as shown in Table 4.25.

Table 4.25

Regression Analysis of Government contribution Teaching /learning resources and girls academic performance

-	R	R Adjusted R		Std. Error of the
		Square	Square	Estimate
Model	.680°	.462	.428	1.358968

a. Predictors: (Constant), Government contribution

From Table 4.25 it can be noted that government contribution accounted for 42.8% of variation in girl student academic performance as signified by the coefficient of .428. The other 57.2% was due to other factors.

To establish whether government contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.26.

Table 4.26
ANOVA of Government contribution to Teaching /learning Resources and girls academic performance

		Sum of		Mean		
M	odel	Squares	df	Square	$\mathbf{F}$	Sig.
1	Regression	25.358	1	25.358	13.731	.002 <sup>b</sup>
	Residual	29.549	16	1.847		
	Total	54.906	17			

a. Dependent Variable: girls academic Performance

ANOVA revealed that the government contribution was a significant predictor of girl student academic performance (F (1, 16) = 13.731, P < 0.05. To confirm the actual contribution, linear regression analysis was computed and the results were as shown in Table 4.27.

Table 4.27
Liner Regression analysis of Government contribution to Teaching /learning Resources and girls academic performance

				Standardized		
		Unstandard	ized Coefficients	Coefficients		
	Model	В	Std. Error	Beta	T	Sig.
l	(Constant)	4.591	.721		6.372	.000
		.002	.001	.680	3.705	.002
	Government					

a. Dependent Variable: girls academic Performance. regression equation Y = a + bX

From Table 4.27, it can be revealed that for one unit increase in government contribution, the girls academic performance would improve by .002 units as signified by the coefficient of .002. The regression equation is Y=4.591+.002X. Government contributed to girl students' performance by providing land on which teaching /learning resources such as textbooks,

b. Predictors: (Constant), Government contribution

laboratory, equipment and materials, exercise books, photocopying paper and writing for enhancement of girl students' academic performance.

Table 4.28

Contribution of Religious Sponsors to Provision of Teaching /Learning Resources in enhancement of Girls academic performance

<b>Aspects of Contribution</b>	n by			Contribution	Decision
Religious sponsor			Overall	<b>Indices</b>	
RES		Mean	Mean		
Textbooks	P	1.81	1.96	2	Low
	T	2.11			
Laboratory	P	1.35	1.65	2	Low
Equipments and Chemicals	T	1.94			
Computers /printers	P	1.33	1.49	2	Low
	T	1.65			
Photocopying papers	P	1.20	1.36	1	Very low
	T	1.51			
Exercise books	P	1.20	1.37	1	Very low
	T	1.53			
Writing materials	P	1.27	1.41	1	Very low
	T	1.54			
Instructional materials	P	1.44	1.68	2	Low
e.g. past papers, revision materials	T	1.91			
<b>Overall Mean Rating</b>	P	1.38	1.56	2	Low
	T	1.74			

KEY: RES – Respondents P- Principals, T-teachers n- Sample Size

**Interpretation of Mean Ratings** 

**1.00-1.44** = Very Low **2.45 -3.44** = Moderate

1.45 -2.44 = Low 3.45 -4.44 = High 4.45 -5.0 = Very High

**Interpretation of Contribution Indices** 

1=Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.28, it can be noted that both principals and teachers indicated that the contribution of textbooks in schools was low as their means were 1.81 and 2.11 respectively. This means that both principals and teachers indicated that religious sponsors contribute little to provision of textbooks to schools.

The interview findings indicated that religious sponsors on few occasions attend the book donations. On attendance, they donated only very few textbooks to the schools that they sponsor. Document analysis indicated that the religious sponsors donated religious related books to help in spiritual nourishment but not much on the academic textbooks.

#### One SCQASO stated;

Girls from poor families who are lucky to have been awarded or got sponsorship were also affected since their parents did not provide the required learning materials. This implied that the sponsor paid the fee but did not provide teaching materials and this affected the performance negatively."

The findings of this study concur with findings of Olendo (2008) who stated that availability and effective use of learning resources help the teacher to provide quality education to the students. Olendo (2008) concluded that students who lack teaching materials perform dismally in KCSE.

Principals and teachers indicated that the contribution of religious sponsor to provision of laboratory equipments and chemicals was very low and low as their means were 1.35 and 1.94 respectively. This means that both principals and teachers indicated that religious sponsor contribute very little to provision of laboratory equipment and chemicals while the teachers indicated little contribution of religious sponsor towards provision of laboratory equipment.

The interview findings indicated that religious sponsors had not contributed any laboratory equipments and chemicals to the sponsored schools. Document analysis revealed that no religious sponsor had donated any laboratory equipment to any school. Religious sponsors being founders of the schools, their concern was to provide the basic infrastructure mainly land and in some cases buildings for the schools to develop. When the government took over in management of schools, it was its responsibility to develop further the schools and take charge of maintenance of the entire infrastructure including management of curriculum instruction where laboratory equipment and chemicals belong.

Principals and teachers indicated that the contribution of government to provision of photocopy papers was very low and low as their means were 1.20 and 1.51 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to provision of photocopying papers. The interview findings indicated that religious sponsors did not have any contribution towards provision of photocopying papers.

Document analysis revealed that religious sponsors did not help or contribute any photocopying papers to their sponsored schools. The study also revealed that religious sponsors were not keen in the management of day schools hence their contribution was also very little in day schools. This is because the religious sponsors' role as stipulated in the Education Act 2013 does not empathize on potent participation in management of schools. They are rather partners in development of these schools and therefore not much is expected of them in view of the fact that their finance base in some cases is wanting as their priorities are recruitment of followers rather than developing schools. Their main concern in management of schools is where they are the sole managers.

Principals and teachers indicated that the contribution of religious sponsor to provision of computers /printers was very low and low as their means were 1.33 and 1.65 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to the provision of computers /printers to their sponsored schools. The interview findings indicated that religious sponsors on few occasions advise the principals on how to write a proposals to get donations towards the school development including donations of computers from their sponsors abroad.

Principals and teachers indicated that the contribution of religious sponsor to provision of exercise books was very low and low as their means were 1.20 and 1.53 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to provision of exercise books. The interview findings indicated that religious sponsors did not supply or contribute any exercise books to the schools they sponsor. Document analysis guide revealed that religious sponsors had no contribution when it came to provision of exercise books.

Principals and teachers indicated that the contribution of religious sponsor to provision of writing materials was very low and low as their means were 1.27 and 1.54 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to provision of writing materials in schools they sponsor. The interview findings indicated that religious sponsors had not contributed to any way to provide writing materials in their schools. Document analysis revealed that religious sponsors did not play a role in getting the writing materials.

Principals and teachers indicated that the contribution of the religious sponsors to provision of instructional materials e.g. past papers, revision materials was very low and low as their means were 1.44 and 1.91 respectively. This means that both principals and teachers indicated that religious sponsors contribute very little to the provision of revision materials like past papers. The interview findings indicated that religious sponsors had no contribution in terms of revision materials such as past papers. Document analysis guide revealed that religious sponsors did not contribute any revision materials like past papers to their sponsored schools.

Overall, principals and teachers indicated that the contribution of religious sponsors to provision of Teaching /Learning resources in enhancement of quality education for girls was low (M = 1.56).

The study found out that the availability of photocopying papers enabled the schools to give candidates many trial examinations in the course of their final year as they prepared for KCPE. It was revealed that the more quality did, the better they were prepared to do KCSE and in the final end, this enhanced their performance at KCSE.

An interview conducted with DOS indicated many examinations done by candidates gave them courage. From the interview conducted to him, he asserted; "When teachers teaching form fours, revise one before the other, even the weak students are able to improve their grades to the better."

It was observed by the DOS that students improved their grades after sitting three exams in every term. The findings of the current study agree with the study by Musungu (2007) which revealed that through examinations, the students are engaged intellectually.

Fuller (1986) agreed with the current study when he indicated that frequency of assignments and teachers' correction of students work are quality variables of good or quality performance. This practice therefore implies that if resources like papers were availed in schools and teachers encouraged to make good use of them the students were able to improve their performance hence quality education provided by the school in general.

The study revealed that sufficient supply of reference textbooks promoted collaborative work and language development resulting to improved performance. This finding concur with Achola (2012) who established that textbooks to a large extent determine the quality of education and lack of enough textbooks hampers the teaching /learning of mathematics and languages.

On the same note, Olendo (2008) argues that students' performance is affected by the quality of teaching /learning resources, hence schools with adequate textbooks stand a better chance in performing well in examinations than those which are poorly equipped. The study also revealed that textbooks enabled the teachers to make teaching the student centred learning. This is because the textbooks when availed, students are able to do their own research and get new points which were not given in their notes by teacher during the class teaching and learning.

The study also found that where equipments and chemicals not provided, science teachers use demonstration and the teaching trends to be teacher – centred. This type of approach is heavily dominated by the teacher as he/she lectures on the subject, gives notes and demonstrates the practical aspects of the lesson.

