# RELATIONSHIP BETWEEN SELECTED FACTORS AND GENDER DISPARITY IN ENROLMENT OF STUDENTS IN PUBLIC MIXED DAY SECONDARY SCHOOLS IN KERICHO COUNTY, KENYA.

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**A Thesis Submitted to the Institute of Postgraduate Studies of Kabarak University in Partial Fulfillment of the Requirements for the Award of Doctor of Philosophy in Education (Economics and Planning)**

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The thesis entitled **"Relationship between Selected Factors and Gender Disparity in Enrolment of Students in Public Mixed Day Secondary Schools in Kericho County, Kenya"** and written by **Johannes Koech** is presented to the Institute of Postgraduate Studies of Kabarak University. We have reviewed and recommend it be accepted in partial fulfillment of the requirements for the award of Doctor of Philosophy in Education (Economics and Planning).

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## DEDICATION

I dedicate this work to my wife, Janet and children; Judy, Job, Jescar, Joyline and Jimmy. In gratitude for all their sacrifice and understanding.

## ABSTRACT

Provision of universal basic education and especially secondary education is an important global target captured in the Sustainable Development Goals number 4. In tandem, the government of Kenya has since the year 2008 embarked on the Free Day Secondary Education program. However, gender disparity in enrolment in secondary schools is still persistent. This study attempted to establish the relationship between selected factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. The objectives of this study were: to find out the relationship between economic factors and gender disparity in enrolment, to establish the relationship between socio-cultural factors and gender disparity in enrolment, to determine the relationship between institution-based factors and gender disparity in enrolment and to determine the relationship between home based factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County. The study was guided by Social Demand Approach Theory. The study adopted descriptive correlational research design targeting 124 public mixed day secondary schools from which the accessible population consisted of 124 principals and 9,418 students. From these a sample size of 38 principals and 384 students was obtained. Sampling techniques applied included purposive, random and systematic sampling techniques. Data for the study was collected by use of questionnaires. Statistical methods employed in the study include, percentages, means, Spearman's coefficient of correlation, Pearson's coefficient of correlation and regression statistics. The most outstanding issues regarding these variables were child labour, early pregnancies, domestic chores, negative attitude towards education, parent's preference to educate a boy child, harassment of girls by male students, as well as student teacher relationship and also lack of parental support. The study, therefore, concluded that economic, socio-cultural, institution based and home based factors were all factors influencing gender disparity in enrolment in public mixed day secondary schools in Kericho County. The study, therefore, recommended that the quality assurance and standards officers alongside local administration should discourage child labour which mostly affected female students and led to gender disparity in enrolment. Secondly, policymakers and educators should come up with progressive policies that address early pregnancies in relation to enrolment in secondary schools. Furthermore, appropriate student-teacher relationship should be advocated in order to promote conducive learning environment in schools to reduce gender disparity in enrolment. Finally, parents should place a central role in academic affairs of their children so that gender disparity in enrolment could be terminated. Future studies on a similar topic should be carried out to compare the same factors in urban, rural and ASAL regions of Kenya.



**Key Words:** *Selected Factors, Enrolment, Gender Disparity, Public Mixed Day Secondary schools, Kericho County, Kenya.*

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## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| **AIDS** | Acquired Immunity deficiency Syndrome |
| **ASAL** | Arid and Semi-Arid Lands |
| **CDE** | County Director of Education |
| **EFA** | Education for All |
| **FSE** | Free Secondary Education |
| **GOK** | Government of Kenya |
| **GPI** | Gender Parity Index |
| **HIV** | Human Immunodeficiency Virus |
| **MDGs** | Millennium Development Goals |
| **MOEST** | Ministry of Education, Science and Technology |
| **SSA** | Sub Saharan Africa |
| **STR** | Student Teacher Ratio |
| **UNESCO** | United Nations Educational, Scientific and Cultural organization |
| **UNICEF** | United Nations Children Fund |
| **WB** | World Bank |

## OPERATIONAL DEFINITION OF KEY TERMS

**Economic Factors:** Financial issues that influence gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya.

**Enrolment**: The number of female and male students registered in the public mixed day secondary schools in Kericho County, Kenya.

**Gender:** Refers to sex of a student that is either male or female in public mixed day secondary schools in Kericho County, Kenya**.**

**Gender Parity**: The ratio of female to male students enrolled (as percentage) in public mixed day secondary schools in Kericho County, Kenya.

**Home Based Factors:** Those factors within the home environment that influence gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

**Institution Based Factors**: Teaching force and Physical resources for teaching and learning used by schools to promote gender parity in public mixed day secondary schools in Kericho County, Kenya. It includes classrooms, laboratories, toilets, playing field, furniture and toilets.

**Socio-Cultural Factors:** Beliefs, norms, taboos, values and cultural practices that affect gender parity in enrolment in public mixed day secondary schools in Kericho County, Kenya**.**

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# CHAPTER ONE

# INTRODUCTION

## 1.1. Introduction

This chapter examined the background to this study, statement of the problem, objectives of the study, research hypotheses, significance of the study, scope of the study, limitations of the study and assumptions of the study.

## 1.2 Background to the Study`

According to the Social Demand Approach Theory, education is a social good rather than investment good and, therefore, all children have an inalienable right to education. However, inequitable access to education still exists in various pockets of the world despite the concerted efforts by stakeholders including governments, development partners and non-governmental organizations among others agitating for global action to close the gaps in access to education. One of the formidable gaps that remain to be closed is gender disparity in access to education and, especially, in access to secondary education. According to Millennium Development Goal number 3, gender disparity in secondary education was supposed to be eliminated by 2005 and at all levels of education by 2015 globally (UNESCO, 2000). Furthermore, according to Sustainable Development Goals, universal secondary education is supposed to be achieved by 2030.

Education for girls is one of the critical pathways to promote social and economic development (World Bank, 2017). Moreover, special attention has been paid to women and girls in several goals. For example, Education for All (EFA) goal two, stipulates that by 2015 all children particularly girls, children in difficult circumstances and those belonging to ethnic minorities should have access to complete, free and compulsory basic education of good quality. EFA goal was focused on eliminating gender disparities in primary and secondary education by 2005 and achieving gender equality in education

by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality (UNESCO, 2015). Millenium Development Goal (MDG) 3 echoed these objectives (Psaki et al., 2018).

However, many countries of the world and particularly the developing countries are still struggling to attain gender parity in education, especially secondary education (Global Monitoring Report, 2015). Gender inequalities in primary school enrolment have declined in recent decades in low-income countries leading some observers to assume that educational disparities in educational attainment is now limited to secondary and higher education (Psaki et al., 2018). According to levels of attainment by 2013, only 14 per cent of children in low-income countries complete secondary school (UNESCO, 2016).

According to the 2016 gender review in the high-income countries, on the contrary, school enrolment was nearly universal but where boys are sometimes disadvantaged relative to girls (Grau & Zotos, 2016). The countries whose gender parity index has reached 1.0 and above in favour of girls include Japan, USA, Sweden and Malaysia, just to mention but a few (World Bank, 2013). In USA, gender disparity hardly exists in secondary schools. Girls' enrolment stands at 49%, which is roughly at par with that of the boys (World Bank, 2017). Today there is practically no gender gap in the opportunity for education in Japan. Even in the upper secondary and higher education levels, difference in enrolment between male and female students is hardly noticeable. Similarly, secondary school enrolment in Sweden shows that gender parity has been achieved. Its Gender Parity Index (GPI) was 1.1 as of 2013 (World Bank, 2013). Its highest value over the last 42 years was 1.15 in 2000 while the lowest was 0.9 in 2010. Otherwise, for many years, (1971-2013), gender parity has always remained at approximately 1.1 which shows that girls enrolment index has even been slightly more

than that of the boys. This view is corroborated by (Loke, 2018) who observes that now more girls than ever go to school.

Malaysia is also one of the nations whereby gender disparity in enrolment in secondary education is skewed in favor of girls (Table 1).

**Table 1: Enrolment in schools and institutions under the Ministry of Education Based on Gender and School year, in Malaysia, in 2010**

| **Education level and age group** | **Enrolment** | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| Lower secondary(12-14) | 715,307(50.7%) | 693,715(49.3%) | 1,409,022 |
| Middle secondary (15- form 4) | 209,441(49.3%) | 215,481(50.7%) | 424,922 |
| Upper secondary (16- form 5) | 199,601 (49.0%) | 208,790 (51%) | 408,391 |

Source: Malaysia Ministry of Education Statistics (2010)

School enrolment statistics for the year 2010 (Table 1) reflects the trends in the past 10 years where the enrolment of girls exceeds that of boys in upper and middle secondary. It is noted that the cause of this gender gap is the higher dropout rate of the boys than girls before they sit for school certificate examination. According to Asia society (2014), although there are more boys than girls in Malaysia, the gap in enrolment between boys and girls has narrowed.

Asia and Pacific raised their GPI from 0.9 to 1.0 between 1990 and 2010 whereas developed countries including Latin America have managed to raise their GPI to 1.0% as well. According to the World Bank (2013) globally, Africa region still has the greatest challenge of gender disparity in secondary school enrolment in favour of the boy child and it is followed by the Arab states. However, this has been changing gradually in both contexts. For instance, between 1990 and 2010, female to male ratio rose from 0.7 in 1990 to 0.8 in 2010 whereas Arab states had their GPI moving from 0.7 to 0.9 within the same period. Similarly, the Arab world like Africa lags behind in gender parity in

education. In spite of different levels of success in getting children into classroom, a number of Arab countries such as Yemen and Morocco suffer from gender disparities in favour of boys in enrolment in schools.

In Yemen, the gender disparity in favour of boys is wide, with less than 3 girls for every 10 boys in secondary school level of education. Mohamed, Mahmoud and Abdul-Karim (2014) pointed out that the wide gender gap among teachers in Yemen serves as a deterrent to girls' school attendance when traditionally male-minded family members refuse to allow daughters, sisters or nieces to be taught by men. In Morocco, the gender gap was 65 girls to 100 boys in 2014 (Mohamed et al., 2014). In Morocco, there are about seven and a half girls for every ten boys in secondary stage while in Egypt slightly more than 8 girls are enrolled for every 10 boys in secondary level (Akkari, 2016). One of the reasons is that girls in rural areas face cultural and financial barriers to attending school. Other factors are to do with economic factors and low income of parents. Girls in rural areas in Yemen suffer more than their counterparts in Morocco, due owing to interference from tribal chieftains and dignitaries, and because of predominance of social traditions that affect education, in addition to the lack of resources and the poor infrastructure (Mohamed et al., 2014).

Secondary school enrolment rates in Sub-Sahara Africa continue to be the lowest in the world (Gould, 2015). It is estimated that 104 million secondary school going age children in the region, only one in four (25%) were enrolled in 2006, majority of them being male, that is, 83 girls for every 100 boys (Global Education Monitoring Report, 2016). This view agrees with Thulani (2015) who noted that educational enrolment and attainment in sub-Saharan Africa remains skewed in favour of boys and against girls. Owan (2017) analysis of gender patterns of access to higher basic education revealed that

more male students are enrolled in most schools than female students hence an imbalance.

Although Nigeria introduced Free Secondary Education in 1989, which is much earlier than most of the rest of African countries, there is still gender disparity in schools. Gender disparity in enrolment into basic formal education in Nigeria is huge. Literacy rates for Nigeria girls stand at 43% while boys are 57% yet the female forms the larger portion of the population (Akinbi & Akinbi, 2015). The poor enrolment of girls into schools in Nigeria is due to cultural beliefs and practices, households and families constraints, religious encumbrances and school factor (Akinbi & Akinbi, 2015). The problem of enrolment disparities skewed in favour of boys also persists in Uganda where data on enrolment rate in secondary education indicated 85% for girls and 86% for boys (Republic of Uganda, 2014). Rwanda shows a lot of disparity between boys and girls in secondary schools as well. According to Hunvounopwa (2015) there are 81,630 (52.2%) boys enrolled compared to74, 669 (47.8%) girls.

Several articles of the constitution directly address education in Kenya. The legal framework assures every Kenyan child of a right to education. According to article 4 (1) every person has the right to education. The constitution of Kenya (2010), article 43.1f, 53.1b and 55a makes education a right of every Kenyan. The Constitution provides for the basic education as a right and obligates both the state and the parents to facilitate acquisition of basic quality education by all children (Republic of Kenya, 2010). Every child has the right to free and compulsory basic education (Republic of Kenya, 2013). In particular, the constitution guarantees every child to free and compulsory basic education. According to the bill of rights, basic education is a basic fundamental human right (Republic of Kenya, 2013). This implies that citizens can hold the state accountable for ensuring that every child aged between 14 and 17 years is in school and receiving

quality education. This is consistent with the international education commitments and other international conventions to which Kenya is a signatory. For example, the African charter on the Human and People's rights, article 17, provides that every individual shall have a right to education.

The African Charter on the right to free and compulsory basic education for the child and state's obligation towards that right, the United Nations International Convention on Social and Economic Rights (Republic of Kenya, 2001), Convention on the Rights of the Child, Articles 28, 29 and 30, ensure the rights of a child to free and compulsory basic education. Kenya is also a signatory to the Jomtien Protocols (UNESCO, 1990) and the Accra Accord (Langford & Sumner, 2013), which established the Millennium Development Goals (MDG) and modalities for assessing progress thereof. The millennium meeting came up with a framework of goals, targets and indicators, famously known as the Millennium Development Goals (MDGs). One of the objectives of MDG was education enhancement.

Upon the expiry of the MDGs in 2015, leaders from 193 countries came together to face the future and created a plan called Sustainable Development Goals (SDGs) in the same year. One of the ambitions of goal No. 4 of SDGs was to achieve universal secondary education by 2030 (GEF &UNDP, 2015). Following proclamations of global success in achieving gender parity in enrolment in primary (UNESCO, 2016), SDG 4 calls for completion of universal education of upper secondary school (UNESCO, 2016). However, if the past trends continue the target of Universal secondary school completion may not be achieved (UNESCO, 2016).

It is for this reason that the Kenya Government has spent many resources in education sector. However, there is still a lot of gender disparity in enrolment in secondary schools

in Kenya. In spite of serious efforts made by the Kenya Government in trying to provide access to education for Kenyan children, it is realised that full enrolment in schools is still worrying (Republic of Kenya, 2014). UNICEF (2018) shows that 51.6% of students enrolled are male and 48.4% are female. It further reports that the greatest gender disparity exists among the poorest groups in Kenya with attendance being 33.1% and 25% for males and females respectively. The report also notes that there is distinct difference in rates of enrolment in terms of gender in certain counties, with the highest, Kirinyaga County, enrolling 51.9% girls in schools and the lowest, Wajir County, only enrolling 13.9% girls.

The problem of gender disparity reflects beyond enrolment to retention suggesting other factors could be at play to affect net enrolment in terms of gender even after initial enrolment. Oguta (2013), for instance, reported that girls in mixed day secondary schools experience more challenges than those in boarding schools in Migori County, Kenya. Similarly, Sang, Koros and Bosire (2013) revealed that girls drop out levels in public secondary schools in Kericho County, were higher in day schools (1.43 %) compared to boarding schools (1.39 %). It was further revealed that there was higher dropout in mixed schools as compared to single sex schools.

In Kericho County, public mixed day secondary schools are more in number than boarding schools. According to the Kericho County Integrated Development Plan (CIDP) (2018 -2022), there are 229 secondary schools with a total enrolment of 69,081students in the county; of which 214 are pubic sponsored while 15 are privately sponsored. 124 of these schools are categorized as public mixed day secondary schools. Currently, enrolment of students in Kericho County raises a lot of concern since, apart from the fact that full enrolment has not been achieved, gender disparity is also an issue.

As shown in the Table 2, during the last 6 years, enrolment of girls in public mixed day secondary schools remains far below that one of the boys.

**Table 2: Enrolment Rates of Students in Public Mixed Day Secondary Schools between 2013 & 2018**

| Year | Boys | Girls | Total | Disparity (B-G) | GPI |
|---|---|---|---|---|---|
| 2013 | 17,101 | 14,715 | 31,816 | 2,386 | 0.86 |
| 2014 | 18,785 | 15,919 | 31,704 | 2,866 | 0.85 |
| 2015 | 19,911 | 17,965 | 37,876 | 1,946 | 0.90 |
| 2016 | 20,035 | 18,222 | 38,258 | 1,814 | 0.91 |
| 2017 | 21,505 | 19,079 | 40,584 | 2,426 | 0.89 |
| 2018 | 23,166 | 21,325 | 44,491 | 1,841 | 0.92 |

Source: County Education Office (2018) Kericho, Kenya.

According to Table 2, it is clear that Gender Parity Index has always remained less than one (below 0.92) and still below the national average in favour of boys in Public Mixed Day Secondary Schools in Kericho County. According to UNESCO (2015), an entity with a Gender Parity Index (GPI) between 0.97 and 1.03 has achieved gender parity. GPI below 0.97 indicates disparity in favour of males while GPI above 1.03 indicates disparity in favour of females. Kenya has achieved gender parity at secondary school level at 1.04.

The neighboring Kisumu County has already overcome the gender disparity challenge. According to information obtained from Kisumu County Education office, in 2018 there were 39,285 boys and 41,397 girls in public secondary schools, which translated to a GPI of 1.05. Other neighboring Counties such as Homa Bay, Narok, Bomet, Kisii, and Nyamira have achieved GPIs of 1.15, 1.11, 1.08, 1.01 and 1.01 respectively (Ministry of Education, 2020). With this kind of scenario, therefore, it is critically important to investigate the factors influencing gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya.

## 1.3 Statement of the Problem

Data from the Ministry of Education (2020) in Kenya shows that there are disparities across counties with regard to achievement of gender parity in secondary education. Twenty-one counties have gender disparity in favour of girls, 13 counties have achieved gender parity, while 13 counties have gender disparity in favour of boys. Overall, Kericho County is among the counties that have achieved gender disparity in favour of girls in secondary education with a GPI of 1.04. However, this can be attributed to the high enrolment of girls in girls boarding secondary schools. The case of public mixed day secondary schools is, however, different with available data (Table 2) suggesting that student gross enrolment has been consistently skewed in favour of boys than girls in public mixed day secondary schools in the area (County Education Office, Kericho, 2018). The GPI for the public mixed day secondary schools in the area averages 0.88 which could explain why Kericho County still lags behind other counties like Homa Bay, Narok, Bomet, Kisii, and Nyamira have achieved a GPIs of 1.15, 1.11, 1.08 (Ministry of Education, 2020). The enrolment of students in secondary education in Kericho County, therefore, raises a lot of concern since, apart from the fact that full enrolment has not been achieved, gender disparity is also a matter of concern. The underlying factors behind low GPIs in public mixed day secondary schools as compared to boarding schools has, however, not been well established. Previous studies such as Huissman and Smith (2012), Sang et al., (2013) and Oguta (2013) while providing insight on the gender disparities in trends failed to bring out the factors behind the disparities. Therefore, the differences observed in enrolment GPIs in public mixed day secondary schools as compared to boarding schools in Kericho County remained largely unexplained at the time of carrying out the present study, hence, motivating the need for the study.

## 1.4 Purpose of the Study

The purpose of this research study was to establish the relationship between selected factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya**.**

## 1.5 Objectives of the Study

The study was guided by the following objectives:

i To find out the relationship between economic factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

ii To establish the relationship between socio-cultural factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

iii To determine the relationship between institution-based factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

iv To determine the relationship between home based factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya.

## 1.6 Research Hypotheses

The study sought to test null hypothesis as derived from the objectives above.

**$H_{01}$**: Economic factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya

**$H_{02}$**: Socio-cultural factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya

**$H_{03}$**: Institution based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya

**$H_{04}$**: Home based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

### 1.7 Significance of the Study

As the country seeks to close the gender gap and increase equity in access to secondary education, there are still noticeable gender disparities especially in enrolment between boys and girls in boarding and mixed day secondary schools, a case in point being Kericho County. It was, therefore, the aim of this study to make the findings useful to various stakeholders in the education sector including the government, educational planners, policy makers, international development partners, parents and students and future researchers. Specifically, the school communities in Kericho County and in other counties in the country experiencing gender disparities may find the outcome of the study instrumental in providing the necessary insight of the extent of the gender disparity problem and relevant recommendations on how to address it. The international development partners in education may also find the findings useful in assessing their efforts towards closing the gap in equitable access to education especially in relation to gender disparity and may use it to recalibrate their interventions. The government and policy makers would be able to come up with strategies that could minimize educational inequalities in the society by establishing alternative ways of increasing gross enrolment

of students and ensuring that enrolment growth rate is in phase with increasing population of eligible age group. It would also assist the Ministry of Education in coming up with strategies required in the achievement of full enrolment and hence minimising gender disparity at secondary education level. Future researchers in this field may also use the empirical data to gain more insight into the problem of gender disparities in student net enrolment at the local and national level. The findings also exposed the theoretical strengths and gaps that could be useful to future studies done in this area.

### 1.8 Scope of the Study

The study was conducted in Kericho County, Kenya and was only limited to public mixed day secondary schools. The participants consisted of all the head teachers, and form four students. The study confined itself to the relationship between economic factors, socio-cultural factors, institution based factors, and home based factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County.

### 1.9 Limitations of the Study

Although this research was carefully prepared, the researcher was aware of its limitations and shortcomings. First, the extent of generalization of the findings might be limited since the study confined itself only to one county out of 47 counties in Kenya. To mitigate this, the researcher used appropriate sampling techniques to allow for maximum variation and a large sample size in order to make the findings more representative of the general situation in the country. In addition, a great amount of time within the study period was committed to collecting adequate and representative data, which could then make findings to be generalisable to other counties. Secondly, the use of the questionnaire as the only instrument of data collection has its limitations despite the fact that it is widely used in surveys. The element of subjectivity in the instrument is high and without careful preparation, it can fail to adequately capture the disposition of

respondents on the subject matter being investigated. This limitation was, however, overcome through careful instrument design and pilot study and pretesting of the instrument for accuracy, validity and reliability.

### 1.10 Assumptions of the Study

In undertaking the study, the researcher made the following assumptions: The respondents would provide honest responses to the questionnaires to enable the researcher to accomplish the objectives of the study. It was also assumed that the schools and County Education office kept accurate records of student enrolment.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter presents a review of related literature for the study that was based on available literature drawn from various sources. The literature review comprises the following: relationship between economic factors and gender disparity in enrolment, relationship between socio-cultural factors and gender disparity in enrolment, relationship between institutions based factors and gender disparity in enrolment and relationship between home based factors and gender disparity in enrolment. The chapter also presents theoretical framework and conceptual framework underpinning the hypothesized relationships between the variables.

## 2.2 Economic Factors and Gender Disparity in Enrolment

Economic factors play a very important role in access to education. This subsection presents literature on how economic factors affect equity in education access in terms of gender parity. Therefore, it focuses on parental level of income, child labour and free secondary education policy.

### 2.2.1 Parental level of Income and Gender Disparity in Enrolment

Economic factors in the society are one of the crucial determinants when it comes to participation in secondary education. Poverty influences the schooling demand because it influences the ability of the household to pay fees and other costs associated with a high opportunity cost of schooling for children (UNESCO, 2011). Socio-economic background of families causes enrolment variation in schools. Parents of high economic status find it easier to educate their children up to a reasonable level (Oguta, 2013). This concurs with Lukonzo, et al. (2017) who maintain that low income for a family can act as a hindrance to children from poor families from attending school because of poverty.

Findings by Ding (2015) showed that children whose parents are at the bottom of the socio-economic ladder fail to access available educational facilities as compared to children whose families occupy the middle or the top level of the ladder.

In the same way, Wanjohi (2013) also asserts that demand and participation in education is determined by the level of family income and this is reflected on participation of secondary education. One of the significant causes of dropout by students in secondary schools is the inability to pay fees (Achoka, 2007). Wanjohi (2013) maintains that although the government of Kenya has spent many resources in education sector and particularly secondary level of education in order to improve enrolment of students, it is realized that there are a number of factors that hinder the realization of this goal. These include Children from poor family background cannot go very far in their education because they drop out before completion.

