

**COEDUCATION AND STUDENT'S ACADEMIC PERFORMANCE  
IN SECONDARY SCHOOLS IN KENYA**

**[A CASE STUDY OF BUSIA COUNTY]**

**BY**

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## DECLARATION

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

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This research project has been submitted for examination with my approval as University of Nairobi supervisor

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## **DEDICATION**

This research work is dedicated to my wife Elizabeth Mbula Musyoki, our children Emmanuel Bukheri Kachero and Keziah Rehemah Kachero and my mother Agness Makhulo Kachero for their prayers, sacrifice, encouragement and moral support throughout this work. I also dedicate it to God for the divine will and purpose over my life and all my course mates for their cooperation and encouragement.

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## **ABSTRACT**

The study on coeducation and student's academic performance in secondary schools in Kenya sought to determine the extent to which coeducation schools affect male and female students' academic performance and to establish students' and teachers' attitude on effects of coeducation on academic performance. To achieve this, the study employed documentary search and analysis on KCSE results from 2010 to 2013 and descriptive research using structured questionnaires to gather data on students' and teachers' attitude on effects of coeducation on academic performance. The target population of the study comprised of form three and four students and teachers in secondary schools in Busia County. Twelve secondary schools (4 per school type) were sampled for content analysis and a sample of 240 students and 40 teachers for questionnaires. Data was analyzed using quantitative statistics and presented by tables, graphs and pie charts with the aid of SPSS.

The findings of the study show that coeducation context does affect students' academic performance compared to single-sex schools. Students in single-sex schools seem to perform better academically. Further, most of the students and teachers prefer single-sex schools to coeducation schools and the reasons for the dislike of coeducation context include, high level of indiscipline, boys' offensive behavior towards girls, encouragement of boy-girl relationships that interfere with learning, the fear of girls to participate freely within classroom as well as teachers' differential treatment of boys and girls in favor of girls

The study recommends that the ministry of education should establish more single-sex schools and convert underperforming coeducation schools into single-sex, coeducation schools should improve on the students' discipline and use guiding and counseling departments or motivational talks to foster teachers' and students' positive attitude towards coeducation. Within coeducation classrooms, teachers should encourage girl's active participation in learning and discourage boys' offensive behavior towards girls. Since the study was done in public schools in Busia County, there is need for it to be done in other localities in public schools and private secondary schools.

# TABLE OF CONTENT

<b>Content</b>	<b>Page</b>
Declaration .....	i
Dedication .....	ii
Acknowledgement .....	iii
Abstract .....	iv
Abbreviations and acronyms .....	viii
List of tables .....	ix
List of figures .....	x

## **CHAPTER ONE INTRODUCTION**

1.1 Background .....	1
1.2 Statement of the problem .....	4
1.3 Purpose of the study .....	4
1.4 Objectives of the study .....	5
1.5 Justification of the study .....	5
1.6 Operational Definitions .....	5

## **CHAPTER TWO LITERATURE REVIEW**

2.1 Introduction .....	7
2.2 Related studies .....	7
2.3 Literature on the study .....	15
2.3.1 The concept of Coeducation .....	15
2.3.2 Evolution of coeducation .....	17
2.3.3 The purpose of coeducation .....	19
2.3.4 Challenges of coeducation .....	21
2.3.4.1 Academic performance .....	21
2.3.4.2 Behavior characteristics and their effects on learning .....	22
2.3.4.3 Gender aspects .....	23

2.3.4.4 Classroom interaction.....	24
2.3.4.5 Students’ discipline .....	26
2.3.4.6 Teachers’ discipline practices .....	27
2.3.4.7 Teachers’ and students’ attitude towards coeducation .....	27
2.3.5 Coeducation in Kenya .....	29
2.4 Summary of literature reviewed.....	32
2.5 Theoretical framework.....	33
2.5.1 The social cognitive theory .....	33
2.5.2 The theory of social constructivism .....	34
2.6 Conceptual framework.....	36

### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

3.1 Introduction.....	37
3.2 Research design .....	37
3.3 Target population .....	37
3.4 Sampling techniques and sample size.....	38
3.5 Research instrument and procedure .....	38
3.5.1 Research instrument validity and reliability.....	39
3.6 Data collection procedures.....	39
3.6.1 Ethical considerations .....	40
3.7 Data analysis and presentation.....	40

### **CHAPTER FOUR**

#### **RESULTS AND DISCUSSION**

4.1 Introduction.....	41
4.2 Study response rate .....	41
4.3 Comparison of top boys, top girls and top coeducation schools.....	41
4.3.1 Overall mean score.....	42
4.3.2 University entry (C+ and above).....	43
4.3.3 County ranking of schools top five and bottom five 2012.....	43
4.3.4 County ranking of schools top five and bottom five 2013.....	44



4.4 Comparison of girls and boys in top coeducation to girls and boys in single-sex schools .....	45
4.4.1 Comparison of girls in coeducation to girls in girls' school .....	45
4.4.2 Comparison of boys in coeducation to boys in boys' school .....	47
4.5 Comparison of girls in top coeducation to boys in top coeducation.....	49
4.5.1 Overall mean score.....	49
4.5.2 University entry (c+ and above).....	50
4.6 Students' and Teachers' attitude towards coeducation on academic performance.....	51
4.6.1 Students' attitude on effects of coeducation on academic performance .....	51
4.6.2 Teachers' attitude on effects of coeducation on academic performance .....	54

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMENDATION**

5.1 Introduction.....	60
5.2 Summary of the results .....	60
5.2.1 Objective 1: To determine the extent to which coeducation schools affect male and female students' academic performance.....	60
5.2.2 Objective 2: To establish students' and teachers' attitude on effects of coeducation on academic performance .....	61
5.3 Conclusion .....	63
5.4 Recommendation .....	64
5.5 Areas for further research .....	64
REFERENCES .....	65

### **APPENDICES**

Appendix I: Students' Questionnaire.....	71
Appendix II : Teachers' Questionnaire.....	74

## **ABBREVIATIONS AND ACRONYMS**

<b>KCSE</b>	Kenya Certificate of Secondary Education
<b>CDF</b>	Constituency Development Fund
<b>LATF</b>	Local Authority Fund
<b>UNESCO</b>	United National Educational Scientific and Cultural Organization
<b>AAUW</b>	American Association of University Women
<b>AACAFF</b>	American Academy of Child and Adolescent's Facts for Families

## LIST OF TABLES

Table 4. 1: Schools mean scores from 2010 to 2013 .....	42
Table 4. 2: University entry (C+ and above) .....	43
Table 4. 3: County ranking of schools top five and bottom five 2012 .....	43
Table 4. 4: County ranking of schools top five and bottom five 2013 .....	44
Table 4. 5: Overall mean score of girls in coeducation and girls' school.....	46
Table 4. 6: University entry (c+ and above) of girls in coeducation and girls' school.....	46
Table 4. 7: Overall mean score of boys in coeducation and boys' school.....	47
Table 4. 8: University entry (c+ and above) of boys in coeducation and boys' school....	48
Table 4. 9: Overall mean score of girls in coeducation to boys in coeducation .....	49
Table 4. 10: University entry (c+ and above) of girls in coeducation and boys' in coeducation .....	50
Table 4. 11: Students' Background.....	51
Table 4. 12: Students' General gender view .....	51
Table 4. 13: Classroom learning perspective .....	52
Table 4. 14: Teachers discipline practices .....	53
Table 4. 15: Preference for coeducation verses single sex .....	53
Table 4. 16: Preference for coeducation verses single sex .....	54
Table 4. 17: Teachers' Background .....	54
Table 4. 18: General gender view .....	55
Table 4. 19: Classroom perspective .....	56
Table 4. 20: Teachers discipline practices .....	56
Table 4. 21: Preference for coeducation verses single sex .....	57
Table 4. 22: Preference for coeducation verses single sex .....	58

## LIST OF FIGURES

Figure 2. 1: Reciprocal determinism (Bandura 1989) .....	34
Figure 2. 2: Coeducational Conceptual frame work .....	36
Figure 4. 1: Schools mean scores from 2010 to 2013 .....	42
Figure 4. 2: University entry (C+ and above) .....	43
Figure 4. 3: County ranking of schools top five and bottom five 2012 .....	44
Figure 4. 4: County ranking of schools top five and bottom five 2013 .....	45
Figure 4. 5: Overall mean score of girls in coeducation and girls' school .....	46
Figure 4. 6: University entry (c+ and above) of girls in coeducation and girls' school ...	47
Figure 4. 7: Overall mean score of boys in coeducation and boys' school .....	48
Figure 4. 8: university entry (c+ and above) of boys in coeducation and boys' school ...	48
Figure 4. 9: Overall mean score of girls in coeducation to boys in coeducation .....	49
Figure 4. 10: University entry (c+ and above) of girls in coeducation and boys' in coeducation .....	50
Figure 4. 11: Preference for coeducation verses single-sex schools.....	58

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

In early civilizations, people were educated informally, primarily within the household. As time progressed, education became more structured and formal. Women often had very few rights when education started to become a more important aspect of civilization and even in areas where the expansion of educational system started earlier, women were denied formal education during colonialism but often received instructions to enable them perform domestic tasks and raise their children. With time, the availability of education was gradually extended to women, but they were taught separately from men. The early Christians and medieval Europeans continued this trend, and single-sex schools for the privileged classes prevailed through the reformation period.

In Africa education began as a tool to prepare the local youth to take their place in their respective societies. Boys and girls were taught separately to help prepare each sex for their adult roles. Indigenous education systems began to change from being just rituals and rites of passage to an education that could allow African acquire some basic skills during the era of European colonialism and imperialism in Africa. Therefore, before 19<sup>th</sup> century education system emphasized on separation of girls from boys, this led to introduction of single-sex schools because knowledge, skills and values were sex oriented reflecting different roles the society assigned to each gender and unequal status of men and women in most societies. During the 19<sup>th</sup> century more and more coeducational schools were set up and universalized in many parts of the world. Knight (1999) indicates that the setting up of more coeducation schools was because the co-opting of girls into boys schools, was adopted due to civil pressure and advocacy for the recognition of equal rights of the girl child in education.

Coeducation has been popular around the world and in Africa it has been widely spread due to the tendency to encourage girls' access to good quality education against the

traditional attitudes that hindered their performance (Kolawale 2007). In most parts of Africa the single-sex schools were majorly for boys, the accessibility of girls to education was not easy and the accessible schools were coeducation schools. With the cultural view of girls doing most of the home chores, most parents were not willing to let their girls go to single-sex schools because these schools were mostly boarding and far from home. Therefore, the secondary schools that were within the reach of most parents were coeducation schools, mostly day schools because the cost of schooling was relatively affordable in such schools.

The other reason for establishment of more coeducation schools in Africa was that the setting up of coeducation schools was cheaper than having separate schools based on gender that is boys only and girls' only schools (Lee and Bryk 1986). The setting up of coeducation secondary school was cheaper through community efforts than the single-sex school which required the putting up of two separate schools for boys and girls. The very idea of coeducation posed a threat to the traditional division of labor, and it therefore held the potential of undermining the existing hierarchy within different societies. This resulted into researches on the advantages and disadvantages of coeducation schools worldwide.

Debate and research on the advantages and disadvantages of coeducation for children's academic performance has been ongoing. This has resulted into a surge of interest and establishment of single-sex schools in modern societies across the globe, both in the public and private sector. Re-emergence of more single-sex schools has been the result of concern about the academic under-achievement (performance) of girls in coeducation mathematics and science classes where they were likely to be ignored in class discussions and subjected to threats of sexual harassment. There has also been an attitude that adolescent boys are disadvantaged within coeducation classes because of the presence of the girls, affecting their academic performance. These kinds of ideas and experiments have posed a serious challenge to the principles of coeducation, resulting into re-emergence of more single-sex schools.

In Kenya since colonial times, the trend was to have separate schools for boys and girls (Single-sex schools). After independence this trend changed when community efforts

through Harambee were devoted mainly to building secondary schools which resulted into emergence of more coeducation secondary schools in most parts of the country. With the inception of free primary education in all public primary schools and free tuition in all public secondary schools, the enrolment in both primary and secondary schools rose highly resulting into need for more secondary school. Introduction of Constituency development fund (CDF) in all constituencies in Kenya and Local Authority Transfer Fund (LATF) also made it possible for many more coeducation secondary schools to come up from the primary schools within the same locality.

With this emergence of more coeducation secondary schools in Kenya and in reaction to some researches and current debate citing disadvantages of coeducation for children's academic performance, Kenyan stakeholders and policymakers have also had great concern in the idea of converting coeducation secondary schools into single-sex secondary schools. The conversion of coeducation schools into single-sex schools has been claimed to counteract the negative effects existing in the coeducational secondary schools and improve on academic performance of both boys and girls. UNESCO (2007) indicates that some of the coeducation secondary schools are being converted into single-sex secondary schools while others are teaching boys and girls separately within the coeducation secondary schools.

The effects of coeducation school environment on learning has been identified as; low academic performance, low discipline levels and future career choices that are gender stereotypical to both boys and girls. To counteract these negative effects caused by coeducation classroom environment on learning, some coeducational schools have separated boys from girls to create single-sex schools or to teach boys and girls in separate classrooms within the same school. Riordan (2008) rightly indicates that some coeducation schools have separated boys from girls to create single-sex schools or to teach boys and girls in separate classrooms within the same school. Therefore, it is argued that single-sex classrooms provide better learning environment for both boys and girls, this is because distracters found within coeducation schools are minimized leading to high academic performance for both boys and girls.

In the year 2000 the ministry of education in Kenya changed Uthiru mixed high school founded by St. Peter's Anglican Church to an exclusive Girls' school (Achoka and Barasa 2013). This was as a result of most unrest that had been experienced in most of coeducation secondary schools causing many damages and even loss of life. Given that the society expects good returns for its investment in education in terms of good academic performance, unrests in schools as a result of indiscipline cases would, however, jeopardize these returns and parents would often be called upon to meet the costs of unrests. Trends of indiscipline are associated with poor or low academic performance to both boys and girls and it is argued that indiscipline cases are at a high rate in coeducation settings.

### **1.2 Statement of the problem**

Secondary school is the time when many students begin to weigh their professional options and set goals for themselves as individuals and determine their future life. Therefore, it is very important for students to achieve higher academic performance at this level because education is recognized as a tool for achieving social mobility and it should endow individuals with the skills and qualifications to take up social responsibilities without any bias in regard to gender, color and tribe. School context or environment (Coeducation or Single-sex schools) can therefore lead to higher or low and promote or reduce students' academic performance. There is concern that low academic performance is more prevalent in coeducational schools settings than in single-sex school settings citing a number of reasons for this. The previous studies on effects of coeducation have varying or inconsistent views some citing effects and some claiming no effect to students' academic performance. Though much has been done in this area, there was therefore need to study the effects of coeducation on students' academic performance in Kenya certificate of secondary education in Kenya (KCSE), Busia County in order to validate some of the findings done in this area.

### **1.3 Purpose of the study**

The purpose of this study was to assess the effect of coeducation on student's academic performance in Kenya, Busia County.



#### **1.4 Objectives of the study**

The study sought to achieve the following objectives

- (i) To determine the extent to which coeducation schools affect male and female students' academic performance.
- (ii) To establish students' and teachers' attitude on effects of coeducation on students' academic performance.

#### **1.5 Justification of the study**

It is the school's climate that either facilitates or constraints classroom instruction and student learning (Shileds 1991). This study sought to inform teachers, school administrators, parents, stakeholders in education, the government through the ministry of education and teachers service commission about the effect of coeducation on students' academic performance. This was to help in proper planning and establishment of secondary schools that would lead to higher academic performance for both boys and girl students. It was also to help in proper utilization of the available resources by directing them to the right school context enabling boys and girls student achieve higher academic performance in the examinations, indication that learning has taken place within the classrooms. The study sought to extend the analysis of effects of coeducation on students' academic performance, adding to the existing body of knowledge on this subject. The study also sought to contribute to the still incomplete yet growing body of literature on effects of coeducation on students' academic performance.

#### **1.6 Operational Definitions**

The following terms were defined as indicated for the purpose of this research

- 1.6.1 Coeducation: is also known as mixed gender education or mixed sex education, it is the integration of male and female students in the same school environment.
- 1.6.2 Single-sex education: is where male and female students attend or learn within separate schools.
- 1.6.3 Academic performance: refers to the ability to learn and remember facts and being able to communicate your knowledge verbally or in written.