The students remain passive participants expected to listen and observe only. This was found to be risky in the event that the teacher is inadequately informed on the subject or is not adequately trained in the art of communication. This finally would affect the content delivered hence dismal performance in turn.

In practical lessons, it is established that an object handled impresses itself more firmly on the mind than the object merely seen from a distance or in an illustration. Thus practical work forms an important feature in any science and mathematics course (UNESCO, 2008). The argument is that there is a problem when both laboratory equipments and chemicals are not adequately provided, the students do not have the necessary confidence in carrying out experiments using available apparatus and during the KCSE, they panic due to inadequate training in their four year course. This means that students perform poorly in science subjects and mathematics due to the fact that the teaching is incomplete without some practical work. This means that high contribution to laboratory chemicals and equipment enhances the girl child quality education, hence the need for the stakeholders to make meaningful contribution.

The interview findings indicated that principals worked hard to avail computers /printers to schools. From interviews conducted with DOSs, they indicated that availability of computers /printers in their schools improved academic achievement particularly the form four.

HOD stated; "Teachers have had the opportunity to give several tests as they prepare the candidates for KCSE. This exposed the candidates to variety of questions which some even come in the KCSE. This was only possible to the availability of computers /printers by the principal." This view was shared by the class teachers who explained that the availability of computers /printers made the preparation of the candidates easier since some questions were just printed with marking schemes and grew to the students where they discussed in their groups to see the key words in the marking schemes.

The subject teachers only guided the discussion and the candidates were able to do topical revision using many questions availed to them. However the difference in the mean of principals and teachers may have been because the teacher over expected the principals to do a little more than what they did. This may have come due to the fact that, teachers may not be exposed to the strict budget being followed to purchase items in the school. They may also not be in a position to understand the financial challenges of the school as in most cases teachers belief that students pay fee 100% which is not true. The study revealed that in some small schools, the laboratory equipment were provided but novice teachers did not use them due to ignorance. This is in agreement with the findings of Birgen (2005) who asserted that experience and qualification is the best asset for handling a task. The implication here is that teaching require both qualification and experience for better delivery of the content for

quality education. This means that principal need to use the resources well with aim of providing quality services for quality performance.

Principals indicated that the contribution of government to provision of photocopying papers was high while teachers indicated average—as their means were 4.47 and 3.28 respectively. This means that principals indicated that principals' contribution to be high but teachers indicated average. Interview findings indicated that government provided adequate organized for the provision of enough photocopying papers in their schools. Document analysis revealed that principals even organized for the supply of—photocopying papers on credit to ensure adequate exams papers were availed to the students. However the DOSs felt that the photocopying papers were in the school but not properly utilized by the examinations department. The inadequate utilization was due to the fact that the principals had put a lot of restrictions in picking such papers from the store. Teachers got discouraged from giving exams since the photocopying papers were always locked and storekeeper given a lot of powers to control them. This scenario affected quality teaching and finally performance came down because students were not exposed to variety of questions prior to KCSE.

The findings of this study agree with those of Mutai (2006) who in his study asserted that learning is strengthened when there is enough stationery such as printing papers from production of many regular examinations' papers. He further asserted that academic achievement illustrates per excellence the correct use of the teaching /learning resources like photocopying papers. The meaning of this result is that provision of photocopying papers can positively change teachers' attitude to the teaching particularly when learners improve due to a lot of exercises.

The principals however revealed that instructional materials were provided according to what the school could afford and may not necessarily be sufficient. This means that the contributions were generally low with the consequences that even some very bright students do not have access to all the books that they need in order to complete the specified curriculum. The implication is that lack of textbooks hamper the same note, Wanyonyi (2007). On inadequacy of textbooks as a major factor hampering provision of quality primary education to physically challenged. In agreement, Musungu (2007) argues that availability of textbooks and other school requirements such as stationery, enabled teachers to teach effectively. When students have their own textbooks, they do extra reading so that when the teacher comes, they get the concept faster than those who had not read earlier.

Overall, principals and teachers indicated that the contribution of principals to provision of teaching /learning resources in enhancement of girls academic performance for girls was low (M=1.56). Inferential statistics were not computed because the contribution of religious sponsors to teaching learning resources was too little to be correlated.

Table 4.29

Contribution of Parents to Teaching /Learning Resources in enhancement of Girls

Academic performance

			Overall	Contribution	Decision
Aspects of Contribution by Pa		Mean	Mean	indices	
Textbooks	P	3.75	3.67	4	High
	T	3.58			
Laboratory Equipments	P	3.69	3.58	4	High
& Chemicals	T	3.47			
Computers /printers	P	4.13	3.68	4	High
	T	3.23			
Photocopying papers	P	4.39	4.31	4	High
	T	4.22			
Exercise books	P	4.06	3.93	4	High
	T	3.80			
Writing materials	P	4.06	3.99	4	High
	T	3.92			
Instructional materials	P	4.00	3.53	4	High
e.g. past papers, revision materials	T	3.06			
<b>Overall Mean rating</b>	P	4.01		4	High
	T	3.61	3.81		

**KEY: RES – Respondents** P- Principals, T-teachers n – Sample size

### **Interpretation of Mean Ratings**

1.00-1.44 = Very Low 2.45 - 3.44 = Moderate

1.45 - 2.44 = Low 3.45 - 4.44 = High 4.45 - 5.0 = Very High

## **Interpretation of Contribution Indices**

1=Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.29 it can be noted that both principals and teachers indicated that contribution of parents to provision of textbooks was moderate as their means were 3.75 and 3.58 respectively. This means that both principals and teachers indicated that parents contribute moderately to provision of textbooks. The interview findings indicated that parents on many occasions come to school to find out the kind of textbooks required.

Document analysis guide revealed that parents even donate textbooks to schools on education days. However interview with class teachers indicated that 60% of girls in their classes did not have textbooks for their studies.

One deputy principal noted; "Many of the girls do not have textbooks particularly set books making class reading difficult for the language teachers. The hops blamed poverty to have effect on the students' learning. Head of department highlighted; "The shortage of textbooks is due to poverty in the region. The girls whose parents cannot afford textbooks come from holidays blank in mind since they do not have enough reading materials at home."

In agreeing with the DOSs, SCQASO stated; "Girls from poor families who are lucky to have been awarded sponsorship were also affected since their parents did not provide the required learning materials. The implication was that the fee had been paid, but the girls still lucked adequate reading materials hence negative effect on their academic performance.

Principals and teachers indicated that the contribution of parents to provision of laboratory equipments and chemicals was moderate as their means were 3.69 and 3.47 respectively. This means that both principals and teachers indicated that parents contribute moderately to the provision of laboratory equipments and chemicals in schools.

Interviews conducted with the principals indicated that parents had built laboratory. However the DOSs noted during interviews that in order to enhance good academic performance, just a structure called a laboratory is not enough. They explained that their schools lack many equipments, chemicals and specimens. They attributed the shortage to their principals whom they noted were reluctant to purchase the required facilities. Principals on their part

indicated lack of enough funds for laboratory equipments and chemicals. They explained that the amount of money the government allocated in that vote head cannot buy some of the very expensive apparatus.

The need to provide laboratory equipments was also expressed by all (100%) teachers, who expressed the view that the 8.4.4 system of education was practical and system largely science based. The DOSs noted that the poor performance in KCSE was due to lack of enough laboratory equipments given that it was a must for them to take two science subjects. This finding concur with Achola (2012) who established that tuition, facilities to a large extent determine the quality of education and lack of laboratory facilities hampers the teaching /learning of science subjects resulting to poor performance. This finding explains the government more to introduce the laboratory equipment fund in 2004 (Republic of Kenya, 2005) with objective of enhancing the teaching /learning of science subjects with overall goal of improving performance.

Principals and teachers indicated that the contribution of parents to provision of computers /printers was high and moderate as their means were 4.13 and 3.23 respectively. This means that principals indicated that parents contribute highly to the provision of computers /printers. On the other hand teachers indicated that parents contribute moderately to provision of computers /printers. The interview findings indicated that parents pay development funds which the schools use to construct the computer laboratories.

#### One principal noted;

"We collect Ksh. 1000/- from all the computer students. This money is used for repairs and maintenance of computers /printers and buy new computers/printers whenever there is need."

The principals further lauded that contribution of parents towards provision of computers. The class teachers however reserved that most parents were reluctant to pay for the computers and some parents even advised their daughters to drop the computer and take other subjects in the applied and technical departments.

The DOSs revealed that computers and printers gave the subject teachers easy time as they would just type any short exams and give to students without waiting for the secretary.

One DOS Mrs. Mwanaisha Mwajuma (pseudonym) stated;

The contribution of photocopying papers from parents improves our performance a lot. This is because after lunch, the girls answer short quizzes in mathematics.

The findings of this study agree with the findings of various studies for example Odhiambo (2000) and Olendo (2008) who argue that students' performance is affected by the quality and quantity of teaching and learning resources. They explain that schools with adequate facilities and instructional materials stand a better chance to perform well in examinations than those which are poorly equipped.