The students who transition from primary school to post-primary school institutions, 9 per cent drop out of secondary school before completion. At the same time, 30% of the remainder proceeds to other post primary institutions (Republic of Kenya, 2014). Majority of those who fail to complete the secondary school education cycle are girls. Menashy (2016) reiterates that gender disparities tend to be particularly pronounced in secondary schools, and one of which is economic related barriers that put increased pressure on students' ability to stay in school and learn. McCleary-Sills, Hanmer, Parsons and Klugman (2015) suggest that levelling the playing field for girls in education has proved to be a global challenge, despite the progress of recent decades, have observed this view.

Sang et al. (2013) reported that in spite of massive investments and concerted efforts to achieve full enrolment in secondary schools, no African country has gone closer to the

mark. This is due to high dropout rates, especially among the poor and the girls. According to Republic of Kenya (2010), parents whose level of income is very low neglect their daughters' demands. This concurs with Nyamweya (2012) who affirms that family income influences the participation of girls in secondary school. Poor families find it very difficult to meet educational demands of their children and when faced with a situation as to who between a girl and the boy is to be sponsored most families would favour a boy child and neglect the girl child (Ombago, 2014). Kuli's (2011) study in Merti division in Isiolo district also revealed that parents' financial background and level of in-come was one of the reasons for not sending girls to school.

However, with substantial investment by the government in the Free and Subsidized Secondary Education since the year 2008 and changing socio-economic trends in the country it was expected that the parental contribution to tuition would be minimal especially in public mixed day secondary schools. However, the studies reviewed so far, such as Kuli (2011) and Ombago (2014) did not make a distinction in parental ability to pay fees in boarding and public mixed day secondary schools and how this contributed to the disparities in enrolment. Therefore, the study sought to establish whether parental income levels contributed to gender disparity in enrolment of students in mixed public day secondary schools in Kericho County.

Apart from providing tuition, teenage girls have other needs that are important for their upkeep in school regardless of whether they are in boarding or public mixed day secondary schools. These include uniforms, sanitary towels and other personal effects. However, this tends not to be prioritized by the parents and guardians of the girl-child as explained by Lugonzo et al. (2017) when noting that apart from school fees, parents of lower economic status experience difficulty in providing necessary assistance to their children that can enable them to attain secondary education. Oguta (2013) also asserted

that due to poverty in the society, people tend to give priority to basic needs such as food, shelter and clothing and therefore, education is of secondary importance to them. Accordingly, poor parents find it very difficult to pay fees for a girl child besides basic needs such as pocket money, clothes and sanitary towels.

Further, economic status of a family affects the girl child participation in secondary education because it determines contributions by parents towards school uniforms, personal effects, teaching and learning materials, payment of fees (Oguta 2013). According to a study by Nyamweya (2012), high cost of levies and charges paid by parents influences girls' participation in secondary school education as most of them dropout of school due to lack of fees. This concurs with Oprong (2015), poverty influences student's participation in secondary education. He maintains that students from low- income family background fail to get necessary materials such as revision materials making them perform poorly in class thus dropout of school in the end. Oprong (2015) also notes that parents whose level of income is very low neglect their daughters' demands due to poverty, which leads to girl-child dropping out of secondary school. He argues that this is because most of the parents from a poor background have the problem of raising the required school fees as well as providing the students with the necessities such as clothing and food.

In rural and semi-urban areas, agriculture is the mainstay of the economy. Njuguna and Baya (2012) observes that in Kenya women farmers control the bulk of small holder agriculture, which employs about 70% of the labour force of which 80% of women supply the labor. Moreover, agricultural work unlike businesses has lower entry conditions than formal business in terms of financial and intellectual capital requirements. Compared to men, women have lower access to capital often due to lack of collateral to secure credit, hence, most of them cannot realistically start a business or

improve their farms (Ali, Deininger, & Goldstein, 2014). National Household Survey (2009) study in Kenya showed that disparities in enrolment caused by economic differences in secondary schools were 14.1% compared to 27.3% of non-poor who had completed this level of education. According to the study, substantial disparities are observed for secondary level with the percentage of enrolled non-poor almost doubling that of the poor.

It is evident that various studies that have been conducted hardly examined the relationship between lack of money for personal effects, uniform, sanitary towels and upkeep and gender parity in enrolment of students which was the emphasis of the current study. Further, as at the time of carrying out the present study no study had been done with regard to lack of money for personal effects, uniform, sanitary towels and upkeep and gender parity in enrolment of female students in public mixed day secondary schools in Kericho County.

### 2.2.2 Child labour and Gender Disparity in Enrolment

Finances being a source of inequality and hindrance to education is rather complex because funding of education is both from the public and the government. It is argued that many nations have tried to provide equitable distribution of educational opportunities, but this has not been feasible because of the problem of poverty, which has led to many people not being able to meet and to sustain the cost of education (World Economic and Social Survey, 2013). According to Hanushek (2006), child Labour is inescapable for the survival of many rural households. The opportunity cost for children increases as they grow hence their pressure to work and earn income for household increases as opposed to spending time in education (UNESCO, 2011). Due to poverty, most families in Kenya exert a lot of pressure on its members irrespective of age to

provide food, water, clothing and other essential needs resulting into gender disparity in enrolment of students in schools.

According to the World Food Program (WFP) (2019), it is estimated that 10 million Kenyans are food insecure. This number includes 3.2 million drought affected residents in the marginal agricultural areas, 850,000 school children who have been included in the expanded School Feeding Programme, 150,000 persons displaced by the post-election crisis that remain extremely food insecure, 3.5 million urban dwellers, and about and 2.2 million persons affected by HIV and AIDS, including orphans.

In a study by Ajaja (2012), the high incidence of drop out in Nigeria was in part linked to a high level of child abuses prevalent throughout the country. He reiterates that the abuse range from children being made to hawk when their colleagues are in schools through going to farm to sexual abuses. The sexually abused result in early pregnancies, early parenthood and single parents also are unable to take care of themselves and their children. According to Ngeno et al. (2014), child labour is a factor behind gender inequality in secondary schools. Some students and especially the girls opt to stay out of school to be employed to earn a living for their families. Ngeno et al. (2014) observed that some students and especially the girls opt to stay out of school to be employed to earn a living for their families. Oprong (2015) also observed that child labour was a rampant practice that continues to keep children, particularly the girl child out of school. In concurrence, Oguta (2013) maintained that many school-age girls are employed as house girls and baby sitters in both the urban and rural areas to meet their own, and their parents' economic needs. These children cannot effectively participate in secondary education.

The study by Lugonzo et al. (2017) further revealed that poverty causes most girls to become sex workers on the beaches of Lake Victoria to get money in order to fend for

themselves and their siblings or fall prey to fishers to offer them free fish for trade. Older women go with their nubile daughters to the lake to persuade fishers to provide them with fish as they like having sex with women who are younger.

While it is evident from the studies reviewed in this section that poverty in the society gave rise child labour no mention was made on how this caused gender disparities in schools. Moreover, at the time of carrying out the current study no study had been done with regard to the relationship between child labour as an economic factor and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, which was the focus of the current study.

### 2.2.3 Free Secondary Education Policy and Gender Disparity in Enrolment

Secondary education lies between primary and tertiary levels of education and has an enormous impact on critical period of adolescence. This is the level where important life choices for future and career orientation are made and that is why the government has taken a bold step in providing free secondary education to promote access, retention and completion. In tandem with the international conventions and protocols that encourage governments all over the world to provide universal education to its citizens; the government of Kenya launched FSE in 2008 as a strategy to make education accessible and affordable to many households in the country. This was to achieve Education for All by the year 2015 (Getange, Onkeo, & Orodho, 2014). Mutisya (2011) affirms that the government's desire to offer Free Secondary Education is understandably an effort to offer continuity to majority of those completing primary education.

The main objective of FSE policy which was introduced in 2008 in Kenya was to increase the rate in which students can access, can be retained and finally complete secondary education and hence achievement of basic education for all by 2015. The

rationale behind the policy was to ensure equity in education by reducing the burden of fees borne by parents/guardians and to enhance the transition from primary to secondary schools. It was aimed at ensuring deserving children from poor family background got access to secondary education. The government desired to increase the transition rate to 70 per cent and raise secondary student enrolment from 1.2 million to 1.4 million in 2008. The gross enrolment rate for primary schools was 107.6 per cent and 36.8 per cent for Secondary schools (Ministry of Education, 2007). At that time, it was considered a significant relief to many as well as a logical step to reduce the cost of learning in secondary school.

However, expanding provision for all in Secondary education subsector has been a major challenge because of limited facilities and the teaching force. Sustainable provision of the quality secondary education is fraught with a myriad of challenges that include limited facilities, inadequate number of trained teachers and the growing government financial deficits (Munyi & Orodho, 2014). Secondly, a very contentious issue is the fact that Free Secondary School capitation grant of ksh. 10,265 initiated in 2008, has not been increased to keep pace with inflation (New Vision, 2015).

Consequently, schools have been reported as charging parents levies for a range of activities. Under the free secondary school policy, the government paid Ksh. 10,265 per student annually from 2008 until 2015 when the figure was revised and raised to Ksh.12,870. Although the government further increased the figure to Sh. 22,240 per student in 2018 this may not be a lasting solution because of several factors related to hidden costs. Hidden costs include uniform, transport, sanitary pads for girls, lunch programme and pocket money. Table 3 shows various vote heads of Free Secondary School capitation.

**Table 3: Distribution of fees provided by the government to cater for free secondary school Education**

| YEAR | 2008 to 2014 | | 2015 |
|---|---|---|---|
| **Vote Head** | **Day Schools** | **Boarding Schools** | **Revised (Day &Boarding)** |
| Tuition | 3600 | 3600 | 4792 |
| B.E.S | 0 | 0 | - |
| R.M.I | 400 | 400 | 800 |
| L.T.T | 400 | 400 | 800 |
| ADM | 500 | 500 | 800 |
| Insurance | - | - | 600 |
| E.W $ C. | 500 | 500 | 1500 |
| Activity fee | 600 | 600 | 600 |
| P.E | 3965 | 3965 | 2700 |
| Medical | 300 | 300 | 278 |
| **Total fees** | **10,265** | **10,265** | **12,870** |

Source: Ministry of Education, Science and Technology (2018).

This money was expected to cover tuition and administrative costs, class activities, school maintenance and improvements. However, the amount has not been adequate (Kwachi, et al., 2012). According to Munyi and Orodho (2014), the FSE capitation does not cover some costs leading to the schools charging extra levies for hidden costs such as lunch programme. This has led to the schools to ask for extra levies from parents, which undermine the concept of free education (Muindi, 2011, Kirechi, et al., 2012). This amount moreover, does not cater for hidden costs such as the development of physical facilities, transport, lunch, boarding fees and uniform. These types of expenses are supposed to be met by the parents, and they are still high for poor households who may find it difficult to maintain their children in secondary schools. All these off-budget expenditures add to the high cost of schooling in Kenya (Fleshman, 2005). (Ohba, 2009), however, observe that due to free secondary Education policy, the parents have developed a feeling that since the government has provided the funds

towards education of their children they don't have to contribute financially towards financing the schools. This has affected the contributions towards lunch programme and particularly in day schools whereby most of the children cover long distances to school. This concurs with Achoka (2007) who maintains that when schools charge fees, they are likely to create barriers to low-income students in their participation in the full life of the school.

Although the government of Kenya has provided free secondary education, the amount has not been adequate and this has led the head teachers to source for extra money from the parents. The extra levies the parents are required to pay have appeared to be detrimental to learning. When parents fail to meet this type of demand, their children are normally sent home and in the process, some decide to drop out of the system (Kamathi & Nyongesa, 2013). According to Muyeka (2012), a combination of factors contributed to low enrolment of girls in public schools. The key factors were funding of the schools by the Government of Kenya. As observed by Bolton (2020) factors influencing girls' access to primary and secondary education include financial barriers and gender insensitive school-environments. This concurs with a study by Roschanki (2007) in Homa Bay district who affirms that when girls are repeatedly sent home for the school levies, some become too shy and fail to return to school and in the end fail to complete their education. The same scenario might have been the cause of gender disparity in enrolment in the County of Kericho.

Delay in disbursement of funds by the government could be the cause of gender disparity in enrolment in schools. For effective and smooth running of schools to be achieved the materials for learning and teaching must be acquired as soon as the schools open and therefore free secondary school funds must reach schools before the beginning of each term. The government takes a long time in releasing the funds to schools (Mate &

Wesonga, 2013). If the government delays in sending the funds to schools, learning will obviously be adversely affected both in the short and long term. This amount is allocated in lump sum and is supposed to be disbursed at the beginning of each term, but in most cases the money arrives in schools late and this has forced the school heads to seek funds from parents to enable them operate their day to day running of schools .

According to Orodho (2014), the release of funds from the treasury takes a lot of time, and this leads to a delay in remittance of the funds to schools. He argues that this is because basic education institutions cannot follow a strict implementation tempo when learning resources are either inadequate or reach schools late. This type of phenomenon did not start recently, but it has been there since the inception of the FSE policy in 2008. Aboka (2008) while addressing Deputy Principals at Tom Mboya Labour College in Kisumu (10th-23rd August 2008) identified late disbursement of funds as one of the challenges facing the implementation of FSE policy. Persistent delays by the government in releasing the funds to schools negatively affect the effective implementation of free education (Kilonzo, 2007).

It is clear that various studies that have been conducted so far hardly explored the relationship between the implementation of the Free Secondary Education Policy as an economic factor and gender disparity in enrolment of students in schools which the current study sought to address. Similarly, the relationship between implementation of the Free Secondary Education Policy as an economic factor and gender disparity in enrolment of students in public mixed day schools in Kericho County had not been examined in the previous studies.

## 2.3 Socio-Cultural Factors and Gender Disparity in Enrolment

Over the years, the state of girl's education has improved significantly. However, girls continue to lag behind boys in many parts of the world in terms of access to education, completion of education and acquisition of basic skills such as literacy. Globally, there is still plenty of gender gap in youth literacy rates. In 2009, roughly 35 million girls were out of school compared to 31 million boys (World Bank,2011). Gender inequality is a global priority for UNESCO and is highly in line with UNESCO's efforts to promote the right to education and strengthen the achievement of education for all (EFA) by 2015 (UNESCO, 2000). However, there are a number of cultural values that hindered the girls from enrolling as compared with the boys thus causing disparity in enrolment in schools. This Sub-section looked at the literature on the following areas: early marriages, female genital mutilation, early pregnancies, and preference to educate a boy child at the expense of a girl child, peer influence and attitude towards education.

### 2.3.1 Early Marriages, Initiation Ceremonies, Early Pregnancies and Gender Disparity in Enrolment

Girls' education leads to increased income, both for individuals and for the nation as a whole. However, early marriage has been a significant impediment to such gains. A United Nations Children's Fund (UNICEF, 2017) report indicates that illiteracy is one of the key drivers of child marriage in Kenya. It indicates that 67% of women aged 20-24 with no education are married as minors. It reiterates that one in four girls (25%) is married before attaining her $18^{th}$ birthday in Kenya. Moreover, one in every 25 girls is also married before her $15^{th}$ birthday. Most female children in rural areas are given out in marriage very early. According to the report, these rates vary across regions, with North Eastern and Coastal regions recording the highest prevalence rates, while Nairobi and Central regions record the lowest.

Early marriages adversely affect secondary education of girls thus causing gender disparity in enrolment (Achoka, 2007; Ajaja, 2012). Ngeno et al. (2014) also concur by demonstrating in their study that early marriage is a major factor that influences gender parity in secondary education. In a study by Bolton (2020) factors influencing girls' access to primary and secondary education include early marriage and living in rural areas. Gimbo et al. (2015) explains that girls are married off in order to get resources for the family and therefore fail to finish school as expected. They reiterate that girls are married off sometimes by force at an early age instead of being sent to school because the community regard girls as a source of wealth and therefore early marriage can bring quick returns as opposed to education. Where daughters traditionally "marry out" of their families and join their husbands, parents may doubt they will benefit from having more educated daughters (Filmer, 1999). The opportunity cost of having girls in schools, in terms of lost chore time and contributions of family income, is a formidable barrier as well. According to a study by Mollel and Chong (2017), in Mtwara district, Tanzania, it was revealed that early marriage, traditional ceremonies, male preference, social perception and social roles are some of the key socio-cultural factors that hinder girls' education.

While in some cultural contexts, the path to early marriage is clearly defined, in many other contexts it is circumstantial with early or teenage pregnancy contributing highly to early marriages. According to a study by Gimbo et al. (2015), it is revealed that early pregnancies were part of the factors that affect the continuity of girls in secondary education. The findings further indicate that most girls fail to complete their education due to early marriages. Ngeno, et al., (2014) also assert that unwanted pregnancies contribute significantly to the gender parity index in secondary education in the country.

Pregnancy and marriage are major contributors towards non-schooling attendance among girls in secondary schools (Lloyd, et al., 2009).

In most communities where circumcision/initiation is practiced, the ceremonies are scheduled to be conducted during the school holidays, but the process starts earlier, leading to absenteeism from school (Oguta, 2013). Circumcised children take longer to heal before they go back to school. Although initiation ceremonies involve both boys and girls the expectations after the ceremony are more on a girl child than the boy child because girls are married off after initiation in some communities. Kainuwa and Najeema (2013), in their study, shows that girls who undergo initiation ceremonies consider themselves as adults and perceive school as an initiation for children. Consequently, they become rude to the teachers, misbehave to their teachers, and absent themselves from school hence perform poorly in class, which leads to drop out of school.

Female Genital Mutilation (FGM) lowers the chances of girls accessing education (Lewin, 2007; Oguta, 2013). This practice is also still common in a number of areas in the County of Kericho. Although girls may perform very well in the KCPE Exams, they fail to proceed to secondary due to female genital mutilation. Consequently, this may be the cause of gender disparity in enrolment in the County. Despite the ban on FGM, it continues in various pockets of the country. For instance, areport by the Standard Newspaper of 1 December 2015 (p. 32) revealed that eight women of Poywek location, Ainamoi constituency in Kericho County were arrested for subjecting six girls to female genital mutilation (FGM), and the girls were rescued and taken to Kericho district hospital because of excessive bleeding. In another Standard Newspaper dated 28.12.2017, ten suspects were arrested by police in Barut, Nakuru west sub-County for helping girls to undergo the outlawed female genital mutilation (FGM). According to the report, two girls who had undergone the cut and were bleeding profusely were rushed to

the Nakuru women's hospital where they were referred to Rift valley provincial general hospital.

While from the studies reviewed it was evident that Early Marriages, Initiation Ceremonies and early Pregnancies substantially affected the education of the girl-child more than the boy-child did, no mention was made on how this caused gender disparities between boarding and mixed public day secondary schools. Further, no contextual study existed as at the time of the present study on the effect of Early Marriages, Initiation Ceremonies and early Pregnancies on gender disparity in enrolment of female students in mixed day secondary schools; in Kericho County.

### 2.3.2 Preference of the boy child and Gender Disparity in Enrolment

Both boys and girls can perform equally well in education participation when they are exposed to similar conditions. However, both cultural and social environment can bring about the difference. Factors behind gender inequality in education include negative cultural values, thus disregarding girl's education (Mollel & Chong, 2017). The community discriminates while sending the children to school by choosing the boy to go to school, particularly when they are faced with a scarcity of resources UNICEF (2011) and Ombago (2014). This may be the cause of gender disparities in secondary schools. Preference for the boy child, girl child's attitudes and enhancement of compulsory basic education policy should be integrated into the free secondary education approach to minimize gender disparity. According to a study by Dakwa et al. (2014), in Zimbabwe, which indicated that, parents preferred boys staying in school when faced with a choice or when they do not have the means to finance their children's education. When parents have to pay school fees or to buy school uniforms and have to meet other responsibilities, they are less likely to invest such expenses for a girl.

According to the study by Mollel and Chong (2017) in Mtwara district, Tanzania, early marriage, traditional ceremonies, male preference, social perception and social role are some of the key socio-cultural factors that hinder girls' education. In a study by James (2014), gender disparity between boys and girls is due to the difference in the ways the households perceive male and female children. According to the study, it is reported that there is a preference for boys over girls in secondary school enrolment. It is evident that the several existing studies overlooked the relationship between the preference of the boy child as a socio-cultural factor and gender disparity in enrolment of students, which was the main concern of this study.

These studies while underscoring the practice of boys' preference over girls in accessing secondary education by the community on cultural reasons failed to appreciate that the male child is also given more preference due to economic reasons and that males in most communities in Africa are still considered the rightful heirs of the family. Furthermore, the studies while showing the disparities in gender in enrolment did not use a comparative design in their methodology, hence, it was not possible to conclude whether the preferential factors were significant in gender disparities observed in enrolment.

### 2.3.3 Peer influence and attitude towards Education and Gender Disparity in Enrolment

Secondary school-going age period of 14-17 years is a very critical time in one's lifetime. This is the time when one is faced with tough choices concerning ones' life. This is a period when an individual begins to interact with a wider scope of friends who may influence their lives. There are a number of factors, such as social, familial, and cultural that lead to barriers within the course of acquisition of education (Kapur, 2018). Peer pressure can influence student's behaviour towards education. According to the United Nations (2012), people seek recognition for their behaviour from their peers whom they

attempt to convince them to join them in their habit as a way of seeking acceptance. Students fall victims of peer pressure in order to be accepted among their peers (Onsoti, 2017).

According to Abdul Alim (2014), peer pressure has very strong effects that can affect educational choices and can determine whether a student can undertake important investments that can improve their academic performance or outcomes. Kiiru (2014) argues that peer pressure has strong influence on youth to engage in unbecoming behaviour such as taking of illicit drugs under false notion that the drugs stimulate appetite for food, increase strength and provide wisdom as well as courage to face life.

This concurs with a study by Drewry (2011) which shows that pressure among students in USA influenced their discipline thus making them engage in illicit substances such as bhang and cigarettes in comparison to those who remain unswayed despite the challenge of peer pressure. According to Onsoti (2017), due to peer pressure, students fall victims of drug abuse and this leads to indiscipline and absenteeism from school.

Negative attitude towards schooling is a contributory factor towards school dropout. In a number of cases, many students lack interest in schooling or develop bad feelings towards schooling and lack hope for future (Dakwa et al., 2014). This finding was in line with the findings by Cosnoe, Regale-Crumb, Farnk, Field and Muller (2008) who reported that compared with student with friends who showed little interest in learning, one without such friends had better education outcomes.

However, the cultural peer influence link and attitude towards education of the girl child in public mixed day secondary schools in Kericho County has not been explored. That was the major concern of this study. Further, most of the local studies done in this area of research were mainly systematic empirical studies and, hence, did not interact with the

actual respondents to explore the socio-cultural peer influence links to gender disparity in the schools.

### 2.4 Institution Based Factors and Gender Disparity in Enrolment

Institution based factors have been variously cited for their effect on a number of education processes and outcomes. Their link to gender disparity in enrolment of girls in mixed day secondary schools, however, remains largely un-established. In this section, a discussion on institution based factors such as teacher resource, harassment and discrimination against girls and school facilities was carried out.

#### 2.4.1 Teacher Resource and Gender Disparity in Enrolment

Every institution has its pertinent challenges, which include overcrowding and rapid rise of student population, high teacher turnover, and inadequate learning facilities including infrastructure. Being in charge of classroom instructional activities and curriculum delivery, teachers are critical determinants of the quality of education offered. Therefore, the teaching resource is one of the most important inputs to education system. The teachers' determine student's academic performance very highly effectiveness at all levels of education (Okumbe, 2011; UNICEF, 2000). This agrees with previous studies such as, Hamre and Pianta (2011), Rudasill (2011), Hamre and Pianta (2015) indicate that a positive teacher/pupil relationship predisposes the pupil to scholastic success, both from the curricular point of view and from the social and behavioral one. In contrast, a low quality teacher/pupil relationship would correlate with lower school performance amongst pupils (Hamre & Pianta, 2011). Low-conflict relationships with teachers favor an increase in positive classroom climate and students' perceived teacher support, and a decrease in students' negative experiences (O'Connor, 2010). Teachers who act as a "secure base", that is, being available, responsive and accepting of students' needs improve their students' commitment (Gastaldi et al., 2015), competence (Barker &

Ricardo, 2008), and favor the development of their learning interests (Quaglia et al., 2013). Waters et al. (2012) observed that the change that occurs in students' relationships with teachers and peers is a relevant factor in affecting students' transition to high school.