- 1.6.4 Student: is someone who attends an educational institution (Secondary school) for learning purposes.
- 1.6.5 Teacher: is a person who provides education or one who facilitates students' learning.
- 1.6.6 School: is an institution where students receive instruction and meet the basic standards stipulated in the regulations of the ministry of education.
- 1.6.7 Secondary schools: refers to schools that offer the syllabus for the award of Kenya certificate of secondary education to students after completion of four year course (form one to form four).
- 1.6.8 Kenya certificate of secondary education (KCSE): refers to Kenya national examination done Countrywide by students at the end of secondary schools (four year course) in which a certificate is awarded.
- 1.6.9 Learning: refers to the acquiring new or modifying and reinforcing, existing knowledge, behaviors, skills, values or preferences and may involve synthesizing.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the literature on effects of coeducation on students' academic performance. It focuses on related studies, literature on the concept of coeducation, evolution of coeducation, the purpose of coeducation, challenges of coeducation (academic performance, behavior characteristics and their effects on learning, gender aspects, classroom interaction, students' discipline, teachers' discipline practices and teachers' and students' attitude towards coeducation), coeducation in Kenya and the summary of literature reviewed. Lastly there is the theoretical frame work (the social cognitive theory and the theory of social constructivism) followed by conceptual framework.

#### **2.2 Related studies**

Coeducation generally has low academic performance compared to single-sex school and this is due to a number of issues that contribute to the low academic performance to both boys and girls. The effect of coeducation on academic performance is clearly seen mostly among girls and this is majorly attributed to the way teachers treat boys and girls, favoring boys than girls. Shaibu and Usman (2001) found out that teachers interact more with boys, praise bright boys more and they call boys more than girls, this makes girls to tend to respond less in the classroom. This kind of interaction between boys and teacher is a more challenging interaction and tend to put girls in coeducation schools look out of place. Given that proper learning takes place when there is interaction between parties involved, girls end up not learning as required, perform poorly and therefore coeducation negatively affects girls' academic performance.

Girls receive less of the teacher's time and tend to keep quiet even if they did not understand the lesson and therefore most of the teachers' time is spent on boys within the given lesson more so in sciences. Elimu Yetu Coalition (2003) rightly indicates that

teachers tend to encourage boys more than girls, especially in the science subjects in coeducational schools. These kinds of interaction impact negatively to girls' academic performance more especially in science subjects and mathematics that require more time of interaction and encouragement. Most of the lesson time is spent on boys because of their talkative nature, they ask most of the questions and request for more explanation if they did not understand the concept being learnt. Teachers' attention is diverted to boys, encouraging them more and ignoring girls who require equal attention for better academic performance, they therefore perform poorly as compared to boys.

Contrary to the above findings where girls receive less of the teachers' time, it has also been found that boys receive less of teachers' time in coeducation schools and this is because teachers think girls are smarter in terms of academic work, teachers like being around girls more and hold higher expectations for girls. Girls receive more of teachers' time and they are helped in areas they did not understand. Boys in coeducation schools instead receive more rebukes and feel overwhelmingly that they are discriminated against because of the amount of negative attention they receive from their teachers (Warrington and Younger 2002). Whenever boys would ask questions or ask for more clarification, teachers would consider it as interference to the lesson and therefore boys would be rebuked and ignored. This kind of interaction between teachers and boys leads to boys' low academic performance.

Coeducation schools have also been found to have positive effect on academic performance to both boys and girl students. Bosire et al (2008) found out that, Kenyan students taught in coeducational classes scored relatively higher compared to those in single sex schools in mathematics examination. They found out that both boys and girls in normal coeducation schools scored higher in mathematics than boys and girls in coeducation segregation (boys and girls in coeducation taught in separate classrooms) and single-sex schools. Therefore this indicates that coeducation schools provide better learning environment for higher academic performance in mathematics to both boys and girls. Both sexes are motivated to outperform each other in mathematics and in this case each raises their academic performance higher than both boys and girls in single-sex secondary schools.

Coeducation school environments have positive effects on boys' academic performance in mathematics than girls. Lee and Lockheed (1990) rightly notes that coeducation schools have high academic performance more so in boys because in their findings they got that, boys in coeducation schools out performed boys in single-sex schools in mathematics. This indicates that coeducation environment motivates boys to work hard in mathematics than girls, makes boys believe in themselves to outperform girls in mathematics as per the societal expectation. The society expects boys to perform better than girls in mathematics, and therefore in coeducation schools this is realized by boys working hard to ensure that girls do not perform better than them and in this case, boys perform better than boys in single-sex schools. Therefore coeducation is more beneficial to boys than girls more so in mathematics.

It is claimed that, in the presence of girls, it is where boys stand out in academic performance, they are motivated to work hard because of girls being around and this makes them do much better than boys in single-sex schools (Lepore and Warren 1997). The presence of girls make boys work hard, see themselves as superior to girls in terms of academic performance and would not allow girls to outperform them. Girls view themselves as weak academically, allow boys to dominate in most of the classroom interaction and give up in situations that require competition. Boys dominate in most of the hands on activities in subjects like mathematics and sciences because of their outgoing nature which draws the teachers' attention. Generally boys are positively affected in coeducation schools by performing better than boys in boys' schools while girls on the other hand are negatively affected in terms of academic performance.

The advocates of single-sex schools argue that single-sex secondary schools have higher academic performance to both boys and girls compared to coeducation secondary schools. Riordan (1990) found out that boys and girls in single sex schools scored higher on standardized cognitive tests than their peers in coeducation. Single-sex classrooms have been found to create an environment that allows both boys and girls to express themselves freely without being intimidated by the opposite sex. They can interact freely in classroom with their peers and teachers, without teachers preferring and favoring one gender to other. Students can request for assistance in areas they did not understand well

without fearing the opposite sex. Therefore single-sex schools positively affect both boys' and girls' academic performance in all subjects without discrimination of some subject in terms of gender.

Girls are able to participate in classroom interaction without fearing to be shouted at, called negative names, receive annoying written notes and be bullied by boys whenever they give wrong answers or ask for teachers' assistance and boys are also able to interact with each other and their teachers without the attitude that girls are favored and they are hated. Mael (1998) found results supporting this idea by noting that single-sex secondary schools learning environments worldwide had more overall benefits for both boys and girls to perform higher than boys and girls in coeducation secondary schools. This kind of learning environment in single-sex secondary schools positively affects both boys and girls in academic performance. This is because none is ignored in learning, enabling both boys and girls to perform much better in almost all subjects than boys and girls in coeducation secondary schools settings.

Apart from the single-sex secondary schools being beneficial to both boys and girls, it is argued that single-sex secondary schools have more benefits to girls more than boys. Girls in Single-sex schools are able to show their assertive nature without being afraid of negative criticism, from boys within coeducation schools. They are free to themselves and can compete amongst themselves in any given situation because distracters that exist in coeducation settings are not there and they are able to see each other as equals. Single-sex secondary schools provide comfortable places in which girls can learn and explore the world more. They get an opportunity to consider issues of gender identity and the variety of roles girls can consider in today's and tomorrow's society. Booth and Nolen (2009) rightly indicate that girls educated in single-sex environment behave more like boys in competitive situations.

Single-sex secondary schools have been found to improve girls' academic performance in mathematics and sciences because girls feel free of; intimidation, they are more confident, and more positive about their work in single-sex classes. They are able to participate actively in classroom activities, help each other in areas they did not understand well, they do not view themselves as inferior in some subjects and perform

better in subjects that are considered to be hard and viewed as the boys' subjects in coeducation schools. Lee and Lockheed (1990) agrees with this by noting that single-sex schools improve girl's mathematics achievements and engender less stereotype threat in mathematics. Therefore this indicates that single-sex schools provide an environment where girls believe in themselves and work hard in mathematics and sciences improving academic performance more than girls in coeducation.

Girls who attend single-sex secondary schools, have less traditional views about gender roles, they have a more positive self concept, and put a greater emphasis on academic and career success than girls who attend coeducational secondary schools (Kristen 2010). The positive self concept for girls in single-sex secondary schools makes them work much hard than girls in coeducation secondary schools and they are able to take up given roles, without considering gender issues attached to those roles and they believe in themselves that whatever boys can handle in terms of academic performance, they can handle too. They work hard aiming at higher academic performance and career success to them is not limited to their gender as expected by the societies. Therefore single-sex environment makes girls be able to compete comfortably with boys and are focused in terms of career choices.

Girls in single-sex secondary schools have high academic performance and self confidence and develop leadership skills that could not be possible within coeducation secondary schools settings because of the distracters and interference from boys. This is because single-sex secondary schools provide an opportunity for the girls to develop leadership skills by freely taking up leadership positions in secondary schools without fearing boys. These girls are found to enter into male dominated fields at higher rates than girls from coeducation secondary schools. Smyth (2010) rightly indicates that girls in single-sex secondary schools get higher academic performance, display more self-confidence and leadership skills, and enter male-dominated fields at a higher rate. Therefore single-sex secondary schools have more overall benefit to girls than boys compared to girls in coeducation secondary schools.

It is argued that girls from single-sex secondary schools perform higher in academic performance and their self-esteem is high compared to girls from coeducation secondary

schools. Thompson (2003) rightly indicates that girls who attend single-sex high schools have higher test scores, higher self-esteem, less traditional sex-role attitudes and are frequently more involved in school leadership positions. The girls' attitude towards roles in society is not sex oriented and this is attributed to the positive self esteem and less traditional sex-role attitudes exhibited because of single-sex secondary schools' settings. They are able to perform any task from any given subject without considering gender stereotype and can properly fit into the wider society more than girls from coeducation secondary schools. Therefore single-sex secondary schools are more beneficial to girls than to boys.

A part from single-sex secondary schools being beneficial to girls, they have been found to be more beneficial also to boys, compared to boys in coeducation secondary schools. Mburu (2013) rightly indicates that boys in single-sex secondary schools feel free to be themselves and to explore new fields than when they were in coeducation secondary schools and perform much better in academics than those in coeducation secondary schools. Boys and their teachers in single-sex secondary schools created a more macho environment than existed in coeducational classrooms, where teachers encourage continued offensive behavior towards girls. The offensive behavior distracts boys from concentrating on class work hence lowering their academic performance. Teachers would apply appropriate methods and interact with boys without seeing their behavior as interfering with learning.

Boys in single-sex secondary schools are able to concentrate on academic work and perform well in subjects that are considered to be for girls. Mael (1998) found out that although single-sex secondary schools were beneficial to boys and girls, they had more overall benefits for boys than for girls. Distracters that exist in coeducation secondary schools like boy-girl relationships, differential treatment of students; in which teachers are harsh and rough to boys and gentle to girls do not exist. Boys develop positive self-esteem, positive attitude, work hard and compete amongst them academically and perform highest in all subjects. They are able to take up all roles and careers within the society without consideration of gender stereotype. Therefore single-sex secondary



schools are beneficial to boys by raising their academic performance more than they are to girls.

Contrary to the positive effects caused by single-sex secondary schools on academic performance discussed earlier, there are also negative effects of single-sex secondary schools on students' academic performance. American Association of university women (1998) challenged the idea that single-sex classrooms are automatically good for girls, they claim this is not the case because they lack academic rigor and positive competition might not be there. Girls are not motivated to perform much better because of the presence of fellow girls who might not pose challenges like boys. This is because outperforming boys motivate girls to work much more than defeating other girls. The environment that exists within the single-sex secondary schools makes girls to be more relaxed and when defeated by their peers, they find it normal because of same gender.

Students from girls only secondary schools (single-sex schools) performed poorly in science subjects, thus they were excluded from the science based programs at post-secondary levels (Eshiwani 1993). Single-sex schools create an environment that makes girls develop a carefree attitude in learning mathematics and sciences. This leads to low academic performance in mathematics and sciences excluding girls from courses and careers that require mathematics and science knowledge. This creates the society that lacks equity in terms of gender when it comes to job market and placement because of girls lacking required qualifications. Single-sex secondary schools' setting creates an environment, that fulfill the society's expectation where boys are expected to perform better than girls in mathematics and science while girls are encouraged to try in other subjects considered simple.

Given that at the secondary level, majority if not all students are at the adolescent stage of growth and development, single-sex secondary schools do not give appropriate learning environment that allows the adolescent to develop well. They lack opposite sex class mates who would provide different learning experiences of interactions allowing them to develop fully in all aspects of life. Younger et al (2006) rightly indicate that single-sex schooling and classes are detrimental to the development of adolescents. The development includes; physical, psychological, social and emotional. The social-

emotional development if not well developed because it plays key role in learning it affects academic performance of both boys and girls. Single-sex secondary schools do not provide the ideal world situation found outside the school where male and female interact with each other in everyday life.

Studies and research have also identified that coeducation secondary schools do not affect in any way students' academic performance contrary to studies for and against coeducation secondary schools discussed earlier. Lepore and Warren (1997) found out that there was no any difference in academic performance between students in coeducation secondary schools and single-sex secondary schools, boys in single-sex secondary schools did not increase their test scores more than boys in coeducation secondary schools. This indicates that boys and girls could still perform academically high or low whether in coeducation secondary school or single-sex secondary school and therefore coeducation secondary school might not be a factor that determines or influence students' academic performance.

Although there were no significant differences in academic performance found of students of coeducation secondary school and single-sex secondary school, there were also no significant differences in the self-concept of the students of both types of secondary schools. Smith (1997) rightly indicates that there were no significant differences in the academic performance or the self-concept of the students of both types of secondary schools (coeducation and single-sex schools). Positive self-concept leads to high academic achievements and negative self-concept leads to low academic achievements. Given that there is no significant difference in students' academic performance and self-concept of the students of both types of secondary schools, this clearly indicates that coeducation secondary schools have no effects on students' academic performance.

Research work done on the effect of conversion of coeducation secondary schools to single-sex secondary schools on girls student discipline, found out that conversion positively affected girls student discipline by minimizing cases such as boy girl relationship, students' absenteeism and rudeness towards authority among others. Though such cases decreased, other indiscipline cases that did not exist in coeducation secondary

schools emerged among girls and these were; drug abuse and defiance of the ministry and school regulations not to have and use cell phones in school (Achoka and Barasa 2013). This is important to this study because discipline and academic performance go hand in hand in such a way that when discipline goes down, academic performance goes down and when it improves, academic performance will also improve.

## **2.3 Literature on the study**

This part looks at concept of coeducation, evolution of coeducation, the purpose of coeducation, challenges of coeducation, coeducation in Kenya and the summary of literature reviewed.

### **2.3.1 The concept of Coeducation**

Coeducation is also known as mixed gender education or mixed sex education. Coeducation therefore refers to the integration of male and female students in the same schools environment or is the education of males and females in the same schools. Claudia and Katz (2011) notes that Coeducational institutions, refers to institutions that have classes for men and women together. Many older institutions of education were previously reserved for one sex majorly boys and Coeducation was first introduced in Western Europe after the reformation period when certain protestant groups urged that girls as well as boys be taught to read the Bible. Since World War II, Coeducation was adopted in many developing countries, however, in other Countries, social conditioning and religious sanctions have limited its success for example in most Arab countries girls tend to drop out of coeducational schools at the age of puberty.

At present time, Coeducation appears to be predominant in pre-school establishments. However, in almost all countries the proportion of coeducation establishments declines steadily as the age of pupils rises, from the first to the secondary level. On the other hand, this proportion rises again sharply at the level of higher education. Similarly, there are quite a number of establishments which are coeducation in theory but in which girls are not represented at all or only very poorly, while in others, girls are the majority (UNESCO 1970). The decline of coeducation as the age of pupils rises from the first to the secondary level may be because at the secondary education level, the learners are at

the adolescence stage of human growth and development which occurs after child hood and before adulthood from age ten to twenty one years. It is claimed that at this stage of development, students tend to be distracted by opposite sex, affecting learning.

The adolescence stage represents one of the critical transitions in the life span of human beings and is characterized by a tremendous pace in growth and change. Biological processes drive many aspects of this growth and development and this stage is frequently portrayed as a negative stage of life, a period of storm and stress to be survived or endured. Storm and stress include three key elements; the first is conflict with parents in which there is the tendency to be rebellious and to resist adult authority, the second is mood disruptions in which they tend to be more volatile emotionally, experience more extreme of mood and swings of mood from one extreme to the other and more frequent episodes of depressed mood. The third is risk behavior in which there are higher rates of reckless, norm-breaking and antisocial behavior causing disruption of social order with the potential for harm to themselves and others around them (Arnett 1999).

According to the American Academy of child and adolescent's facts for families (2008), the adolescence stage is characterized by; physical, cognitive and social-emotional development. The social-emotional development in early adolescence is characterized by struggle with sense of identity, feel awkward about one's self and one's body; worry about being normal, realize that parents are not perfect; increased conflict with parents, increased influence of peer group, desire for independence, tendency to return to "childish" behavior, particularly when stressed, moodiness, rule-and limit-testing, greater interest in privacy. Middle adolescence is characterized by intense self-involvement, changing between high expectations and poor self-concept, continued adjustment to changing body; worries about being normal, tendency to distance selves from parents; continued drive for independence, driven to make friends and greater reliance on them, popularity can be an important issue, feelings of love and passion.