Principals and teachers indicated that the contribution of parents to provision of photocopying papers was high as their means were 4.39 and 4.22 respectively. This means that both principals and teachers indicated that parents contribute highly towards provision of photocopying papers. The Interview findings indicated that each candidate takes at least two reams of photocopying papers and in two schools (20%), it was revealed that each candidate takes five reams of photocopying papers to school. In the form one admission letters, parents were instructed to take a ream of photocopying paper as part of a requirement for the admission of their daughters. The study found that even in day schools, form one parents were advised to buy photocopying papers. This study concur with Jagero (2008) who argued that parents are still expected to cater for 59.8% of the cost for day students. From the study,

it was revealed that some students delay their admissions when they failed to carry photocopying papers. The study revealed that the availability of photocopying papers enabled teachers to give students many exams which made the candidates even better prepared for the KCSE.

Principals and teachers indicated that the contribution of parents to provision of excise books was high as their means were 4.06 and 3.80 respectively. This means that both principals and teachers indicated that parents contribute highly to provision of exercise books. The Interview findings indicated that parents buy exercise books for extra work given to students particularly holidays' assignments.

Most (60%)DOSs noted that their students had inadequate exercise books and this was causing their performance to be poor as they were not assessed adequately as required to make them well prepared for their final examinations. Most (70%) of class teachers blamed parents' laxity in buying exercise books for extra work. They complained that students fail to do assignments at home due to lack of exercise books which is the parental obligation. To achieve quality education, the principal as the manager of the school need to constantly advise parents on their roles particularly when it comes to additional teaching learning resources such as extra exercise books since parents in small upcoming schools abscond their responsibility of providing these instructional materials to the school to provide.

It was also noted that in some schools 9(50%) did not provide all exercise books and parents were charged with the responsibility of buying extra exercise books for assignments, extra work and even their practices. This means that students whose parents failed to contribute towards instructional materials negatively affected the provision of exercise

books for their personal work after the normal lessons may not be in a position to complete the specified curriculum. Then lack of enough practice in languages and even mathematics made the students especially candidates less prepared for KCSE and may not have given quality performance as expected.

Principals and teachers indicated that the contribution of parents to provision of writing materials to schools was high as their means were 4.06 and 3.92 respectively. This means that both principals and teachers indicated that parents contribute highly to provision of exercise books. The Interview findings indicated that parents buy for their daughters reams of fulscafs in every term one. It was established by this study that writing materials were very vital in the improvement of the students' academic performance. It was by the use of writing materials that teachers were able to give examinations repeatedly enabling even the weak students to master some concepts that appeared in their internal examinations repeatedly hence were able to get some quality grades in particular subjects.

Principals indicated high contribution of parents in the provision of instructional materials while teachers indicated moderate contribution of parents. Their means were 4.00 and 3.06 respectively. This means the principals indicated that parents contribute highly to the provision of instructional materials such as past papers and other revision materials but the teachers on the other hand indicated that parents contribute only moderately to the provision of instructional materials such as past papers.

The interview findings indicated that parents through payment of levies, contribute to provision of instructional materials. According to the principals, the parents contribute

highly because without their payment the materials would not be brought. The study established that instructional materials were inadequately supplied or purchased by principals and parents where necessary – some DOSs 11 (61.1%) revealed that inadequate supply of the instruction materials made it difficult for them to prepare the candidates well through testing and revising.

Exposing students to examination questions also enable learners to research and make reference after the formal learning hence deepening their understanding as well as performance. This finding concur with Achola (2012) who established that instructional materials to a large extent determine the quality of education and inadequacy hampers the teaching /learning of science subjects hence poor performance. The difference in the means of the principals and teachers may have been due to the fact that teachers may not be aware of all contributions made through payment to the schools and therefore the high contribution as indicated by the principals was more realistic.

Overall, principals and teachers indicated that the contribution of parents to provision of teaching /learning resources in enhancement of quality education for girls was high (M = 3.81).

Table 4.30
Relationship between parents' contribution to teaching /learning resources and girls academic performance

		Performance	
Parents	Pearson Correlation	.872	
contribution	Sig. (2-tailed)	.000	
	N	18	

From Table 4.30 it can be observed that there was a positive and strong relationship between parents contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .000 which was less than the set p – value of 0.05. This means that an increase in parents contribution would increase girl student's performance. To estimate the contribution of parents' contribution, coefficient of determination was computed. The results were as shown in Table 4.31.

Table 4.31

Regression analysis of Parents contribution to teaching /learning resources and girls academic performance

		R	Adjusted	Standard Error
Model	R	Square	R Square	of the Estimate
1	.872 <sup>a</sup>	.760	.745	.908055

Predictors: (Constant), Parents contribution

From Table 4.31 it can be noted that parents contribution accounted for 74.5% of variation in girl student academic performance as signified by the coefficient of .745. The other 25.5% was due to other factors. To establish whether parents contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.32.

 $\begin{tabular}{lll} Table 4.32 \\ ANOVA of Parents contribution to teaching / learning resources and girls academic performance \end{tabular}$ 

Mo	del	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.713	1	41.713	50.588	.000 <sup>b</sup>
	Residual	13.193	16	.825		
	Total	54.906	17			

From Table 4.32, ANOVA revealed that parents' contribution was a significant predictor of girl student academic performance (F (1,16) =50.588, P<0.05). To confirm the actual contribution, linear regression was computed and the results were as shown in Table 4.33.

Table 4.33
Linear regression analysis of parents contribution to teaching /learning resources and girls academic performance

		Unstandardized Coefficients		Standardized		
				Coefficients		
M	odel	В	Std. Error	Beta	t	Sig.
1	(Constant)	5.022	.349		14.388	.000
	Parents contribution	.002	.000	.872	7.113	.000

a. Dependent Variable: girls academic Performance Regression equation Y = a + bX

From Table 4.33, it can be revealed that for one unit increase in parents contribution, the girls academic performance would improve by .002 units as signified by the coefficient of .002. The regression equation is Y = 5.022 + .002X. Parents contributed to girl students' performance by providing land on which infrastructure development takes place and other activities for enhancement of girl students' academic performance.

Since government and parents contributions are made simultaneously it was necessary to compute a correlation matrix involving the two variables and regression analysis. The output was shown in Tables 4.34, 4.35, 4.36 and 4.37.

Table 4.34

Relationship between government and parents contribution to teaching /learning resources and girls academic performance

		Performance
Parents	Pearson Correlation	.872
	Sig. (2-tailed)	.000
	N	18
Government	Pearson Correlation	.680
	Sig. (2-tailed)	.002
	N	18

From Table 4.34 when the two stakeholders contribution to teaching/learning resources was correlated with girls academic performance it emerged that the government and parents contribution to girls academic performance was moderate (.680) and strong (.872) respectively. This means that an increase in the contribution of the two stakeholders would increase the girls academic performance. To estimate the actual contribution of the two stakeholders together, coefficient of determination was computed the results were as shown Table 4.35.

Table 4.35

Regression analysis of government and parents contributions to teaching /learning resources and girls academic performance

		R	Adjusted R	Standard
Model	R	Square	Square	Error of the Estimate
1	.892 <sup>a</sup>	.796	.769	.864276

a. Predictors: (Constant), Government, Parents

From Table 4.35 it can be noted that Government and Parents contributions together accounted for 76.9% of variation in girl student academic performance as signified by the coefficient of .769. The other 23.1% was due to other factors. To establish whether

Government and Parents contributions were a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.36.

Table 4.36

ANOVA of Government and Parents contributions teaching /learning resources to teaching /learning resources and girls academic performance

		Sum of					
Model		Squares Df		Mean Square	$\mathbf{F}$	Sig.	
1	Regression	43.702	2	21.851	29.253	.000 <sup>b</sup>	
	Residual	11.205	15	.747			
	Total	54.906	17				

a. Dependent Variable: Performance

From Table 4.36, ANOVA revealed that Government and Parents contribution was a significant predictor of girl student academic performance as signified by the calculated p-value of .000 which was less than the set p-value of 0.05. To confirm the actual contribution, multiple regression analysis was computed and the results were as shown in Table 4.37.

Table 4.37

Multiple regression analysis of Government and Parents contributions to teaching /learning resources and girls academic performance

			Standardized		
	Unstandardized Coefficients  B Std. Error		Coefficients	t	Sig.
Model			Beta		
1 (Constant)	5.642	.505		11.174	.000
Parents	.002	.000	1.229	4.956	.000
	001	.001	404	-1.632	.124
Government					

a. Dependent Variable: Performance. Regression equation Y = a +bX+cX

From Table 4.37, it can be revealed that for one unit increase in parents contribution, the girls academic performance would improve by .002 units as signified by the coefficient of .002.

b. Predictors: (Constant), Government, Parents

The governments contribution was not significant as the p-value calculated was .124 greater than the set p-value of .05. The regression equation is Y= 5.642+.002X -.001X. Government and parents contributed to girl students' performance by providing textbooks, computers, printers, photocopying papers, exercise books, writing materials and revision materials for enhancement of girl students' academic performance.

# 4.4 Stakeholders' Contribution to Co-Curricular Resources in Enhancement of Girls Academic Performance

The research question responded to was, What is the contribution of selected stakeholders to co-curricular resources in enhancement of girls academic performance? The responses were as shown Tables 4.38, 4.43 and 4.44.