Teachers' attitude influences enrolment. Some students drop out of school due to poor teachers' attitude towards them. Teachers' support has greater influence on female adolescents' motivation and participation than on boys' (Chhuon & Wallace, 2014) and the more support female adolescents receive, the more classroom belonging influences their prospects of success. It has been reported that in classrooms, some teachers discriminate against, look down upon girls, and fail to encourage them to participate actively like the boys and consequently this affects gender parity in enrolment (Levtov, 2013). According to a study by Dakwa and Chabaya (2014) on poverty related causes of school dropout in Zimbabwe, various factors contributing to school dropout had to do with school environment and teacher's behaviour. They also cited unfriendly school climate that was not conducive for learning. The study also indicated that teachers pay less attention to girls than to boys. Further, teachers tended to ignore children from poor families, especially those who perform badly, and instead they interacted more with children from well to do families. It was further revealed that teachers apparently attached negative labels to girls who were victims of cultural practices and to pupils being infected with HIV, which encouraged school dropout. This concurs with Dachi and Garret (2003) who maintain that teachers hate students who perform poorly in their studies and love those who perform well always giving them maximum concentration. Punishment by teachers can make some students drop out of school. Students fear punishment even when they have made a mistake. When punishment is too harsh, students may run away from school (Franklin and Smith, 2011).

There are many reasons that can hamper female enrolment in schools. It is argued that the major reason is school related factors. These include distance to school, attitude and perceptions for teachers and lack of female teachers to act as role models (Nyaegah, 2011). It has been found that the proportion of female to male teachers in a school play a major role in keeping girls in school until they complete their education (GPE Secretariat, 2016). According to Haugen et al. (2011) a greater number of female teachers in a school highly affects the completion of school by girls. They reiterated that female teachers act as role models to the girl child and also offer protection and are able to understand the girls as opposed to the male teachers. The finding that lack of female teachers to act as role models was linked to gender disparity supports those of Quaglia et al. (2013) who found support for the consideration that gender imbalance marking the teaching population in the early stages of schooling can have on aspects of child development. The findings also suggest that relationship among female students and their teachers was important to their stay in school.

Studies show that teacher-student relationship can be either protective or risk factors to their academic achievement. Studies on protective teacher -student relationship, such as, Longobardi et al. (2016) revealed that both average and varying levels of closeness with teachers significantly predicted changes in academic achievement. As students progressed through grades of learning, a perceived increase was associated with an increase in academic achievement. A study by Ibrahim and El Zaatari, (2020) in the United Arabs Emirates (UAE) also demonstrated this by revealing that relationships based on care, trust, respect, affect, openness, and cooperation can foster student achievement, identity development, and school belonging and teacher accountability. In particular, the study found that female students believed teachers tried their best, but

their lecture-based teaching style was boring, and that teachers rarely engaged students' in-group work or considered their opinions.

The student/teacher ratio determines the quality of work in a school and so is the ratio of female teachers particularly in a mixed school. In Kenya, a critical challenge according to the Republic of Kenya (2006) relates to teachers' availability. In Kenya, there is inequitable distribution of teachers at both primary and secondary levels. There are also regional inequalities. Freeze in teacher recruitment since 1997 has resulted to high pupil-teacher ratio (PTR) in both primary and secondary schools, hence, exerting pressure on the human resource (Kamotho, 2008). With the freeze in teachers' recruitment, the Teachers Service Commission (TSC) is only allowed to recruit teachers to replace those exiting through natural attrition. In 2001, teachers' recruitment was decentralized to district level for primary school teachers and Board of Management for secondary school teachers. Recruitment is therefore demand driven (Kamotho, 2008 & RoK, 2006).

At the conclusion of the 48th session of the International Conference of Education (ICE) in Geneva in 2008, the ministers of education and other participants recalled the article 26 of the United Nations Declaration of Human Rights, which states that everyone has a right to education, and made several recommendations to member states (UNESCO, 2008). Some of which were reinforcement of teachers' role by improving their working conditions and develop mechanisms for recruiting suitable candidates and retaining qualified teachers who are sensitive to different learning requirements and train teachers by equipping them with appropriate skills and materials to teach the diverse student population and meet the diverse learning needs of different categories of learners. Wanjohi (2013) indicates that the increased demand for education naturally leads to increased demand for teachers. High pupil to teacher ratios (PTR) influences both quality and opportunity to absorb more pupils for training as are also the inadequacy of training

equipment, laboratories and workshops and trainers with particular skills (UNESCO, 2000; Mwingirwa, 2016).

Since the introduction of FSE in 2008, the quality of teaching and learning seems to have worsened (Asena, Simiyu, & Riechi, 2016). This has been attributed to several intervening factors and one of which is sharp increase in student-teacher ratio due to enrolment growing faster than recruitment of teachers. This has led to congested classes in most schools, thus in turn reduced the efficiency of learning, as the teacher would no longer have the same level of personal interaction with the pupil (Asena et al., 2016). This agrees with ADEA (2006) the teacher-student ratio in some schools is much above the recommended ratio of 1:40 by the ministry of education. The study sought to establish the position of staffing in Kericho County in trying to make recommendations to the education stakeholders on improvement; needs to realize quality education.

Most of the studies reviewed in this section focused on completion of schools by girls rather than enrolment. Further, most of them were not grounded in rigorous empirical methodology involving inferential statistics, therefore, could not be inferred as a general case. It is, therefore, clear previous studies failed to provide conclusive evidence on whether teacher resource as institution-based factor significantly influenced gender disparity in enrolment of students, which was the focus of the study.

### 2.4.2 Harassment and Discrimination against girls and Gender Disparity in Enrolment

The attitude of teachers, their relationship with their students, and how they carry out their work in class are some of the reasons for Pushing out the children from school. As pointed out by Bolton (2020) factors influencing girls' access to primary and secondary education include school environments. According to Plan International (2012),

fundamental factors, which encourage girls to stay and complete their education, include safety, security and non-discriminatory policies in school and classroom. Globally girls face a lot of violence at school such as humiliating punishments, sexual assault, harassment and verbal degradation. This type of violence acts as a major barrier to their education (UNESCO Global Status Report, 2017). Their teachers as well as their male counterparts mete the violence. UNESCO (2017) who reports that globally girls faced a lot of violence in schools and one of which is sexual assault supports this view.

Warrington, Fentiman and Kiragu (2011) opine that school safety is very crucial in girls' attendance and completion of school. According to the report male dominated school environments act as a barrier to girls' confidence and ability to participate and instead a dismissive atmosphere is created. When conditions in the school become difficult and less supportive to the girls, they get scared, absent themselves and finally discontinue with their learning thus causing gender disparity in enrolment. In a number of cases male teachers may sexually threaten the girls and this leads to non-completion of school (Huisman & Smits, 2012). This makes the parents to prefer to take their daughters to female dominated schools. Levtov (2013) maintains that in many schools girls are asked to perform certain tasks such as sweeping of classrooms, fetching of water as the boys are spared. In classrooms, teachers discriminate against, look down upon girls, and fail to encourage them to participate actively as they do to the boys and consequently this may affect gender parity in enrolment.

Certain girls face an increased risk of violence at school because of who they are. Girls with disabilities face both sexism and disability discrimination, making them targets for teasing, physical abuse and sexual violence. Rates of abuse are higher for girls with disabilities, and the forms of violence they face may be more severe (UNESCO, 2014). Violence at the hands of fellow students is the extreme end of a range of behavior that

often begins with verbal insults and threatening gestures. If those in authority do not challenge less severe abuses, acts of violence often follow (Action Aid International, 2014). Violence by teachers or other adults is the extreme end of another range of conduct – abuse of power. Teachers and other adults wield immense power over the lives of children, a power that they sometimes misuse. Violence against girls takes place in and around many educational institutions all over the world. It is inflicted not only by teachers, but also by administrators, other school employees, fellow students and outsiders (Juma, 2012). The result is that countless girls are kept out of school, drop out of school, or do not fully participate in school. Harassment of schoolchildren by their male colleagues in school has been noted to be mostly sexual in nature and quite detrimental to girls who tend to suffer more from self-esteem problems afterwards (Kemuma, 2020). A recent study by Dahlqvist et al. (2016), for instance, revealed that those girls who had been sexually harassed suffered more psychological ill health such as nervous complaints and depressive symptoms, compared to boys and young men. In the mixed school settings, Gruber and Finneran (2016) found that sexually harassing behaviour reinforces the stereotype that boys are the powerful and the esteemed sex and that girl's interests and concerns come second. These stereotypes affect self-identity, which in turn influences attitudes, beliefs, personal presentation and how people interact in different social groupings.

This implies that male students also recognized the consequences of their actions on their female colleagues. Chege (2006) has explained the aggressive behaviour toward their female counterparts as arising from students' construction of identities shaped by a context where the phenomenon of sexual abuse is normalized. Due to the harsh corporal punishment against boys by male teachers, compared to the punishment against girls that commonly had sexual undertones, and narratives about female students being sexually

abused by male teachers, these were perceived as violent, intimidating and sexual. As a consequence of these images of men and women leads many young men to being "socialized into versions of manhood that encourage sexual aggression towards girls" (Barker & Ricardo 2008).

Chege (2007) cited in Kemuma (2020) linked all forms of sexual violence in schools with girls' participation and performance citing that this will, eventually, bar them from assuming their rightful place in society through education which is believed to be a springboard to many opportunities in the market economy. De Wet and Oosthuizen (2010) also pointed out that sexual harassment also affects the quality of education in diverse way such as truancy and lessening the student's confidence in class participation. A student who has undergone sexual harassment is likely to talk less in class, which henceforward may effect on the student's ability to achieve in school. Subsequently, poor academic achievement will lead to a decrease in students' opportunities regarding higher education, job success and economic resources in the future and eventually this results in lowered esteem.

This corroborates with the findings by Njihia (2018) who found that sexual harassment of female students is experienced in public secondary schools in Dagoretti Sub County in Nairobi where female students mostly experience physical, verbal and non-verbal sexual harassment perpetrated mostly by males (teachers and students). However, it is worthy of note that most of the cases of sexual harassment of female students by males in the school setting go unreported (Njihia, 2018 & Kemuma, 2020).

The studies reviewed in this section used general case studies of the issue of harrassment against girls in school. The studies did not, however, make cpomparisons in disparities in enrolment against institutional factors such as gender composition of schools like

whether girls were affected more in boarding compared to mixed day secondary schools. The current study sought to provide a closer perceptive of the disparities through comparison.

### 2.4.3 School Facilities and Gender Disparity in Enrolment

Adequacy and quality of infrastructural and physical facilities in schools influences education in children. Research studies reveal that physical facilities are important in both school attendance and achievement (Farooqi, Farooq & Saleem, 2015). Physical facilities have a strong link to increased educational opportunity and achievement (Kohl, 2013). Bevans, Fitzpatrick, Sandchez and Riley, (2010) stress the importance of quality physical facilities as they can assist students in adopting healthy and physical active lifestyles. National Council for Childrens services (2010) provides for equitable access to quality and adequate educational facilities, with safe drinking water and proper sanitation facilities for boys and girls, standardization of early childhood curriculum at all levels. It calls for elimination of hidden barriers to accessing free basic education, provides for the needy and the vulnerable children in schools, promotion of appropriate and child friendly physical education (games, sports) and other types of recreational, cultural and scientific activities in schools, community centres and other institutions (National Council for Children services, 2010).

The Department for International Development (DfID, 2010), highlights the importance of quality educational infrastructure in schools further noting that where quality of facilities are maintained and improved (particularly water and sanitation facilities), enrolment and completion rates are improved. According to Geeves and Bredenberg (2015), quality facilities are of particular importance to adolescent girls who are menstruating, and whose active participation in school during their monthly periods may depend on access to clean toilets separate from those used by boys and a water supply.

The findings also agree with Schneider (2002) who observed that school facilities significantly affected teaching and learning, hence, poor conditions of school facilities hampered teaching and availability of education to students.

According to findings by Kim (2012), physical education may be particularly important for increasing physical activity in girls and this was important to concentration during instructional learning in classroom. This agrees with findings by Rahji and Fakayode (2012) which revealed that school enrolment and gender gap for rural household children at the secondary levels was affected by institutional factors. However, observation across studies shows that girls tend to be generally less interested in physical education than boys (McKenzie et al., 2006; Ziviani et al., 2009).This concurs with Olds et al. (2009) and Hallal et al. (2012) who maintain that girls tend to be less active than boys are.

As observed by Kuunskorpi and Gonzalez (2011), existence of school buildings and desks are important if a school is going to be successful. These findings agree with that of Roper (2014) who reports that facilities like buildings, separate classrooms, students' desks, chalk boards, etc. determine the organization of teaching and learning activities. According to Asena, Simiyu and Riech (2016) in their study, although most of the schools had acquired sufficient facilities like classrooms, play field, laboratories and toilets most of them were not in good working condition.

Playing field and the furniture provide the physical environment for learning. An analysis carried out by IIEP with the Ministry of Education and culture in Zimbabwe revealed that, pupils could not be expected to learn effectively if the classroom did not have fundamental facilities for books and teaching aids. Research in India also indicates that the existence of school desks and buildings are important if a school is going to be successful (Kuuskorpi & González, 2011). An investigation conducted in Nigeria formed

the conclusion that facilities like buildings, separate classrooms, students' desks, chalkboards, etc. determine the organization of teaching and learning activities. It is indicated that these factors influence learner achievement (Roper, 2014).

There has been a rapid expansion of secondary education since independence encouraged by the government. In 2008, the government started subsidizing secondary education and physical facilities including classrooms and teachers' houses have been provided by the communities and will continue to be so. The government provides teachers and equipment and supervises the administration. If enrolment ratios are high, large class sizes show inadequacy of infrastructure and hence a limitation in expanding access (Mollel & Chong, 2017). Although the FSE of 2008 brought about an increase in student enrolment, it has also created considerable problems such as causing a lot of strain in teaching and learning facilities like what happened when FPE was introduced in primary in 2003. There was a lot of congestion in classrooms, learning facilities are minimal and the conditions laid down by the government to request for concessions are cumbersome and slow (Mwirigi, 2015). This has lowered the quality of education that is provided through FSE and its role in national development (Wagachira, 2015).

A report of the taskforce on affordable secondary education (Ministry of education, 2012) indicated that despite the growth in number of schools and enrolment, the increase in the supply of secondary school places has not been sufficient to improve participation rates. According to Khamati and Nyongesa (2013), FSE funding has left out some key areas without which learning in schools cannot go on smoothly. Such areas include lack of physical facilities such as classrooms, laboratories, toilets, buying of school uniforms and provision of meals to the students. Nyaegah (2011) concurred and reported that the education sector was faced with many challenges including finance, and lack of adequate teachers, insufficient learning facilities which hinder the government from achieving this

goal, hence the need to evaluate the impact of free day secondary education on access, equity and quality of education in Kenya.

The very poor state of all resources for teaching and learning in rural schools does not encourage participation of students in education and to remain in school (Ajaja, 2012).Similarly, high pupil to textbook ratios affect quality and limit expansion of access (UNESCO, 2000; Mollel & Chong, 2017). According to a study by Kimeu, Tanui and Ronoh (2015) it was revealed that student's academic performance depends on teachers reference books and guides, students and teachers textbooks, charts, chalkboards and chalks, classrooms and laboratory apparatus and chemicals as teaching and learning materials. According to a study by Muindi (2011) in Ketangi division, Kenya, many schools are yet to achieve a ratio of 1 text book to 2 students as none of the schools had a text book ratio of 1:1. He noted that the situation is worse in lower forms compared to upper forms because of high enrolment. His findings also showed that facilities necessary for proper learning environment were limited.

The studies reviewed, however, failed to establish the relationship between school facilities as institution based factors and gender disparity in enrolment of students which was the main concern of the current study. Moreover, the studies were not cross-sectional in design and, hence, could not clearly show the effect of schools infrastructure on the gender disparities in enrolment.

### 2.5 Home Based Factors and Gender Disparity in Enrolment

This subsection gives literature on home environment, distance from school, parental level of education and domestic chores.

### 2.5.1. Home Environment and Gender Disparity in Enrolment

Home environment is part of the social system of children. High parental control is associated with high achievement. Social practices within household, communities and schools influence differing patterns of access for girls and boys. In most contexts, girls have less access and are more prone to dropping out, but increasingly often in poor and urban environment (Leach et al., 2003 & Oguta, 2013). According to Olufemi (2013) less physically crowded environment alongside motivation and parental support are associated with higher education levels in a child. In such communities as the Maasai, Pokomo and Somali in Kenya girls are greatly disadvantaged due to retrogressive cultural practices that inhibit their development and participation in education. Some of the obstacles that keep girls out of school in these societies include early and forced marriages, nomadic lifestyles and preference to deny girls education since they will one day get married and leave the family (UNICEF,2012).

Parental influence on a child's education has been identified as a critical factor affecting child achievement in school. Poverty, education background of parents, cultural environment and social environment influences girl-child stay in secondary school (Oprong, 2015). This concurs with Olufemi (2013) family's economic status also influences education attainment of a child. Parental involvement in the education of their children in such matters as how much time they allow their children to watch TV, the amount by contribution the parents read to young children and how often students change school, is as good as what goes on in school (Breiner, Ford & Gadsden, 2016). This is in agreement with Olufemi (2013) who asserts that motivation and parental support are associated with higher education levels of a parent.

Public education in the United States has long promised quality education for all children, regardless of ethnicity, race or income. A study carried out by the States

University on equity in education; in the United States of America (2002) found that critics of public education argue that many children do not have equal opportunities to learn and are not likely to attend a quality school. In fact, the critics suggest that the education perpetuates poverty and disadvantage, providing rich and poor schools with stark contrast in learning environments and physical surroundings. Impoverished neighborhood typically house run-down schools with less money and poor conditions, while affluent neighbor hoods house newer and safer schools providing better learning environments. Furthermore, ethnic minority students are more likely to attend the lower quality urban schools. While there have been many efforts to improve this inequality of opportunity, such efforts are only one step in achieving equity, even with millions of dollars invested in federal programmes (Campbell et al., 2000).

However, it can be deduced from the discussions above that Home Environment, as a home based factor has not been exhaustively examined for its influence on gender disparity in enrolment of students, which was the main concern of the current study. The studies reviewed were also systematic empirical reviews relying on secondary data rather than primary data collected from the respondents.

### 2.5.2. Distance from School and Gender Disparity in Enrolment

Distance to school is one of the crucial aspects that determine children's participation and completion of education. Distance to school is one of the cases for school dropout, which influences enrolment of students in day schools (Colclough., et al., 2000, Huissman & Smith, 2012). According to a study by Huissman & Smith (2012), most of the drop-out cases of students occur in mixed secondary schools as compared to single sex secondary schools. The high drop-out rates is worse in day schools as compared to boarding schools largely due to the external environment in which day scholars are faced with on daily basis as they commute to and from school (Oguta, 2013). According to Ogur (2014),

girls' security and distance from school really determines girls' participation in secondary education.

This concurs with Manomano and Kang'ethe (2015) who points out that distance to school being an important determinant of educational access. In most contexts, girls have less access and are more prone to dropping out, but increasingly often in poor and urban environment (Leach et al., 2003 &Oguta, 2013). In day schools, girls are more affected than boys due to immoral relationships among students, which result in early pregnancies (Ajaja, 2012). Distance to school influences girls' participation in secondary education. Travelling long distance brings a lot of fatigue to the students apart from other challenges they face between home and school such as early pregnancies. Long distance poses a threat to girls' security. They can encounter attacks on the way such as rape and peer influence (Huissman & Smith, 2012).

Distance from school is a critical factor that can hamper girls' participation in secondary education. According to Huissman & Smith (2012), effects of distance from school are severe for girls partly due to parent's concern for their daughter's safety, which becomes more critical when girls reach the stage of puberty. Distance between school and home is a factor in girls' completion of secondary school in a mixed day secondary school. Long distances discourage girls from starting school at the right age and time, which leads to late enrolment. Late enrolment acts as a barrier to girls' completion and leads to gender disparities in enrolment because they become embarrassed at being over age for a given grade (Rolleston, Akyeampong, Ampiah & Lewin, 2010). In a study by Ondiek (2010) in Kuria district, Kenya, long distance exposes girls to sexual assault leading to traumatization. He notes that due to long distance from home to school, for a good number of girls there is commonly fear of danger that girls could be exposed to rape,, abduction or even killed.

Generally, it is clear that relationship between distances from school as a home based factor and gender disparity in enrolment of students, which was the main concern of this study, has not been addressed. Moreover, the studies reviewed did not conclusively establish whether gender disparities in enrolment in mixed day secondary schools was a function of distance from schools. Therefore, the present study sought to establish how distance to school from home as a home based factor contributed to gender disparity in enrolment in public mixed day secondary schools in Kericho County.

### 2.5.3 Parental level of Education and Gender Disparity in Enrolment

Parents' educational qualification influences children's participation in secondary school education. Educational attainment of parents besides household income is also expected to influence the continuation of children in schools. Family's educational background is a factor that can bring about educational inequality in the society (Ferreira & Gignoux, 2014). Higher parental education is associated with increased access to education, higher attendance rates and lower dropout rates (Ainsworrth et al., 2005; Grant & Hallman, 2006). Parents' levels of education and encouragement have a strong positive relationship with the student's academic achievement (Hanzen, Linderwood, Razzouck and Shute, 2011). Families with sound academic background can always assist their children to gain access to better performing schools and are capable of paying their school fees as well as meeting their day-to-day needs (Williams, 2010 & Asia Society, 2014). Many studies from Africa, Asia and Latin America reveal a pattern: women with more education have smaller, healthier and better-educated families. As education expands women's horizons, opens up better earning opportunities in families and improve women's position in families and society, couples tend to have fewer children and invest more in the health and education of each child (RoK, 2011).

Pufall, Eaton and Nyamukapa (2016) observe that parental education is the most consistent determinant of child education. Roy and Giraldo-GarcĆa (2018) reported that there is high association between parents' education and school completion of their children. According to Hansen, Underwood, Razzouck and Shute (2011), parents' education and encouragement has a strong positive relationship with improved student academic achievement. This concurs with Ntitika (2014) those girls whose parents had received formal education tend to have positive attitude towards participation in secondary education as compared to those girls whose parents did not go to school at all. Further, Nyamweya (2012) maintains girls' parents' level of education-affected girls' participation in formal secondary school education. Educated parents are more aware of the possible returns of their children's education (Oprong, 2015). This corroborates with Egalite (2016) who asserts that those parents who managed to go through formal education find it easier to understand the need for a child to have access to basic materials such as books, newspapers in addition to conducive environment for learning, such as lighting and quiet environment that is supportive to girl child education. Educated parents do support their girls by providing requirements that boost their participation in education. They act as role models to their daughters and also are capable of understanding their daughters needs and provide them with these needs unlike uneducated parents whose level of understanding is low (Oguta, 2013).

Clearly, educated parents play a very important role in the education achievement of their children. However, the studies reviewed so far in this section have not been exhaustive on the subject. Moreover, there has been lack of local studies on the relationship between parental level of education as a home-based factor and gender disparity in enrolment of students, which was the essence of the present study. Therefore, the current study sought to establish the relationship between parental level of education

as a home-based factor and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County.