Late adolescence is characterized by firmer sense of identity, increased emotional stability, increased concern for others, increased independence and self-reliance, peer relationships remain important, development of more serious relationships, social and cultural traditions regain some of their importance. The U.S Early childhood longitudinal

study (Initiated in 1998) showed that, while at kindergarten level, girls and boys had similar performance in reading and mathematics, by third grade boys had slightly higher mathematics score and lower reading scores than girls and as the students advance through schooling, gender differences increase (Dee c2006). This might also be the reason for the decline of coeducation as the age of pupils increase in many establishments.

Boys and girls learn completely differently, their view of the world is differently too; boys see the world in action and respond to moving objects, while girls see the world through emotions and respond to color and people and the retina of girls' eyes look for color while boys' eyes look for movement and that girls have more sensitive hearing than boys (Sax 2005). These gender differences in learning and the view of the world differently are also some of the reasons put forward for the arguments for the decline of Coeducation establishment with the rise of the pupils' age from the first to the secondary level of education. At the age of higher learning it is claimed that these differences reduce and that is why coeducation establishments increases again in most institutions in the world.

In all establishments in the world Coeducation occur in two ways; the establishment of new Coeducational institutions and the conversion of previously single-sex institutions into coeducation schools. On the contrary, there are also other coeducation schools that are being converted in to single-sex schools at secondary level citing some disadvantages of coeducation secondary schools to students' academic performance.

### **2.3.2 Evolution of coeducation**

Early civilization people were educated informally; primarily save within the house hold. When education became more structured and formal, women often had very few rights to education and were taught separately from men. Therefore single-sex secondary schools for the privileged classes prevailed through the reformation period and before 19<sup>th</sup> century education system emphasized on separation of girls from boys. Historically boys have always had an upper hand in education and the majority of secondary schools established in the world earlier on were single-sex schools. In Africa during the colonial

period most of the secondary schools enrolled only boys, resulting into the establishment of more single-sex secondary schools, this trend continued even after independence.

Coeducation was adopted over time in many parts of the world due to civil pressure and advocacy for the recognition of equal rights of the girl child in education (Knight 1999). The girl child had been left out of quality education because of earlier establishments and of cultural belief that recognized boys. The careers had been grouped in terms of gender favoring boys and girls were encouraged to do subjects that were seen to be feminine. In order to do away with these kinds of segregation, the establishment of coeducation was encouraged to attain equal rights to education for girls due to civil pressure. Therefore this made most of the secondary schools established in most parts of the world at this particular time become coeducation because this was the easier way of achieving equality in education for girls.

Coeducation was better placed to meet the social and educational needs of young people (Dale 1974). Coeducation secondary schools, apart from the educational needs for academic performance and getting a good career, it was bringing out individuals who would fit in the society well and know how to interact with everybody as well. Coeducation was presenting an ideal environment of opposite sex experiences that were to be found in the society even after school where boys and girls would be able to learn how to handle each other in terms of socialization. With these kinds of benefits of coeducation presented, coeducation became more popular around the world and most secondary schools established at this time were coeducation because they were found to be more beneficial than single-sex schools.

In Africa coeducation has been widely spread due to the tendency to encourage girl's access to good quality education against the traditional attitudes that hindered their performance (Kolawale 2007). In most parts of Africa the Single-sex secondary schools were majorly for boys only, the accessibility of girls to education was not easy and the accessible secondary schools were coeducation schools. With the cultural view of girls of doing most of the home chores, it made most parents not willing to let their girl to go to Single-sex secondary schools for girls because they were mostly boarding and far from home. Therefore the secondary schools that were within the reach of most parents were

coeducation secondary schools, most of them were day schools and cost of schooling was relatively affordable.

Proponent of single-sex secondary schools came up with research which indicated that coeducation secondary schools presented the possibility in which the presence of the opposite sex became inherently distractive, hindering academic success. To counteract the negative effects existing in the coeducation secondary schools, some of the coeducation secondary schools were converted and some have been converted of late into single-sex secondary schools while others are teaching boys and girls separately within the coeducation secondary schools. Riordan (2008) rightly indicates that some coeducational secondary schools have separated boys from girls to create single-sex secondary schools or to teach boys and girls in separate classrooms within the same school.

Therefore recent years have seen the re-birth of single-sex schools, either in form of single-sex classes within otherwise coeducation schools or in separate single-sex schools, in a number of countries including the US, Britain and Australia (Datnow and Hubbard 2002). The re-birth of single-sex schools has also been experienced in Africa including Kenya. This has been the result of efforts to address boys' and girls' under achievements in coeducation secondary schools and also the effort to promote the choices of courses related to mathematics and sciences more especially in girls. There appears to be very little consensus on whether coeducation or single-sex education is advantageous to boys' and girls' academic achievement.

### **2.3.3 The purpose of coeducation**

In educational institutions, success is measured by academic performance, or how well a student meets standards set out by local governments and institutions itself. As career competition grows even fiercer in the working world, the importance of students doing well in schools has caught the attention of parents, legislators and government education departments alike. High and low student's academic performance needs to be evaluated in order to foster improvement and make full use of the learning process. The school environment coeducation, or single-sex plays a big role in student's academic

performance and school climate has long been recognized as one of the variables having an important effect on student learning and academic performance.

Coeducation in many parts of the world offers students an opportunity to view each other as partners in learning, playing and friendship, gender stereotypes are diminished and opportunities for understanding increase in this environment. A coeducational school embraces diversity and equality and offers a wide range of learning experiences, friendships and role models. When boys and girls learn and play together, broadening and influencing each other every day, they develop sophisticated social and emotional understanding. Developmental opportunities are not limited by gender, friends are not restricted to any particular category, and the education of the student includes recognizing others as unique individuals and rejecting stereotypical notions about what it means to be a boy or a girl. Therefore coeducation is best placed to achieve all these.

A coeducational school discourages students from perceiving either boys or girls as an “out-group” lacking in individuality and value. Not only are all students treated as individuals, but no single element of a student’s identity is separated out as his or her defining feature. On addition, given that earlier on women often had very few rights when education started to become a more important aspect of civilization and the availability of education was gradually extended to women, but they were taught separately from men, the purpose of coeducation was to recognize equal rights of the girl child or women in education. Knight (1999) indicates that the setting up of more coeducation schools was because the co-opting of girls into boys schools, was adopted due to civil pressure and advocacy for the recognition of equal rights of the girl child in education.

In Africa boys and girls were taught separately to help prepare each sex for their adult roles. When indigenous education systems began to change from being just rituals and rites of passage to an education that could allow Africans acquire some basic skills during the era of European colonialism and imperialism in Africa, the girl child had no access to good quality education. Therefore the purpose of Coeducation in Africa was and is still to encourage girls to access good and quality education that allows them to compete favorably with the rest of the world. Kolawale (2007) rightly notes that coeducation in



Africa has the tendency to encourage girl's access to good quality education against the traditional attitudes that hindered their performance.

### **2.3.4 Challenges of coeducation**

#### **2.3.4.1 Academic performance**

Large numbers of boys than girls in coeducational schools are associated with low academic performance for all students. This is because boys are believed to be disruptive of classroom learning environment and alter the classroom dynamics in ways that are not conducive to learning to both themselves and the girls. They tend to call others (boys and girls) nicknames whenever they try and fail to get correct answers within the learning process and this tends to make the others to withdraw from active participation of learning. Given that meaningful learning takes place whenever students participate actively, this leads to poor academic performance of both boys and girls within coeducation classes. They themselves also perform poorly because of lack of concentration because of looking for nicknames for others.

The boy's disruptive acts makes girls afraid and shy to tell their teachers that they did not understand during the learning to avoid being ridiculed during the lesson and even after the lesson. The girls' learning is affected negatively while the boys' learning is also negatively affected because most of boys' time is wasted on finding mistakes in the girls' learning instead of concentrating in class work more so during mathematics lessons. Githua (2002) rightly indicate that the learning of mathematics by girls in coeducation schools may be inhibited by the presence of boys and that, girls do worse than boys in the college-qualifying exams. The poor performance of girls in mathematics may be because of the disruptive acts of boys leading to lack of concentration in learning.

The girls' academic performance in coeducation schools is low due to discouragements from boys and teachers. Boys in some cases use sexual and verbal harassment to girls, while teachers sometime use teaching methods that are discriminative to girls learning. Bosire et al (2008) supports this idea by noting that the girls' academic performance is negatively affected in coeducation schools because they suffer various kinds of subtle, unobtrusive, discriminatory pedagogical practices, and in some cases sexual and verbal

harassment from the male students. Therefore this kind of negative environment created by boys and teachers makes girls be out of the learning processes, which in turn affect their academic performance negatively in most of coeducation schools.

#### **2.3.4.2 Behavior characteristics and their effects on learning**

Many of the behaviors exhibited by boys in the classrooms are socially inappropriate and continue to create problems in schools, these behaviors range from minor classroom disturbance to acts of violence. While all of these behavior obviously disrupt the boys own learning, the most disturbing research findings also indicate that these behaviors are impending to the learning of others. Girls complained about the negative effects on their work caused by boys' disruptive behavior (Warrington and Younger 2002). This makes girls, and boys themselves not to concentrate properly on learning resulting into low academic performance to both boys and girls in coeducation schools.

In poorly managed schools, there is the risk of boy classmates physically or sexually abusing the girls (UNESCO 2007). This kind of behavior makes girls inferior, fearful and intimidated by the boys classmates. The girls can't give their opinion that is opposite of the boys', they keep to themselves whatever idea they have and follow everything the boys say even if it is wrong for fear of abuse from boys in coeducation schools. The girls tend to agree with every answer the boys call or shout out in order to please the boys. The lack of freedom to freely express themselves makes girls to perform low academically and because of this, boys themselves end up performing poorly because of lack of competition from the fearful girls.

The 'disruptive behavior' of boys can take the teacher's attention for the whole lesson and therefore girls, receives less attention than boys because girls are considered quiet and well behaved while boys are considered talkative, loud and restless. Signorella et al (1996) rightly indicate that girls are likely to be ignored by teachers within the classroom of coeducation schools. When the disruptive behavior of boys take teachers attention, the lesson coverage is negatively affected and the girls' learning together with the boys' automatically is affected. Once the lesson coverage is affected, the academic performance of both boys and girls is also negatively affected.

#### **2.3.4.3 Gender aspects**

Teachers' treatment of boys and girls in Coeducational classrooms reaffirmed gender in accordance with cultural norms which define masculinity and femininity. Teachers' influences at school have been found to be a hindrance to girls opting for science and mathematics because they carry the societal expectations of girls into the school by treating boys differently from girls (Chege et al 2006). Teachers continue to see girls as individuals who will succeed through quiet diligence and hard work and boys as more "naturally clever". This leads to differential treatment of girls and boys in favor of boys which leads to girls' low academic performance more so in mathematics and sciences.

The gender aspects in coeducation are also seen in the way boys and girls are seated in classrooms. In some areas girls are seated at the rear of the classroom while boys seat in the front of the classroom. Anderson-Levitt et al (1998) found out that in Ghana girls were dispersed around the classroom, either in small clusters or isolated among the boys. With this kind of seating arrangement, girls are disadvantaged in one way or the other, they can't be able to inquire or seek assistance from boys who are seated away from them. They therefore remain in their seated clusters inquiring from each other even if they did not understand. This is also a form of discrimination expressed in terms of gender in favor of boys by seating in areas they can understand the lesson better.

Teachers are part of the causes of gender differences that exists in schools; they have the power to contribute to eliminate these inequalities in practice (Aguale and Agwagah 2007). But teachers on contrary seem to encourage gender differences by holding on to the societal belief that boys do well than girls academically. They tend to handle boys differently from girls by giving boys hard tasks to handle while girls are given light tasks more so in mathematics and sciences. This is because boys are thought to be clever than girls while girls are seen to be weak and should be encouraged through learning in order to perform well. This kind of differences disadvantage girls academically because they remain behind compared to boys in mathematics and sciences.

In theory most teachers believe education should be a liberating and democratic influence, but in practice mathematics teachers still seem to reinforce traditional behaviors in favor of boys' even in situations where there are interesting and talented

girls' (Ango et al 2003). Interested and talented girls are still seen by teachers as unable to handle some mathematics questions the way boys can do discouraging girls while the boys who are not interested and talented are encouraged to work through the give tasks. This is because of the traditional belief that mathematics is for boys and not for girls leading to girls' low academic performance.

#### **2.3.4.4 Classroom interaction**

In coeducation secondary schools most girls worry that their assertiveness in class or extra-curricular activities will make the boys in the school view them poorly or make them feel less attractive. Therefore most girls are shaped into conformity in the classroom by boys who shout at them, call them names, and write annoying messages in their books (Mirembe and Davies 2001). The dominant masculine practice taken up by groups of boys severally limits the options of girls. This makes girls conform into the demands and desire of boys at the expense of academic performance hence low academic performance. The name calling, shouting and annoying messages makes girl to shy off and not participate actively in classroom activities hindering better academic performance.

On the other hand the adolescent girls often feel uncomfortable and intimidated by the presence of boys (Warrington and Younge 2002). This is simply because of adolescent stage of development which makes girls more conscious of their bodies and therefore many girls simply opt out of the classroom dynamic when in a coeducation school setting because it is easier to keep quiet and remain inconspicuous rather than risk the humiliation of saying the "wrong things" in front of boys who mock them. This in turn negatively affects the academic performance of girls in coeducation secondary schools because learning requires active involvement of an individual student than keeping quiet during learning process.

Boys contribute more to classroom interaction (for example, by 'calling out' answers) and dominate in 'hands-on' activities, such as laboratory work and computer sessions (Francis 2004). The calling out of answers makes teachers assume that all students know the correct answers and yet girls who are quiet may not have understood. The domination of boys in hands-on activities in laboratory work and computer sessions discourages girls to participate actively in such subjects. This makes girls opt for languages and other

subjects limiting them on career choices available after school because of poor performance in sciences and mathematics in coeducation secondary schools.

Boys dominate the classroom process, they receive more encouragement to work through a problem than girls and girls also do not volunteer to contribute to classroom discussions as they shy away from exchanging words with boys in the classroom (Mburu 2013). This makes girls shy away from environments in which they have to compete, not comfortable asking questions, and believe that they are hated by teachers who are found to encourage boys. The dominance of boys is seen in answering questions and in group discussions by active participation. Therefore the boys' dominance and the favoritism of teachers towards boys hinder girls' academic performance in coeducation secondary school. Girls therefore perform poorly in such learning environment.

Most teachers believe that mathematics and sciences are males' subjects and therefore they do not mind whether girls perform well or not in their teaching. Elimu Yetu Coalition (2003) rightly indicates that teachers tend to encourage boys more than girls especially in science subjects in Coeducation secondary schools. They encourage boys to work hard as they do not expect them to perform poor in sciences and mathematics. Teachers actually discourage girls by uttering statements such as 'mathematics and science are not meant for girls'. This utterance makes girls give up completely in mathematics and sciences. Girls receive less attention and are given fewer opportunities for learning and problem solving than boys.

The interaction between teachers and boys within the coeducation classrooms tend to exclude girls from the active participation. Teachers and boys tend to unthinkingly collaborate to construct science as an area of masculine endeavor, excluding girls from science and mathematics lessons. Both teachers and boys are contributors to a pattern that gives girls fewer opportunities to participate in classroom recitation (Brenner 1998). Therefore most girls opt out of the classroom dynamic by becoming quiet, this is more common in sciences and mathematics in which there is a belief that these are subjects for boys and not for girls in coeducation schools. Girls end up feeling inhibited and constrained in coeducation classes, becoming less motivated to engage in classroom activities and in turn perform much less than expected.

#### **2.3.4.5 Students' discipline**

Discipline in schools is essential for effective learning, good teacher relationship with students and peer adjustment to the right norms within the school setting. Discipline is considered vital for students' academic and social success in every school environment. Coeducation schools have more indiscipline cases because of the presence of the opposite sex. O'Reilly (2000) supports this idea by indicating that coeducational schools have more complex disciplinary problems compared to single-sex schools. Indiscipline cases such as strikes are common in poorly managed and equipped coeducation schools compared to single-sex schools. Sometimes boys refuse to be punished in the presence of girls because of their girl friends who might be in the same classroom, they therefore opt to resist any form of punishment.