Table 4.38

Contribution of government to Girls' Co-Curricular Resources in enhancement of Girls Academic Performance

Aspect of contribution by	Res	Mean	Overall	Contribution	Decision
government			Mean	Indices	
Playing ground	P	4.18	3.88	4	High
	T	3.59			
Music equipment	P	4.29	4.00	4	High
	T	3.71			
Drama equipments	P	2.00	2.16	2	Low
	T	2.32			
Balls	P	1.69	1.90	2	Low
	T	2.12			
Nets	P	3.53	3.51	4	High
	T	3.49			
Hockey sticks for	P	2.50	2.65	3	Moderate
	T	2.80			
Sports equipment	P	2.69	2.73	3	Moderate
	T	2.77			
Funds for trips	P	1.81	2.02	2	Low
1	T	2.24			
Games skits	P	3.65	3.38	3	Moderate
	T	3.12			
Overall Mean	P	2.93			
- · · · · · · · · · · · · · · · · · · ·	T	2.91	2.92	3	Moderate

KEY: RES – Respondents P- Principals, T-teachers n- Sample size

# **Interpretation of Mean Ratings**

1.00-1.44 = Very Low 2.45 -3.44 = Moderate

1.45 -2.44 = Low 3.45 -4.44 = High 4.45 -5.0 = Very High

# **Interpretation of Contribution Indices**

1=Very Low 2= Low 3=Moderate 4=High 5= Very High

From Table 4.38 it can be noted that principals indicated that the contribution of government to provision of playing ground was high and teachers also indicated high contribution by the government to the provision of playing ground as their means were 4.18

and 3.59 respectively. This means that both principals and teachers indicated that the government made high contribution when it came to the provision of playing ground. For example the government brings money through RMI to maintain play fields.

The interview findings indicated that government only made a little contribution when it came to provision of playing ground. Another interpretation may be because the teachers over expected from the government so that whatever payment was seen as little. From document analysis, it was revealed that the government contributed to the development of play field through payment of Ksh. 600/= per student to secondary school yearly. The main aim of the government in this payment is to encourage learners' participation into co-curricular activities. This means that co-curricular is a very important and essential part of an education system. This study is in line with Rashid and Sasidha (2005), who revealed that co-curricular aspect of the education prepares and moulds the student to be holistic. Another study by Russel, Peter, Donald and Robert (2000) found that co-curricular involvements in high school produces honesty and fair play needed to prevent delinquency and crime and hence improving academic achievement.

Principals and teachers indicated that the that the contribution of government to girls' cocurricular resources in music equipment was high as the means were 4.29 and 3.91 respectively. This means both principals and teachers indicated that the government made high contribution when it came to provision of music equipment. This high contribution means that the government values co-curriculum. The findings of this study concurs with Wambunya (2010) who indicates that co-curricular activities enhance talent and personality development of the learner hence enforcing the formal curriculum. He further observes that Malava Girls School was a dull school, but this has changed due to the girls' participation in games and sports. This has led to the school's population increasing tremendously and academic performance improving quite a lot.

The contribution of government to co-curricular in enhancement of academic achievement through the provision of Drama equipment was low as their means were 2.00 and 2.32 respectively. This means that principals and teachers indicated that the government has low contribution to the provision of drama equipment. The interview findings indicated that government does not finance or give drama equipment directly.

The contribution of government to co-curricular in enhancement of academic achievement through provision or purchasing balls to schools was low. Their means were 1.69 and 2.12 respectively. This means both principals and teachers indicated that the government has low contribution on the provision of balls in schools. Interview findings revealed that balls were either bought using activity, fee paid by parents or donated by the well wishers particularly when the school did very well in ball games.

Principals and teachers indicated that the contribution of government to the provision of nets in the schools was high as their means were 3.53 and 3.49 respectively. This means that both principals and teachers indicated that the government made high contribution when it can to provision of nets in schools. Interview findings revealed that when nets are available in the compound, even students who are not in the school team find it easy to exercise /practice for exercise. The study is supported by the Bringing Up Girls in Science (BUGS), which is for

young girls and their parents at the university of North Texas: "the upbringing and the environment of the home are the most important factors which influence the academic achievements of the students. An association seems to exist between the activities chosen by students and their academic achievements. According to Stephens and Schaben (2002), co-curricular activities have influence on students' academic achievements.

Total Extracurricular Activity Participation (TEAP) is associated with high Grade Point Average (GPA). It increased the attendance and reduces the absentees from class (Broh, 2002). Researchers have found positive associations between participation in co-curricular activities and academic performance of the students (Guest & Schneider, 2003).

The contribution of the government to the provision of hockey sticks was moderate as their means were 2.50 and 2.80 respectively. This means that both principals and teachers indicated that the government made moderate contribution in the provision of hockey sticks. Interview findings revealed that the government contributes satisfactorily through the paying at least kshs. 600/- for student yearly. This has enabled school administrators to buy facilities like hockey sticks which enable students to practice and do well in games. The study is supported by Osodo (2008) who observed that the government had always strived to provide secondary through the provision of Free day secondary schools. These findings further concur with UNESCO initiatives (2005) which targeted that by 2015, all schools going children particularly girls would have completed free and compulsory education of good academic achievements.

The contribution of government to girls' co-curricular resources through sports equipment was moderate as the means were 2.69 and 2.77 respectively. This means both principals and teachers indicated that government contribute satisfactorily to the sports equipment like short put, discuss among others. These different sports equipments enable most students to be active in games and sports. The study's findings are in line with Bakhda (2007) who observes that sports activities keep the learner out of counterproductive leisure activities. This implies proper use of leisure time when students are not left idle which may create counterproductive activities like drug abuse.

Government contribution to funds for trips was low as their means were 1.81 and 2.24 respectively. This means both principals and teachers indicated that government contribution to funds for trips was low. Interview findings indicated that money paid by the government does not supplement what parents have paid through the use of local transport and traveling.

Games kits was high and moderate as their means were 3.65 and 3.12 respectively. This means principals indicated high and teachers low contribution of the government on the provision of games skits in schools. The difference in the means of principal and teachers could be because of hidden expenditure that comes from the government the teachers may not be aware of.

Overall contribution by government to co-curricular resources in enhancement of girls academic performance as indicated by principals and teachers was moderate (M=2.92).

Table 4.39
Relationship between government contribution to co-curricular resources and girls academic performance

		Performance
Government	Pearson Correlation	.749
contribution	Sig. (2-tailed)	.000
	N	18

From Table 4.39, it can be observed that there was a positive and strong relationship between government contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .000 which was less than the set p – value of 0.05. This means that an increase in government contribution would increase girl student's performance. To estimate the contribution of government contribution, coefficient of determination was computed. The results were as shown in Table 4.40.

Table 4.40

Regression analysis of Government contribution to co-curricular resources and girls academic performance

		R	Adjusted	Std. Error of the
Model	R	Square	R Square	Estimate
1	.749 <sup>a</sup>	.560	.533	1.228287

a. Predictors: (Constant), Government contribution

From Table 4.41, it can be noted that government contribution accounted for 53.3% of variation in girl student academic performance as signified by the coefficient of .533. The other 46.7% was due to other factors such as parents and sponsors' contribution.

To establish whether government contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.41.

Table 4.41

ANOVA of Government contribution to co-curricular resources and girls academic performance

		Sum of		Mean		
M	odel	Squares	df	Square	$\mathbf{F}$	Sig.
1	Regression	30.767	1	30.767	20.393	.000 <sup>b</sup>
	Residual	24.139	16	1.509		
	Total	54.906	17			

a. Dependent Variable: Girls academic Performance

From Table 4.41 ANOVA revealed that government contribution was a significant predictor of girl student academic performance (F (1, 16) = 20.393, P<0.05. To confirm the actual contribution, linear regression analysis was computed and the results were as shown in Table 4.42.

Table 4.42
Linear regression analysis of government contribution to co-curricular resources and girls academic performance

	Unstandardized Coefficients		Standardized Coefficients		
Model	В	Std. Error	Beta	T	Sig.
1 (Constant)	4.465	.628		7.107	.000
Government	.005	.001	.749	4.516	.000
contribution					

a. Dependent Variable: academic Performance. regression equation Y = a + bX

From Table 4.42, it can be revealed that for one unit increase in government contribution, the girls academic performance would improve by .005 units as signified by the coefficient of .005. The regression equation is Y = 4.465 + .005X. Government

b. Predictors: (Constant), Government contribution

contributed to girl students' performance by providing sports equipment, games skits, balls, nets, music equipment and hockey sticks co-curricular resources in enhancement of girl students' academic performance.