### 2.5.4 Domestic Chores and Gender Disparity in Enrolment

Traditional beliefs and parents' attitude among the community is a set back to the education of the children and especially the girls. Failure to educate girls is a waste of human capital in the developing world because it limits economic growth (The Economist, 2013). The roles played by women in the society cannot be overlooked and therefore as long as gender difference is still a huge gap, it is not yet time to celebrate development. The Millennium Development Goals (MDGs) recognized the importance of setting a target to eliminate gender disparity in enrolment in primary and secondary education by the year 2005. The UN called to a "renewed urgency" and commitment to attain this goal by 2015 (UN, 2000). Access for girls and retaining them in primary and secondary education is an important factor in realizing this goal (Abuya, Ngware, Mutisya, & Nyariro, 2017).

In many African and Asian countries, daughters are the victims of self-fulfilling prophecy: as they are traditionally expected to do more chores at home than are sons. The opportunity cost of educating them seems higher and so they are kept at home (Barbara & Sperling, 2004 & Mobar, 2015). In many societies gender is a key player on who does what, who has what, who decides, who has power and even who gets education or not such that in most cases boys are seen as the ones who should be educated while girls should not. Gender equality implies that men and women, boys and girls enjoy same rights, resources, opportunities and protection and gender disparity arises when one group is considered in a society as having more rights than others (UNICEF, 2011).

Culturally, girls suffer more when it comes to traditional division of labour such as home chores, fetching of water and firewood. Domestic responsibilities are some of the factors affecting girls' access to secondary school education (Bolton, 2020). Studies by Juma and Enosi (2014) show that girls are raised up for female roles such as child raising and domestic responsibilities. These roles lower girls' academic performance, especially in day schools. According to Amadi (2013) and Mobar (2015), it is revealed that girls fail to attend school due to home chores in their homes. Where the families are affected by diseases such as HIV/AIDS pandemic girls are often more likely to care for family in terms of taking care of other siblings. Girls without family stability are more vulnerable to exploitation. Boys often receive more food than girls (UNICEF, 2002 & Asia Society, 2014). In such a situation, the girls may not concentrate adequately on their studies.

It is clear that studies that have been conducted did not explore the relationship between involvements in domestic chores as a home based factor and gender disparity in enrolment of students, which was the essence of the current study. Further, most studies reviewed in this section were reports of studies carried out at much larger contexts such as at a continental scale, therefore, the local perspective of the relationship between domestic chores as a home based factor influencing gender disparities in enrolment was lacking. While the generalizations are important, as education is an evolving developmental issue, changes and differences can be expected at the local level. Therefore, the present study sought to examine the relationship between involvement in domestic chores as a home based factor and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County.

## 2.6 Theoretical Framework

This study was based on Social Demand Approach theory which refers to the aggregate/total of individual demand for education at a given place and time under prevailing social, economic and political conditions. The pressure emanating from public demand for education leads to quality and quantity of education (Namaswa, 1989). The model is concerned with the consumption function rather than investment. Education is seen as a service that is demanded by the public like other services and goods. Social Demand Approach (SDA) is a method in educational planning which sees education as public social service, a necessity and inalienable right of all citizens who desire it (Campbell, 2002; Fahunmi, 2007). It is a consumption view of education suitable when education is considered as an obligation and not as a privilege. Education should be provided to those who want it. The level of social demand of education is a good indicator of the desire by the population in the country to reform and develop education to meet this demand. The central philosophy of this approach is to predict the number of school places likely to be demanded by individuals and their families and to provide these places so that social demand is satisfied (Zimmer, 1985). For this effort to be effective, the planner examines the demographic trends through time in order to make estimate of school places that will be needed by the society in future.

This type of approach has the following features: Basic aim of education according to this approach is to develop the learners irrespective of whether he/she will acquire gainful employment or not. It emphasizes on the right of the individual to be educated because it views education as a service or a basic human right that must be provided to everyone interested in it and it assumes that the society has adequate resources to support the education sector. The approach does not discriminate on any category of people in the provision of national education. Hence, it ensures that there is equity in the provision

of education across the board. The major goal of this approach is to provide education to as many people as possible who may be in need of it. According to social demand approach theory is that this approach is starting point in planning for education for the future. According to Fabunmi (2007), the Dutch adopted the Social Demand approach in planning their educational system when government stated that, if a sufficiently qualified citizen stands at the door of any type of school, he must be admitted. It is also the responsibility of the appropriate government authorities to anticipate his requests so that school capacity will be adequate to accommodate him.

One of the countries in Africa that applied social demand approach in promoting basic education for all is Nigeria. The government of Nigeria initiated Universal Basic Education (UBE) in 1999 and the purpose of this strategy was to provide Education for all to its citizenry. Since independence, Kenya on the other hand has always tried to expand educational opportunities for its citizens particularly at basic level of education. This kind of gesture has been reflected in the provision of free primary education (FPE) in 2003 and free secondary education (FSE) in 2008.

According to Ghadamosi (2005), adoption of social demand approach has many advantages, which is in line with Universal Basic Education (UBE) namely: increasing the level of literary, enhancing equality of educational opportunities, it provides a means of social ladder and it facilitates the process of income re-distribution. Other advantages are that; the approach encourages mass education and mass literacy. Policy makers and governments find the SDA easy to defend since the philosophy of the approach is the satisfaction of the educational needs of the people (Adesina, 1991). It is an instrument for building egalitarian societies. SDA can show the planner the resources that can be allocated to each level of education as long as certain existing trends continue and if private demand is to be satisfied (Musaazi, 1985); it democratizes educational

opportunities in the society, and; promotion of a sense of national unity and the "equalization of educational opportunities."

The social demand theory, however, has some limitations. From the planning perspective, the theory is instrumental in predicting demand from a social and economic perspective. However, its main limitation is the approach has no control over factors such as the price of education and it fails to consider such factors as changes in the prices of education. In addition, the approach has no control over absorptive capacity of the economy for the trained personnel. Other limitations of the SDA approach are; the approach does not in any way lay claim to whether the resources expended are economically allotted making the approach poor. The approach does not provide the guidance we need as to how best to meet the identified needs; the approach adds too much to educational budget; it does not consider the absorptive capacity of the labour market for the graduates of educational system, thereby making it not suitable for higher education since popular education leads to poor quality education and the approach is usually very difficult to measure but not impossible, especially when compulsory education is not in operation.

The SDA theory was, however, useful in the current study by explaining the relative demand for education across gender both from a social and economic perspective. The theory is impartial on any category of people in the provision of national education. Hence, it emphasizes equity in the provision of education across the board. The major goal of this approach is to provide education to as many people as possible who may be in need of it irrespective of gender.

## 2.7 Conceptual Framework

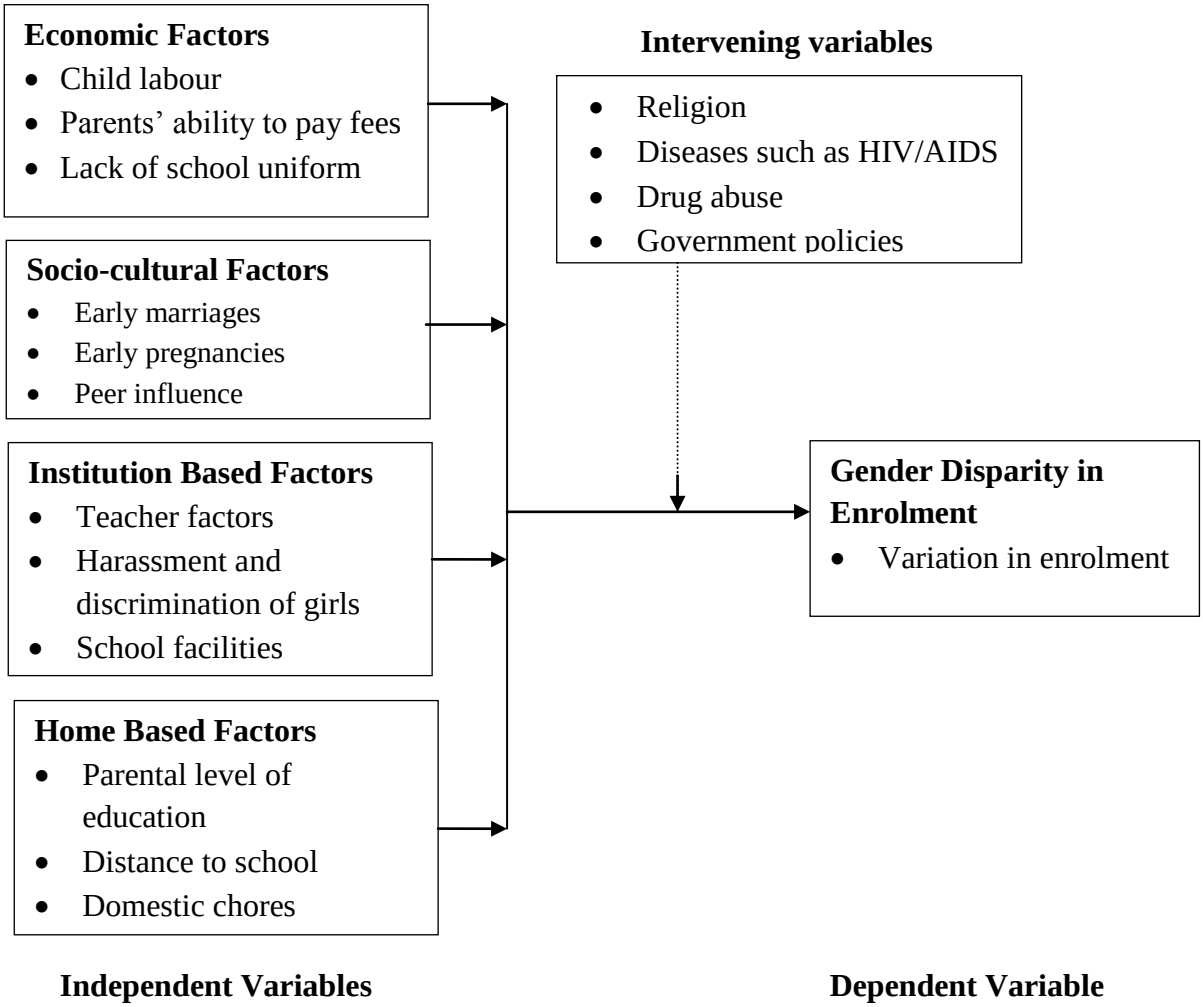


**Figure 1: Conceptual Framework**

Source: Own Research (2018)

Figure 1 illustrates the relationship between the two variables and other variables (intervening) which are likely to influence the outcome of the study. From the literature reviewed in this chapter, this study sought to establish the strength of the relationship between selected factors (independent variables) and gender disparity in enrolment (dependent variable) in public mixed day secondary schools in Kericho County, Kenya. Selected factors that were measured are economic factors, socio-cultural factors, institution based factors and home based factors. These variables and their indicators were examined independently for their relationship with the dependent variables, that is,

gender disparity in enrolment using both descriptive and inferential statistics. Religion, HIV/Aids, Drug abuse and Government policies are identified as variables that may intervene in the relationship between independent variables and dependent variable. Intervening variables were controlled by way of designing the study such that the effect upon the dependent variable was attributed entirely to the relevant independent variables and not the intervening variables.

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

## 3.1 Introduction

This chapter describes Research design and methodology that was used in carrying out this study. It covers research design, study location, target population, sample size, sampling procedures and techniques, research instruments, validity of the instruments, reliability of the instruments, data collection procedures, data analysis techniques and ethical issues.

## 3.2 Research Design and Philosophy

The study adopted descriptive correlational research design. According to Salaria (2012), descriptive research includes surveys and fact-finding inquiries of different kinds. According to this design, the researcher had no control over the variables; he could only report what had happened or what was happening. What has happened cannot be engineered or manipulated (Kothari, 2008). Events such as the number of students enrolled cannot be manipulated as they have already occurred. On the other hand, a correlational study is a type of research design where a researcher seeks to understand what kind of relationships naturally occurring variables have with one another (Bailey et al., 2010). In simple terms, correlational research seeks to figure out if two or more variables are related and, if so, in what way. The choice of this research design was informed by the variables of the study and the need to establish the interaction of the variables.

Philosophy can be defined as the development of research assumption, its knowledge, and nature (Saunders, Lewis & Thornhill, 2007). Scientific research philosophy is a system of the researcher has thought, following which new, reliable knowledge about the research object is obtained. In other words, it is the basis of the research, which involves

the choice of research strategy, formulation of the problem, data collection, processing, and analysis. Choosing an appropriate research philosophy is an important part of research methodology as explained by Cuba and Lincoln (1982) cited in Cohen, Manion & Morrison (2007) holds that philosophical paradigm within a research holds utmost importance, as it is the basic belief system or worldview that guides the investigation. Consequently, there are several research philosophies which have been advanced and among them; Positivism, Realism, Subjectivism, Interpretive approach, Objectivism and Pragmatism.

Characteristic features of research philosophy and their underlying approaches explain appropriate applicability based on the research questions. Most researches related to business, management, humanities and social science characteristically use positivist and interpretivist approach, along with a realist reflection. In the present study, the positivist approach was adopted due to the level of inquiry and the rigor of the methodology demanded to satisfy the inquiry. Positivism refers to working with an observable social reality and outcome is always law like generalizations, as is the case with physical or natural scientists. The researcher is said to adopt positivist research philosophy approach when s/he is more concerned with reality/facts associated with product manufacturing. Methodology, which needs to be adopted here, is highly structured involving hypotheses testing and statistical tools– a quantitative method (Žukauskas, Vveinhardt & Andriukaitienė, 2018).

### 3.3 Target Population

The study was conducted in Kericho County, which is composed of six sub counties namely, Bureti Sub County, Kericho Sub-County, Belgut Sub-County, Kipkelion Sub-County, Londiani Sub-County and Sigowet Sub-county. Kericho County borders with Nandi County to the North, Bomet County to the south, Nakuru County to the East,

Kisumu County to the North West and Nyamira County to the southwest. Agriculture is the main occupation of the people with mixed farming being widely practiced. Tea and coffee are two major cash crops found in the region. Other crops include maize, beans, millet and sorghum. Another very good source of income is dairy products such as milk and skin. The population found in this region is composed of Kalenjins, Kisiis, Luos and a few Indians found mainly in urban areas. Kericho County has a population of 752,396 and occupies an area of 2,111 $km^2$. Geographical location is given by the line of longitude $35^0$ 16', 52.72E and the line of latitude $0^0$ $22^/$ 2.3 S. These background characteristics of the study area gives an impression of the socio-economic trends in the area that could shape the educational processes such as those under investigation in the current study. Kericho County was chosen for the study owing to its demographic factors, the high numbers of public mixed day secondary schools and the high gender disparity in favor of boys compared to other counties in the region.

The study targeted 124 public mixed day secondary schools from which the accessible population consisted of 124 principals of public mixed day secondary schools and 9,418 form four students from the same schools (County Director of Education Office, 2018). Form 4 students were focused on in the study because they were the oldest group of students and having stayed in the schools longer were able to recollect from experience the changing gender patterns in the schools and attribute them to some factors that had affected their colleagues. The public mixed day secondary schools were targeted for the study based on the consideration that the majority of students in day secondary schools originated from the neighborhoods and contributed a higher percentage towards gender disparity in enrolment in the county. This means there are several factors contributing to gender disparity in education still resident in the area that needed to be addressed.

### 3.4 Sampling Procedure and Sample Size

#### 3.4.1 Sampling Procedure

Both purposive, random and systematic sampling were used in the study to obtain maximum variation while ensuring respondent specify and randomness. Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their study. According to Ames (2019), purposive sampling of primary studies for inclusion in the synthesis is one way of achieving a manageable amount of data. Purposive sampling was used based on the recommendation by Mugenda and Mugenda (2009) that 30% of the target population can be representative of the entire population. Purposive sampling allows for key informant selection. In the present study, the key informants were the public mixed day secondary school principals.

Systematic sampling, on the other hand, is a statistical method involving the selection of elements from an ordered sampling frame. The most common form of systematic sampling is an equiprobability method. In this approach, progression through the list is treated circularly, with a return to the top once the end of the list is passed (Black, 2004). With the systematic random sampling, there is an equal chance (probability) of selecting each unit from within the population when creating the sample. The aim of the systematic random sample is to reduce the potential for human bias in the selection of cases to be included in the sample. As a result, the systematic random sample provides us with a sample that is highly representative of the population being studied, assuming that there is limited missing data. Since the units selected for inclusion within the sample are chosen using probabilistic methods, systematic random sampling allows us to make statistical conclusions from the data collected that will be considered valid. Relative to

the simple random sampling, the selection of units using a systematic procedure can be viewed as superior because it improves the potential for the units to be more evenly spread over the population (Oso & Onen, 2009).

The researcher used a list of public mixed day secondary schools in the area to select 30% of the schools that is 38 public mixed day secondary schools in the area while ensuring that all the six sub counties were involved. To establish the specific schools to take part in the study the researcher used the list of schools in each sub county to pick the sample. The first item of which was determined by applying simple random sampling technique and the rest were picked at the interval of four. This meant that every fourth school in the list of public mixed day secondary schools in each sub county was selected for the study. The students were similarly selected from their respective schools.

### 3.4.2 Sample Size

The sample size for the study was composed of 38 principals and 384 students. This was arrived at by applying Kerlinger (1986) rule of calculating 30% of 124 principals (to give 38) and the number of students was determined by applying Cochran formula to get 384 students. The Cochran (1963) formula has better applicability when dealing with large population sizes. The Cochran formula enables one to calculate an ideal sample size given a desired level of precision, desired confidence level, and the estimated proportion of the attribute present in the population. The Cochran formula is given by:

$$n_0 = \frac{z^2 pq}{e^2}$$

Where:

e- is the desired level of precision (i.e. the margin of error),

p- is the (estimated) proportion of the population which has the attribute in question,

q = 1 – p.

$Z^2$ is the abscissa of the normal curve that cuts off the area at the tails (1- a equals the desired confidence level, e.g 95%)

The value for Z is found in statistical tables, which contain the area under the normal curve (1.96).

In order to determine the number of schools and the number of students from each Sub-County to participate in the exercise, method of proportionate sampling was applied. The distribution of which is shown in Table 4.

**Table 4: Distribution of the Sample in the Sub-Counties**

| **Sub-County** | **Principals** | | **Students** | |
|---|---|---|---|---|
| | **Number of schools** | **Sample size** | **Number of students** | **Sample size** |
| | | 30% (Kerlinger, 1986) & Proportionate Sampling | | Cochran formula (1963) & Proportionate Sampling |
| Londiani | 28 | 8 | 1573 | 81 |
| Kipkelion | 29 | 9 | 1219 | 91 |
| Kericho | 15 | 5 | 1466 | 51 |
| Belgut | 12 | 4 | 1325 | 40 |
| Sigowet | 8 | 2 | 1059 | 20 |
| Bureti | 32 | 10 | 2776 | 101 |
| **Total** | **124** | **38** | **9,418** | **384** |

Source: MoEST, 2018

The participants for this study were sampled as shown in Table 5.

**Table 5: Sample Summary**

| Sub County | Principals | Students | Sampling Technique for final respondents |
|---|---|---|---|
| Londiani | 8 | 81 | Systematic random sampling & Cochran formula |
| Kipkelion | 9 | 91 | Systematic random sampling & Cochran formula |
| Kericho | 5 | 51 | Systematic random sampling & Cochran formula |
| Belgut | 4 | 40 | Systematic random sampling & Cochran formula |
| Sigowet | 2 | 20 | Systematic random sampling & Cochran formula |
| Bureti | 10 | 101 | Systematic random sampling & Cochran formula |
| **Total** | **38** | **384** | |

Source: Researcher (2018)

### 3.5 Instrumentation

The instrumentation for data collection in this study consisted solely of questionnaires. Questionnaires are written instruments that present respondents with a series of questions or statements to which they respond by either writing out their answers or selecting from among the existing answers (Brown & Coombe, 2015). Questionnaires can be used to collect a lot of information within a short period of time (Anastacia, 2017) and hence were found to be appropriate for the study. The preference for a questionnaire is based on the fact that respondents are able to complete it without help, anonymously, and it is cheaper and quicker than other methods while reaching out to larger sample (Bryman, 2008; Cohen et al., 2007).

All the questionnaires had close ended items. The questionnaires were of Likert scale of 4 degrees. The respondents were, therefore, able to rate statements provided according to their views on them and also write what they felt on the questions asked. The ratings for the questionnaire items in the structured parts ranged from *strongly agree* which was

highly rated at 4, *agree* rated at 3, *disagree* at 2 and *strongly disagree* at 1. The use of close ended questions within each variables enabled easier formulation in coming up with appropriate constructs and items.

There were three sets of questionnaires; for the school principals, the schoolgirls and the schoolboys. The questionnaires for the school girls and school boys were structured into two parts aimed at collecting information according to the research objectives. Part 1 entailed the respondents' background information while Part 2 entailed factors related to Gender Disparity in secondary school. For the principals, the questionnaires also consisted of two parts; Part 1 entailed the enrolment of students in school according to gender while Part 2 entailed factors related to Gender Disparity in secondary school. The head teachers and students completed questionnaires, as this was the most efficient way of reaching many respondents in the shortest way possible.

### 3.6 Validity of the Instruments

According to Word Press (2011) validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. A valid instrument therefore contains content that is relevant to the study (Kerlinger, 1986). The studies, therefore, adopted both content and construct validity approaches to determine the validity of the questionnaire. The instruments were evaluated for the content validity as the extent to which the questionnaire or test content was representative of the domain of the content /skills. The questionnaire content was read and examined by the experts who consisted of supervisors and academic staff of Kabarak University who evaluated clarity of the items. This was done by holding discussions, making relevant comments/ suggestions, which assisted to develop and revise the research instrument. They were able to assess what concept the instrument was trying to measure and determine whether the rest of the items accurately represented the concept under study. Their suggestions

and recommendations were very useful in the improvement of the instrument. The supervisors had a final say on whether the instrument measured exactly the correct concept as per the objectives of the study.

### 3.7 Piloting of the Study

Before collecting the data, the researcher carried out a pilot study. The piloting was conducted in secondary schools, which were not among those to be included in the actual study. The pilot study was conducted in 6 schools selected randomly from the county. One school was picked randomly from each Sub-County. The main aim of piloting was to test the questionnaire and in the process enhance its validity and reliability. The pilot study also aimed at pinpointing some problems that the researcher could easily overlook. Any ambiguous item(s) were corrected. This enabled the researcher to determine the accuracy of the instruments. Consequently, the researcher was able to make necessary corrections on the instruments before going to collect the actual data.

### 3.8 Reliability of the Instruments

Reliability of an instrument refers to its ability to consistently yield the same results when repeated measurements are taken of the same individuals under the same conditions, (Kothari, 2008). Reliability of the instruments was determined through a pilot study. One public mixed day secondary school was picked randomly from each sub-county to be included in the study. Split half technique was used to establish the reliability of the instrument. The split half technique of assessing reliability requires only one sitting session. In this approach, an instrument was designed in such a way that there were two parts using even and odd numbered items. Subject scores from one part were correlated with scores from the second part.

The instruments were finally subjected to Spearman Brown Prophecy (Re) formula to determine the correlation coefficient value 'r'. The value 'r' lies between -1 and +1. When the value 'r' is nearer to -1 or +1 it indicates high degree of correlation between the two variables. Zero value denotes nil correlation between the variables. Coefficient of 0.8 and above was considered reliable (Kimberlin & Winterstein, 2008).

Table 6 shows the results of reliability analysis.

**Table 6: Reliability Analysis**

| Variable | Part 1(N of Items) | Part 2 (N of Items) | Spearman-Brown Coefficient |
|---|---|---|---|
| Economic factors | 5 | 5 | 0.863 |
| Socio-cultural factors | 4 | 4 | 0.815 |
| Institutional factors | 4 | 5 | 0.802 |
| Home based factors | 5 | 4 | 0.834 |

The results, in Table 6, revealed that since the Spearman-Brown coefficient was above the 0.80 threshold, the items were reliable and used for data collection and processing. The threshold for acceptability is 0.8 (Mukaka, 2012).