Cases of indiscipline such as absenteeism, sneaking, defiance of authority, stealing, bullying, boy-girl relationship, drug abuse are still reported majorly in coeducation secondary schools in which numerous and complex disciplinary problems are experienced. Affullo (2005) found out that in Bondo District in Kenya, boys' and girls' secondary schools face ordinary disciplinary problems while Coeducation secondary schools experienced more complex disciplinary problems. Boys are seen as discipline problems and need to be controlled; they become the focus of the teacher in the classroom. This kind of indiscipline issues lowers academic performance because students spend most of their time on punishment instead of concentrating on class work within coeducation schools.

Girls are affected majorly by high dropout rates because of boy-girl relationship, early pregnancies and early marriages (Achoka 2009). Coeducation provides an environment that encourages girls to engage into boy-girl relationship because of the presence of boys while early pregnancies and early marriages increase in such school environment. Coeducation secondary schools where proper administrative structures lack, cases of girls being harassed sexually by boys can also be identified. This kind of indiscipline issues result in to low academic performance and low rates of transition to higher levels of learning in girls. This also affects boys because most of their time is wasted on maintaining boy-girl relationship instead of concentrating on class work.

#### **2.3.4.6 Teachers' discipline practices**

Teachers are key input and a force to reckon with in school and they are a prime factor in the performance of students. Disciplinary practices adopted by most of the teachers in coeducation schools are unfavorable to the boy child's general well being and indeed are detrimental to the boys' academic performance. Teachers tend to be biased more so by treating boys roughly than girls an attitude underpinned by the society's cultural beliefs. Peterson et al (2000) rightly indicate that in coeducation classrooms, boys are punished more than girls and that their punishment is more severe. Therefore teachers' differential treatment of girls and boys, in which they are harsh on boys, punish boys more and they are very gentle on girls in coeducation schools, humiliate boys, lowering their self esteem and creating more rebellion from boys. These in turn result into low boys' academic performance.

Teachers differential discipline practices leads to boys in coeducation secondary schools being treated to rougher forms of disciplinary methods more than girls, some of which infringe on the rights of the child as advocated for in various legal provisions both locally and internationally causing negative feelings of defeat, humiliation and embarrassment (Tikoko et al 2011). The negative feelings of defeat, humiliation and embarrassment caused by teachers on boys in the presence of girls makes most boys feel rejected and not valued. This makes most boys indulge into more other complex indiscipline cases in order to revenge on their teachers or opt not to participate in any learning activities. All these result into boys' poor academic performance in most of the coeducation secondary schools because of frequent boys' suspension and expulsion more than the way girls are punished.

#### **2.3.4.7 Teachers' and students' attitude towards coeducation**

Teachers' and students' attitude is significant to the academic performance of students and this is because positive attitude to learning leads to high academic performance while negative attitude leads to poor performance. Teachers play key role in students' learning and have great influence on academic performance to all students. Most teachers have been found to have developed negative attitude towards coeducation schools and therefore prefer single-sex schools. Mburu (2013) rightly indicate that most teachers have

developed negative attitude toward coeducation schools and most of them favor single-sex schools. Teachers claim that they can employ strategies in all girls classroom, and in all boys classrooms, which doesn't work as well (or do not work at all) in the coeducational classroom and that if teachers have appropriate training and professional development, then great things can happen, and often do happen in single-sex schools in terms of academic performance.

Teachers' attitude proves to be an obstacle to girls' learning and self-esteem because they undermine girls in coeducation schools and therefore girls have greater difficulty in achieving educational goals in such environment (Oigara 2011). However much girls try to work hard in their academic work, the teachers' attitude towards them undermines their effort because they are not appreciated for the effort done and instead boys are praised for the good work done. The teachers' attitude is also found in the way they view girls and boys in terms of some subjects, expecting them to perform well in some subjects and not in some according to the expectation of the society. This makes most of the girls in coeducation settings to be carefree especially in mathematics and sciences.

In rural Kenya, Malawi and Rwanda students have reported the low expectations of teachers of girls, which often lead to giving more attention to boys and even ignoring girls in the classroom (Mungai 2002). The girls' students therefore end up developing an attitude that their teachers have low expectations from them; they then do not work hard to give their best result in academic work in coeducation setting. Given that teachers sometimes ignore girls in classroom during the learning process, they end up not handling class work seriously because much is not expected from them. Boys on the other hand work hard because teachers have high expectation of their work and end up improving their academic work.

Students in coeducation secondary schools felt that they would perform better in single-sex secondary schools than in coeducation secondary schools, where there are more distractions from the opposite sex and girls are more distracted than boys (Mburu 2013). Girls and boys felt that they were not performing the way they should because of distractions that existed in coeducation schools and therefore if given an opportunity to be in single-sex schools, they would perform much better than they were performing.



Therefore this indicates that most students are in coeducation secondary schools not by choice and if given opportunity they would go to single-sex secondary schools. This kind of students' attitude cannot lead to high academic performance to both boys and girls.

According to cultural norms and expectations, most girls in coeducation schools believe that boys are more superior and intelligent in handling difficult subjects like mathematics, therefore they underestimate their own academic ability. The boys on the other hand believe that they are capable of handling subjects considered to be hard like mathematics and sciences. Githua (2002) rightly indicate that it is more a stereotypical attitude, which makes boys feel superior to girls in studying what is regarded as tough subjects. This makes boys to work hard in those subjects while girls lazy a round claiming they are hard for them and that they would perform better if they were in single-sex secondary schools.

### **2.3.5 Coeducation in Kenya**

Formal education in Kenya was introduced by missionaries as a strategy for spreading Christianity to the indigenous peoples throughout the colonial era. In late 1940s and 1950s there were two structures of education; one for Africans and the other for Europeans and Asians. Therefore there were limited opportunities for secondary education for the Africans. Since independence in 1963, the Government of Kenya recognized education as a key sector in the country's socioeconomic and cultural development and a basic human right and a powerful tool for human and natural development. The Government formulated education Act (1968) to govern education in Kenya and therefore quality education provision and training at all levels has remained a central policy issue and major policy reforms have been undertaken to enhance access, equity, relevance and quality of education.

Community efforts after independence through Harambee, were devoted mainly to building secondary schools resulting into four categories of secondary schools; Maintained schools, assisted schools, Unaided Harambee schools and unaided private schools (Eshiwani 1993). Most of these schools were single-sex secondary schools because since colonial times, the trend was to have separate secondary schools for boys and girls (Single-sex schools). These categories of schools were changed into two by

Kenya's session paper number 6 of 1988 on education and manpower training which classified all schools as either public or private.

Majority of the secondary schools established in Kenya during the colonial period enrolled boys (Sifuna 1990:131). This clearly indicates that most of the schools at this time were single-sex secondary schools majorly for boys, girls had very few chances to access education and therefore Kenya like most of the countries had to demonstrate efforts to achieve education for all. Just like in most parts of the world, the co-opting of girls into boys secondary schools was adopted due to civil pressure and advocacy for the recognition of equal rights of the girl child in education. This resulted into the emergency of coeducation secondary schools in Kenya in order to encourage girls to access quality education. The setting up of coeducation secondary schools was also cheaper than putting up two separate schools, one for boys and one for girls.

There have been a number of commissions and reforms in education set up since independence in Kenya including; the Ominde commission (1964) which reformed education to be more responsive to the needs of independent Kenya, the Gachathi commission (1976), the Mackay report (1981) which recommended the 8:4:4 system, the Kamunge report (1988) recommended on cost sharing of education financing and the Koech commission (1999). In line with millennium development goals and Education for all goals, the Government implemented free primary education in 2003 and free secondary education in 2008 and between 2002 and 2005 review of the curricula led to removal of the vocational subjects from the primary and secondary syllabus. All these were to achieve access, equity, relevance and quality of education.

Within the constitution of Kenya (2010), there is the bill of rights at its core giving Kenyans the right to education and Children the right to free and compulsory basic education with quality, access and equity and according to session paper no. 10 of 2012 on Kenya vision 2030, the vision for education sector for 2030 is to have globally competitive quality education, training and research for sustainable development and in order to achieve these, access, quality, equity, science, technology and innovation has to be met. To raise the quality of education and ensure access and equity, all students must

be provided with a better learning environment, which provide learners with opportunities to exploit their potential to the fullest and perform better academically.

During the international conference on education in Geneva 2008, national report of Kenya ministry of education indicated that immediate strategies for secondary education included; expansion of existing secondary schools to a minimum of three streams, the establishment of new coeducation day secondary schools especially in deficit areas and improvement of facilities in existing secondary schools. The session paper No. 1 of 2005 is a policy framework developed to meet the challenges of education, training and research in the 21<sup>st</sup> Century articulating specific objectives and strategies of enhancing access, equity, quality and relevance at each level of education.

With all these there has been drastic increase of the number of public secondary schools more so Coeducation day secondary schools in Kenya. This is attributed to the introduction of major reforms in education more so free primary and secondary education which has made the enrollment in both primary and secondary schools go up. This created need for more secondary schools because the existing number of schools could not handle the increasing enrollment. Introduction of Constituency development fund (CDF) and Local authority transfer fund (LATF) made it possible for building of more secondary schools in most of constituencies increasing the number of coeducation secondary schools. Therefore all these have led to the emergence of many more coeducation secondary schools from the primary schools within the same locality in almost all areas in Kenya.

With the emergence of many more coeducation secondary school, there has also been conversion of some of the existing coeducation secondary schools into single-sex secondary schools. This has also resulted into research work on effects of conversion of coeducation secondary schools into single-sex secondary schools in Kenya. Achoka and Barasa (2013) found out that conversion of coeducation secondary schools into single-sex secondary schools in Kenya positively affected girls' students discipline by minimizing cases of boy-girl relationships, students' absenteeism and rudeness towards authority among others that were common in coeducation secondary schools. But though such indiscipline cases experienced in coeducation were minimized, there were other

indiscipline issues that did not exist within the coeducation settings that cropped up such as drug abuse and defiance of the ministry and school regulations of not to have and use cell phones in schools.

Policymakers in many education ministries worldwide are debating on the value of Coeducational classes' verses Single-sex classes and there are still inconsistent views on the issue. The Government of Kenya, stake holders and policymakers are also debating over the effect of coeducation on students' academic performance. UNESCO (2007) rightly notes that the Kenyan Government and the policymakers are still debating on the advantages and disadvantages of Coeducation on students' academic performance. Therefore, this indicates that there is still no clear policy in Kenya concerning Coeducation secondary schools and academic performance that has been put in place to govern Kenyan education system.

#### **2.4 Summary of literature reviewed**

The literature reviewed reveals that substantive research work has been done in the area of effects of coeducation on students' academic performance. The previous studies have varying or inconsistent views, there are those who found coeducation to cause low academic performance of male and female students for example a study by Riordan (1990) found out that boys and girls in single sex schools scored higher on standardized cognitive tests than their peers in coeducation, there are those who found coeducation to cause low girls' academic performance for example a study by Bosire et al (2008) found out that the girls' academic performance is negatively affected in coeducation schools because they suffer various kinds of subtle, unobtrusive, discriminatory pedagogical practices, and in some cases sexual and verbal harassment from the male students, there are those who found coeducation to cause low students academic performance because of the negative attitude of both students and teachers towards coeducation for example a study by Mburu (2013) found out that most teachers have developed negative attitude toward coeducation schools and most of them favor single-sex schools and that students felt that they would perform better in single-sex schools than coeducation. On the other hand there are those who found coeducation to cause high academic performance for

example a study by Bosire et al (2008) found out that, Kenyan students taught in coeducational classes scored relatively higher compared to those in single sex schools in mathematics examination. Lastly there are those who found coeducation to have no effect on academic performance for example a study by Lepore and Warren (1997) found out that there was no any difference in academic performance between students in coeducation secondary schools and single-sex secondary schools, boys in single-sex secondary schools did not increase their test scores more than boys in coeducation secondary schools. There is still no agreement on the idea of coeducation and academic performance worldwide. There is therefore need to study the effects of coeducation on students' academic performance in Kenya certificate of secondary education in Busia County in order to validate some of the findings done in this area.

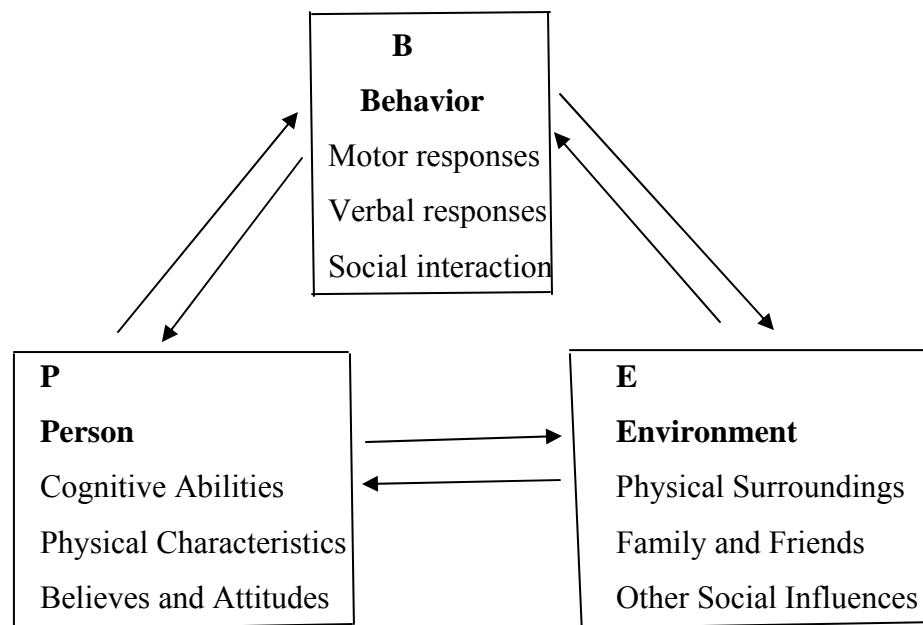
## **2.5 Theoretical framework**

The study is guided by two theories; the theory of social cognitive and the theory of social constructivism

### **2.5.1 The social cognitive theory**

The concept of the social cognitive theory was created by Albert Bandura, it governs 'gender development and psychological functioning (Bandura and Bussey 2004). It places focus on cognitive processes which includes how children and adults functions cognitively with their social occurrences. It also looks at specific cognitions and how they influence behavior and development. It was found that children patterned their behavior more after same sex than they did after other sex models; this occurs irrespective of children's level of gender consistency (Bandura and Bussey 2004). The theory favors a model of causation involving triadic reciprocal determinism consisting of three factors that interact simultaneously. Reciprocal interaction includes environment, personal factors and behavior. The three components interact differently depending on the individual, the specific behaviors that are being observed, and the situation in which the behavior is being observed (Bandura 1989a).

**Figure 2.1: Reciprocal determinism (Bandura 1989)**



The environment for this case coeducational influences the type of behavior (academic achievement) that the person (student) achieves. Conducive and favorable environment leads to higher academic achievements while unfavorable environment leads to low academic performance of both boys and girls. Therefore the theory fit well when studying coeducation and students' academic performance.

### **2.5.2 The theory of social constructivism**

Social constructivism theory suggests that knowledge is first constructed in a social context and is then taken up by individuals. The continual interplay, between the individual and others, called a zone of proximal development and defined as the intellectual potential of an individual when provided with assistance from a knowledgeable adult or a more advanced child is able to move through a series of steps that eventually lead to “self regulation” and intellectual growth (Vygotsky 1978). The emphasis is on the role of others or the social context in learning and that the process of sharing each person's point of view, results in learners building understanding together that wouldn't be possible alone.

He argues that the path between objects and thought is mediated by other people through the use of signs or the symbols of language (Veer and Valsiner 1993). He says that learning is best understood in light of others within an individual's world and that all higher mental functions are social in origin and embedded in the context of social cultural setting. He argues that from the first day of the child's development, his activities acquire a meaning of their own in a system of social behavior and, being directed towards a definite purpose and are frequently refracted through the prism of the child's environment. The path from object to child and from child to object passes through another person and this complex human structure is the product of the developmental process deeply rooted in the links between individual and social history.