Table 4.43

Contribution of Religious Sponsors to girls' co-curricular resources in enhancement of girls academic performance

Aspect of contribution by religious Sponsors	Res	Mean	Overall Mean	Contribution indices	Decision
Playing ground	P	3.18	2.88	3	Moderate
	T	2.59			
Music equipment	P	1.29	1.50	2	low
	T	1.71			
Drama equipments	P	1.00	1.16	1	Very low
	T	1.32			
Balls	P	1.13	1.22	1	Very low
	T	1.31			
Nets	P	1.00	1.06	1	Very low
	T	1.12			
Hockey sticks	P	1.12	1.12	1	Very low
•	T	1.12			-
Sports equipment	P	1.07	1.48	2	Low
1 11	T	1.90			
Funds for trips	P	1.81	1.52	2	Low
1	T	1.24			
Games skits	P	1.65	1.38	1	Very low
	T	1.12			J
Overall Mean	P	1.47			
2 · 3 - 3 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	T	1.49	1.48	2	Low

**KEY: RES – Respondents** P- Principals, T-teachers n- Sample size

## **Interpretation of Mean Ratings**

1.00-1.44 = Very Low 2.45-3.44 = Moderate

1.45 -2.44 = Low 3.45 -4.44 = High 4.45 -5.0 = Very High

Interpretation of Contribution Indices

1 = Very Low 2 = Low 3 = Moderate 4 = High 5 = Very High

From Table 4.43, it can be noted that both principals and teachers indicated that the contribution of religious to provision of playing ground for curriculum activities was moderate as the means were 3.18 and 2.59 respectively. This means that principals and teachers indicated that religious sponsors contribute satisfactorily to the playing ground. The interview findings indicated that the religious sponsors gave out land to their sponsored schools. The records from document analysis indicated that religious sponsor got land from the communities where they settled among their started schools then. The availability of the playing ground enables students to do sports and games which enhance their academic performance. This happens due to the fact that games and sports provide forum for socialization and building team spirit among. The study agrees with Mbiti (2007) who shows that games and sports assist in lessening tension accumulated from intensive academic studies hence helps in establishing peaceful learning environment when students are kept

Bakhda (2007) holds the same opinion by revealing that games and sports activities keep the students out of counterproductive or any other form of indiscipline. This implies that well coached games and sporting activities assist in the maintenance of discipline and order that is needed for good academic performance. Such strong team work created during games and sporting activities enables the students to be active in their classes during group discussion and it gives the subject teachers easy time in class since groups already exist.

occupied.

Gate Encyclopedia of Education (2011) established that games and sports have positive value in building character, discipline and the ability to work in teams for good academic performance.

The principals and teachers indicated that religious sponsors contribute very low and low to provision of music equipment in schools as their means were 1.29 and 1.71 respectively. This means that the principals indicated that the religious sponsors contribution to music equipment was very little while teachers indicated little contribution. Interview findings indicated that religious sponsor do not contribute any money for the purchase of music equipments. Document analysis did not give record of music equipment being given by the religious sponsors. Overall, principals and teachers indicated that the contribution of religious sponsors to provision of music equipment in enhancement of academic achievement was very low (M=1.50).

The principals and teachers indicated that religious sponsors contribute very low to provision of drama equipment respectively. This means that both principals and teachers indicated very little contribution by religious sponsors on the provision of drama equipment in the enhancement of academic performance. Overall, principals and teachers indicated that the contribution of religious sponsors to provision of drama equipment in enhancement of academic performance was very low (M = 1.16).

The principals and teachers indicated that the contribution of religious sponsors to provision of balls for ball games in schools was very low as their means were 1.13 and 1.31 receptively. This means that the contribution of religious sponsors in the provision of balls for ball games in schools was very little. Overall, principals and teachers indicated that the contribution of balls in the enhancement of academic performance was very low (M = 1.22).

The principals and teachers indicated that the contribution of religious sponsors to provision of nets for volleyball pitch and other events was very low and their means were 1.00 and 1.12 respectively. This means that religious sponsors contribute very little to the provision of nets that help the students to participate in games for beneficial to their health and improved academic performance. Overall, principals and teachers indicated that the contribution of nets that would be used in helping the students to develop skills and self—esteem was very low (M=1.06).

The principals and teachers indicated that religious sponsors contribute very low to provision of hockey sticks as their means were 1.12 and 1.12 respectively. This means that religious sponsors contribute very little to provision of hockey sticks for playing hockey in schools. Interview findings indicated that religious sponsors so not have a role in the provision of hockey sticks. Document analysis did show any contribution of the religious sponsor to provision of hockey sticks in schools. Overall, principals and teachers indicated that the contribution of Hockey sticks to help students play hockey was very low (M =1.12).

Principals and teachers indicated that religious sponsors contribute very low and low to provision of sports equipment as their means were 1.07 and 1.90 respectively. This means that religious sponsor contribute little to provision of sports equipment such as discus, javelin, short put among others. Interview findings indicated that the religious sponsors did not contribute any sports equipment.

Principals and teachers indicated that the contribution of religious sponsors to funds for trips was low and very low as their means were 1.81 and 1.24 respectively. This means that

both the principals and teachers indicated little contribution to funds for trips by the religious sponsors. Interview findings indicated that religious sponsors did not fund any trips for games. The principals and teachers indicated that the contribution of religious sponsors for provision of games skits was low and very low as their means were 1.65 and 1.12 respectively. This means the religious sponsors had little contribution to the provision of games kits which students used during games. The interview findings indicated that religious sponsors did not contribute any fund in order for the schools to purchase games skits.

Overall contribution by religious sponsors to co-curricular resources as indicated by principals and teachers was low (M = 1.48). Inferential statistics were not computed because the contribution of religious sponsors to co-curricular resources was too little to be correlated.

Table 4.44
Contribution of Parents to Co-curricular resources enhancement of Girls academic performance

Aspect of contribution by parents	Res	Mean	Overall Mean	Contribution Indices	Decisions
Playing ground	P T	2.67 3.63	3.15	3	Moderate
Music equipment	P T	2.80 3.08	2.94	3	Moderate
Drama equipments	P T	2.57 2.14	2.35	2	Low
Balls	P T	2.12 1.12	1.62	2	Moderate
Nets	P T	2.40 3.51	2.95	3	Moderate
Hockey sticks for	P T	2.29 3.06	2.67	3	Moderate
Sports equipment	P T	3.43 2.46	2.94	3	Moderate
Funds for trips	P T	2.39 3.67	3.03	3	Moderate
Games skits	P T	2.79 3.66	3.22	3	Moderate
Overall Mean	P T	2.61 2.93	2.77	3	Moderate

KEY: RES – Respondents P- Principals, T-teachers n- Sample size

**Interpretation of Mean Ratings** 

1.00-1.44 = Very Low 2.45 -3.44 = Moderate

1.45 - 2.44 = Low 3.45 - 4.44 = High 4.45 - 5.0 = Very High

**Interpretation of Contribution Indices** 

1== Very Low 2= Low 3= Moderate 4= High 5= Very High

From Table 4.44, it can be noted that principals and teachers indicated that the contribution of parents to the provision of playing ground was moderate and high their means were 2.67

and 3.63 respectively. This means the principals indicated that parents contribute moderately and teachers indicated they contribute highly. Overall, principals and teachers indicated that the contribution of parents to playing ground in enhancement of academic achievement for students satisfactory. The interview findings indicated that parents payment was not a hundred percent yet the teachers felt that all parents had made payment with the principal. The implication here is that some parents fail to remit money to school as required. Document analysis showed that only 75% of the activity funds was paid by parents to school. This may be seen as a weakness on the parents side since when there is no enough playfield, the students only watch as others play. This finding agrees with UNICEF (2005) who at the end of four country studies (China, India, Indonesia & Thailand) on parent-teacher cooperation reports that, parents participated extensively in co-curricular development thereby participating in joint problem solving of the school at all levels.

Music equipment was moderate as the principals and teachers means. Principals and teachers indicated that parents contribute satisfactorily to the provision of music equipment. This they do to ensure that students get good training in social and moral skills to enable them to mature into responsible adults and improving their academic performance. This finding is in agreement with the opinion held by Nyongesa (2007) who observes that sports and games train students in social and moral skills that enable them to mature into responsible adults. The sub counties qualify the same view by explaining that games and sports are good in enhancing student discipline because they enable the student to develop desired social skills like team formation and hard work. One deputy principal echoed a similar view by

pointing out that games and sports are good in developing a sense of responsibility and acceptable moral qualities to the student.

## A deputy principal noted:

"A sense of responsibility, commitment and hardwork is encouraged in the students through games because every game or sport has rules to be strictly observed by players. Undisciplined player has to be disciplined so that order is maintained during a game or sport. In football, a yellow or red card is issued out or penalty given on fault plays. In athletics, use of drugs is prohibited nationally or internationally and offenders are banned from participation."

## One Quality Assurance and Standards Officer further clarified;

"Games or sports have rules to be strictly followed by players as they play, there is good time management during the match. This therefore checks the student's behaviour which may lead to character formation or responsible behaviour for good academic achievement.

The study finding is in consistent with that of Mbiti (2007) who asserts that games and sports assists in reducing tension accumulated from intensive academic work, by helping in establishing a peaceful learning environment which is required for good academic achievement.