### 3.9 Data Collection Procedure

Before going to the field to collect data, the researcher sought consent from the Institute of Post Graduate and Research studies of Kabarak University. After that, the researcher obtained a permit from National Commission for Science, Technology and Innovation (NACOSTI) headquarters. The researcher then requested the principals of the schools involved in the study to allow him to carry out the research in their schools. The researcher now proceeded to the field, after obtaining consent from Kericho County Director of Education (CDE) and then administered the research instruments to the respondents who included the principals and students.

### 3.10 Data Analysis and Presentation

After collection of the data from the principals and students, the researcher established if all the questionnaires were duly completed. The data on the questionnaires were first coded, tabulated and processed using descriptive and inferential statistics. Descriptive statistics provides for summary of certain aspects of data (Berman, 2012). Frequency, percentages, means and standard deviation were computed. Tools in the Statistical package for social sciences (SPSS) version 20 were used in data processing and analysis. Pearson's correlation coefficient method was used to determine whether there was a statistical relationship between economic factors, socio-cultural factors, institution based factors, and home based factors and gender disparity in enrolment of students in public mixed day secondary schools of Kericho County. T-test was conducted to determine whether there existed a significant mean difference between boys' and girls' views concerning economic factors, socio-cultural factors, institution based factors and home based factors in relation to gender disparity in enrolment. Regression analysis was run to determine the extent of the relationship between independent variables and dependent variable. Table 7 below shows the analysis tool employed in the study.

**Table 7: Statistical Analysis of Variables**

| Research Hypothesis | Independent Variable | Dependent Variable | Statistics |
|---|---|---|---|
| $HO_1$ | Economic factors | Gender Parity | Percentages, Frequencies & means, Pearson correlation coefficient |
| $HO_2$ | Socio-cultural factors | Gender Parity | Percentages, Frequencies & means, Pearson correlation coefficient |
| $HO_3$ | Institutional factors | Gender Parity | Percentages, Frequencies & means, Pearson correlation coefficient |
| $HO_4$ | Home Based factors | Gender Parity | Percentages, Frequencies & means, Pearson correlation coefficient |

To determine whether there was a statistically significant relationship between dependent variable and independent variables, Pearson correlation coefficient was employed. The formula for conducting the Pearson correlation coefficient value is given below.

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum x^2 - (\sum x)^2][N\sum y^2 - (\sum y)^2]}}$$

Where:

N- Number of pairs of scores

$\sum xy$- Sum of products of paired scores

$\sum x$- Sum of x scores

$\sum y$- Sum of y scores

$\sum x^2$- Summation of squared x scores

$\sum y^2$- Summation of squared y scores

When conducting a statistical test between two variables, it is a good idea to conduct a Pearson correlation coefficient value to determine just how strong that relationship is between those two variables. If the value is a negative number, then there is a negative correlation of relationship strength, and if the value is a positive number, then there is a positive correlation of relationship strength. Regression analysis was also employed to establish the relationship between various independent variables and dependent variable. The formula is given by-

$$\acute{Y} = a + b_1X_{1+} b_2X_2 + b_3X_3 + b_4X_4$$

**3.11 Ethical Considerations**

The researcher observed ethics as much as possible. The researcher sought the consent of the respondents before much was done. The respondents were assured of strict confidentiality and anonymity while dealing with their responses. Gender issues were

treated with a lot of respect. The respondents were informed of the purpose of the study to minimize any suspicion. The researcher respected and prioritized the dignity of research participants by ensuring that research participants were not subjected to harm in any way whatsoever. Any type of communication in relation to research was done with honesty and transparency. This ensured that the study findings were a true reflection of the situation on the ground.

# CHAPTER FOUR

# DATA ANALYSIS, PRESENTATION AND DISCUSSION

## 4.1 Introduction

The purpose of this study was to determine the relationship between selected factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County. This chapter therefore, presents the analysed data, interpretation and discussion thereof. The objectives of this study were to find out the relationship between economic factors, socio-cultural factors, institution-based factors, home-based factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County.

### 4.1.1. Respondent Basic Information

**Table 8: Respondent Category**

| Variable | Expected | Frequency | Percent |
|---|---|---|---|
| Girls | 192 | 170(88.5%) | 45.58 |
| Boys | 192 | 167(87%) | 44.77 |
| Head Teachers | 38 | 36(95%) | 9.65 |
| **Total** | **422** | **373(88.4%)** | **100.0** |

Questionnaires were administered to 422 respondents and out of these only 373 (88.4%) of the questionnaires were returned. The expected number of girls was also192 but only 170 (88.5%) questionnaires were returned. The return rate for the boys was 167(87%) out of 192. Head teachers who returned their instruments were 36 out of the expected 38, which represents 95%. This means that the findings were considered to give a wide picture of the study, as the return rate was high. This view agrees with that of Mundy (2002) who reported that there is no magic figure on response rates. The higher it is the better. 60% would be marginal, 70% is reasonable, 80% would be good, and 90% would be excellent. In this case it was almost excellent (90%). Survey researchers have long

assumed that the best way to obtain unbiased estimates is to achieve a high response rate (Fosnacht , Sarraf, Howe & Peck , 2017).

### 4.1.2 Enrolment Trends

The following Table shows form one intake and enrolment trends between 2015 and 2018.

**Table 9: Enrolment Trends**

| Year | Gender | F1 Intake | Enrolment* |
|---|---|---|---|
| 2015 | Boys | 1176 (47.6%) | 4324 (54.9%) |
| | Girls | 1293 (52.4%) | 3549 (45.1%) |
| 2016 | Boys | 1509 (49.7%) | 5008 (58.1%) |
| | Girls | 1529 (51.3%) | 3614(41.9%) |
| 2017 | Boys | 1596 (48.1%) | 5416 (56.2%) |
| | Girls | 1719 (51.9%) | 4231 (43.8%) |
| 2018 | Boys | 1817 (48.5%) | 6281 (54.1%) |
| | Girls | 1931 (51.5%) | 5339 (45.9%) |

*Figures represent gross enrolment rate of the entire school in that particular year

According to Table 9, enrolment trends indicate that there is gender disparity in public mixed day secondary schools in Kericho County whereby girls are less than the boys. This trend is contrary to when students join form one. In form one the girls are generally more than boys. This is a pointer to the fact that most of the girls drop out of the system before completing the cycle. This view was supported by Thulani (2015) who noted that educational enrolment and attainment in sub-Saharan Africa remains skewed in favour of boys and against girls. He pointed out that this is particularly so especially amongst the poorest countries and those, which have recently suffered conflict such as the Democratic Republic of Congo and Angola. This implies that there exist factors that

influence gender disparity in enrolment of students in public mixed day secondary schools.

### 4.1.3 Education Level of Fathers

**Table 10: Cross Tabulation of Students' Gender and Fathers' Level of Education**

| | Fathers level of education | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Respondent Category | No Education | Below 7/8 | Class 7/8 | O level | A level | Diploma | University | **Total** |
| Girls | 2.6% | 7.1% | 21.8% | 15.% | 3.8% | 1.5% | 3.4% | **55.3%** |
| Boys | 2.3% | 7.6% | 15.% | 12.% | 4.5% | 2.3% | 1.1% | **44.7%** |
| **Total** | **4.9%** | **14.7%** | **36.8%** | **27.1%** | **8.3%** | **3.8%** | **4.5%** | **100%** |

Table 10 indicates that cumulatively, majority of the students' fathers' highest level of education was standard 7/8 (56.4%). Among this group, most had attended school upto standard 7/8 (36.8%) while 4.9% were illiterate with no schooling at all. More girls (23.7%) than boys (19.9%) reported their fathers had upwards of high school O-level. The observation that most fathers had not gone beyond primary school could have important implications on the outcome of the education of the students especially girls. Olufemi (2013) asserts that motivation and parental support for pursuit of education are associated with higher education levels of a parent.

### 4.1.4. Mothers' level of Education

**Table 11: Cross tabulation of Students' Gender and their Mothers' level of Education**

| | Mothers level of education | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Respondent Category | No Education | Below 7/8 | Class 7/8 | O Level | A level | Diploma | University | **Total** |
| Girls | 2.7% | 10.6% | 27.8% | 11% | 0.8% | 0.8% | 0.8% | **54.4%** |
| Boys | 5.3% | 9.5% | 19.8% | 6.1% | 3.% | 1.9% | - | **45.6%** |
| **Total** | **8.0%** | **20.1%** | **47.6%** | **17.1%** | **3.8%** | **2.7%** | **0.8%** | **100%** |

According to Table 11, it was revealed that cumulatively for the girls and boys, most of the mothers never went beyond primary level of education (75.7%). The majority of them reached standard 7/8 (47.6%). Those who attained Diploma and university education contributed to a mere 3.5%. This implies that since the level of education of the mothers was largely below secondary level, this trend could affect how they perceive the importance of educating their children, which could in-turn, affect enrolment of students in schools. This resonates with the findings of Roy and Giraldo-GarcĆa (2018) who report that there is high association between parents' education and school completion of their children.

Table 10 and 11 respectively indicate that more fathers than mothers had progressed with their education beyond primary school, the difference between them being 19.3%. Respectively, 35.4% of the fathers compared to 20.9% of the mothers had secondary school level of education as their highest education qualifications. There were also disparities in tertiary education where more fathers (8.3%) than mothers (3.5%) had post-secondary education. These findings rather suggest that gender disparities in education in favour of males are a practice that has been prevalent in the area over the decades. This could perhaps explain why there are still gender disparities in favour of boys observed in the area.

### 4.1.5 Source of Income

**Table 12: Source of Income**

| Income Type | Mothers' Source | Fathers' Source | Difference |
|---|---|---|---|
| Farming | 72.1% | 66.5% | 5.6% |
| Business | 10.7% | 11.9% | -1.2% |
| Teaching | 7.1% | 8.6% | -1.5% |
| Nursing | 3.8% | 3.5% | 0.3% |
| Security | 3.0% | 7.7% | -4.7% |
| Carpentry | 3.3% | 1.8% | 1.5% |
| **Total** | **100.0%** | **100.0%** | **0** |

According Table 12, the majority of parents get their income through farming activities. However, more women (72.1%) than men (66.5%) tended to earn a livelihood from farming with the difference being 5.6%. While business related activities were the second most important source of income for the families, the data in Table 12 suggest that businesses were male dominated as evidenced by more fathers (11.9%) than mothers (10.7%) with a variance of -1.2% in favour of men deriving their income from business. The findings also suggest that overall; few parents were in formal employment (teaching, security and nursing). More fathers (19.8%) than mothers (13.9%) being in formal employment in this regard.

These findings indicate that more women than men were in agriculture than in business agree with those of Njuguna and Baya (2012) who observed that in Kenya women farmers control the bulk of smallholder agriculture, which employs about 70% of the labour force of which 80% of women supply the labor. Moreover, agricultural work unlike businesses has low entry conditions than formal business in terms of financial and intellectual capital requirements. Compared to men, women have lower access to capital often due to lack of collateral to secure credit, hence, most of them cannot realistically start a business or improve their farms (Ali, Deininger & Goldstein, 2014). Most of the

income from peasant farming and informal businesses hardly meet the household's basic needs and, therefore, can hardly suffice for school fees and other personal effects of the students.

The lower rates of formal employment of the students' parents 13.9% for mothers and 19.8% for fathers respectively could also explain students' disinterest in education. Less prospects of formal employment observed in the household could send a signal to the learner that investing time in education is not worthwhile. According to Wamichwe (2017), household income, parental education and parental occupation influence learning achievement of students in secondary schools.

### 4.1.6 Factor Analysis of Independent Variables

Kaiser-Meyer-Olkin (KMO) test was conducted to evaluate whether the sample was adequate to use factor analysis. The test measures sampling adequacy for each variable in the model. Hair, Black, Babin, Anderson and Tatham (2006) suggest accepting a value of 0.5 or more. This means that variables that load less than the established threshold should not be extracted for factor analysis. Bartlett's Test of Sphericity is a statistical test for the presence of correlation among items. Miljko (2017) explains that for factor analysis to work some relationships between items are needed. Thus, a significant Bartlett's Test of Sphericity is required ($p<.05$). The finding is presented in Table 13.

**Table 13: Sampling Adequacy Test**

| Variable | Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | Bartlett's Test of Sphericity | | |
|---|---|---|---|---|
| | | Approx. Chi-Square | Df | Sig. |
| Economic Factors | 0.740 | 500.169 | 45 | .000 |
| Socio-cultural Factors | 0.748 | 466.528 | 45 | .000 |
| Institutional Factors | 0.690 | 545.736 | 45 | .000 |
| Home Based Factors | 0.637 | 516.751 | 45 | .000 |

According to Table 13, the Kaiser-Meyer-Olkin coefficients are all above the recommended cut off 0.5 while the Bartlett's Test of Sphericity was significant for all the variables. This means that factor analysis could be performed for the variables since the KMO test was above the recommended threshold and, thus, the sample was adequate to carry out factor analysis. Similarly, a significant Bartlett's Test of Sphericity implies that items for Economic Factors, socio-cultural Factors, and Institution based Factors and Home Based Factors variables were all-significant and could proceed to be tested for other specification measures for factor analysis.

### 4.1.7 Factor Loadings

According to Tabachnick and Fidell (2007), a rule of thumb, using an alpha level of 0.05 (two-tailed), a rotated factor loading for a sample size of 300 and above would need to be at least 0.32 to be considered statistically meaningful. In this study, a factor loading of ±0.32 was retained for the successive analysis. This meant that any item that loaded below the established threshold was eliminated during the main data analysis as it could lead to the misspecification of the data.

### 4.1.8 Factor Loading for Economic Factors

**Table 14: Factor Loading for Economic Factors**

| Item | Factor Loading |
|---|---|
| Lack of school uniform is related to gender disparity in enrolment. | .425 |
| Lack of personal effects is related to gender disparity in enrolment. | .619 |
| Lack of transport expenses is related to gender disparity in enrolment. | .680 |
| Lack of pocket money is related to gender disparity in enrolment. | .696 |
| Lack of money for lunch programme is related to gender disparity in enrolment. | .600 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment. | .610 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment. | .727 |
| Child labour is related to gender disparity in enrolment. | .742 |
| Lack of adequate food at home due to poverty is related to gender disparity in enrolment. | .415 |
| Extra levies is related to gender disparity in enrolment. | .411 |

The findings in Table 14 indicates that each of the 10 items for the construct economic factors had a factor loading above 0.32, with the highest item "Child labour has a relationship with gender disparity in enrolment" having the highest factor loading of 0.742 while the item "Extra levies has a relationship with gender disparity" having the least factor loading of 0.411. Therefore, all the 10 items were retained and considered to be valid hence showing that there was construct validity for economic factor variable. It meant that all the items for Economic Factors were measuring economic factors variable and that none deviated from its measurement. Tabachnick and Fidell (2007) mentioned that instrument items should load at 0.32 and above, which equates to approximately 10% overlapping variance with the other items in that factor.

### 4.1.9. Factor Loading for Socio-cultural Factors

**Table 15: Factor Loading for Socio-Cultural Factors**

| Item | Factor Loadings |
|---|---|
| Parents' preference to educate boy child is related to gender disparity in enrolment. | .558 |
| Initiation ceremonies is related to gender disparity in enrolment | .594 |
| Early marriages is related to gender disparity in enrolment. | .674 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment. | .628 |
| Feeling of being adult is related to gender disparity in enrolment | .694 |
| Peer influence is related to gender disparity in enrolment. | .518 |
| Early pregnancies is related to gender disparity in enrolment. | .490 |
| Students' negative attitude towards school is related to gender disparity in enrolment. | .907 |

Table 15, shows that, all the eight items for the construct "socio-cultural Factors" variable had factor Loadings above the established threshold of 0.32. The highest factor loading of 0.907, was that of the item "Students' negative attitude towards school" while the lowest factor loading was of the item "Early pregnancies is related to gender disparity in enrolment" which had a factor loading of 0.490. As a result, all items were retained to be used for factor analysis. This implies that the items actually measured appropriately socio-cultural factors variable and, therefore, construct validity for socio-cultural factor variable was verified and seen to be valid consistent with Hair and Anderson (1995).

### 4.1.10 Factor Loading for Institution Based Factors

**Table 16: Factor Loading for Institution Based Factors**

| Item | Factor Loadings |
|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment. | .607 |
| Lack of field/ PE facilities is related to gender disparity in enrolment. | .758 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment. | .602 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment. | .510 |
| Student teacher relationship is related to gender disparity in enrolment. | .786 |
| Harassment of girls by male students is related to gender disparity in enrolment | .795 |
| Student teacher ratio is related to gender disparity in enrolment. | .458 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment. | .713 |
| Harassment of girls by male teachers is related to gender disparity in enrolment. | .443 |

According to Table 16, the factor loadings for all the 9 variables were retained as they gave a coefficient above the recommended threshold of 0.32. For instance, the highest factor loading observed was for the item, "Harassment of girls by male students is related to gender disparity in enrolment" while the lowest factor loading was for the item, "Harassment of girls by male teachers is related to gender disparity in enrolment." This means that in this study, construct validity of Institution Based factors variable was verified and seen to be valid in effectively measuring the Institution based factors variable. No item among the 9 describing this variable was eliminated as recommended by Izquierdo, Olea and Abad (2014) since their factor loadings were more than 0.3 individually.

### 4.1.11 Factor Loading for Home Based Factors

**Table 17: Factor Loading for Home Based Factors**

| Item | Factor Loadings |
|---|---|
| Lack of parental support is related to gender disparity in enrolment. | .856 |
| Poverty at home is related to gender disparity in enrolment. | .683 |
| Girls insecurity between home and school is related to gender parity in enrolment | .698 |
| Lack of study rooms is related to gender disparity in enrolment | .712 |
| Secure and conducive room to sleep is related to gender disparity in enrolment. | .526 |
| Distance to school is related to gender disparity in enrolment. | .769 |
| Low parental level of education is related to gender disparity in enrolment. | .661 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment. | .419 |
| Domestic chores is related to gender disparity in enrolment. | .774 |

Table 17 shows that factor loading for the construct "Home Based Factors" surpassed the cut off 0.32 for all items, hence, the construct was validly retained. The item "Lack of parental support has a relationship with gender disparity" had the highest Factor Loading of 0.856, while the lowest factor loading was observed in the item "Lack of adequate lighting facilities is related to gender disparity in enrolment." with a factor loading of .419. Essentially, this means that all the items in Table 17 measured accurately the variable of Home Based Factors. Field (2009) maintains that variables with loadings lower than 0.3 are considered to have no significant impact on a factor, and need therefore to be ignored. However, in the case of the "Home Based Factors" used in the present study, no item was eliminated because of this threshold.

### 4.2 Descriptive Analysis of Economic Factors

The first objective of this study was to establish relationship between economic factors and gender disparity in enrolment of students in public mixed day secondary schools. The data was analysed through percentages, means, t-test, and correlation and regression statistics. The findings are presented in the subsequent tables.

#### 4.2.1 Descriptive Analysis of Economic Factors according to Girls

The descriptive statistics of economic factors variable was calculated from the girls' responses. Table 18 shows the findings in percentage.

**Table 18: Descriptive analysis of economic factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Extra levies is related to gender disparity in enrolment. | 170 | 18.8 | 28.8 | 38.2 | 14.1 |
| Lack of food at home due to poverty is related to gender disparity in enrolment | 170 | 10.6 | 19.4 | 29.4 | 40.6 |
| Child labour is related to gender disparity in enrolment. | 170 | 9.4 | 6.5 | 32.9 | 51.2 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment. | 170 | 8.2 | 18.2 | 27.1 | 46.5 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment. | 170 | 18.2 | 19.4 | 31.8 | 30.6 |
| Lack of money for lunch programme is related to gender disparity in enrolment. | 170 | 15.9 | 20.6 | 21.2 | 42.4 |
| Lack of pocket money is related to gender disparity in enrolment. | 170 | 21.2 | 24.7 | 29.4 | 24.7 |
| Lack of transport expenses to school is related to gender disparity in enrolment. | 170 | 29.4 | 27.1 | 24.7 | 18.8 |
| Lack of personal effects is related to gender disparity in enrolment. | 170 | 8.8 | 17.1 | 46.5 | 27.6 |
| Lack of school uniform is related to gender disparity in enrolment | 170 | 9.4 | 25.3 | 41.8 | 23.5 |

According to Table 18 the schoolgirl respondents aver that gender disparity in public mixed day secondary schools in Kericho County is largely related to economic variables

such as child labour (84.1%), lack of personal effects (74.1%), parents refusal to pay school fees (73.6%) and lack of food at home due to poverty (70%). This means that mostly girls were unlikely to continue with their secondary education when these factors prevailed or were left largely unaddressed. Three of these variables are indicative of high poverty rates in the area while one regarding parental refusal to pay school fees is highly indicative of lack of commitment to educate the girl child or arising from misinformation on the FSE policy.

High levels of household poverty can lead to the suspension or discontinuation of mostly the girl child's education in order to enter the labour market quite early in low paying jobs to supplement the family income. The most common jobs available for girls and that have low entry requirements in the area are housekeeping and baby-sitting. Ngeno et al. (2014) observed that some students and especially the girls opt to stay out of school to be employed to earn a living for their families. This concurs with Oguta (2013) who found that owing to poverty, many school age girls tend to be recruited for employment as house girls and baby sitters in both urban and rural areas in order to meet their own and their parents' economic needs and those children cannot effectively participate in secondary education. However, as most of these jobs are in demand and mostly within the home setting and have no formal contract, it is difficult to track and reduce the level of child labour in such settings.

The findings further showed that 74.1% of the respondents agreed that lack of personal effects is related to gender disparity in enrolment where as 54.1% agreed that lack of pocket money is related to gender disparity as well. Compared to the male students, female students demand more personal effects to ameliorate their stay in school and lack of these can have significant psychosocial consequences on them that could lead them to suspend or altogether terminate their studies if no remedy is forthcoming. Poverty in a

family makes it very difficult for them to meet demands for their children. Lugonzo et al. (2017) noted that apart from school fees, parents of lower economic status have trouble

in providing additional assistance to their children in the form of personal effects to support their secondary education. This concurs with Oprong (2015) who also observed that parents whose level of income is very low neglect their daughters' demands due to poverty, which leads to girl-child dropping out of secondary school. He argues that this is because most of the parents from a poor background have the problem of raising the required school fees as well as providing the students with the necessities such as clothing and food.

Moreover, 73.6% of the respondents reported that parents' reluctance to pay fees was related to gender disparity in schools. This implies that a good number of learners risk being shut out of education due to the misconception that there is free education for all. The refusal could arise out of the false notion of free education but also from the fact that there is still less value placed on the girls' education. This could lead to some students, mainly girls dropping out of the school set up. According to Khamati and Nyongesa (2013) and Ohba (2009) due to free secondary Education policy, the parents have developed a feeling that since the government has provided the funds towards education of their children they do not have to contribute financially towards financing the schools. This has affected the contributions towards lunch programme and particularly in day schools whereby most of the children cover long distances to school. In another study, Achoka (2007) declares that one of the major causes of dropping out of school by most students in secondary schools is inability to pay fees.

Lack of adequate food at home due to poverty is also a serious issue that is related to gender disparity in public mixed day secondary schools as was confirmed by 70% of the

respondents. Lack of money to buy pens and geometrical sets has a relationship with gender disparity as well and was agreed to by 63.5% of the respondents. Due to poverty in the society, people tend to give priority to basic needs such as food, shelter and clothing and take education of their children as the last resort (Oguta, 2013). That is why most of the children fail to meet their educational requirements such as pens, geometrical sets and pocket money. This implies that when learners lack basic needs they may fail to complete their studies. According to Table 18, 65.3% of the respondents agreed that lack of school uniforms has a relationship with gender disparity. This means that absence of proper school uniform could deter learners from attending school. This could be a reason for gender disparity in enrolment in schools. It has been observed that low income for a family can act as a hindrance to children from poor families from attending school (Ombago, 2014).