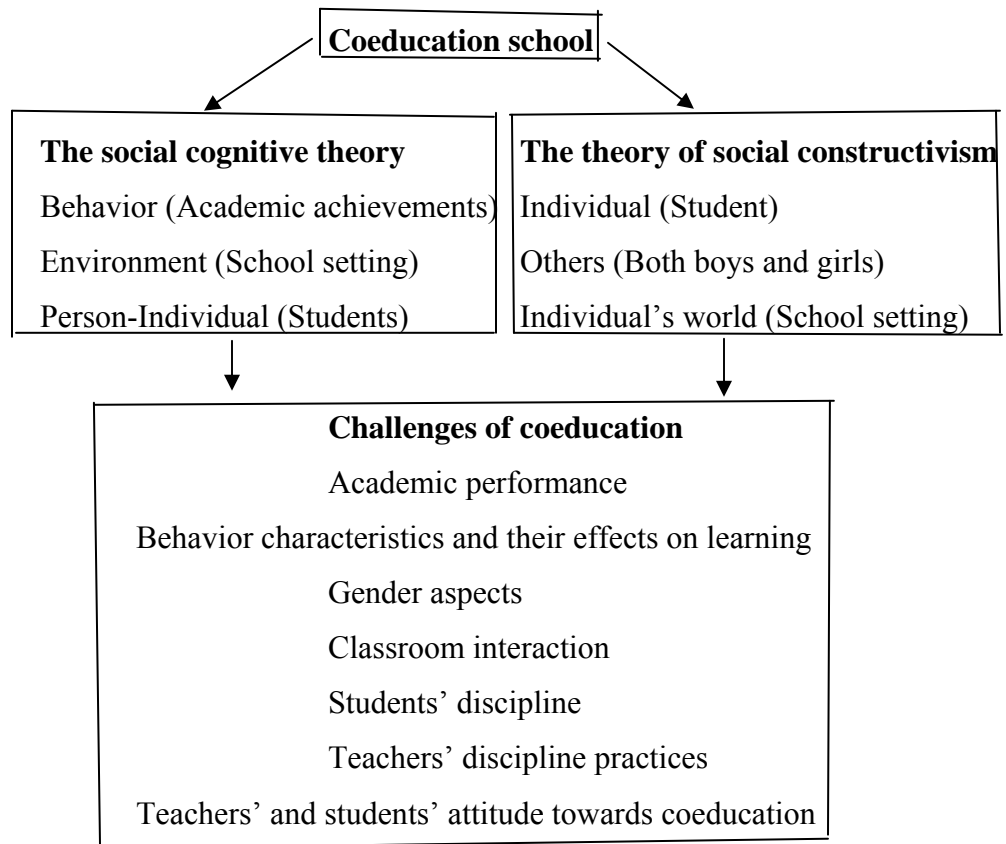
Knowledge is never acquired passively, because novelty cannot be handled except through assimilation to a cognitive structure the experiencing subject already has. The subject does not perceive an experience as novel until it generates a perturbation relative to some expected results. Only at that point the experience may lead to an accommodation and thus to a novel conceptual structure that reestablishes a relative equilibrium and the most frequent source of perturbations for the developing cognitive subject is the interaction with others. The process of knowing has at its roots in social interaction and that an individual's knowledge of the world is bound to personal experiences and is mediated through interaction (language) with others (Von Glasersfeld 1989).

Within the theory of social constructivism, the individual is the student, others are both boys and girls while an individuals' world is coeducational setting. The three components interact with each other for academic achievements. The emphasis is on "significant others", having students to work together while sharing ideas and challenging each others' perspectives. Therefore for any meaningful learning to take place in coeducational, there must be meaningful interaction amongst students (boys and girls), the learning environment (coeducation) must be conducive without distracters and students must be free and willing to work together and consider each other as very important in achieving learning goals irrespective of gender.

## 2.6 Conceptual framework

Coeducational setting is where boys and girls learn together and the study on coeducation and students' academic performance is guided by the following conceptual framework

**Figure 2.2: Coeducational Conceptual frame work**





## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section presents a description of the research design used, target population and sampling techniques and sample size for the study. Second is a description of the research instrument used and procedure followed to test and improve on the research instrument validity and reliability. The final section gives an outline of data collection procedures used, ethical considerations that were put in place and how data was analyzed and presented.

#### **3.2 Research design**

A research design is a plan, structure and strategy used in order to obtain answers to the objectives. It provides a frame work for planning and conducting a study. Therefore the documentary search and analysis (content analysis) of Kenya certificate of secondary education examination results from 2010 to 2013 and descriptive research to describe data by studying frequencies, averages, percentages and other statistical calculation on the questionnaires (students' and teachers') of a selected sample of secondary schools in Busia County were employed for the study.

#### **3.3 Target population**

Target population refers to all people the researcher wishes to generalize the result. This study targeted the three types of secondary schools; coeducation secondary schools, single-sex schools (Boys' schools) and single-sex schools (Girls' schools) for content analysis of KCSE results from 2010 to 2013 and form three and four students and teachers in coeducation secondary schools in Busia County for data collection (Questionnaires on students' and teachers' attitude). A total of twelve secondary schools, 240 students and 40 teachers were used for collection of data.

### **3.4 Sampling techniques and sample size**

Sampling is the process of selecting a number of individuals for a study in such a way that the individual selected represent the large group from which they were selected (Mugenda 1999). A sample of twelve secondary schools was used, 4 per school type (top coeducation, top girls and top boys schools) for the purpose of data collection. The stratified random sampling technique to select top 4 schools per category for content analysis and a cross section of students in form three, form four and teachers in the four coeducation secondary schools was employed for data collection using questionnaires. A total of 240 students [60 per school; 30 form fours (15 girls and 15 boys) and 30 form threes (15 girls and 15 boys)] and a total of 40 teachers [10 per school; 5 female and 5 male] were sampled for the study to collect data by questionnaires.

This students' group form (fours and threes) were selected because of having learnt in coeducation secondary school setting for more than two years. This period of time is enough for students to have had coeducation school experience and developed an attitude about coeducation. The Kenya certificate of secondary education examination results from 2010 to 2013 were used to gather data by content analysis on overall mean scores, university entry (C+ and above) and Top five and bottom five county ranking of secondary schools in KCSE was also used.

The comparison of the students' performance in the top coeducation secondary schools to top single-sex schools, the girls' performance in top coeducation to girls in top girls' schools, the boys' performance in top coeducation to boys in top boys' schools and the girls' performance in top coeducation to boys in top coeducation secondary schools using both overall mean score and university entry (C+ and above) were done in secondary schools in Busia county.

### **3.5 Research instrument and procedure**

Data was collected using documentary search on KCSE results and two structured self-administered questionnaires. The content analysis (documentary search) was used to gather data on the overall mean score, university entry grade (C+ and above) and top five and bottom five secondary schools ranking in Busia County in Kenya certificate of

secondary education examination results 2012 and 2013. But the students' and teachers' questionnaires were used to gather information on students' and teachers' attitude towards effect of coeducation on students' academic performance in the four coeducation secondary schools. Therefore the instruments used were KCSE score sheets 2010 to 2013 and questionnaires

### **3.5.1 Research instrument validity and reliability**

Borg and Gall (1999) validity is the degree to which a test measures what it purports to measure. Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Mugenda 1999). The pilot study using questionnaires was done on ten students and two teachers in one of the schools in the county not among the schools in which the research was to be done. During this pre-test, the researcher discussed each item on the questionnaire with the respondent to determine its suitability, clarity and relevance for the purpose of the study. The validity was tested using content validity and reliability was tested using split half method (odd and even) and correlation was done by Pearson correlation coefficient. The researcher also sought the assistance of research experts, experienced lecturers at the University of Nairobi in order to improve the validity and reliability of the instrument (Questionnaire). The reason for all this was to discard or modify inadequate items in the questionnaires.

### **3.6 Data collection procedures**

The authority to conduct the research was granted by the university and then the research permit was obtained from the ministry of education and the County director of education Busia County. The district education officers of the areas where the research was to be done were notified earlier, the principals of the schools under research were also notified before the commencement of the research. The data was collected by the researcher in person administering the questionnaires to the respondents at both the pilot stage and the main research. The researcher personally collected all the questionnaires after the respondents filled them as agreed earlier between the researcher and the respondents on appropriate time of collection. The researcher also collected Kenya certificate of secondary education examination result (marks on score sheets) for overall mean scores,

university entry (C+ and above) and top five and bottom five county ranking of secondary schools in KCSE from Busia County education office.

### **3.6.1 Ethical considerations**

The researcher upheld research ethical considerations for example voluntary participation of the respondents, confidentiality, honesty, right of privacy and so forth in a manner that the research did not disrupt the daily routine of the schools under research and education offices. The researcher briefed and debriefed the participants at the beginning and at the end of the study and assured the participants that the data to be collected was purely for academic purposes only. The researcher also assured participants that identification symbols used like names were not to be recorded in the questionnaires to ensure anonymity of the respondents. The researcher also ensured that the respondents were protected from any possible harm that might have risen from the study.

### **3.7 Data analysis and presentation**

Interpretation and analysis of data was done using a statistical package for social scientists (SPSS) and to ensure objectivity, this was done by coding and entering data into computer according to research questions. The mean and percentages were also used in analyzing data on the effects of coeducation on students' academic performance comparing with students' results in the Kenya certificate of secondary Education and teachers' and students' attitude of coeducation and academic performance. The tables and figures (line graphs, bar graphs and pie-charts) were used in data presentation.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the findings of the study on response to the following objectives, to determine the extent to which coeducation schools affect male and female students' academic performance and to determine students' and teachers' attitude on effects of coeducation on academic performance.

The results of the comparisons of the boys' schools, girls' schools and coeducation schools are presented using schools mean score, university entry (C+ and above) and County schools ranking of the top and bottom five schools. This is followed by comparison of the results of the girls in coeducation schools to girls in girls' schools, boys in coeducation schools to boys in boys' schools and girls in coeducation to boys in coeducation schools using schools mean score and university entry. Lastly the results of students' and teachers' questionnaires are analyzed and presented.

#### **4.2 Study response rate**

The response rate in content analysis was 100% because the KCSE results of the targeted schools were found while the response rate for students' and teachers' questionnaires was also 100% because all the 240 students' questionnaires and the 40 teachers' questionnaires were filled as targeted.

#### **4.3 Comparison of top boys, top girls and top coeducation schools**

This part addresses objective one of the study whereby comparisons are done using schools' mean scores, university entry (C+ and above) and County ranking of top five and bottom five schools. The results are presented in tables and figures (graphs and pie charts).

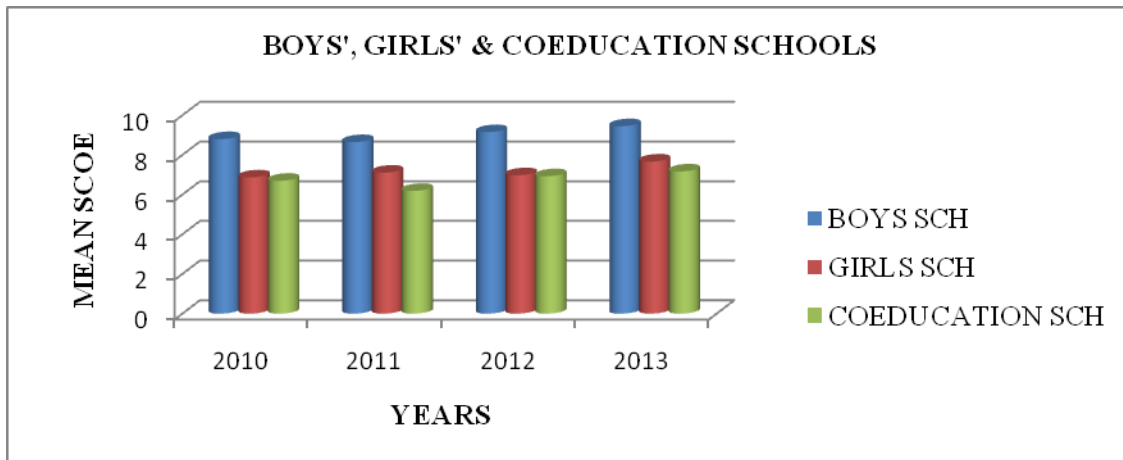
### 4.3.1 Overall mean score

**Table 4.1: Schools mean scores from 2010 to 2013**

SCHOOL TYPE	YEARS							
	2010		2011		2012		2013	
	PTS	(%)	PTS	(%)	PTS	(%)	PTS	(%)
BOYS' SCHOOLS	8.80	73	8.65	72	9.15	76	9.45	79
GIRLS' SCHOOLS	6.87	58	7.11	59	6.98	59	7.67	64
COEDUCATION SCHOOLS	6.70	56	6.19	52	6.93	58	7.17	60

Source: Research findings

**Figure 4.1: Schools mean scores from 2010 to 2013**



Source: author 2014

Table 4.1 and figure 4.1 clearly indicates that coeducation schools performed lower compared to single-sex schools from 2010 to 2013. Therefore coeducation causes low students' academic performance.

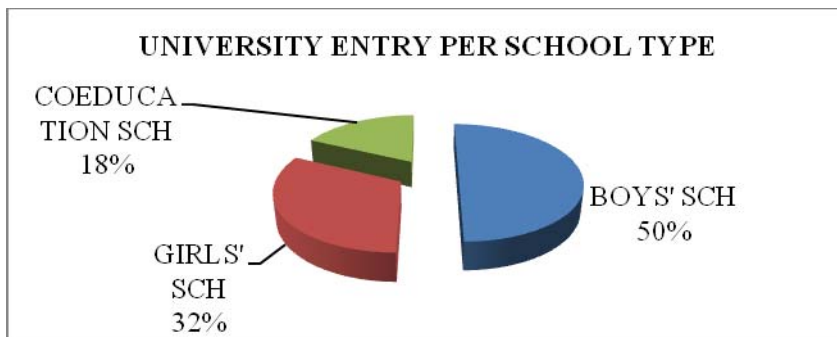
### 4.3.2 University entry (C+ and above)

**Table 4.2: University entry (C+ and above)**

SCHOOL TYPE	YEARS				AVERAGE (%)
	2010	2011	2012	2013	
	(%)	(%)	(%)	(%)	
BOYS' SCHOOLS	52	51	52	45	50
GIRLS' SCHOOLS	28	33	32	36	32
COEDUCATION SCHOOLS	20	16	16	19	18

Source: Research findings

**Figure 4.2: University entry (C+ and above)**



Source: author 2014

Table 4.2 and figure 4.2 clearly indicates that coeducation schools performed lower compared to single-sex schools from 2010 to 2013 in terms of university entry. Very few students (18%) in coeducation schools attained minimum grade to university compared to single-sex schools (82%). Therefore coeducation causes low male and female students' academic performance.

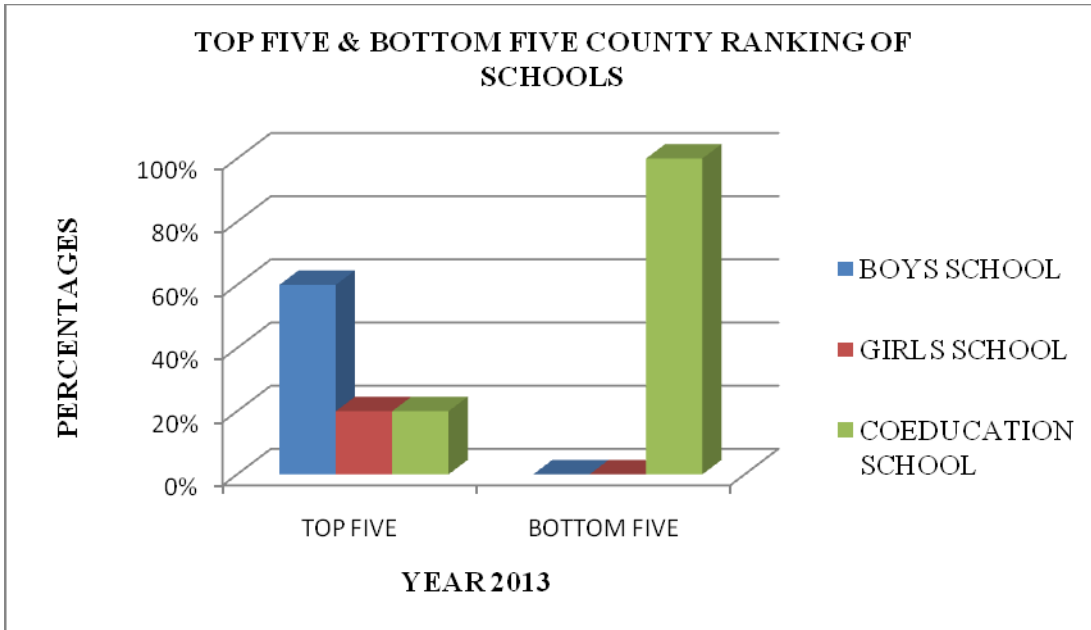
### 4.3.3 County ranking of schools top five and bottom five 2012

**Table 4.3: County ranking of schools top five and bottom five 2012**

SCHOOL TYPE	YEAR	
	2012	
	TOP FIVE (%)	BOTTOM FIVE (%)
BOYS SCHOOLS	60	0
GIRLS SCHOOLS	20	0
COEDUCATION SCHOOLS	20	100

Source: Research findings

**Figure 4.3: County ranking of schools top five and bottom five 2012**



Source: author 2014

Table 4.3 and figure 4.3 clearly indicate that coeducation schools ranked lower (20%) compared to single-sex schools (80%) in County ranking of top five schools. On the other hand coeducation schools dominated the bottom five schools (100%) in County ranking. Therefore coeducation causes low male and female students’ academic performance.