Drama equipment was moderate and low as their means were 2.57 and 2.14 respectively. This means the principals indicated moderate and teachers low contribution by parents on drama equipment. Interview findings indicated that parents made low contribution to drama equipment. The implication is that the money paid by parents for activity may not be enough to purchase the drama equipment hence teachers indicated low contribution by parents. Overall principals and teachers indicated that the contribution of parents to drama was low (m = 2.35). This implies that the money paid by parents does not meet all the requirements in co-curricular activities particularly provision of drama equipment. As much as the principals may want to encourage drama in their schools, they meet financial constraints. This finding

concurs with RSA (2010) who argues that in an era of budgetary constraint for schools, the resources offered by stakeholders, including parents and families is invaluable to, but frequently underutilized by schools. The contribution of parents on balls was low as their means were 2.12 and 1.12 respectively. This means that principals indicated low contribution while teachers indicated very low contribution. The implications here is that the money paid may not be enough for purchasing many balls for ball games which are quite a number like basket ball, football, volleyball, handball among others.

In line with this study, Odhiambo (2015) observes that because co-curricular activities are seen as extra –curricular (outside the regular learning activities) these activities tend to make teachers, students and parents to lay relatively little emphasis on them such that many parents, teachers and students have regarded these activities as a waste of time and only aimed at keeping school children busy and out of mischief. This implies that co-curricular activities are hardly given priority by teachers and parents hence low payment is involved by parents.

The contribution of parents on nets was low and high as their means were 2.40 and 3.51 respectively. This means that principals indicated low contribution and teachers indicated high contribution by parents on the provision of nets. The differences in their means may imply that the yearly budget on co-curricular activities may lower than the requirement hence things that can take long are not budgeted for on yearly basis. The findings concur with Nyongesa (2007) who indicates that co-curricular activities tend to involve excessive cost

to the schools. Kocher (2012), points out that unnecessary expenditure needs to be avoided on equipment in order to lesson constraints on these activities.

Hockey sticks was low and moderate as their means were 2.29 and 3.06 respectively. This means that principals indicated that parents contribute little and teachers indicated they contribute moderately on the provision of hockey sticks. The fact that parents buy hockey sticks directly when they are bringing their children for admission implies that they contribute satisfactorily. The fact that the principals indicated low contribution by parents implies that they over expect from parents and whatever the contribution parents make, they consider it as low.

Sports equipment was moderate as their means were 3.43 and 2.46 respectively. This means both principals and teachers indicated that parents contribute satisfactorily in the provision of sports equipment such as discuss, short put, javelin among others. The implication is that parents are aware of the importance of such sports equipment and their relationship with academic achievement. The findings agree with Guest and Schneider (2003) who carried out the study on different social factors which has association with the student's academic performance. In their findings they suggested that co-curricular activities like sports, debate and dramatic activities improve the academic grades of the students who participate in them. The funds for trips was low and high for their means were 2.39 and 3.67 respectively. This means that principals indicated low and teachers indicated high contribution by parents in providing funds for trips. The overall (C =3.03) moderate. The variation in the means of principals and teachers on the parental contribution may be due to the fact that some parents may fail to remit the payment yet, the teachers calculate the contribution by the use of all

students. The principal may be giving the exact figure since principals are the accounting officers of the funds paid to schools. The finding is supported by Goodall and Vorhaus (2011) who observe, with the partial exception of parental involvement or contribution to co-curricular activities which enhance the academic performance of their children.

Games skits was moderate as their means were 2.79 and 3.66 respectively. This means the principals indicated high contribution by parent to provision of games skits to girls to use during games time. Document analysis indicated that parents purchase games skits from schools on the day of admission of their children. This help students to play with ease at games time. The purchase of games skits shows that the parents support games as part of school learning.

Overall principals and teachers indicated that the contribution of parents to co-curricular resources was moderate as signified by overall mean of 2.77.

Table 4.45
Relationship between parent's contribution to co-curricular resources and girls academic performance

		Performance	
Parents	Pearson Correlation	.893	
contribution	Sig. (2-tailed)	.000	
	N	18	

From Table 4.45, it can be observed that there was a positive and strong relationship between parents contribution and girls students academic performance. The relationship was significant as signified by the calculated p-value of .000 which was less than the set p – value of 0.05. This means that an increase in parents contribution would increase girl student's

academic performance. To estimate the contribution of parents, coefficient of determination was computed. The results were as shown in Table 4.46.

Table 4.46

Regression analysis of Parents contribution to co-curricular resources and girls academic performance

		R	Adjusted R	Standard
Model	R	Square	Square	<b>Error of the Estimate</b>
1	.893ª	.798	.786	.8322585

a. Predictors: (Constant), Parents contribution

From Table 4.46 it can be noted that parents contribution accounted for 78.6% of variation in girl student academic performance as signified by the coefficient of .786. The other 21.4% was due to other factors such as government and sponsors' contribution.

To establish whether parents contribution was a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.47.

Table 4.47

ANOVA of Parents contribution to co-curricular resources and girls academic performance

				Mean		
M	lodel	Sum of Squares	df	Square	$\mathbf{F}$	Sig.
1	Regression	43.823	1	43.823	63.264	.000 <sup>b</sup>
	Residual	11.083	16	.693		
	Total	54.906	17			

Dependent Variable: Girls academic Performance

Predictors: (Constant), Parents contribution

ANOVA revealed that parents contribution was a significant predictor of girl student academic performance (F (1,16) = 63.264, P< 0.05). To confirm the actual contribution, linear regression analysis was computed and the results were as shown in Table 4.48.

Table 4.48
Linear regression analysis of parents contribution to co-curricular resources and girls academic performance

			Standardized		
	Unstandardiz	ed Coefficients	Coefficients		
Model	В	Std. Error	Beta	T	Sig.
1 (Constant)	3.331	.499		6.672	.000
Parents	.119	.015	.893	7.954	.000

a) Dependent Variable: Girls academic Performance. Regression analysis Y = a + bX

From Table 4.48, it can be revealed that for one unit increase in parents contribution, the girls academic performance would improve by .119 units as signified by the coefficient of .119. The regression equation is Y=3.331+.119X. Parents contributed to girl students' performance by providing games kits, sports equipment, financing trips, and play grounds in enhancement of girl students' academic performance.

Table 4.49

Relationship between government and parents contribution to co-curricular resources and girls academic performance

		Performance
Parents	Pearson Correlation	.893
	Sig. (2-tailed)	.000
	N	18
Government	Pearson Correlation	.749
	Sig. (2-tailed)	.000
	N	18

From Table 4.49 when the two related stakeholders contribution to co-curricular resources was correlated with girls academic performance it emerged that the government and parents

contribution to girls academic performance was moderate. This means that an increase in the contribution of the three stakeholders would increase the girls academic performance. To estimate the actual contribution of the two stakeholders together, coefficient of determination was computed the results were as shown in Table 4.50.

Table 4.50

Regression analysis of government and parents contributions to co-curricular resources and girls academic performance

			Adjusted R	Standard
Model	R	R Square	Square	<b>Error of the Estimate</b>
1	931	.868	.850	.696119

a. Predictors: (Constant), Government, Parents

From Table 4.50, it can be noted that Government and Parents contributions together accounted for 85% of variation in girl student academic performance as signified by the coefficient of .850. The other 15% was due to other factors. To establish whether Government, Religious sponsors and Parents contributions were a predictor of girl students' performance, ANOVA was computed and the results were as shown in Table 4.51.

Table 4.51

ANOVA of Government and Parents contributions to co-curricular resources and girls academic performance

		Sum of		Mean		
M	lodel	Squares	df	Square	F	Sig.
1	Regression	47.638	2	23.819	49.819	.001 <sup>b</sup>
	Residual	7.269	15	.485		
	Total	54.906	17			

a. Dependent Variable: Girls academic Performance

b. Predictors: (Constant), Government, Parents

From Table 4.51, ANOVA revealed that Government, Religious sponsors and Parents contribution was a significant predictor of girl student academic performance (F (2, 15) = 49.819, P <0.05). To confirm the actual contribution, multiple regression analysis was computed and the results were as shown in Table 4.52.

Table 4.52

Multiple regression analysis of Government, Religious sponsors and Parents contributions to co-curricular resources and girls academic performance

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	2.966	.437		6.782	.000
	Parents	.214	.036	1.614	5.900	.000
	Government	005	.002	768	-2.806	.013

a. Dependent Variable: Girls academic Performance. Regression Equation  $Y = a + bX_1 + CX_2$ 

From Table 4.52, it can be revealed that for one unit increase in parents contribution, the girls academic performance would reduce by .-005 units as signified by the coefficient of .000. The governments contribution was not significant as the p-value calculated was .214 greater than the set p-value of .05. The regression equation is Y = 2.966 + .214X - .005X. Government and parents contribution to co-curricular resources reduced girl students' performance.

#### **CHAPTER FIVE**

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

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

## **5.2 Summary**

The findings of the study are summarized as follows;

## **5.2.1** Selected Stakeholders contribution on Infrastructure Development in

## enhancement of Girls Academic Performance in Secondary Schools

The study established that: the government contribution to infrastructure development was rated as 1.94. This contribution enhanced girls academic performance by 20.3% and was significant. Government contribution was a significant predictor of girls academic performance as the calculated p-value was .035 less than the set p-value of .05. Regression equation was Y = 5.368 + .070X.