Similarly, lack of money for lunch program is a cause of gender disparity in schools as was supported by 62.4% of the respondents. This implies that when parents fail to pay fees for the lunch programme most of the learners are hindered from continuing with their education. Therefore, it could lead to gender disparity in enrolment in schools. It has been observed that poverty has a relationship with demand for schooling because it determines ability of the parents to pay school fees and other costs associated with a high opportunity cost of schooling for children (UNESCO, 2011). This view is corroborated by ROK (2003) who maintains that poverty is an issue that brings a lot of difficulty to most parents to the extent that they fail to pay fees and buy uniform for a child and particularly the girl child besides basic needs such as pocket money, uniform and sanitary towels.

Extra levies charged by schools is also a factor that bears relationship with gender disparity in enrolment in schools as opined by 52.4% of the respondents. Although the

government of Kenya has provided free secondary education, the amount has not been adequate and this has led the head teachers to source for extra money from the parents. When parents fail to meet this type of demand, their children are normally sent home and in the process, some decide to drop out of the system (Kamathi & Nyongesa, 2013).

Table 18, shows that the majority of the respondents (56.5%) disagreed that lack of money for transport to school has a relationship with gender disparity. This could be because most of the students live within the proximity of the schools and therefore may not be in a serious need of means of transport because they can simply walk. This concurs with Manomano and Kang'ethe (2015) who points out that distance to school is an important determinant of educational access. He reiterates that, however where majority of the students cover a distance of 0 to 1 kilometre to go to school may not be the reason for the girl student dropping out of the school.

### 4.2.1 Mean Descriptive Statistics of Economic Factors according to Girls

Girls' views on the relationship between economic factors and gender disparity in enrolment in public mixed day secondary schools were analysed to get the mean and standard deviation. The findings are presented in Table 19.

**Table 19: Mean descriptive statistics of economic factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.79 | 0.91 |
| Lack of personal effects is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.93 | 0.89 |
| Lack of transport expenses is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.33 | 1.09 |
| Lack of pocket money is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.58 | 1.08 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.90 | 1.12 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.75 | 1.08 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.12 | 0.98 |
| Child labour is related to gender disparity in enrolment. | 170 | 1.00 | 4.00 | 3.26 | 0.94 |
| Lack of adequate food at home due to poverty is related to gender disparity in enrolment. | 170 | 1.00 | 4.00 | 3.00 | 1.01 |
| Extra levies are related to gender disparity in enrolment. | 170 | 1.00 | 4.00 | 2.48 | 0.96 |
| **Economic factors Overall Index** | **170** | **1.30** | **3.90** | **2.81** | **0.52** |

The results in Table 19 show that the overall index of economic factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.81 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.52 which being less than 1 suggests that most of the girls agreed with the statements posited regarding the effect of economic factors on the enrolment of students in public mixed day secondary schools in Kericho County.

The respondents indicated that lack of school uniform is related to gender disparity (mean=2.79) as well as that lack of personal effects is related to gender disparity (mean=2.93). Similarly, lack of money to buy pens & geometrical sets is related to gender disparity as well as that lack of adequate food at home due to poverty is related to gender disparity with means of 2.75 and 3.00 respectively. These findings show that lack of proper uniform besides the necessary academic tools may hinder a learner from completing their studies. This finding implies that lack of necessary personal necessities could affect gender parity in enrolment between boys and girls. Moreover, lack of adequate food due to poverty is related to gender disparity as some students may engage themselves in looking for income to buy food and other basic needs.

This agrees with Oguta (2013) who avers that many school age girls are employed as house girls and baby sitters in both urban and rural areas in order to meet their own and their parents' economic needs and such children cannot effectively participate in secondary education.

Likewise, it was noted that child labour is related to gender disparity in enrolment (mean=3.26). Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity (mean=3.12). Lack of pocket money as well as lack of money for lunch programme is related to gender disparity with mean of 2.58 and 2.90 respectively. This implies that when children engage in unlawful employment in the pursuit to get income for themselves this will ultimately hinder them from continuing with their studies. This could be a reason for gender disparity in enrolment between boys and girls in schools. According to Ohba (2009), due to free secondary Education policy, the parents have developed a feeling that since the government has provided the funds towards education of their children they do not have to contribute financially towards financing the schools.

### 4.2.2 Descriptive Analysis of Economic Factors according to Boys

Table 20 shows the percentage descriptive statistics of economic factors according to boys.

**Table 20: Descriptive statistics of economic factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Extra levies are related to gender disparity in enrolment. | 167 | 14.4 | 19.2 | 37.1 | 29.3 |
| Lack of adequate food at home due to poverty is related to gender disparity in enrolment. | 167 | 17.4 | 13.8 | 37.1 | 31.7 |
| Child labour is related to gender disparity in enrolment. | 167 | 13.8 | 15.6 | 34.7 | 35.9 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 167 | 15.6 | 16.8 | 35.3 | 32.3 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 167 | 22.8 | 18.6 | 34.1 | 24.6 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 167 | 18.0 | 11.4 | 32.3 | 38.3 |
| Lack of pocket money is related to gender disparity in enrolment | 167 | 24.6 | 29.9 | 28.1 | 17.4 |
| Lack of transport expenses is related to gender disparity in enrolment | 167 | 17.4 | 35.9 | 34.1 | 12.6 |
| Lack of personal effects is related to gender disparity in enrolment | 167 | 13.8 | 23.4 | 41.9 | 21.0 |
| Lack of school uniform is related to gender disparity in enrolment | 167 | 26.3 | 37.1 | 25.1 | 11.4 |

Table 20 shows that majority of the school boys were of the view that child labour (70.6%) and lack of money for lunch programme (70.6%) were the most likely causes of poor school completion and, hence, gender disparity in schools. Lack of adequate food at home due to poverty (68.8%) and parents' reluctance to pay fees (67.6%). Similar to the

school girls, the school boys also coalesced around these economic variables as the mostly likely causes for gender disparities in the schools. The results, however, show that the school boys felt less strongly than the school girls about these economic factors which implies that though the school boys were affected by the variables, they were not affected as much as the female students.

The finding that child labour was linked to gender disparity in schools by the school boys consistent with the school girls rather confirms that the practice was not only existing but prevalent in the area and it was affecting school enrolment. Hanushek (2006) explains that child Labour is inescapable for the survival of many rural households. The opportunity cost for children increases as they grow hence their pressure to work and earn income for household increases as opposed to spending time in education (UNESCO, 2011). Due to poverty, most families in Kenya exert a lot of pressure on their members irrespective of age to provide food, water, clothing and other essential needs resulting into gender disparity in enrolment of students in schools. Also according to Ngeno et al. (2014), child labour is a factor behind gender inequality in secondary schools.

The male students rated lack of money for lunch programme highly (70.6%) leading to several implications, one being that their parents or guardians were unable to afford the extra cost for food. According to Munyi and Orodho (2014), the FSE capitation does not cover some costs leading to the schools charging extra levies for hidden costs such as lunch programme. Considering the other requirements for educating the children of which the family must meet the costs, the extra lunch programme money may strain an already overloaded additional levies budget for the household.

The school boys also rated highly the lack of adequate food at home due to poverty as a possible reason why there was gender disparity in the schools. Household food insecurity is still far from being effectively addressed in Kenya and in fact is likely to worsen with changing population dynamics and land use change patterns. This means that even in counties considered as the breadbasket of the nation, hunger still prevails in the households and it is affecting school enrolment patterns. According to the World Food Program (WFP) (2019), it is estimated that 10 million Kenyans are food insecure. This number includes 3.2 million drought affected residents in the marginal agricultural areas, 850,000 school children who have been included in the expanded School Feeding Programme, 150,000 persons displaced by the post-election crisis that remain extremely food insecure, 3.5 million urban dwellers, and about 2.2 million persons affected by HIV and AIDS, including orphans.

Further, the school boys were of the view that parents' reluctance to pay fees influenced gender disparity in the schools as indicated by 67.6% of the respondents. However, compared to the 73.6% of the school girls who had this view, the findings rather confirm that school boys were not affected by parents' reluctance to pay fees as much as the schoolgirls. Thus, while boys were also bound to discontinue their secondary education due to lack of school fees, more school girls than school boys were likely to be forced to terminate their studies early. These findings, therefore, agree with Achoka, (2007) who found that of the significant causes of dropout by students in secondary schools is the inability to pay fees. Nyamweya (2012) also observed that high cost of levies and charges paid by parents coupled with the requirement for paying school fees eventually makes it difficult for them to pay the school fees and as such causes girls to drop out of school due to lack of fees. According to Republic of Kenya (2010), parents whose level of income is very low neglect their daughter's demands. It is argued that poor families

find it very difficult to meet educational demands of their children and when faced with a situation as to who between a girl and a boy is to be sponsored most families would favour a boy child and neglect the girl child.

Moreover, respondents agreed that lack of money to buy pens and geometrical sets is related to gender disparity (58.7%), lack of money for lunch programme is related to gender disparity (70.6%) and lack of pocket money is related to gender disparity (45.5%). Similarly, lack of transport expenses is related to gender disparity (46.7%), lack of school uniform is related to gender disparity (36.5%) and that lack of personal effects is related to gender disparity (62.9%). It follows that lack of most of the requirements by students could be a reason for the disparity in enrolment in schools. These findings agree with that of Ombago (2014) who affirms that socio-economic factors in the society are one of the crucial determinants when it comes to participation in secondary education. Furthermore, parents of high economic status find it easier to educate their children up to a reasonable level. It implies that low income for a family can act as a hindrance to children from poor families from attending school.

### 4.2.3 Mean Descriptive Statistics of Economic Factors according to Boys

Boys' views on the relationship between economic factors and gender disparity in enrolment in public mixed day secondary schools were analysed to get the mean and standard deviation. The results are presented in Table 21.

**Table 21: Mean descriptive statistics of economic factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.22 | 0.96 |
| Lack of personal effects is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.70 | 0.95 |
| Lack of transport expenses is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.42 | 0.92 |
| Lack of pocket money is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.38 | 1.04 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.91 | 1.10 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.60 | 1.09 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.84 | 1.05 |
| Child labour is related to gender disparity in enrolment. | 167 | 1.00 | 4.00 | 2.93 | 1.03 |
| Lack of adequate food at home due to poverty is related to gender parity in enrolment. | 167 | 1.00 | 4.00 | 2.83 | 1.06 |
| Extra levies are related to gender disparity in enrolment. | 167 | 1.00 | 4.00 | 2.81 | 1.02 |
| **Economic factors Overall Index** | **167** | **1.00** | **3.60** | **2.67** | **0.53** |

The results in Table 21 show that the overall index of economic factors affecting enrolment of students in public mixed secondary schools in the area was mean = 2.67 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.53 which being less than 1 suggests that most of the boys agreed with the statements posited regarding the effect of economic factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 21, child labour being a factor related to gender disparity in enrolment had the highest mean (2.93) and was followed by parents' reluctance to pay fees due to false notion of free education with a mean of 2.84. Secondary school

students drop out of school at an early age due to poverty to seek employment, which results in child labour. The high incidence of dropout in education is linked to high level of child abuse when their colleagues are in school. The abuse ranges from child being made to hawk, going to farm and sexual abuse (Ajaja, 2012). This implies that largely, child labour as well as parents' reluctance in payment of school fees could be a reason for gender disparity in enrolment between boys and girls in public mixed day secondary schools.

Lack of adequate food in the homes had a mean of 2.83, whereas extra levies charged by schools had a mean of 2.81. This implies that specifically, when learners lack basic needs such as food this may lead them to dropping out of school and could be a reason for gender disparity in enrolment between boys and girls. According to ROK (2003), parents whose level of income is very low neglect their daughters' demands. They find it very difficult to pay fees and buy uniforms for daughters leave alone basic needs such as pocket money, clothes and sanitary towels.

It was revealed that lack of pocket money had a mean of 2.38 whereas lack of school uniform had a mean of 2.22. Similarly, lack of personal effects had a mean of 2.70 whereas lack of pens and geometrical sets had a mean of 2.60. Lack of transport expenses had a mean of 2.42 and lack of money for lunch programme had a mean of 2.91. The item with the lowest mean (2.22) was lack of school uniform, which was also below the average. Another item with a mean less than the average was lack of transport expenses with a mean of 2.42.

According to these findings, it could be inferred that poverty in the society and lack of proper understanding about education contribute heavily towards gender disparity in enrolment. This implies that specifically, when learners lack personal effects gender

disparity in enrolment between boys and girls in schools arises. Due to poverty in the society, most of the families tend to give priority to basic needs such as food, shelter and clothing and fail to provide education for their children (Chepchieng & Kibos, 2004).

### 4.2.4 Descriptive Analysis of Economic Factors according to Head Teachers

Head teachers' views on the relationship between economic factors and gender disparity in enrolment were analyzed through percentages and the results are shown in Table 22.

**Table 22: Descriptive analysis of economic factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Inadequacy of FSE funds is related to gender disparity in enrolment. | 36 | 25.0% | 25.0% | 25.0% | 25.0% |
| Extra levies are related to gender disparity in enrolment. | 36 | 8.3% | 27.8% | 36.1% | 27.8% |
| Lack of adequate food at home due to poverty is related to gender disparity in enrolment. | 36 | 5.6% | 5.6% | 44.7% | 44.4% |
| Child labour is related to gender disparity in enrolment. | 36 | 5.6% | 2.8% | 33.3% | 58.3% |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 36 | 2.8% | 11.1% | 33.3% | 52.8% |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 36 | 11.1% | 33.3% | 19.4% | 36.1% |
| Lack of money for lunch programme is related to gender disparity in enrolment | 36 | 5.6% | 30.6% | 30.6% | 33.3% |
| Lack of pocket money is related to gender disparity in enrolment | 36 | 8.3% | 25.0% | 16.7% | 50.0% |
| Lack of transport expenses to school is related to gender disparity in enrolment | 36 | 13.9% | 38.9% | 25.0% | 22.2% |
| Lack of personal effects is related to gender disparity in enrolment | 36 | 8.3% | 0.0% | 36.1% | 55.6% |
| Lack of school uniform is related to gender disparity in enrolment | 36 | 11.1% | 30.6% | 19.4% | 38.9% |

Table 22 reveals that gender disparity in enrolments is related to lack of personal effects as 91.7% of the respondents agreed. This implies that lack of personal effects could lock

out some students from attending school. This could lead gender disparity in enrolment among boys and girls. According to Republic of Kenya (2003) and Nyamweya (2012), parents whose level of income in very low neglect their daughters' demand. Poor parents find it very difficult to pay fees and uniform for the girls; basic need such as pocket money, clothes and sanitary towels is a tall order for the girl child. This suggests that lack of personal effects could lock out some students from attending school and instead look out for menial jobs. This view was upheld by 91.6% of the respondents who reported that child labour was prevalent. Moreover, it was reported that parents' reluctance to pay fees is related to gender disparity in enrolment in schools as was agreed by 85.9% of the respondents. The inception of FSE instilled in the parents and guardians' minds the false notion of free education as 64.6% of the head teachers indicated as the factor affecting parity in enrolment. This reflects the findings of Kilonzo (2007) cited in Khamati and Nyongesa (2013) that 92.5% of the parents were unwilling to pay any money to the schools because education was free. Furthermore, 66.7% of the respondents also agreed that pocket money is a factor that contributes to gender disparity in schools. This implies that when parents are reluctant to pay the required fees for their children, this in turn could discourage them from continuing being in school and others may drop out.

Extra levies charged by schools and lack of money for lunch programmes are related to gender disparity in schools as was each indicated by 63.9%. Lack of adequate food due to poverty in the homes is related to gender disparity as was agreed by 89.1% of the respondents. This implies that the requirement to pay extra levies as well as lack of basic needs such as food affect the concentration of students in class and may lead them to drop out of the learning institutions. This Finding corroborates with that of kirechi, et al.

(2012) who aver that payment of extra levies in secondary schools has led to drop out of some students in secondary thus causing gender disparities in schools.

The finding shows that 58.3% of the respondents indicated that lack of school uniform is related to gender disparity in schools. This implies that when students lack basic needs such as uniform, their concentration in class is adversely affected as they will always be thinking of how to get the proper attire and consequently lead to termination of their studies. These findings agree with that of Rok (2003) who affirms that due to poverty in the society parents find it very difficult to pay fees and to buy uniform for a girl child besides basic needs such as pocket money, clothes and sanitary towels. It was also indicated by 57.2% of the respondents that lack of transport expenses is related to gender disparity in schools. This is in line with the findings of Oguta (2013) who asserts that poverty in the society forces people to treat education of their children as of no importance.

Lack of money to buy pens and geometrical sets play a role in determining gender parity in schools as was indicated by 55.6% of the respondents. This implies that when students lack essential tools to assist in academic work this adversely affects students' completion of education in secondary schools. It was also revealed that inadequacy of FSE funds in schools is related to gender disparity in schools as was indicated by 50% of the respondents. Failing to pay fees for secondary education is one of the major causes of students' failure to complete their education. According to Orodho (2014), release of funds from the treasury takes a lot of time and this in turn leads to delay of funds to reach the schools. Consequently, the students are sent home regularly for the school fees so that the principals could use the fund to run the schools (Kamathi & Nyongesa, 2013) .

### 4.2.5. Mean Descriptive Statistics of Economic Factors according to Head Teachers

Head-teachers' views on the relationship between economic factors and gender disparity in enrollment in public mixed day secondary schools were analysed to get the mean and standard deviation. The results are shown in Table 23.

**Table 23: Mean descriptive statistics of economic factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.86 | 1.073 |
| Lack of personal effects is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.39 | .871 |
| Lack of transport expenses is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.56 | .998 |
| Lack of pocket money is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.08 | 1.05 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.92 | .937 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.81 | 1.06 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.36 | .798 |
| Child labour is related to gender disparity in enrolment. | 36 | 1.00 | 4.00 | 3.44 | .809 |
| Lack of adequate food at home due to poverty is related to gender disparity. | 36 | 1.00 | 4.00 | 3.28 | .815 |
| Extra levies are related to gender disparity in enrolment. | 36 | 1.00 | 4.00 | 2.83 | .941 |
| Inadequacy of FSE funds is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.50 | 1.134 |
| **Economic factors Overall Index** | **36** | **1.70** | **3.80** | **3.05** | **.465** |

The results in Table 23 show that the overall index of economic factors affecting enrolment of students in public mixed secondary schools in the area was mean = 3.05 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.465 which being less than 1 suggests that most of the head teachers agreed with the statements posited regarding the effect of economic factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 23, child labour had the highest mean of 3.44. Lack of finances in a family makes some students drop out of school and seek employment, which results in child labour. According to Hanushek (2006), Child Labour is inescapable for the survival of many rural households. He affirms that children from poor families are likely never to attend school or drop out once they have enrolled. Parents' reluctance to pay fees due to false notion of free education had a mean of 3.36. This was followed by lack of personal effects with a mean of 3.39. Lack of adequate food at home had a mean of 3.28. Lack of pocket money had a mean of 3.08 whereas lack of money for lunch program had a mean of 2.92. Lack of uniform had a mean of 2.86, payment of extra levies had a mean of 2.83 and lack of money to buy pens and geometrical instruments had a mean of 2.81. Further, Lack of money for transport had a mean of 2.56 where as inadequacy of FSE funds had a mean of 2.50. It can be inferred that poverty level in a family is related to gender disparity in enrolment of students in schools. When there is lack of adequate funds, most of critical issues related to student's academics welfare will be halted. This could cause some of the students to drop out of the school. The family cannot have the ability to meet basic family needs such as adequate food, conducive room for sleeping and adequate light for carrying out extra studies in the evening. According to UNESCO (2011), poverty influences demand for schooling, because it is related to the ability of the

household to pay fees and other costs associated with a high opportunity cost of schooling.

Finally, it was noted that inadequacy of FSE funds is related to gender disparity in enrollment between boys and girls (mean= 2.50). This is because when there is lack of finances most of critical issues related to students' academics will be halted. When the money sent to schools by the government is not sufficient, the schools are forced to seek the assistance of the parents. Due to inadequacy of FSE funds, the parents have been asked by schools to supplement in order to meet the gaps in the school budget (Kirechi, et al., 2012). More over Free Day Secondary Education capitation grant, although it has been increased, it has not been in phase with inflation (New Vision, 2015). The extra levies the parents pay influences disparity in enrolment because when students are sent home regularly due to non-compliance, some fail to return to school and in the end fail to complete their education thus causing disparity in enrolment.

### 4.2.6 Mean Difference in Economic Factors by Gender

T-test was conducted to determine whether there was a significant mean difference concerning boys' views and girls' views on economic factors being related to gender disparity in enrolment.

**Table 24: T-test on economic factors by gender**

| Gender | N | Mean | SD | Df | t-value | ρ-value |
|---|---|---|---|---|---|---|
| Girls | 170 | 2.81 | .52053 | 335 | 2.578 | 0.010* |
| Boys | 167 | 2.67 | .53107 | | | |

*Significant at 0.05 level

The finding shows that there was a significant mean difference between the views of the girls and the views of the boys on economic factors causing gender disparity in enrolment at 0.05,t (335) = 2.578, p <0.05). The implication is that the difference is real

and not a matter of chance. This means that girls are more vulnerable and affected by economic factors, which in turn could influence their participation in education. This finding agrees with Republic of Kenya (2003) who found out that child labour is a rampant practice that continues to keep children, particularly the girl child out of school. Many school age girls are employed as house girls and baby sitters in both the urban and rural areas in order to meet their own and their parents' economic needs. Such children cannot effectively participate in secondary education (Oguta, 2013).

### 4.2.7 Correlation Analysis of Data obtained from Girls

Table 25 illustrates the correlation between gender disparity and the economic factors according to girls.

**Table 25: Relationship between economic factors and gender disparity according to girls**

| | | Gender Disparity | Economic Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .732** |
| | Sig. (2-tailed) | | .000 |
| | N | 170 | 170 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study found out that there exists a statistically significant relationship between gender disparity and the economic factors ($r=0.732^{*}$; $p<0.05$). This implies that when these economic factors under investigation prevail, gender disparity also increases. According to Republic of Kenya (2010), parents whose level of income is very low neglect their daughter's demands. Poor families find it very difficult to meet educational demands of their children and when faced with a situation as to who between a girl and a boy is to be sponsored most families would favour a boy child and neglect the girl child. This implies that selective utilization of economic resources towards a girl child has a relationship with gender disparity in enrolment.

### 4.2.8 Correlation Analysis of Data obtained from Boys

**Table 26: Relationship between economic factors and gender disparity according to boys**

| | | Gender Disparity | Economic Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .896* |
| | Sig. (2-tailed) | | .000 |
| | N | 167 | 167 |

*. Correlation is significant at the 0.05 level (2-tailed).

It was noted that there exists a statistically significant relationship between gender disparity and the economic factors ($r=0.896^{*}$; $p<0.05$). This implies that when these economic factors under investigation prevail, gender disparity also increases. It could also mean that when the economic factors being investigated are addressed, gender disparity could be minimised. According to World Economic Forum (2018), on average, 65% of girls and 66% of boys have enrolled in secondary education globally and just 39% of women and 34% of men are in college or university today. This fact calls for more ambitious goals; to better develop human capital for both women and men.

### 4.2.9 Correlation Analysis of Data obtained from Head Teachers

**Table 27: Relationship between gender disparity and economic factors According to head teachers**

| | | Gender Disparity | Economic Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .369* |
| | Sig. (2-tailed) | | .027 |
| | N | 36 | 36 |

*. Correlation is significant at the 0.05 level (2-tailed).

It was noted that there exists a statistically significant relationship between economic factors and gender disparity ($r = 0.369^{*}$; $p<0.05$). This implies that when these economic factors under investigation increase, gender disparity also increases. World Economic

Forum (2018) reports that although average progress on gender parity in education is relatively more advanced than in other aspects, there are still 44 countries where over 20% of women are illiterate. The report also indicates that near-parity in higher education enrolment rates often mark low participation of both men and women.