**4.3.4 County ranking of schools top five and bottom five 2013**

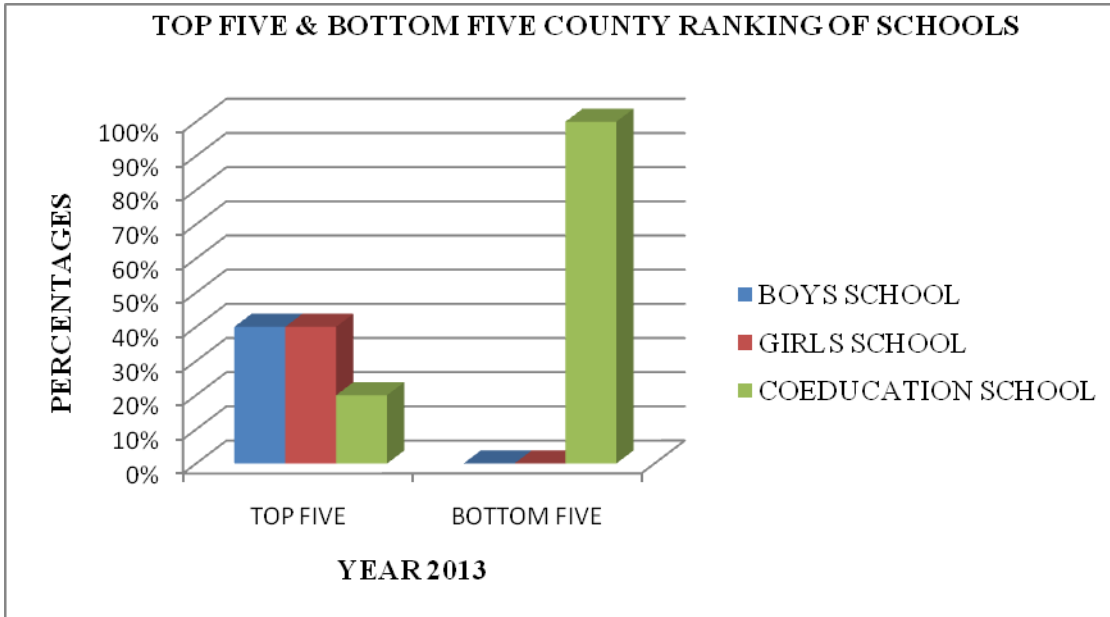
**Table 4.4: County ranking of schools top five and bottom five 2013**

SCHOOL TYPE	YEAR	
	2013	
	TOP FIVE (%)	BOTTOM FIVE (%)
BOYS SCHOOLS	40	0
GIRLS SCHOOLS	40	0
COEDUCATION SCHOOLS	20	100

Source: Research findings



**Figure 4.4: County ranking of schools top five and bottom five 2013**



Source: author 2014

Table 4.4 and figure 4.4 clearly indicate that coeducation schools ranked lower (20%) compared to single-sex schools (80%) in County ranking of top five schools. On the other hand coeducation schools dominated the bottom five schools (100%) in County ranking. Therefore coeducation causes low male and female students' academic performance.

#### **4.4 Comparison of girls and boys in top coeducation to girls and boys in single-sex schools**

This part addresses objective one whereby comparisons are done using schools' mean scores and university entry (C+ and above) and the results presented in tables and figures (graphs and pie charts).

##### **4.4.1 Comparison of girls in coeducation to girls in girls' schools**

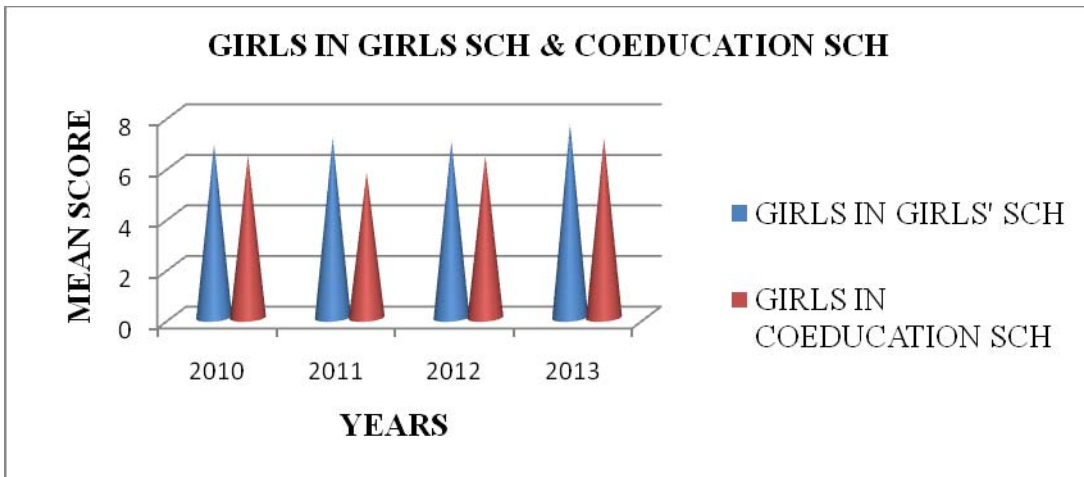
The girls' performance in coeducation is compared to girls' performance in girls' schools using schools' mean scores and university entry (C+ and above) and the results presented in tables and figures (graphs and pie charts).

**Table 4.5: Overall mean score of girls in coeducation and girls' schools**

SCHOOL TYPE	YEARS							
	2010		2011		2012		2013	
	PTS	(%)	PTS	(%)	PTS	(%)	PTS	(%)
GIRLS IN GIRLS' SCHOOLS	6.87	58	7.11	59	6.98	59	7.67	64
GIRLS IN COEDUCATION SCHOOLS	6.40	53	5.74	48	6.39	53	7.09	59

Source: Research findings

**Figure 4.5: Overall mean score of girls in coeducation and girls' schools**



Source: author 2014

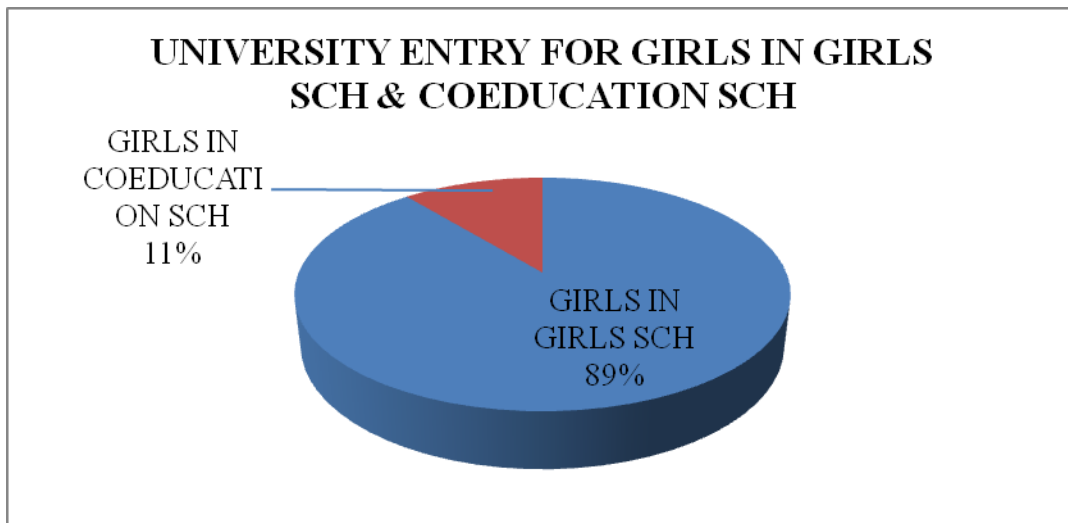
Table 4.5 and figure 4.5 clearly indicate that girls in coeducation schools performed lower compared to girls in girls' schools. Therefore coeducation causes low girls' academic performance compared to girls in girls' schools.

**Table 4.6: University entry (c+ and above) of girls in coeducation and girls' schools**

SCHOOL TYPE	YEARS				AVERAGE	%
	2010	2011	2012	2013		
	(%)	(%)	(%)	(%)		
GIRLS IN GIRLS' SCHOOLS	28	33	32	36	32	89
GIRLS IN COEDUCATION SCHOOLS	04	03	03	06	04	11

Source: Research findings

**Figure 4.6: University entry (c+ and above) of girls in coeducation and girls' schools**



Source: author 2014

Table 4.6 and figure 4.6 clearly indicate that girls in coeducation schools performed lower (11%) compared to girls in girls' schools (89%) in terms of attaining minimum grade for university entry. Therefore coeducation causes low girls' academic performance compared to girls in girls' schools.

#### **4.4.2 Comparison of boys in coeducation to boys in boys' schools**

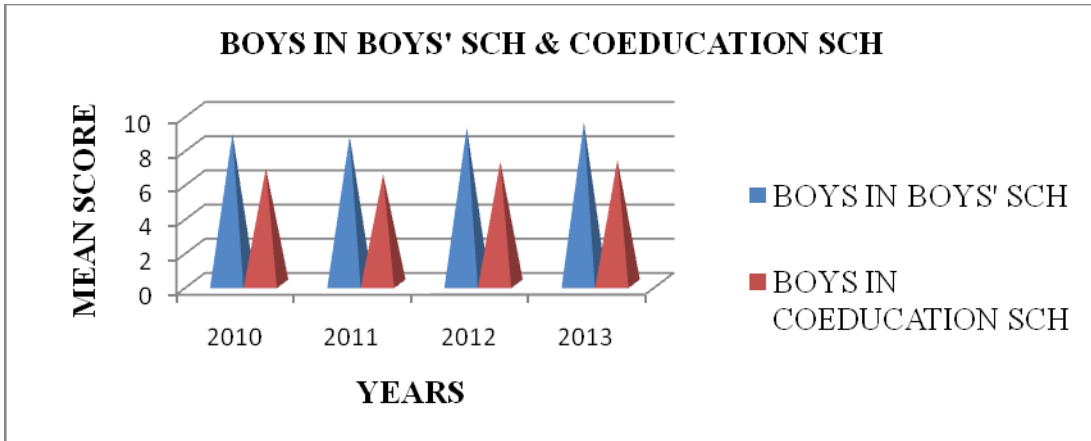
The boys' performance in coeducation is compared to boys' performance in boys' schools using schools' mean scores and university entry (C+ and above) and the results presented in tables and figures (graphs and pie charts).

**Table 4.7: Overall mean score of boys in coeducation and boys' schools**

SCHOOL TYPE	YEARS							
	2010		2011		2012		2013	
	PTS	(%)	PTS	(%)	PTS	(%)	PTS	(%)
BOYS IN BOYS' SCHOOLS	8.80	73	8.65	72	9.15	76	9.45	79
BOYS IN COEDUCATION SCHOOLS	6.77	56	6.40	53	7.15	60	7.25	60

Source: Research findings

**Figure 4.7: Overall mean score of boys in coeducation and boys' schools**



Source: author 2014

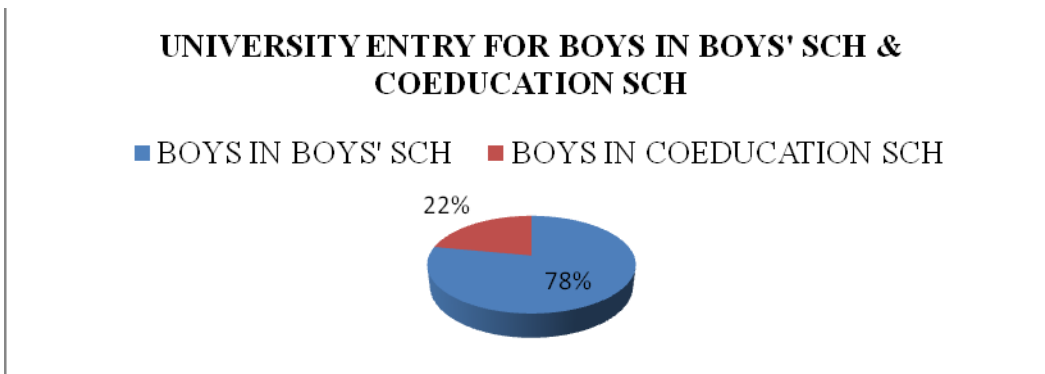
Table 4.7 and figure 4.7 clearly indicate that boys in coeducation schools performed lower compared to boys in boys' schools. Therefore coeducation causes low boys' academic performance compared to boys in boys' schools.

**Table 4.8: University entry (c+ and above) of boys in coeducation and boys' schools**

SCHOOL TYPE	YEARS				AVERAGE	%
	2010 (%)	2011 (%)	2012 (%)	2013 (%)		
BOYS IN BOYS' SCHOOLS	52	51	52	48	51	78
BOYS IN COEDUCATION SCHOOLS	16	13	13	13	14	22

Source: Research findings

**Figure 4.8: university entry (c+ and above) of boys in coeducation and boys' schools**



Source: author 2014

Table 4.8 and figure 4.8 clearly indicate that boys in coeducation schools performed lower (11%) compared to boys in boys' schools (89%) in terms of attaining minimum grade for university entry. Therefore coeducation causes low boys' academic performance compared to boys in boys' schools.

#### 4.5 Comparison of girls in top coeducation to boys in top coeducation

The girls' performance in coeducation is compared to boys' performance in coeducation using schools' mean scores and university entry (C+ and above) and the results presented in tables and figures (graphs and pie charts).

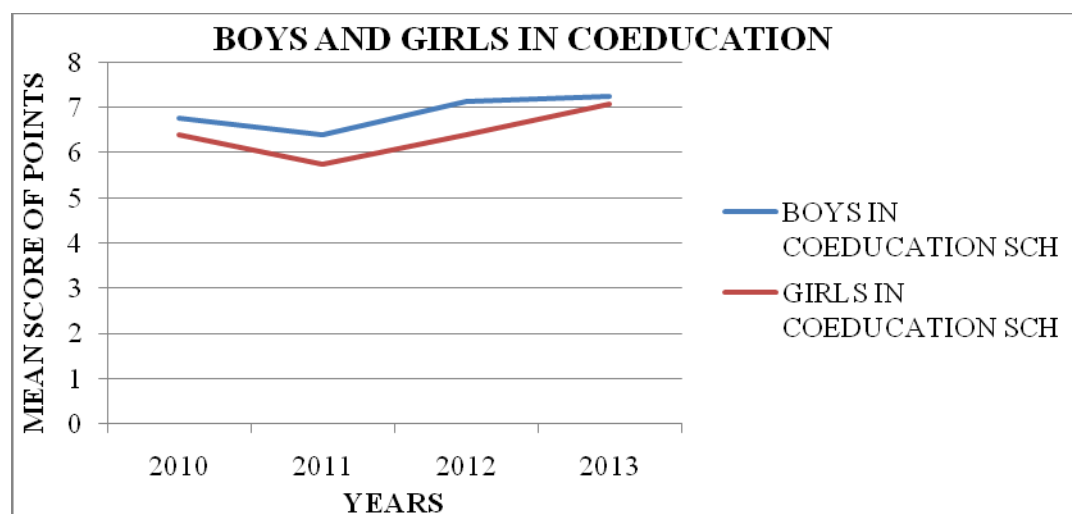
##### 4.5.1 Overall mean score

**Table 4.9: Overall mean score of girls in coeducation to boys in coeducation**

SCHOOL TYPE	YEARS							
	2010		2011		2012		2013	
	PTS	(%)	PTS	(%)	PTS	(%)	PTS	(%)
BOYS IN COEDUCATION SCHOOLS	6.77	56	6.40	53	7.15	60	7.25	60
GIRLS IN COEDUCATION SCHOOLS	6.40	53	5.74	48	6.39	53	7.09	59

Source: Research findings

**Figure 4.9: Overall mean score of girls in coeducation to boys in coeducation**



Source: author 2014

Table 4.9 and figure 4.9 clearly indicate that girls in coeducation schools performed lower compared to boys in coeducation schools. Therefore coeducation causes low girls' academic performance compared to boys in coeducation schools.