Religious sponsors' contribution to infrastructure development was low as the mean was 1.97. This contribution enhanced academic performance by 20.6%. Religious sponsors contribution was also a significant as the calculated p-value was .05 equals the set p –value of .05. Regression equation was Y = 6.806 + .878X.

Parents' contribution to infrastructure development was high as the mean was 3.56. This contribution enhanced girls academic performance by 44.2%. Parents contribution was a significant predictor of girls academic performance as the calculated p –value was .002 which was less than the set p-value of .05. The contribution of parents was weak and the regression equation was Y = 4.969 + .001X. On the whole government, religious sponsors and

parents together contributed 66.1% of variance in girl students' academic performance. Overall government, religious sponsors and parents contributed significantly as indicated in the regression equation  $Y = 4.140 + .001X_1 + .002X_2 - .027X_3$ . This means that one unit increase in contribution by religious sponsors and parents increased girls academic performance by .001 and .002 units as signified by the coefficients of .001 and .002 respectively while government's contribution reduced performance by .027 units as signified by the coefficient of -.027. The interview findings concurred with questionnaire findings.

# 5.2.2 Selected Stakeholders contribution on Provision of Teaching /Learning Resources in enhancement of Girls Academic Performance

The study established that:

The government contribution to teaching /learning resources was moderate as the mean was 3.41. This contribution enhanced girls academic performance by 42.8%. Government contribution was a significant predictor of girls academic performance as the calculated p-value was .002 less than the set p-value of .05. Regression equation was Y = 4.591 + .002 X. This means that increase in contribution to teaching learning resources led to an increase in girls academic performance by .002 units.

Religious sponsors' contribution to teaching /learning resources was low as the mean was 1.56. This means that the contribution to girl child academic performance was low. Religious sponsors contribution was rated using descriptive statistics and not inferential statistics because the data was too little for inferential statistical analysis.

Parents' contribution to teaching /learning resources was high as the mean was 3.81. This contribution enhanced girls academic performance by 74.5%. Parents contribution was a significant predictor of girls academic performance as the calculated p –value was .000 which was less than the set p-value of .05. The contribution of parents was high and the regression equation was Y = 5.022 + .002X. This means that increase of one unit by parents contribution improved girls academic performance by .002 units. Overall, government contribution was not significant as the calculated p-value in the multiple regression was .124 greater than the set p-value .05 while parents contribution was significant as the calculated p-value was .000 less than the set p-value of .05. On the whole, both government and parents contributed 76.9% of variance in girl students academic performance. The regression equation was  $Y = 5.642 + .002X_1 - .001X_2$ . The interview findings concurred with questionnaire findings in that parents contributed slightly higher than government to girls academic achievement through provision of teaching and learning resources..

# 5.2.3 Government contribution to Co-curricular Resources in enhancement of Girls Academic Performance

The study established that:

The government contribution to Co-curricular Resources was moderate as the mean was 2.92. This contribution enhanced girls academic performance by 53.3%. Government contribution was a significant predictor of girls academic performance as the calculated p-value was .000 less than the set p-value of .05. Regression equation was Y = 4.465 + .005x. This means that one unit increase in contribution to Co-curricular Resources led to an increase in girls academic performance by .005 units.

Religious sponsors' contribution to Co-curricular Resources was low as the mean was 1.48. This means that the contribution to girl child academic performance was low. Religious sponsors contribution was rated using descriptive statistics and not inferential statistics because the contribution was zero rated.

Parents' contribution to Co-curricular Resources was moderate as the mean was 2.77. This contribution enhanced girls academic performance by 78.6%. Parents contribution was a significant predictor of girls academic performance as the calculated p –value was .000 which was less than the set p-value of .05. The contribution of parents was high and the regression equation was Y = 3.331 + .119X. This means that increase of one unit by parents contribution improved girls academic performance by .119 units. Overall government contribution was significant as the calculated p-value in the multiple regression was .013 less than the set p-value .05 and parents contribution was also significant as the calculated p-value was .000 less than the set p-value of .05. The regression equation was Y = 2.966 + .214X - .005X. This means that overally, contribution by parents on Co-curricular Resources improved girls academic performance by .214 units while government contribution reduced girls academic performance by .005. The interview findings concurred with questionnaire findings in that parents contributed slightly higher than government to girls academic achievement through provision of teaching and learning resources.

### **5.3 Conclusions**

The study concluded that:

The contribution of government, parents and religious sponsors to infrastructure development in enhancement of girls academic performance was significant.

The contribution of parents to teaching learning resources in enhancement of girls academic performance was significant while that of the government was not significant.

The contribution of parents and government to co-curricular resources in enhancement of girls academic performance was significant.

#### **5.4 Recommendations**

The following recommendations were made in line with the study findings;

- i) The government should review each policy for infrastructure development, for equitable redistribution of resources to school size so as to reverse the negative effect it has on girls academic performance.
- ii) The government should review each policy for teaching and learning resources for equitable redistribution of resources to school size so as to reverse the negative effect it has on girls academic performance.
- iii) The government should review each policy for co-curricular resources for equitable redistribution of resources to school size so as to reverse the negative effect it has on girls academic performance.

## **5.5 Suggestions for Further Research**

The study exposed the following knowledge gaps that require further study;

i) A study be carried out on factors influencing contribution of religious sponsors to teaching /learning resources. This is because it was not that their contribution in this area was little and yet very important.

- ii) A study should be conducted to establish the effectiveness of FSE policy as a mode of financing secondary school education. This is because the study established that the government's contribution was not significant to girl child's academic achievement.
- iii) Teacher variables influencing girls academic performance in Siaya County. This is because the performance of girls in Siaya County was generally

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#### **APPENDICES**

#### APPENDIX A: PRINCIPALS QUESTIONNAIRE

This questionnaire is intended to collect information on the contribution of government, religious sponsors and parents infrastructure development, teaching /learning resources and co-curricular resources in enhancement of girls academic performance in girls' public secondary schools in Siaya County.

#### **SECTION A: BACKGROUND INFORMATION**

1.	For how long have you taught in this school in other schools?
2.	For long have you been the principal in this schoolin other
	schools?
3.	What is your highest professional qualification?
	PGDE B.E.D M.E.D.
4.	What is the current enrolment of students in your school?
5.	School mean score for 2013and 2014

#### **SECTION B: SPECIFIC INFORMATION**

6. Government, Religious sponsors and parents do contribute to Infrastructure development in enhancement of girls academic performance in girls' public secondary schools in Siaya County. Kindly rate the contribution on a five point scale where;

 $1 = \text{Very Low}, \quad 2 = \text{Low}, 3 = \text{Moderate}, 4 = \text{High and } 5 = \text{Very High}$ 

Aspects of		Government					Religious					Parents				
contribution						sponsor										
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Land.																
Teachers' houses.																
Classrooms/workshops.																
Water.																
Electricity.																
Non-teaching staff houses.																
Library																
D/Hall																
Dormitories																
Offices																
Staffroom																
Latrines																
Washrooms																

**7.** Government, Religious sponsors and parents do contribute to Teaching /Learning resources in enhancement of girls academic performance in girls' public secondary schools in Siaya County. Kindly rate the contribution on a five point scale where;

1 = Very Low, 2 = Low, 3 = Moderate, 4 = High and 5 = Very High

<b>Aspect of Contribution</b>		G	ove	rnn	nent	F	Relig	giou	s sp	onsor		Pa	arer	nts	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Textbooks.															
Lab Equipments and Chemicals.															
Computers/ printers.															
Photocopying papers.															
Exercise books.															
Writing materials.															
Instructional materials e.g. Past papers, Revision materials.															

8. Government, Religious sponsors and parents do contribute to co-curricular activities in enhancement of girls academic performance girls' public secondary schools in Siaya County. Kindly rate the contribution on a five point scale where;

1 = Very Low, 2 = Low, 3 = Moderate, 4 = High and <math>5 = Very High

Aspect of		Gov	vern	ment		Rel	r	Parents							
contribution	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Playing ground															
Music equipment															
Drama equipments															
Balls															
Nets															
Hockey sticks for															
Sports equipment															
Funds for trips															
Games skits															

#### APPENDIX B

#### FORM FOUR CLASS TEACHERS' QUESTIONNAIRE

This questionnaire is intended to collect information on the contribution of government, religious sponsors and parents infrastructure development, teaching /learning resources and co-curricular resources in enhancement of girls academic performance in girls' public secondary schools in Siaya County.