### 4.2.10. Overall Correlation

**Table 28: Relationship between gender disparity and the economic factors**

| | | Gender Disparity | Economic factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .768* |
| | Sig. (2-tailed) | | .000 |
| | N | 373 | 373 |

*. Correlation is significant at the 0.05 level (2-tailed).

According to table 28 there exists a statistically significant relationship between economic factors and gender disparity ($r=0.768^{*}$; $p<0.05$). This implies that when the economic factors under investigation prevail, gender disparity increases. According to Psaki, McCarthy and Mensch (2018), many countries still face obstacles in reducing gender disparities in enrolment and progression in school, as well as improving absolute levels of enrolment and attainment.

## 4.3. Descriptive Analysis of Socio-Cultural Factors

The second objective of this study was to establish relationship between socio-cultural factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County. The data was analysed through percentages, means, t-test, and correlation and regression statistics. The findings are presented in the subsequent tables.

### 4.3.1 Descriptive Analysis of Socio-cultural Factors according to Girls

Socio-cultural factors that are related to gender disparity in enrolment of students in public mixed day secondary schools were analysed using percentages. Table 29 presents the findings.

**Table 29: Descriptive analysis of socio-cultural factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Students' negative attitude towards school is related to gender disparity in enrolment | 170 | 12.4 | 21.2 | 30.0 | 36.5 |
| Early pregnancies is related to gender disparity in enrolment | 170 | 7.1 | 7.6 | 34.7 | 50.6 |
| Peer influence is related to gender disparity in enrolment | 170 | 7.6 | 21.8 | 33.5 | 37.1 |
| Feeling of being adult is related to gender disparity in enrolment | 170 | 22.4 | 15.3 | 29.4 | 32.9 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 170 | 12.9 | 20.6 | 24.1 | 42.4 |
| Early marriages is related to gender disparity in enrolment | 170 | 18.2 | 24.1 | 30.6 | 27.1 |
| Initiation ceremonies is related to gender disparity in enrolment | 170 | 30.6 | 26.5 | 24.1 | 18.8 |
| Parents preference to educate boy child is related to gender disparity in enrolment | 170 | 13.5 | 17.1 | 43.5 | 25.9 |

According to the study, it was revealed that early marriages are related to gender disparity in schools as was indicated by 85.3% of the respondents. 85.3 of the respondents indicated further, early pregnancies. This implies that when young girls who are supposed to be in school are married at an early age, they are unable to continue with their studies. This view was upheld by UNESCO (2000) and Ajaja (2012) who affirm that female students drop out of school prematurely due to early marriages and early

pregnancies as well as there are a number of other factors that hinder the girls from proceeding with their education as compared to boys. Moreover, (Achoka, 2007) reiterates that while educating both boys and girls early marriages affect secondary education thus causing gender inequality in enrolment. This concurred with the findings of Ngeno, Simatwa and Ayodo (2014) which shows that early marriage is a major factor that influences gender parity in secondary education.

Peer influence affects gender disparity in enrolment as indicated by 70.6% of the respondents. It was also observed that 69.4% of the respondents indicated that parents' preference to educate a boy child is one of the factors that cause gender disparity in schools. This implies that when parents prefer to educate a boy child the girl child loses focus and even lose interest in education. When community is faced with scarcity of resources they decide to send the boy child to school and leave the girl child to suffer (UNICEF, 2011).

The development of active personality is the goal of education and therefore, proper perception of the significance of learning by school students is vital to enhance the prestige of education, as well as to raise the intellectual and spiritual level within the society. Surprisingly, this may not be achieved as the study found that the students have negative attitude towards education as agreed by 66.5% of the respondents. It was further indicated that community's negative attitude towards education (66.5%) is related to gender disparity in enrolment. This suggests that students' and community's negative attitude towards education could affect their overall potential to focus on their educational achievement. This could affect their ability to finish their studies. These findings agree with that of (Ajaja, 2012) who reiterates that factors that affect enrolment among girls include negative cultural values, early pregnancies, early marriages, sexual harassment and excessive domestic chores.

The findings further showed 62.3% of the respondents agreed that feeling of being adult by students' affects gender disparity. However, it was noted that 57.1% of the respondents disagreed with the fact that initiation ceremonies affect gender parity in schools. In communities where circumcision / initiation of children is still practiced, the ceremonies are scheduled to take place during the school holidays, but the process begins earlier, leading to absenteeism from school (Oguta, 2013).

### 4.3.2 Mean Descriptive Statistics of Socio-cultural Factors according to Girls

Girls' views on the relationship between socio-cultural factors and gender disparity in enrolment of students in public mixed day secondary schools were analysed to get the mean and standard deviation. The findings are presented in Table 30.

**Table 30: Mean descriptive statistics of socio-cultural factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.82 | 0.97 |
| Initiation ceremonies is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.31 | 1.10 |
| Early marriages is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.66 | 1.07 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.96 | 1.07 |
| Feeling of being adult is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.73 | 1.14 |
| Peer influence is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.00 | 0.95 |
| Early pregnancies is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.29 | 0.89 |
| Students' negative attitude towards school is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.91 | 1.03 |
| **Socio-cultural factors overall index** | **170** | **1.50** | **3.90** | **2.79** | **0.50** |

The results in Table 30 show that the overall index of socio-cultural factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.79 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.50 which being less than 1 suggests that most of the girls agreed with the statements posited regarding the effect of socio-cultural factors on the enrolment of students in public mixed day secondary schools in Kericho County.

The findings indicated early pregnancies among girls had the highest mean of 3.29. This implies that most of the youth and particularly the students have not understood the importance of completing their secondary education without indulging in any unnecessary sexual behaviour. Pregnancy and marriage are major contributors towards non-schooling attendance among girls in secondary schools (Lloyd et al., 2009). This means that early pregnancies among girls were the major hindrance of girls to a meaningful education and thus a main contributor of gender disparity in enrolment among students in schools.

This was followed by peer influence among the youth with a mean of 3.00. Peer influence among secondary school students, is a kind of social pressure on them to adopt a type of behaviour or attitude in order to be accepted as part of a group. This agrees with Onsoti (2017) who asserts that students fall victims of peer pressure in order to be accepted among their peers. He further argues that depending on the group that is causing influence, an individual can become a victim of school dropout.

Community's negative attitude had a mean of 2.96 whereas parents' preference to educate boys at the expense of girls had a mean of 2.82. This indicates that community's negative attitude towards girl child's education could affect their zeal to enroll and

complete their studies. Parents' negative attitude towards school is a contributory factor towards school dropout. Parents who may not be having sufficient education or no education at all would not value education for girls (Dakwa, et al., 2014)). According to Ombago (2014) in most cases, parents choose which of the children to educate, which in most cases goes to disadvantage the girl child.

Students' negative attitude towards School had a mean of 2.91 whereas feeling of being an adult had a mean of 2.73 and this was followed by early marriages with a mean of 2.66. According to the findings, this is an indication that up to today cultural factors still play a negative role in the promotion of education in the society. In a number of cases many students lacked interest in school or had bad feelings towards schooling and lacked hope for the future (Dakwa et al., 2014).

### 4.3.3 Descriptive Analysis of Socio-cultural Factors according to Boys

The percentage descriptive analysis of socio-cultural factors according to boys is presented in Table 31.

**Table 31: Descriptive analysis of socio-cultural factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Students' negative attitude towards school is related to gender disparity in enrolment | 167 | 16.8 | 15.0 | 31.1 | 37.1 |
| Early pregnancies is related to gender disparity in enrolment | 167 | 12.0 | 14.4 | 36.5 | 37.1 |
| Peer influence is related to gender disparity in enrolment | 167 | 15.0 | 18.6 | 34.1 | 32.3 |
| Feeling of being adult is related to gender disparity in enrolment | 167 | 22.8 | 14.4 | 39.5 | 23.4 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 167 | 17.4 | 13.8 | 31.7 | 37.1 |
| Early marriages is related to gender disparity in enrolment | 167 | 22.8 | 26.9 | 31.7 | 18.6 |
| Initiation ceremonies are related to gender disparity in enrolment | 167 | 18.0 | 36.5 | 32.3 | 13.2 |
| Parents preference to educate boy child is related to gender disparity in enrolment | 167 | 13.8 | 19.8 | 40.1 | 26.3 |

According to Table 31, the boys' ranked parents' preference to educate boy child; as the factor with greatest relationship with gender disparity in enrolment in schools as was indicated by 86.4%. It means that when parents are not in position to provide for their children, the child to be compromised in terms of education is the girl child. The same observation corresponds to that of Oguta (2013) who found that many school age girls are employed as house girls and baby sitters in both the urban and rural areas in order to meet their own and their parents' economic needs. Such children cannot effectively participate in secondary education.

Early pregnancy is another factor related to gender disparity in enrolment of students as was indicated by 73.6% of the respondents. The findings further indicated that 68.8% of

the boys agreed that the community's negative attitude to educate a girl is related to gender disparity in enrolment in schools. This means that when girls are caught up with early pregnancies, they drop out of school in order to take care of the situation.

Students are members of the society and so if the community surrounding them has negative attitude towards education as reported by 68.8% of the respondents these students end up dropping out of school or fail to enroll completely. This agrees with Ajaja (2012) who notes that most parents in rural areas are reluctant in sending female children to schools.

The findings further show that students' negative attitude to school play a role in determining gender disparity in schools as was supported by 68.2% of the respondents. This implies that when students develop negative attitude towards learning, they begin to lose interest in the school curriculum and consequently may lead them not to go back to school. This could influence gender disparity in enrolment among students in schools.
Peer influence and feeling of being adult has an impact on gender disparity in schools as was indicated by 66.4% and 62.9% of the respondents respectively. This means that negative peer influence from deviant non-school going peers may instill a negative attitude towards school activities to the students who are attending school.

The findings showed that up to 50.3% of the respondents agreed that early marriages are related to gender disparity as well. As pointed earlier, early marriages hinder girls from completing their studies thus affecting parity in enrolment between boys and girls in schools. This study corroborates with that of Ngeno, Simatwa and Ayodo (2014) who affirm that early marriage is a major factor related to gender parity in secondary education. The researcher wanted to know if initiation ceremonies is related to girls enrolling in school but 45.5% of the boys agreed and 54.5% disagreed and this points to

the the practice is dying out slowly. Despite this view, FGM is a factor that affects gender disparity in enrolment as it lowers the chances of girls going through education (lewin, 2007).

### 4.3.4. Mean Descriptive Statistics of Socio-cultural Factors according to Boys

Boy's views on the relationship between socio-cultural factors and gender disparity in enrolment of students in public mixed day secondary schools were analyzed to get the mean and standard deviation. The results are shown in Table 32.

**Table 32: Mean descriptive statistics of socio-cultural factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.79 | 0.99 |
| Initiation ceremonies are related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.41 | 0.93 |
| Early marriages is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.46 | 1.04 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.89 | 1.09 |
| Feeling of being adult is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.63 | 1.08 |
| Peer influence is related to gender disparity in Enrolment | 167 | 1.00 | 4.00 | 2.84 | 1.04 |
| Early pregnancies are related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.99 | 1.00 |
| Students' negative attitude towards school is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.89 | 1.09 |
| **Socio-cultural factors Overall Index** | **167** | **1.50** | **3.70** | **2.74** | **0.49** |

The results in Table 32 show that the overall index of socio-cultural factors affecting enrolment of students in public mixed day secondary schools in the area was mean =

2.74 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.49 which being less than 1 suggests that most of the boys agreed with the statements posited regarding the effect of socio-cultural factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 32, early pregnancies among girls had the highest mean of 2.99 and this was followed by early marriages with a mean of 2.66. From the findings, it can be inferred that most of the girls leave school prematurely due to early pregnancies and early marriages thus causing gender disparity in enrolment. This agrees with Mollel & Chong (2017) factors that hinder girls from enrolling include negative cultural values, early pregnancies, early marriages, sexual harassment and excessive domestic chores.

Students' negative attitude towards school had a mean of 2.89. Similarly, community's negative attitude to educate a girl child had a mean of 2.89 whereas parents' preference to educate boy child had a mean of 2.79. This implies that students' negative attitude towards school and community's poor attitude to educate a girl child has adverse impact on girl child's education. The community discriminates while sending their children to school by giving preference to a boy child, particularly when they are faced with scarcity of resources (UNICEF, 2011).

Peer influence had a mean of 2.84 while feeling of being an adult had a mean of 2.63. This is an indication that peer pressure has a strong influence on the students to engage in unbecoming behaviour to the extent that they boycott learning. Due to peer, influence some refuse to take instructions because they think that they have grown up. According to (Abdul-Alim, 2014), Peer pressure has very strong effects that can affect educational choices and can determine whether a student can undertake important investments that

can improve their academic performance or outcomes. It can be inferred that when such factors dominate gender disparity in enrolment arises.

### 4.3.5 Descriptive Analysis of Socio-cultural Factors according to Head teachers

The head teachers' views on socio-cultural factors being related to gender disparity in enrolment of students in public mixed day secondary schools were analysed using percentages. The findings are presented in Table 33.

**Table 33: Descriptive analysis of socio-cultural factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Students' negative attitude towards school is related to gender disparity in enrolment | 36 | 5.6% | 5.6% | 47.2% | 41.7% |
| Early pregnancies is related to gender disparity in enrolment | 36 | 0.0% | 5.6% | 33.3% | 61.1% |
| Peer influence is related to gender disparity in enrolment | 36 | 8.3% | 25.0% | 13.9% | 52.8% |
| Feeling of being adult is related to gender disparity in enrolment | 36 | 5.6% | 33.3% | 33.3% | 27.8% |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 36 | 11.1% | 30.6% | 16.7% | 41.7% |
| Early marriages is related to gender disparity in enrolment | 36 | 5.6% | 27.8% | 33.3% | 33.3% |
| Initiation ceremonies are related to gender disparity in enrolment | 36 | 8.3% | 30.6% | 16.7% | 44.4% |
| Parents preference to educate boy child is related to gender disparity in enrolment | 36 | 8.3% | 19.4% | 19.4% | 52.8% |

Table 33, establishes that early pregnancies was the greatest factor that is related to gender disparity in enrolment as 93.4% of the head teachers agreed. This implies that when girls get pregnant prematurely, they will not be in a position to proceed with their studies and yet their male counterparts remain unaffected. This therefore influences

gender disparity in enrolment in schools. This finding concurs with Barbara and Sperling (2004) who assert that most girls fail to complete their education due to early pregnancies. The findings further show that students' negative attitude to education ranked second as 88.9% of the respondents supported the fact. This means that when students lack interest in learning they may end up dropping out of school.

Other factors that are related to gender disparity in enrolment are parents' preference to educate a boy child at the expense of the girl child, and early marriages as was supported by 72.2% and 66.6% respectively. This suggests that when parents prefer to educate boys at the expense of girls, participation of the girls in learning is adversely affected. According Barbara and Sperling (2004) most girls fail to complete their education due to early marriage. Low income for a family can act as a hindrance to children from poor families from attending school. This kind of scenario coupled with socio cultural values force the parent to choose which of the children to educate. In most cases the parents give preference to a boy child (Ombago, 2014).

Secondary school is an important period in students' life as authority is being challenged by peer influence at the same time. When head teachers were asked whether peer influence had a relationship with gender disparity in enrolment in their schools 66.7% of them agreed. This indicates that negative peer influence may implant negative attitude towards learning among the potential school age going children. This finding was in line with the findings by Cosnoe, Regale-Crumb, Farnk, Field and Muller (2008) who reported that compared with student with friends who showed little interest in learning, one without such friends had better education outcomes. Those with good friends are less likely to drop out of school and more likely to be enrolled in an academic programme, graduate from high school and continue with their education after graduating. Students

fall victims of peer pressure in order to be accepted among peers (Onsoti, 2017).

Similarly, it was reported that initiation ceremonies and feeling of being adult by students give rise to gender disparity in enrolment as were each supported by 61.1% of the respondents. Equally, up to 58.4% of the head teachers agreed that community's negative attitude to girls' education is related to gender disparity in enrolment. This implies that a focus on initiation ceremonies by local communities could deprive their learners from accessing school activities and especially when the ceremonies coincide with term activities.

### 4.3.6 Mean Descriptive Statistics of Socio-cultural Factors according to Head Teachers

Head Teachers' views on the relationship between socio-cultural factors and gender disparity in enrolment of students in public mixed day secondary schools were analysed to get the mean and standard deviation. The results are shown in Table 34.

**Table 34 : Mean descriptive statistics of socio-cultural factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.17 | 1.03 |
| Initiation ceremonies are related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.97 | 1.06 |
| Early marriages is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.94 | 0.92 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.89 | 1.09 |
| Feeling of being adult is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.83 | 0.91 |
| Peer influence is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.11 | 1.06 |
| Early pregnancies are related to gender disparity in enrolment | 36 | 2.00 | 4.00 | 3.56 | 0.61 |
| Students' negative attitude towards school is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.25 | 0.81 |
| **Socio-cultural factors Overall Index** | **36** | **1.70** | **3.80** | **3.08** | **0.47** |

The results in Table 34 show that the overall index of socio-cultural factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 3.08 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.47 which being less than 1 suggests that most of the teachers agreed with the statements posited regarding the effect of socio-cultural factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 34, early pregnancies among girls had the highest mean of 3.56 while Students' negative attitude had a mean of 3.25. This means that most of the girls do not take their education seriously but instead indulge in unbecoming behaviour, thus

causing gender disparity in enrolment. Further, Parents' preference to educate a boy child at the expense of a girl child had a mean of 3.12, whereas initiation ceremonies had a mean of 2.97. Early marriages had a mean of 2.94 and community's negative attitude towards education had a mean of 2.89. This suggests that most of the parents are affected by retrogressive cultural beliefs to the extent that they fail to play their parental role of educating their children. Factors such as early pregnancies, domestic chores, negative attitude towards education and parent's preference to educate a boy child was seen to be the major contributors of gender disparity in enrolment between boys and girls in schools. This concurs with (Wanjohi, 2013) who argues that traditional beliefs, household attitude, early marriages among the community is a setback to education of the children.

Peer influence being another factor related to gender disparity in enrolment had a mean of 3.11. Feeling of being an adult had a mean of 2.83. This implies peer influence can lead to dropping out of students from school. Kiiru (2014) maintains that peer pressure has a strong influence on youth to engage in unbecoming behaviour such as taking of illicit drugs under false notion that the drugs stimulate appetite for food, increase strength and provide wisdom as well as courage to face life. This can be brought about by friends who have already dropped out of high school to win the minds of those who are still in school.

### 4.3.7 Mean Difference in Socio-cultural Factors by Gender

An independent sample t-test was conducted to determine if there was a significant mean difference between girls' views and boys' views on Socio-cultural factors causing gender disparity in enrolment at 0.05 Level. The finding is presented in Table 35.

**Table 35: T-test on socio-cultural factors by gender**

| Gender | N | Mean | SD | Df | t-value | ρ-value |
|---|---|---|---|---|---|---|
| Girls | 170 | 2.79 | 0.50 | 335 | 0.983 | 0.326 |
| Boys | 167 | 2.74 | 0.49 | | | |

The finding shows that there was no significant mean difference between girls' and boys' views regarding relationship between Socio-cultural factors and gender disparity in enrolment at 0.05, t (335) = 0.983, p >0.05). This implies that the difference could have been due to chance and not real. This means that both genders were affected by socio-cultural factors in a similar manner because they were exposed to a similar way of life.

### 4.3.7 Correlation Analysis of Data obtained from Girls

**Table 36: Relationship between socio-cultural factors and gender disparity according to girls**

| | | Gender Disparity | Socio-cultural Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .209* |
| | Sig. (2-tailed) | | .006 |
| | N | 170 | 170 |

*. Correlation is significant at the 0.05 level (2-tailed).

It was noted that there exists a statistically significant relationship between socio-cultural factors and gender disparity ($r=0.209^{*}$; $p<0.05$).This implies that when Socio-cultural factors under examination prevail, gender disparity also increases. This view is corroborated by (Loke, 2018) who observes that now more girls than ever go to school. However, despite progress, women and girls continue to face multiple barriers based on gender and its intersections with other factors, such as age, ethnicity, poverty, and disability, in the equal enjoyment of the right to quality education. This includes barriers,

at all levels, to access quality education and within education systems, institutions, and classrooms. This could negatively affect gender parity in enrolment of students.

### 4.3.8 Correlation Analysis of Data obtained from Boys

**Table 37: Relationship between socio-cultural factors and gender disparity according boys**

| | | Gender Disparity | Socio-cultural Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .921* |
| | Sig. (2-tailed) | | .000 |
| | N | 167 | 167 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study found out that there exists a statistically significant relationship between socio-cultural factors and gender disparity ($r=0.921^{*}$; $p<0.05$). This indicates that when socio-cultural factors under examination prevail, gender disparity also rises. This means that cultural factors such as preference to educate boy child could lead to gender disparity in enrolment when they dominate.

### 4.3.9 Correlation Analysis of Data obtained from Head Teachers

**Table 38: Relationship between socio-cultural factors and gender disparity according to head teachers**

| | | Gender Disparity | Socio-cultural factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .299 |
| | Sig. (2-tailed) | | .076 |
| | N | 36 | 36 |

The study found out that there exists a relationship between socio-cultural factors and gender disparity ($r= 0.299$; $p>0.05$) but not statistically significant. This indicates that when socio-cultural factors under examination prevail, gender disparity in enrolment also rises. This finding agrees with that of Mollel and Chong (2017) who emphasizes that

socio-cultural factors are largely affecting girls' access to education. In their study, early marriage, traditional ceremonies (unyago), male preference, social perception and social roles are among the key socio-cultural factors that hinder girl's education in Mtwara District in Tanzania.

### 4. 3.10 Overall Correlation

**Table 39: Relationship between socio-cultural factors and gender disparity according to all respondents**

| | | Gender Disparity | Socio-cultural factors |
|---|---|---|---|
| Gender Parity | Pearson Correlation | 1 | .536* |
| | Sig. (2-tailed) | | .000 |
| | N | 373 | 373 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study established that there exists a statistically significant relationship between socio-cultural factors and gender disparity ($r=0.536^{*}$; $p<0.05$). This indicates that when Socio-cultural factors under analysis increase, gender disparity increases as well. Gimbo, Nadine and Sara (2015) assert that in many cultures in Tanzania, girls are primarily regarded as a source of wealth and thus can be married off sometimes by force at an early age instead of being sent to school, as the community perceives that early marriage brings quicker returns than education.

### 4.4 Descriptive Analysis of Institution Based Factors

The Third objective of this study was to establish the relationship between institution based factors and gender disparity in enrolment of students in public mixed day secondary schools in Kericho County. The data was analysed through percentages, means, t-test, and correlation and regression statistics. The findings are presented in the subsequent tables.

### 4.4.1 Descriptive Analysis of Institution Based Factors according to Girls

Descriptive analysis of institution based factors being related to gender disparity in enrollment of students was carried out in percentages. Table 40 shows the findings.

**Table 40: Descriptive analysis of institution based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Harassment of girls by male teachers is related to gender disparity in enrolment | 170 | 18.2 | 27.6 | 38.8 | 15.3 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 170 | 12.0 | 17.4 | 29.4 | 41.2 |
| Student teacher ratio is related to gender disparity in enrolment | 170 | 10.0 | 19.4 | 28.8 | 41.8 |
| Harassment of girls by male students is related to gender disparity in enrolment | 170 | 8.8 | 8.2 | 33.5 | 49.4 |
| Student teacher relationship is related to gender disparity in enrolment | 170 | 7.6 | 17.6 | 25.9 | 48.8 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 170 | 17.1 | 18.8 | 32.4 | 31.8 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 170 | 14.7 | 19.4 | 23.5 | 42.4 |
| Lack of field/ PE facilities is related to gender disparity in enrolment | 170 | 28.2 | 26.5 | 25.3 | 20.0 |
| Poor/inadequate toilets is related to gender disparity in enrolment | 170 | 9.4 | 18.2 | 44.7 | 27.6 |

According Table 40, male students reveal that harassment of girls by boys (82.9%) and poor/inadequate toilets (72.3%) were largely linked by the respondents to gender disparity in enrolment in public mixed day secondary schools. This means that girls are more likely to drop out of the school programme when male counterparts harass them,

when they have poor or inappropriate relationship with teachers and also when sanitation facilities are inadequate.