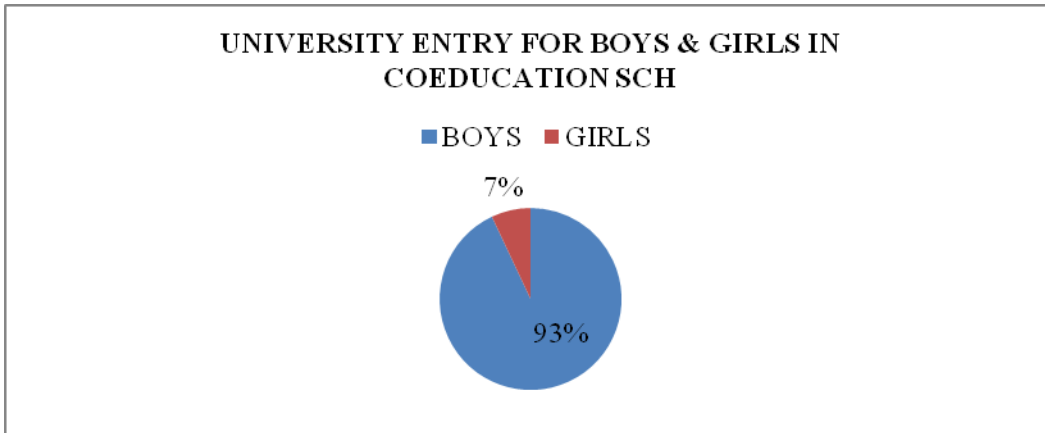
**4.5.2 University entry (c+ and above)**

**Table 4.10: University entry (c+ and above) of girls in coeducation and boys' in coeducation**

SCHOOL TYPE	YEARS				AVERAGE	%
	2010	2011	2012	2013		
	(%)	(%)	(%)	(%)		
BOYS IN COEDUCATION SCHOOLS	56	53	60	60	57	93
GIRLS IN COEDUCATION SCHOOLS	04	03	03	06	04	07

Source: Research findings

**Figure 4.10: University entry (c+ and above) of girls in coeducation and boys' in coeducation**



Source: author 2014

Table 4.10 and figure 4.10 clearly indicate that girls in coeducation schools performed lower (9%) compared to boys in coeducation schools (93%) in terms of attaining minimum grade for university entry. Therefore coeducation causes low girls' academic performance compared to boys in coeducation schools.

#### 4.6 Students' and Teachers' attitude towards coeducation on academic performance

This part addresses objective two by considering students' and teachers' attitude towards coeducation in terms of academic performance. The analysis of students' and teachers' response to questionnaires is done.

##### 4.6.1 Students' attitude on effects of coeducation on academic performance

The following data was obtained from the students' questionnaires and presented in table.

**Table 4.11: Students' Background**

Theme: Background		
1	Students gender	Male-120 [50%] & Female-120 [50%]
2	Your age in years (students')	12-15 yrs[07]-03%, 16-18 yrs[161]-67% & above 18 yrs[72]-30%
3	Which year did you join this school	2010 [19]-08%, 2011 [108]-45%, 2012 [100]-42% & 2013 [12]-05%
4	Which form are you in	Form 3 [120]-50% & Form 4 [120]-50%

Source: Research findings

Table 4.11 indicates that students interviewed, 50% were boys and 50% were girls, more than half (67%) were between 16 to 18 years, 45% joined the school in 2011 and 42% in 2012 and had stayed in this school more than two years and therefore they had the experience required for the study. Half (50%) were form threes and half (50%) form fours. Therefore this was the right group for this study in identifying students' attitude towards coeducation on academic performance.

**Table 4.12: Students' General gender view**

Theme: General gender view				
		Boys	Girls	None
5	Which gender is most disruptive	127[53%]	113[47%]	-
6	Which gender mostly drop out of school	31[13%]	209[87%]	-
7	Who performs better than the other	122 (51%)	65 (27%)	53 (22%)
8	Who is expected to perform better	106 (44%)	94 (39%)	40 (17%)
9	Science subjects are for	187 (78%)	24 (10%)	29(12%)
10	Mathematics is for	166 (69%)	14 (06%)	60(25%)
11	Language subjects are for	36 (15%)	108 (45%)	96 (40%)
12	Arts subjects are for	36 (15%)	38 (16%)	166 (69%)
13	Who are punished more often	106 (44%)	65 (27%)	69 (29%)
14	Who are bullies	120 (50%)	67 (28%)	53 (22%)

Table 4.12 indicates claims by students that boys were most disruptive (53%), girls mostly dropped out of school (87%), boys perform better than girls (51%), boys are expected to perform better than girls (44%), science subjects are for boys (78%), mathematics is for boys (69%), language subjects are for girls (45%), arts subjects are neither for boys nor for girls (69%), boys are punished more often (44%) and boys are bullies (50%). Therefore this kind of claim which is skewed in terms of gender indicates negative attitude of students towards coeducation in academic performance. This in turn negatively affects students' academic performance.

**Table 4.13: Classroom learning perspective**

<b>Theme: Classroom learning perspective</b>					
<b>Who do you think is affected most, or disadvantaged in the given situation?</b>		<b>Boys</b>	<b>Girls</b>	<b>Neither</b>	<b>Both</b>
15	Intimidation e.g bullying	46 (19%)	106 (44%)	17 (07%)	71 (30%)
16	Shouted at	60 (25%)	84 (35%)	41 (17%)	55 (23%)
17	Called negative names	48 (20%)	84 (35%)	36 (15%)	72 (30%)
18	Fear of getting wrong answers	53 (22%)	84 (35%)	31 (13%)	72 (30%)
19	Dominant in activities that require one to put up their hands	99 (41%)	31 (13%)	50 (21%)	60 (25%)
20	Fear to put up hands in activities that require one to do so	38 (16%)	106 (44%)	53 (22%)	43 (18%)
21	Receiving more encouragement	60 (25%)	86 (36%)	17 (07%)	77 (32%)
22	Shy away from exchanging words	43 (18%)	137 (57%)	29 (12%)	31 (13%)
23	Participate in class discussions	103 (43%)	19 (08%)	31 (13%)	87 (36%)

Source: Research findings

Table 4.13 indicates the claims by students that girls are affected by intimidation (44%), are shouted at (35%), are called negative names (35%), fear of getting wrong answers (35%), fear to put up their hands in activities that require one to do so (44%), receive more encouragement (36%) and shy away from exchanging words (57%) while boys dominate in activities that require one to put up their hands (41%) and participate in class discussions (43%). These kinds of behavior negatively affects students' academic performance and shows students' negative attitude towards coeducation.



**Table 4.14: Teachers discipline practices**

<b>Theme: Teachers discipline practices</b>					
		<b>Boys</b>	<b>Girls</b>	<b>Neither</b>	<b>Both</b>
24	Who is affected most regarding indiscipline cases	113 (47%)	22 (09%)	26 (11%)	79 (33%)
25	Teachers when handling discipline, they tend to be biased	50 (21%)	91 (38%)	41 (17%)	58 (24%)
26	Teachers tend to be harsh on	149 (62%)	19 (08%)	22 (09%)	50 (21%)
27	Teachers tend to be gentle on	34 (14%)	127 (53%)	36 (15%)	43 (18%)
28	Teachers tend to be rough on	161 (67%)	17 (07%)	31 (13%)	31 (13%)

Table 4.14 indicates claims by students that boys are affected most regarding indiscipline cases (47%), teachers tends to be biased towards girls (38%), teachers are harsh on boys (62%) and rough on boys (67%) while they are gentle on girls (53%). This belief that teachers are skewed in handling boys and girls negatively affects students' academic performance and indicates negative attitude of students towards coeducation.

**Table 4.15: Preference for coeducation verses single sex**

<b>Theme: Preference for coeducation verses single sex</b>				
		<b>SCALE</b>		
		<b>Coeducation</b>	<b>Sing-sex</b>	<b>Any</b>
29	I prefer	04 (10%)	34(85%)	02 (05%)
30	Why do you prefer single-sex? Full concentration, good morals, discipline and good teaching environment, no fear of participation in class and encourages competition, reduces dropout rate and discourages boy-girl relationships			
	Why do you prefer coeducation? Facilitates natural development, drives hard work for fear of failure, provides various experiences in learning related to gender			
31	Why don't you prefer single-sex? No natural development, no competition in terms of gender			
	Why don't you prefer coeducation? Encourages sexual behaviors, boy-girl relationship, high rates of indiscipline, encourages high rates of pregnancies			

Source: Research finding

Table 4.15 indicates that most students prefer single-sex schools (85%) and claimed that the preference for single-sex schools is because of full concentration, good morals, discipline and good teaching environment, no fear of participation in class and encourages competition, reduces dropout rate and discourages boy-girl relationships. They also claimed that they do not like coeducation because it encourages sexual

behaviors, boy-girl relationship, leads to high rates of indiscipline and encourages high rates of pregnancies. This indicates negative attitude of students towards coeducation.

**Table 4.16: Preference for coeducation verses single sex**

<b>Theme: Preference for coeducation verses single sex</b>				
		<b>Agree</b>	<b>Disagree</b>	<b>To some extent</b>
32	I do not perform the way I should because am not in the school of my choice	182 (76%)	58 (24%)	-
33	Boys in Coeducation schools perform better than Boys in Boys only schools	10 (21%)	132 (55%)	58 (24%)
34	Girls in Coeducation schools perform better than Girls in Girls only schools	38 (16%)	142 (59%)	60 (25%)

Table 4.16 students claimed that they do not perform the way they should because they were not in the school of their choice (76%), boys in coeducation do not perform better than boys in single-sex schools (55%) and that girls in coeducation do not perform better than girls in single-sex schools (59%). This also indicates that students have negative attitude towards coeducation in academic performance.

#### **4.6.2 Teachers' attitude on effects of coeducation on academic performance**

Questionnaires were used to gather teachers' attitude and the results were summarized in table forms and analysis indicated.

**Table 4.17: Teachers' Background**

<b>Theme: Background</b>		
1	Teachers gender	Male-20 [50%] & Female-20 [50%]
2	How many complete years have you taught in this school	1 yrs[14]-34%, 2-5 yrs[22]-56% & above 5 yrs[4]-10%
3	Which subjects do you teach	Hist/CRE-04(10%), Eng/Lit-08(19%), CRE/Kisw-04(10%), Maths/Bstu-02(06%), Bio/Agric-01(03%), Maths/Phy-07(17%), Maths/Geog-01(03%), Maths/Chem-05(13%), Bio/Chem-05(13%), Kisw/Hist-02(06%)
4	Do you currently teach or have you ever taught form three or four class in this school	Yes (Y)-38(94%) & No (N)-02(06%)

Source: Research findings

Table 4.17 indicates that teachers interviewed 50% were male, 50% female and majority had taught in that school 2-5 years (56%) and above 5 years (10%), they represented all subjects taught in that school and they had taught form three or four (94%). This was the right group for this study to identify teachers' attitude towards coeducation in academic performance.

**Table 4.18: General gender view**

<b>Theme: General gender view</b>				
		<b>Agree</b>	<b>Disagree</b>	<b>To some extent</b>
5	Boys are most disruptive	38[94%]	02[06%]	-
6	Girls mostly drop out of school	31[77%]	09[23%]	-
7	Boys perform better than Girls	26 (66%)	05 (13%)	08 (21%)
8	Boys are expected to perform better than girls by their teachers	07 (19%)	24 (59%)	09 (22%)
9	Boys are punished more often	21 (53%)	13 (33%)	06 (14%)
10	Boys are bullies	15 (38%)	14 (35%)	11 (27%)
11	Science subjects is for Boys	05 (13%)	30 (74%)	05 (13%)
12	Mathematics subjects is for Boys	04 (09%)	32 (79%)	05 (12%)
13	Language subjects is for Girls	05 (13%)	25 (63%)	10 (24%)
14	Art subjects is for Girls	05 (13%)	25 (63%)	10 (24%)

Source: Research findings

Table 4.18 indicates claims by teachers that boys are most disruptive (94%), girls mostly drop out of school (77%), boys perform better than girls (66%), boys are not expected to perform better than girls by their teachers (59%), boys are punished more often (53%), boys are bullies (38%), Science subjects is not for boys (74%), Mathematics subjects is not for boys (79%), Language subjects is not for girls (63%) and Art subjects is not for girls (63%). Teachers' claim about students' behavior indicates teachers' negative attitude towards coeducation in academic performance.

**Table 4.19: Classroom perspective**

<b>Theme: Classroom perspective</b>					
<b>Who do you think is affected most, or disadvantaged in the given situation?</b>		<b>Boys</b>	<b>Girls</b>	<b>Neither</b>	<b>Both</b>
15	Intimidation e.g bullying	04 (10%)	21 (53%)	05 (13%)	10 (24%)
16	Shouted at	10 (24%)	16 (40%)	05 (13%)	09 (23%)
17	Called negative names	08 (20%)	16 (40%)	06 (16%)	10 (24%)
18	Fear of getting wrong answers	08 (20%)	18 (45%)	03 (07%)	11 (28%)
19	Dominant in activities that require one to put up their hands	23 (58%)	01 (03%)	06 (15%)	10 (24%)
20	Fear to put up hands in activities that require one to do so	03 (08%)	22 (55%)	05 (13%)	10 (24%)
21	Receiving more encouragement	04 (10%)	28 (70%)	02 (05%)	06 (15%)
22	Shy away from exchanging words	11 (28%)	26 (65%)	-	03 (07%)
23	Participate in class discussions	18 (45%)	04 (10%)	03 (07%)	15 (38%)
24	Who is affected most regarding indiscipline cases	27 (68%)	03 (08%)	-	10 (24%)

Table 4.19 indicates teachers' claim that girls are affected by intimidation (53%), shouted at (40%), called negative names (40%), fear of getting wrong answers (45%), fear to put up hands in activities that require one to do so (55%), receive more encouragement (70%) and shy away from exchanging words (65%) while boys dominate in activities that require one to put up their hands (58%), participate in class discussions (45%) and are affected most regarding indiscipline cases (68%). This acts affects academic performance of students, therefore it is an indication of teachers' negative attitude towards coeducation.

**Table 4.20: Teachers discipline practices**

<b>Theme: Teachers discipline practices</b>					
		<b>Boys</b>	<b>Girls</b>	<b>Neither</b>	<b>Both</b>
25	Teachers when handling discipline issues, they tend to be biased to	03 (07%)	36 (90%)	01 (03%)	-
26	Teachers tend to be harsh on	22 (55%)	11 (28%)	07 (17%)	-
27	Teachers tend to be gentle on	02 (05%)	24 (60%)	11 (28%)	03 (07%)
28	Teachers tend to be rough on	25 (63%)	13 (33%)	02 (04%)	-

Table 4.20 indicates teachers' claim that when they handle discipline issues, they tend to be biased to girls (90%), harsh on boys (55%), gentle on girls (60%) and rough on boys (63%). This shows skewed way of teachers dealing with boys and girls affecting academic performance. Therefore this indicates negative attitude of teachers toward coeducation in academic performance. Oigara 2011 found results different from this in which teachers' attitude proves to be an obstacle to girls' learning and self-esteem because they undermine girls in coeducation schools and therefore girls have greater difficulty in achieving educational goals in such environment.

**Table 4.21: Preference for coeducation verses single sex**

<b>Theme: Preference for coeducation verses single sex</b>				
		SCALE		
		Coeducation	Sing-sex	Any
29	I prefer	04 (10%)	34(85%)	02 (05%)
30	Why do you prefer single-sex? Full concentration, good morals, discipline and good teaching environment, no fear of participation in class and encourages competition, reduces dropout rate and discourages boy-girl relationships			
	Why do you prefer coeducation? Facilitates natural development, drives hard work for fear of failure, provides various experiences in learning related to gender			
31	Why don't you prefer single-sex? No natural development, no competition in terms of gender			
	Why don't you prefer coeducation? Encourages sexual behaviors, boy-girl relationship, high rates of indiscipline, encourages high rates of pregnancies			

Table 4.21 indicates that teachers prefers single-sex schools (85%) and the reasons for preference are that single-sex schools have full concentration, good morals, discipline and good teaching environment, there is no fear of participation in class, it encourages competition, reduces dropout rate and discourages boy-girl relationships. The reasons for not preferring coeducation is that it encourages sexual behaviors, boy-girl relationship, leads to high rates of indiscipline and encourages high rates of pregnancies. Therefore this indicates that teachers have negative attitude towards coeducation which negatively affects students' academic performance.