	ECTION A: BACKGR			
1.	How long have you ta	aught in this school?	in other schools?	
2.	What is your highest J	professional qualificati	on?	
	PGDE	B.E.D.	M.ED Others (spe	ecify)
SE	ECTION B: SPECIFIC	C INFORMATION		
6.	Government, Religious	sponsors and parents	lo contribute to Infrastructure	development
	in enhancement of girl	s academic performanc	e in girls' public secondary se	chools in
	Siaya County. Kindly	rate the contribution of	n a five point scale where;	

2 = Low, 3 = Moderate, 4 = High and 5 = Very High

1 = Very Low,

Aspects of		Gov	erni	men	t	Religious					Parents				
Contribution						ons		1		ı	ı				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Land.															
Teachers' houses.															
Classrooms/workshops.															
Water.															
Electricity.															
Non-teaching staff houses.															
Library															
D/Hall															
Dormitories															
Offices															
Staffroom															
Latrines															
Washrooms															

**7.** Government, Religious sponsors and parents do contribute to Teaching /Learning resources in enhancement of girls academic performance in girls' public secondary schools in Siaya County. Kindly rate the contribution on a five point scale where;

1 = Very Low, 2 = Low, 3 = Moderate, 4 = High and 5 = Very High

<b>Aspect of Contribution</b>	Government		nent	F	Relig	giou	s sp	onsor		Pa	arer	ıts			
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Textbooks.															
Lab Equipments and Chemicals.															
Computers/ printers.															
Photocopying papers.															
Exercise books.															
Writing materials.															
Instructional materials e.g. Past papers, Revision materials.															

**8.** Government, Religious sponsors and parents do contribute to co-curricular activities in enhancement of girls academic performance girls' public secondary schools in Siaya County. Kindly rate the contribution on a five point scale where;

1 = Very Low,

2 = Low,

3 = Moderate, 4 = High and 5 = Very High

Aspect of		Government					Religious sponsor					Parents				
contribution	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Playing ground																
Music equipment																
Drama equipments																
Balls																
Nets																
Hockey sticks for																
Sports equipment																
Funds for trips																
Games skits																

#### **APPENDIX C**

#### PRINCIPALS INTERVIEW SCHEDULE

1. What contribution do religious sponsors make to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### Probe:

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### **Probe:**

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### APPENDIX D

#### DIRECTOR OF STUDIES INTERVIEW SCHEDULE

1. What is the contribution of religious sponsors to infrastructure development, teaching /learning resources and co-curricular resources?

#### **Probe:**

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources?

#### Probe:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources?

#### **APPENDIX E**

#### SCQASO INTERVIEW SCHEDULE

1. What is the contribution of religious sponsors to infrastructure development, teaching /learning resources and co-curricular resources?

#### **Probe**:

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources

#### **Probe**:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources?

#### **APPENDIX F**

#### P.T.A CHAIRMAN'S INTERVIEW SCHEDULE

1.	What is the co	ontribution of	religious	sponsors to	infrastructure	development,	teaching
	/learning resou	rces and co-cu	rricular re	esources?			

#### **Probe**:

3. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources

#### **Probe**:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources?

#### **APPENDIX G**

#### EDUCATION SECRETARY'S INTERVIEW SCHEDULE

1.	What	is the	contribution o	f religious	sponsors to	infrastructure development	, teaching
	/learni	ng reso	ources and co-c	urricular re	esources?		

#### **Probe**:

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources

#### **Probe**:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources?

#### **APPENDIX H**

#### DEPUTY PRINCIPALS INTERVIEW SCHEDULE

1. What is the contribution of religious sponsors to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### **Probe:**

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### **Probe**

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### APPENDIX I

#### FORM FOUR CLASS TEACHERS' INTERVIEW SCHEDULE

1. What is the contribution of religious sponsors to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### Probe:

2. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources in your school

#### **Probe**:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources in your school?

#### APPENDIX J

#### **BOARD'S OF MANAGEMENT INTERVIEW SCHEDULE**

1. What is the contribution of religious sponsors to infrastructure development, teaching /learning resources and co-curricular resources?

#### Probe:

3. What is the contribution of government to infrastructure development, teaching /learning resources and co-curricular resources

#### **Probe**:

3. What is the contribution of parents to infrastructure development, teaching /learning resources and co-curricular resources?

#### APPENDIX K

### DOCUMENT ANALYSIS GUIDE: PRINCIPALS/EDUCATION SECRETARY /LANDS REGISTRAR

CODE------KCSE 2014 MEAN SCORE -----DOCUMENT ANALYSIS GUIDE

Objectives	UNITS /NUMBER	contribution by religious sponsors in Kshs	Contribution by parents in Kshs	Contribution by government in Kshs	DOCUMENTS USED
1. Infrastructure					
Classrooms					Minutes of BOM/AGM/Visitors
					book/ Fees
					Structure /CDF
					bursary records /Log
					book/School budget
Dormitories					Minutes of
					BOM/AGM/Visitors
					book/ Fees
					Structure / CDF
					bursary records /Log
					book/School budget
Laboratory					Minutes of BOM/AGM/Visitors book/ Fees Structure/ CDF
					bursary records/Log
					book /School
					budget
Library					Minutes of BOM/AGM/Visitors book/ Fee Structure
					/ CDF bursary
					records /Log
Administration					book/School budget Minutes of
block					BOM/AGM/Visitors book/ Fees Structure / CDF bursary records/Log book/School budget
Latrines					Minutes of BOM/AGM/Visitors book/ Fees Structure / CDF bursary records/Log book/School budget
Electricity					Minutes of BOM/AGM/Visitors book/ Fees Structure / CDF bursary records/Log book/School budget

Water	Minutes of BOM/AGM/Visitors book/ Fees
	Structure / CDF
	bursary records/Log book/School budget
Staff houses	Minutes of BOM/AGM/Visitors book/ Fees
	Structure / CDF bursary records
Non teaching staff houses	Minutes of BOM/AGM/Visitors book/ Fee Structure / CDF bursary records
2. Teaching – learning resources	
Textbooks	Consumable Stores ledger/permanent
Lab equipments	Consumable Stores ledger/permanent
Computers	Consumable Stores ledger/permanent / inventory records
Stationeries	Consumable Stores ledger/permanent
3. Co-curricular Resources	
Play fields	Consumable Stores ledger/permanent /inventory records
Game skits	Consumable Stores ledger/permanent / inventory records
Balls	Consumable Stores ledger/permanent / inventory records
Sports equipment	Consumable Stores ledger/permanent/ inventory records

 ${\bf APPENDIX\ L}$  RELIGIOUS SPONSORS, PARENTS AND GOVERNMENT CONTRIBUTIONS TO INFRASTRUCTURE DEVELOPMENT, TEACHING /LEARNING RESOURCES,

CO-CURRICULAR RESOURCES AND GIRLS ACADEMIC PERFORMANCE

	INFRSTRACTURE DEVELOPMENT			TEACHING /LEARNING RESOURCES			CO- CURRICULAR RESOURCES		GIRLS
SCH	RELIGIOUS SPONSOR	PARENTS	GOVT	RELIGIOUS SPONSOR	PARENTS	GOVT	PARENTS	GOVT	ACADEMIC PERFORMANCE
1	1,250,000	9554000	562000		6614740	4035160	1348800	674400	10.479
2	175,000	4108000	544000		7901328	2905920	1588480	1433984	9.202
3	500,000	12112000	25548000		5627960	3933376	2192000	657600	8.736
4	1,000,000	1386000	198000		1538460	1421640	475200	237600	8.454
5	250,000	1764000	252000		1958040	1809360	604800	302400	8.304
6	650,750	1899000	246000		1419420	353256	590400	295200	8.25
7	192,500	8588000	684000		5314680	4911170	1641600	820800	8.131
8	-	1344000	192000		1107840	1378560	460800	230400	7.697
9	80,000	4524000	404000		3139080	2900720	969600	484800	7.391
10	3,051,250	208000	44000		165880	315920	105600	52800	7.318
11	15,000	1014000	102000		282540	732360	244800	122400	5.902
12	30,000	3086000	158000		437660	934440	379200	189600	5.582
13	60,000	784000	72000		91440	764960	172800	86400	5.5
14	22,500	608000	44000	22880	33000	63184	105600	52800	5.41
15		602000	86000		109220	617480	206400	103200	5.372
16	280,000	1988000	284000		360680	2039120	681600	340800	5.063
17	50,000	308000	44000		55880	315920	105600	52800	4.727
18	40,000	210000	30000		38100	245400	72000	36000	4.174

**NB:** 1. Contribution in Kenya shillings

2. Academic performance in mean scores

## APPENDIX M<br/>INTRODUCTION LETTER



# REPUBLIC OF KENYA MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY State Department of Education

Telephone: Fax:

COUNTY DIRECTOR OF EDUCATION SIAYA COUNTY P.O. BOX 564

O. BOX 364 SIAYA

When replying please quote

Ref: SCA/10/VOL I

6<sup>th</sup> December, 2012

#### TO WHOM IT MAY CONCERN

#### RE: RESEARCH AUTHORIZATION: HELLEN A. AHAWO -PG/PHD/144/010

The above named person is undergoing her doctorate degree of Philosophy in Educational Administration at Maseno University. She been mandated to carry out research in Girls Public Secondary school in Siaya County

Kindly accord her the necessary assistance.

Thank you.

EZRA ODONDI

FOR: COUNTY DIRECTOR OF EDUCATION

SIAYA COUNTY

APPENDIX N
MAP SHOWING LOCATION OF SIAYA COUNTY