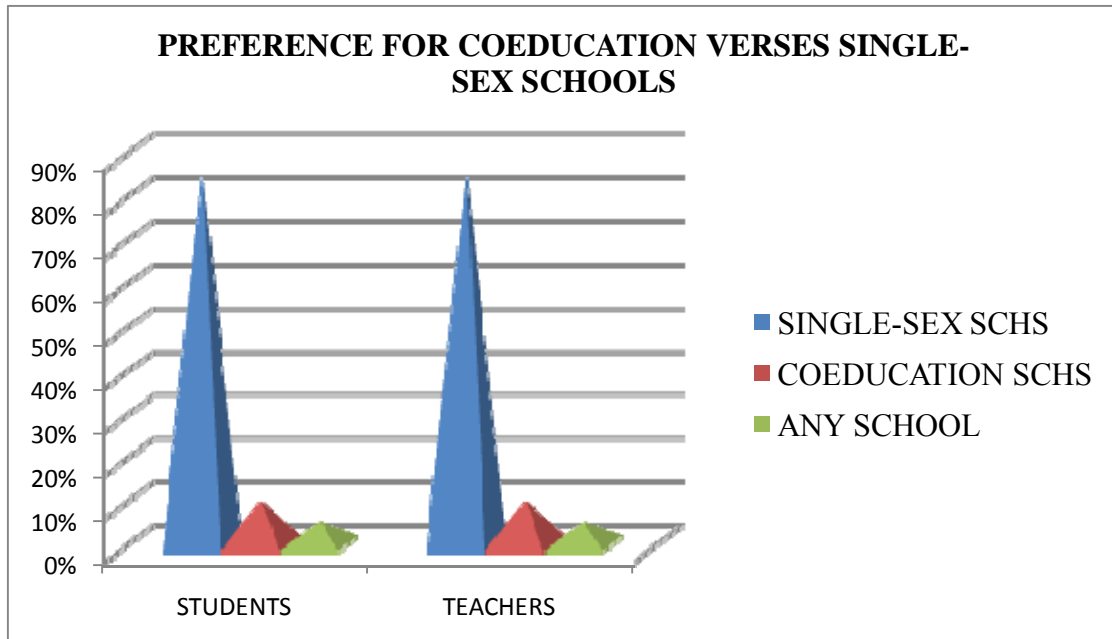
**Table 4.22: Preference for coeducation verses single sex**

<b>Theme: Preference for coeducation verses single sex</b>				
		<b>Agree</b>	<b>Disagree</b>	<b>To some extent</b>
32	Boys in Coeducation schools perform better than Boys in Boys only schools	02 (06%)	30 (75%)	08 (19%)
33	Girls in Coeducation schools perform better than Girls in Girls only schools	06 (15%)	34 (85%)	-

Table 4.22 indicates teachers claims that boys in coeducation schools do not perform better than boys in single-sex schools (75%) and girls in coeducation schools do not perform better than girls in single-sex schools (85%). This clearly shows that teachers have negative attitude towards coeducation on students’ academic performance which negatively affects students’ academic performance.

**Preference for coeducation verses single-sex schools for both students and teachers**

**Figure 4.11: Preference for coeducation verses single-sex schools**



Source: Author

Figure 4.11 indicates that students and teachers prefer single-sex schools (85%) to coeducation schools (10%).

Therefore on students' and teachers' attitude towards coeducation, the study revealed that both students and teachers have negative attitude towards coeducation on students' academic performance and prefer single-sex schools to coeducation schools. This result is similar to that of Mburu (2013) who found out that most teachers have developed negative attitude toward coeducation schools and most of them favor single-sex schools and that students felt that they would perform better in single-sex schools than coeducation.

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

This chapter presents the summary of the results, outlines the conclusion, recommendation and suggested areas for further research.

#### 5.2 Summary of the results

This section indicates the findings of the study as revealed from the data presented in the previous chapter in relation to the objectives of the study

##### 5.2.1 Objective 1: To determine the extent to which coeducation schools affect male and female students' academic performance

The study revealed various aspects as follows; coeducation school performed lower compared to single-sex schools from 2010 to 2013 KCSE in terms of overall schools mean score and minimum grade for university entry, coeducation schools ranked lower (20%) compared to single-sex schools (80%) in County ranking of top five schools and dominated the bottom five schools (100%) in County ranking 2012 and 2013 KCSE. Therefore the study revealed that coeducation affects male and female students' academic performance compared to male and female students in single-sex schools. Riordan (1990) found similar results to this study and indicates that boys and girls in single-sex schools scored higher on standardized cognitive tests than their peers in coeducation.

Further, the study revealed that girls in coeducation performed lower compared to girls in girls' schools, boys in coeducation performed lower compared to boys in single-sex schools and girls in coeducation performed lower compared to boys in coeducation schools in terms of overall mean score and minimum grade for university entry. Therefore the study revealed that coeducation causes low girls' academic performance compared to girls in girls' schools and compared to boys in coeducation schools. Bosire et al (2008) found results similar to this findings and noted that the girls' academic performance is negatively affected in coeducation schools because they suffer various



kinds of subtle, unobtrusive, discriminatory pedagogical practices, and in some cases sexual and verbal harassment from the male students.

### **5.2.2 Objective 2: To establish students' and teachers' attitude on effects of coeducation on academic performance**

Students interviewed 50% were boys and 50% were girls, more than half (67%) were between 16 to 18 years, 45% joined the school in 2011 and 42% 2012 and had stayed in this school more than two years and therefore they had the experience required for the study. Half (50%) were form threes and half (50%) form fours. Therefore this was the right group for this study in identifying students' attitude towards coeducation on academic performance. Students claimed that boys were most disruptive (53%), girls mostly dropped out of school (87%), boys perform better than girls (51%), boys are expected to perform better than girls (44%), science subjects are for boys (78%), mathematics is for boys (69%), language subjects are for girls (45%), art subjects are neither for boys nor for girls (69%), boys are punished more often (44%) and boys are bullies (50%). Therefore this kind of claims which is skewed in terms of gender indicates negative attitude of students towards coeducation in academic performance.

They also claimed that girls are affected by intimidation (44%), are shouted at (35%), are called negative names (35%), fear of getting wrong answers (35%), fear to put up their hands in activities that require one to do so (44%), receive more encouragement (36%) and shy away from exchanging words (57%) while boys dominate in activities that require one to put up their hands (41%) and participate in class discussions (36%). Mirembe and Divies (2001) found results similar to this study in which they indicates that girls are shaped into conformity in the classroom by boys who shout at them, call them negative names and write annoying messages in their books.

Students also claimed that boys are affected most regarding indiscipline cases (47%), teachers tends to be biased towards girls (38%), teachers are harsh on boys (62%) and rough on boys (67%) while they are gentle on girls (53%). Peterson et al (2000) found similar results indicating that in coeducation classroom, boys are punished more than girls and that their punishment is more severe. Most students prefer single-sex schools (85%) and claimed that the preference for single-sex schools is because of full

concentration, good morals, discipline and good teaching environment, no fear of participation in class and encourages competition, reduces dropout rate and discourages boy-girl relationships. They also claimed that they do not like coeducation because it encourages sexual behaviors, boy-girl relationship, leads to high rates of indiscipline and encourages high rates of pregnancies. They claimed that they do not perform the way they should because they were not in the school of their choice (76%), boys in coeducation do not perform better than boys in single-sex schools (55%) and that girls in coeducation do not perform better than girls in single-sex schools (59%).

Teachers interviewed 50% were male, 50% female and majority had taught in that school 2-5 years (56%) and above 5 years (10%), they represented all subjects taught in that school and they had taught form three or four (94%). This was the right group for this study to identify teachers' attitude towards coeducation in academic performance. Teachers claimed that boys are most disruptive (94%), girls mostly drop out of school (77%), boys perform better than girls (66%), boys are not expected to perform better than girls by their teachers (59%), boys are punished more often (53%), boys are bullies (38%), Science subjects is not for boys (74%), Mathematics subjects is not for boys (79%), Language subjects is not for girls (63%) and Art subjects is not for girls (63%). Teachers' claim about students' behavior indicates teachers' negative attitude towards coeducation in academic performance. They also claimed that girls are affected by intimidation (53%), shouted at (40%), called negative names (40%), fear of getting wrong answers (45%), fear to put up hands in activities that require one to do so (55%), receiving more encouragement (70%) and shy away from exchanging words (65%) while boys dominate in activities that require one to put up their hands (58%), participate in class discussions (45%) and are affected most regarding indiscipline cases (68%).

Teachers also claimed that when they handle discipline issues, they tend to be biased to girls (90%), harsh on boys (55%), gentle on girls (60%) and rough on boys (63%). They prefer single-sex schools (85%) and the reasons for preference are that single-sex schools have full concentration, good morals, discipline and good teaching environment, there is no fear of participation in class, it encourages competition, reduces dropout rate and discourages boy-girl relationships. The reasons for not preferring coeducation is that it

encourages sexual behaviors, boy-girl relationship, leads to high rates of indiscipline and encourages high rates of pregnancies. Achoka (2009) found results similar to this study indicating that girls are affected majorly by high dropout rates because of boy-girl relationships, early pregnancies and early marriages. They also claimed that boys in coeducation schools do not perform better than boys in single-sex schools (75%) and girls in coeducation schools do not perform better than girls in single-sex schools (85%).

Therefore from the study it is clear that students and teachers have negative attitude towards coeducation which affect negatively students' academic performance. Mburu (2013) found similar results to this study which indicate that, students in coeducation schools felt that they could perform better in single-sex schools than in coeducation schools where there are more distracters from the opposite sex and girls were more distracted than boys.

### **5.3 Conclusion**

The study sought to determine the effect of coeducation on students' academic performance in Kenya. The findings of the study show that coeducation context does affect students' academic performance compared to single-sex schools. Students in single-sex schools seem to perform better academically. Further, most of the students and teachers prefer single-sex schools to coeducation schools and the reasons for the dislike of coeducation context include, high level of indiscipline, boys' offensive behavior towards girls, encouragement of boy-girl relationships that interfere with learning, the fear of girls to participate freely within classroom as well as teachers' differential treatment of boys and girls in favor of girls. Policy makers need to reconsider the type of schools they institute to be accommodative to all genders so as to ensure better academic performance.

#### **5.4 Recommendation**

On the basis of the findings and conclusions discussed therein, the following recommendations are made;

- a) The ministry of education and policy maker should establish more single-sex secondary schools, convert underperforming coeducation secondary schools in to single-sex secondary schools in order to improve on students' academic performance.
- b) School administrators and teachers in coeducation secondary schools should improve on the students' discipline level to create conducive learning environment and improve on both girls' and boys' academic performance.
- c) Teachers and students should be talked to either through the guiding and counseling departments or motivational talks in order to foster positive attitude towards coeducation.
- d) Teachers within coeducation classrooms should ensure that girls are motivated to actively participate in learning. They should discourage the dominance and offensive behavior of boys towards girls.

#### **5.5 Areas for further research**

A similar study should be done in other localities in Kenya to ascertain the effects of coeducation on students' academic performance in public secondary schools. Since the study investigated coeducation and students' academic performance in public secondary schools, there is also need to investigate coeducation and students' academic performance in private secondary schools.

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## **APPENDICES**

### **APPENDIX I**

#### **STUDENTS' QUESTIONNAIRE ON COEDUCATION AND STUDENT'S ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS IN KENYA, BUSIA COUNTY**

11<sup>th</sup> of June 2014

Dear student,

My name is Julius Gilbert Kachero a student at university of Nairobi undertaking a research project to determine the effect of coeducation on students' academic performance. To this end I kindly request that you complete the following short questionnaire regarding your attitude towards coeducation. It should take no longer than 10 minutes of your time. Your response is of the uttermost importance to me.

Please do not enter your name or contact details on the questionnaire. It remains anonymous.

Kindly return the completed questionnaire to me and should you have any queries or comments regarding this research, you are welcome to contact me on 0721292387 or e-mail: [jgkachereo2005@yahoo.com](mailto:jgkachereo2005@yahoo.com)

Yours sincerely

Julius Gilbert Kachero

# STUDENTS' QUESTIONNAIRE ON COEDUCATION AND STUDENT'S ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS IN KENYA, BUSIA COUNTY

INTRODUCTION: The study intends to assess the effect of coeducation on student academic performance in Kenya, Busia County.

## Background

*Ticking in the appropriate answer [ ✓ ]*

1. What is your Gender: Male [ ] or Female [ ]
2. Your Age in years: 12-15 years [ ] or 16-18 years [ ] or above 18 years [ ]
3. Which year did you join this school 2010 [ ], 2011 [ ], 2012 [ ], 2013 [ ]
4. Which form are you in: form 3 [ ] or form 4 [ ]

## General gender View

*Respond stating: Boys [B], Girls [G], None [N]*

5. Which gender is most disruptive [ ]
6. Which gender mostly drop out of school [ ]
7. Who perform better than the other [ ]
8. Who is expected to perform better than the other [ ]
9. Science subjects are for [ ]
10. Mathematics subject is for [ ]
11. Language subjects are for [ ]
12. Art subjects are for [ ]
13. Who are punished more often [ ]
14. Who are bullies [ ]

### **Classroom learning perspective**

Who do you think is affected most or disadvantaged in the given situation?

*Respond stating: Boys [B], Girls [G], Neither [N], Both [BT]*

- 15. Intimidation e.g bullying [ ]
- 16. Shouted at [ ]
- 17. Called negative names [ ]
- 18. Fear of getting wrong answers [ ]
- 19. Dominate in activities that require one to put up their hands [ ]
- 20. Fear to put up hands in activities that require one to do so [ ]
- 21. Receiving more encouragement [ ]
- 22. Shy away from exchanging words [ ]
- 23. Participate in class discussions [ ]

*Response should be: 1-Agree or 2-Disagree or 3-To some extent*

- 24. I do not perform the way I should because am not in the school of my choice
- 25. Boys in Coeducation schools perform better than Boys in Boys only schools [ ]
- 26. Girls in Coeducation schools perform better than Girls in Girls only schools [ ]

Thank you for your co-operation in completing this questionnaire, Kindly hand over the questionnaire back to.

## APPENDIX II

### TEACHERS' QUESTIONNAIRE ON COEDUCATION AND STUDENT'S ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS IN KENYA, BUSIA COUNTY

11<sup>th</sup> of June 2014

Dear teacher,

My name is Julius Gilbert Kachero a student at university of Nairobi undertaking a research project to determine the effect of coeducation on students' academic performance. To this end I kindly request that you complete the following short questionnaire regarding your attitude towards coeducation. It should take no longer than 10 minutes of your time. Your response is of the uttermost importance to me.

Please do not enter your name or contact details on the questionnaire. It remains anonymous.

Kindly return the completed questionnaire to me and should you have any queries or comments regarding this research, you are welcome to contact me on 0721292387 or e-mail: [jgkachereo2005@yahoo.com](mailto:jgkachereo2005@yahoo.com)

Yours sincerely

Julius Gilbert Kachero

# TEACHERS' QUESTIONNAIRE ON COEDUCATION AND STUDENT'S ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS IN KENYA, BUSIA COUNTY

INTRODUCTION: The study intends to assess the effect of coeducation on student academic performance in Kenya Busia County.

**Background** [indicate your answer with a tick (√)]

1. What is your Gender: Male [ ] or Female [ ]
2. How many complete years have you taught in this school: [\_\_\_\_\_]
3. Which subjects do you teach: [\_\_\_\_\_]
4. Do you currently teach or have you ever taught form three class in this school:  
Yes [ ] or [ ]

## General gender View

*Response should be: 1-Agree or 2-Disagree or 3-To some extent*

5. Boys are most disruptive [ ]
6. Girls mostly drop out of school [ ]
7. Boys perform better than Girls [ ]
8. Boys are expected to perform better than girls by their teachers [ ]
9. Boys are punished more often [ ]
10. Boys are bullies [ ]
11. Science subjects is for Boys [ ]
12. Mathematics subjects is for Boys [ ]
13. Language subjects is for Girls [ ]
14. Art subjects is for Girls [ ]

### **Classroom learning perspective**

Who do you think is affected most, or disadvantaged in the given situation?

*Respond stating: Girls [G], Boys [B], Neither [N], Both [BT]*

- 15. Intimidation e.g bullying [ ]
- 16. Shouted at [ ]
- 17. Called negative names [ ]
- 18. Fear of getting wrong answers [ ]
- 19. Dominate in activities that require one to put up their hands [ ]
- 20. Fear to put up hands in activities that require one to do so [ ]
- 21. Receiving more encouragement [ ]
- 22. Shy away from exchanging words [ ]
- 23. Participate in class discussions [ ]

*Response should be: 1-Agree or 2-Disagree or 3-To some extent*

- 24. Boys in Coeducation schools perform better than Boys in Boys only schools[ ]
- 25. Girls in Coeducation schools perform better than Girls in Girls only schools[ ]

Thank you for your co-operation in completing this questionnaire, Kindly hand over the questionnaire back.