Harassment of schoolchildren by their male colleagues in school has been noted to be mostly sexual in nature and quite detrimental to girls who tend to suffer more from self-esteem problems afterwards (Kemuma, 2020). A recent study by Dahlqvist et al., (2016), for instance, revealed that those girls who had been sexually harassed suffered more psychological ill health such as nervous complaints and depressive symptoms, compared to boys and young men. In the mixed school settings, Gruber and Finneran (2016) found that sexually harassing behaviour reinforces the stereotype that boys are the powerful and the esteemed sex and that girls' interests and concerns come second. These stereotypes affect self-identity, which in turn influences attitudes, beliefs, personal presentation and how people interact in different social groupings.

Chege (2007) cited in Kemuma (2020) linked all forms of sexual violence in schools with girls' participation and performance citing that this will, eventually, bar them from assuming their rightful place in the society through education which is believed to be a springboard to many opportunities in the market economy. De Wet and Oosthuizen (2010) also pointed out that sexual harassment also affects the quality of education in diverse way such as truancy and lessening the student's confidence in class participation. A student who has undergone sexual harassment is likely to talk less in class, which henceforward may effect on the student's ability to achieve in school. Subsequently, poor academic achievement will lead to a decrease in students' opportunities regarding higher education, job success and economic resources in the future and eventually these results in lowered esteem.

In addition, the study found that 74.7% of the respondents agreed that student teacher relationship is related to gender disparity in enrolment. This agrees with previous studies such as, Hamre and Pianta (2011), Rudasill (2011), Hamre and Pianta (2015) indicate that a positive teacher/pupil relationship predisposes the pupil to scholastic success, both from the curricular point of view and from the social and behavioral one. In contrast, a low quality teacher/pupil relationship would correlate with lower school performance amongst pupils (Hamre & Pianta, 2011). This implies that unhealthy student-teacher relationship could hinder some learners from completing their studies. For example, teachers who are harsh in class may send wrong signals to students. It has been reported that in classrooms, some teachers discriminate against, look down upon girls, and fail to encourage them to participate actively like the boys and consequently this affects gender parity in enrolment (Levtov, 2013).

Poor and in adequate toilets in school is related to gender disparity in enrolment as was supported by 72.3% of the respondents. This means that learners may be faced with many problems sustaining high level of discipline and concentration when such facilities such as toilets are inadequate or even in poor conditions. This could lead to some dropping out of school and could affect gender parity in enrolment of students in schools. According to Asena, Simiyu and Riech (2016), in their study although most of the schools had acquired sufficient facilities like classrooms, play field, laboratories and toilets most of them were not in good working condition.

It has been observed that lack of female teachers to act as role models and high student teacher ratio were each supported by 70.6% of the respondents as factors related to gender disparity in enrolment. This means that when there are no role models for the moral development in girls, some may lack intrinsic motivation to solve issues affecting them especially early pregnancy related issues. It has been found that the proportion of

female to male teachers in a school play a major role in keeping girls in school until they complete their education (GPE Secretariat, 2016). Furthermore, Nyaegah (2011) emphasizes; there are factors that hinder female enrolment in school. Some of them are; attitude and perception of teachers; and lack of female teachers to act as role models.

Inadequate classrooms and laboratories as well as lack of teaching/ learning materials were seen as factors related to gender disparity in enrolment and this was supported by 65.9% and 64.2% of the respondents respectively. This implies that for successful teaching/ learning to take place in schools availability and sufficiency of physical facilities is of great importance. When these instructional resources are lacking or inadequate, learners may drop out of school, as they perceive that they are not being provided with adequate facilities. When girls were asked about the sufficiency of classrooms and laboratories in their schools 65.9% agreed to have enough. According to Nyaegah (2011), lack of adequate teachers and sufficient learning facilities hinders the government from achieving its goal of students' accessibility to education.

The findings showed that up to 55.9% of the respondents cited lack of toilet facilities as a factor related to gender disparity in enrolment. Asena, Simiyu and Riech (2016) reported a serious case of a mixed school with one toilet for each group scenario caused a lot of commotion of the students in some schools. However, 54.7% of the respondents disagreed that lack of field/ physical education facilities affect gender parity in enrolment. Playing field provides the physical environment for learning (Kohl, 2013). Physical facilities are important in both school attendance and achievement (Farooqie, Farooq and Saleem, 2015).

### 4.4.2 Mean Descriptive Statistics of Institution Based Factors according to Girls

The girls' views on institution based factors were analyzed to get the mean and standard deviation. Table 41 presents the findings.

**Table 41: Mean descriptive statistics of institution based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.91 | 0.91 |
| Lack of field / PE facilities is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.37 | 1.10 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.93 | 1.10 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.79 | 1.07 |
| Student teacher relationship is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.16 | 0.98 |
| Harassment of girls by male students is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.24 | 0.94 |
| Student teacher ratio is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.02 | 1.01 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.02 | 1.01 |
| Harassment of girls by male teachers is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.51 | 0.96 |
| **Institutional factors overall index** | **170** | **1.30** | **3.90** | **2.86** | **0.48** |

The results in Table 41 show that the overall index of institution based factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.86 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.48 which being less than 1 suggests that most of the girls agreed with the statements posited regarding the effect of institution

based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 41, harassment of girls by male students had the highest mean (m = 3.24), followed by teacher-student relationship with a mean of 3.16. Student-teacher ratio and lack of female teachers to act as role models came next with a mean of 3.02 each. The comparatively high means of these statements (mean > 3.0) suggest that most schoolgirl respondents strongly agreed with their influence on gender disparity on enrolment of students in secondary schools in the area.

Female students' harassment by their male counterparts in mixed schools has been documented in various studies. This coupled by the additional finding that there was also high levels of harassment of girls by male teachers (mean = 2.51) corroborates with the findings by Njihia (2018). He argues that sexual harassment of female students is experienced in public secondary schools in Dagoretti Sub County in Nairobi where female students mostly experienced physical, verbal and non-verbal sexual harassment perpetrated mostly by males (teachers and students). However, it is worth noting that most of the cases of sexual harassment of female students by males in the school setting go unreported (Njihia, 2018; Kemuma, 2020).

The findings also suggest that relationship among female students and their teachers was important to their stay in school. Studies show that teacher-student relationship can be both protective and risk factors to their academic achievement. Studies on protective teacher -student relationship, such as, Longobardi et al. (2016), revealed that both average and varying levels of closeness with teachers significantly predicted changes in academic achievement. As students progressed through grades of learning, a perceived increase was associated with an increase in academic achievement. A study by Ibrahim

and El Zaatari (2020), in the UAE also demonstrated this by revealing that relationships based on care, trust, respect, affect, openness, and cooperation can foster student achievement, identity development, and school belonging and teacher accountability. In particular, the study found that female students believed teachers tried their best, but their lecture-based teaching style was boring, and that teachers rarely engaged students' in-group work or considered their opinions.

In terms of risk factors, Dachi and Garret (2003) found that teachers' attitude influences enrolment in schools. They reiterate that some students drop out of school due to poor teacher's attitude towards them, which affects the social distance between them and the teacher. A study by Quaglia et al. (2013) in Italy, for example, found that more than their male colleagues, female teachers tend to evaluate girls in a significantly different way as far as closeness and dependency are concerned. Longobardi et al. (2016) also found an increase in the level of perceived conflict with teachers significantly predicted an increase in conduct problems and hyperactive behaviors. Observations by Ibrahim and El Zaatari, (2020) in the UAE revealed that teacher–student power imbalance exacerbated these issues and led female students to disobey or skip classes. Additionally, not all teachers supported or respected students.

The finding that lack of female teachers to act as role models was linked to gender disparity supports those of Quaglia et al. (2013) who found support for the consideration that gender imbalance marking the teaching population in the early stages of schooling can have on aspects of child development. Findings by UNESCO (2016) show a correlation between the number of women teachers and girls' enrolment, especially in sub-Saharan Africa. In countries where there are equal numbers of male and female primary teachers, there is close to gender parity in student intake. In contrast, in countries where women constitute only 20% of teachers, there are far more boys than girls entering

school. UNESCO (2006) also explains that a female role model can support and encourage girls to complete their studies and may be even continue studying to become teachers, themselves. She can also be there to listen to any problems and provide guidance when necessary. In schools where girls are in the minority, especially, the presence of one or more female teachers may also ensure protection for girls from unwanted attention from boys or male teachers, and even from sexual abuse and exploitation. Therefore, the presence of more female teachers in the school could be a protective factor for girls' enrolment.

Inadequacy of classrooms and laboratories (mean = 2.93), poor/ inadequate toilets (mean = 2.91) and lack of teaching/ learning materials (mean = 2.79) further underscore the importance of school infrastructure to enrolment of girls in secondary schools in the area. This implies that when these infrastructural factors are inadequate in schools, girls will have challenges in completing their studies. In most institutions of learning, teaching and learning resources as well as physical facilities are vital and it is almost impossible for any learning to successfully take place without them. According to Mwingirwa (2016), students drop out of school if the school lacks required adequate facilities and equipment such as laboratories, classrooms, lockers etc.

Lack of field / PE facilities (mean=2.37), however, scored less than the overall index of 2.86 meaning that while there was some agreement with the statement, compared to other institution based factors, it had the least influence on students' enrolment in secondary schools in the area according to the views of the school girl respondents. According to findings by Kim (2012), physical education may be particularly important for increasing physical activity in girls and this was important to concentration during instructional learning in classroom.

### 4.4.3 Descriptive Analysis of Institution Based Factors according to Boys

The descriptive statistics was computed to analyses how institution based factors affect gender parity in enrolment. Table 42 presents the findings, expressed in percentage.

**Table 42: Descriptive analysis of institution based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Harassment of girls by male teachers is related to gender disparity in enrolment | 167 | 18.0 | 28.7 | 37.7 | 15.6 |
| Lack of female teachers to act as role models is related to gender disparity is related to gender disparity in enrolment | 167 | 9.6 | 18.6 | 29.3 | 42.5 |
| Student teacher ratio is related to gender disparity in enrolment | 167 | 9.6 | 17.4 | 29.9 | 43.1 |
| Harassment of girls by male students is related to gender disparity in enrolment | 167 | 9.6 | 7.8 | 32.3 | 50.3 |
| Student teacher relationship is related to gender disparity in enrolment | 167 | 9.6 | 15.0 | 24.6 | 50.9 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 167 | 16.8 | 19.2 | 32.3 | 31.7 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 167 | 16.2 | 19.2 | 21.6 | 43.1 |
| Lack of field/PE facilities is related to gender disparity in enrolment | 167 | 28.7 | 26.9 | 22.8 | 21.6 |
| Poor/inadequate toilets is related to gender disparity in enrolment | 167 | 9.6 | 19.2 | 42.5 | 28.7 |

According Table 42, the three top statements linked with gender disparity in enrolment in schools by the school boy respondents were; harassment of girls by male students (82.6%), student/ teacher relationship (75.5%) and student/ teacher ratio (73%). This implies that male students also recognized the consequences of their actions on their female colleagues. Chege (2006) has explained the aggressive behaviour toward their

female counterparts as arising from students' construction of identities shaped by a context where the phenomenon of sexual abuse is normalised. Due to the harsh corporal punishment against boys by male teachers, compared to the punishment against girls that commonly had sexual undertones, and narratives about female students being sexually abused by male teachers, these were perceived as violent, intimidating and sexual. As a consequence of these images of men and women leads many young men to being "socialized into versions of manhood that encourage sexual aggression towards girls" (Barker & Ricardo, 2008).

Relationship with teachers as pointed out by the school boy respondents as being related to school enrolment agrees with Waters et al. (2012) who observed that the change that occurs in students' relationships with teachers and peers is a relevant factor in affecting students' transition to high school. They further observe that new teachers tend to be perceived as cold, impersonal, and unreceptive to their developmental needs. Teachers who act as a "secure base" that is, being available, responsive and accepting of students' needs improve their students' commitment (Gastaldi et al.,2015), competence (Barker & Ricardo, 2008), and favor the development of their learning interests (Quaglia et al.,2013). Low-conflict relationships with teachers favor an increase in positive classroom climate and students' perceived teacher support, and a decrease in students' negative experiences (O'Connor, 2010).

Lack of female teachers in schools (71.8%) means that fewer female teachers and role models were recruited by the mixed secondary schools in the area and this could have important consequences for students some of whom may lose moral direction leading to getting involved in actions that may affect their learning. Studies, such as, UNESCO (2016) have shown a positive impact from women teachers on girls' (and boys') achievement. At the school policy level, women teachers may act as advocates for girls,

representing their perspectives and needs, and promoting more girl-friendly learning. For example, women teachers may be able to advocate for better toilet and washing facilities. These are of particular importance to adolescent girls who are menstruating, and whose active participation in school during their monthly periods may depend on access to clean toilets separate from those used by boys and a water supply.

The findings show that poor/inadequate toilets were related to gender disparity in schools (71.2%). The Department for International Development (DfID, 2010), highlights the importance of quality educational infrastructure in schools further noting that where quality of facilities are maintained and improved (particularly water and sanitation facilities), enrolment and completion rates are improved. Other infrastructural challenges noted by the most schoolboys (64.7%) as being related to gender disparity in schools were inadequacy of classrooms and laboratories and also lack of teaching/learning materials is related to gender disparity as was indicated by 64% of the respondents. This means that when infrastructural and instructional resources vital for learning are inadequate, learners may drop out of school leading to gender disparity in enrolment in secondary schools. For instance, lack of adequate facilities as toilets or even poorly maintained WASH facilities could encourage drop out of school for females. For adolescent girls and female teachers, washing places must be provided with enough water and privacy to wash and dry cloths and rags used during menstruation and, further, separate toilets for girls address safety in public places (Huisman, Rani & Smits, 2010).

These findings also agree with that of Roper (2014) who reports that facilities like buildings, separate classrooms, students' desks, chalk boards, etc. determine the organization of teaching and learning activities. The findings further concur with Schneider (2002) who observed that school facilities significantly affected teaching and learning; hence, poor conditions of school facilities hampered teaching and availability

of education to students. According to the observations of Schneider (2002) school facilities significantly affected teaching and learning, hence, poor conditions of school facilities hampered teaching and availability of education to students. Asena, Simiyu and Riech (2016) in their study found out that not all schools had acquired sufficient facilities like classrooms, play field, laboratories although not enough or as observed not in good working condition.

The schoolboys, however, lowly rated the influence of lack of field/ P.E facilities on gender parity in schools (44.4%). This could be attributed to the observation across studies that girls tend to be generally less interested in physical education than boys (McKenzie et al., 2006; Ziviani et al., 2009). Girls tend to be less active than boys (Olds et al., 2009; Hallal et al., 2012).

### 4.4.4 Mean Descriptive Statistics of Institution Based Factors according to Boys

The school boys' views on institution based factors were analyzed to get the mean and standard deviation. Table 43 shows the findings.

**Table 43: Mean descriptive statistics of institution based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.90 | .926 |
| Lack of field/PE facilities is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.37 | 1.12 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.91 | 1.13 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.79 | 1.07 |
| Student teacher relationship is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 3.03 | 1.01 |
| Harassment of girls by male students is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 3.19 | .957 |
| Student teacher ratio is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 3.28 | .995 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 3.23 | .999 |
| Harassment of girls by male teachers is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.51 | .962 |
| **Institutional factors Overall Index** | **167** | **1.30** | **3.90** | **2.86** | **.494** |

Table 43 shows that the overall index of institution based factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.86 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.494 which being less than 1 suggests that most of the boys agreed with the statements posited regarding the effect of institution based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 43, student teacher ratio scored the highest mean (mean = 3.28) followed by Lack of female teachers to act as role models (mean = 3.23), harassment of girls by male students (mean = 3.19) and student- teacher relationship (mean = 3.03).

This means that the school boys highly linked student teacher ratio to the gender disparities in the schools. According to Asena et al. (2016), since the introduction of FSE in 2008, the quality of teaching and learning seems to have worsened and is attributed to several intervening factors. One of which is sharp increase in student-teacher ratio due to enrolment growing faster than recruitment of teachers leading to congested classes in most schools, thus in turn reduced the efficiency of learning as the teacher would no longer have the same level of personal interaction with the pupil.

School environment plays a very crucial role in students' participation in education. Harassment of girls by their male counterparts can lead to girls dropping out of school thus causing disparity in enrolment. Female teachers can assist the girls in so many ways because they understand them better. They can act as role models for the girls and therefore encourage and inspire them to participate in their learning. More over in a situation where teachers are not enough in a school, most of the parents withdraw their children and take them to schools, which are well staffed. This agrees with the findings by Plan International (2012) male dominated school environments act as a barrier to girls' confidence and ability to participate and instead a dismissive atmosphere is created. According to Mwingirwa (2016), teachers' attitude influences whether students drop out of school or not as some of the teachers had poor attitude towards students. This implies that when these factors dominate in learning institutions, girls will not be in a position to focus on their studies and others may drop out of the system.

Further, the study established that inadequacy of classrooms and laboratories had a mean of 2.91 and poor/ inadequacy of toilets had a mean of 2.90. Lack of teaching/ learning materials had a mean of 2.79 and harassment of girls by male teachers had a mean of 2.51. Lack of field/ P.E facilities was the only factor with a mean (2.37) less than the average. For successful teaching/ learning in schools, availability and sufficiency of

physical facilities is of great importance. From the findings of the study, it can be inferred that lack of these facilities in schools is related to gender disparity in enrolment. Sustainable provision of quality secondary education is fraught with a number of challenges, which include limited facilities (Munyi & Orodho, 2014). This means that when these factors are prevalent in schools, girls will have challenges in completing their studies.

### 4.4.5: Descriptive Analysis of Institution Based Factors according to Head teachers

Head teachers' views on institution based factors were analyzed through percentages. The findings are presented in Table 44.

**Table 44: Descriptive analysis of institution based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Harassment of girls by male teachers is related to gender disparity in enrolment | 36 | 11.1 | 30.6 | 44.4 | 13.9 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 36 | 13.9 | 13.9 | 44.4 | 27.8 |
| Student teacher ratio is related to gender disparity in enrolment | 36 | 16.7 | 11.1 | 36.1 | 36.1 |
| Harassment of girls by male students is related to gender disparity in enrolment | 36 | 8.3 | 8.3 | 27.8 | 55.6 |
| Student teacher relationship is related to gender disparity in enrolment | 36 | 8.3 | 19.4 | 27.8 | 44.4 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 36 | 13.9 | 19.4 | 27.8 | 38.9 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 36 | 5.6 | 16.7 | 25.0 | 52.8 |
| Lack of field/ PE facilities is related to gender disparity in enrolment | 36 | 11.1 | 19.4 | 36.1 | 33.3 |
| Poor/inadequate toilets is related to gender disparity in enrolment | 36 | 5.6 | 13.9 | 38.9 | 41.7 |

According to Table 44, Harassment of girls by male students (83.4%), poor/inadequacy of toilets (80.6%) and Inadequacy of classrooms and laboratories (77.8%) were all rated by the head teachers as the most influential reasons contributing to gender disparities in enrolment in public mixed day secondary schools in the area. Harassment of school girls by their fellow male students gives rise to a negative attitude towards the school set up by the girls and most of whom fail to report the incidences and opt to suffer in silence instead (Njihia, 2018). This may cause them to eventually drop out of the school especially if the harassment persists thereby affecting gender parity in enrolment.

Poor/inadequacy of toilets was also cited by the head teachers as related to gender disparity in enrolment in public mixed day secondary schools in the area. This revelation suggests that when toilets are lacking, students may get discouraged during learning and others may resort to dropping out of the school. According to Geeves and Bredenberg (2015), of particular importance to adolescent girls who are menstruating, and whose active participation in school during their monthly periods may depend on access to clean toilets separate from those used by boys and a water supply. Asena et al. (2016) in their study found that although most of the schools had acquired sufficient facilities like classrooms, play field, laboratories and toilets most of them were not in good working condition.

Inadequacy of classrooms and laboratories gives rise to lack of gender parity and this was supported by 77.8% of the respondents. This suggests that when classrooms and laboratories are inadequate, learners will have challenges in school. This situation may force some students to drop out of the school hence affecting gender parity in enrolment of students in schools. Other research studies revealed that physical facilities are important in both school attendance and achievement (Farooqi, Farooq and Saleem, 2015). As observed by Kuunskorpi and Gonzalez (2011), existence of school buildings

and desks are important if a school is going to be successful. This means that in the absence of appropriate infrastructure, learning may be futile hence; enrolment of students in schools is adversely affected.

The study also revealed that lack of female teachers in schools might be a reason for gender disparity in enrolment as was indicated by 72.2% of the respondents. This concurs with Haugen, et al. (2011) who affirm that female teachers act as role models to the girl child and also offer protection and are able to understand the girls as opposed to male teachers.

Student/ teacher ratio and student teacher relationship are related to gender disparity in enrolment as was each indicated by 72.2% of the respondents. This implies that when there is high student-teacher ratio, learners will barely understand the concept being taught. Learners that require individualized attention may drop out of the school when their expectations fail thus affecting gender parity in enrolment. In a number of cases male teachers may sexually threaten the girls and this leads to non-completion of school (Huisman and Smits, 2012). Further, the findings revealed that 69.4% of the respondents agreed that lack field/ P.E facilities are related to gender disparity in enrolment in schools. Bevans, Fitz Patrick, Sandchez and Riley (2010) stress the importance of quality physical facilities as they can assist students in adopting healthy and physical active lifestyles.

It was also indicated by 66.7% of the respondents that lack of teaching and learning materials is related to gender disparity in enrolment in public mixed schools. This suggests that when teaching and learning materials are lacking learners may develop a negative attitude towards school, which may lead to some dropping out of the system. If enrolment ratios are high, large sizes show inadequacy of infrastructure and hence a

limitation in expanding access. Similarly high pupil to textbook ratios affects quality and limit expansion of access (UNESCO, 2000).

Moreover, it was reported that harassment of girls by male teachers was indicated by 58.3% as a factor related to gender disparity enrolment. This implies that when girls are faced with harassment of any kind, some may run away from the school setup. This concurs with UNESCO (2017) report, that globally girls faced a lot of violence in schools and one of which is sexual assault.

### 4.4.6 Mean Descriptive Analysis of Institution Based Factors according to Head Teachers

The Head Teachers' views on institution-based factors were analyzed to get the mean and standard deviation. Table 45 presents the findings.

**Table 45: Mean descriptive statistics of institution based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Poor/Inadequate toilets is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.17 | .878 |
| Lack of field/ PE facilities is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.92 | .996 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.25 | .937 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.92 | 1.08 |
| Student teacher relationship is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.86 | .996 |
| Harassment of girls by male students is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.08 | .951 |
| Student teacher ratio is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.31 | 1.08 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.92 | .990 |
| Harassment of girls by male teachers is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.60 | .871 |
| **Institutional Factors Overall Index** | **36** | **1.60** | **3.80** | **3.00** | **.551** |

Table 45 shows that the overall index of institution based factors on gender disparity in enrolment of students in public mixed day secondary schools in the area was mean = 3.00 which was way above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.551 which being less than 1 suggests that most of the head teachers agreed with the statements posited regarding the effect of institution based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 45, student/ teacher ratio scored highest with a mean of 3.31. As such, it was evident that inadequate number of teachers can determine enrolment of students in a school. The teacher resource is a very crucial input into the education process as they are responsible for the delivery of the curriculum and hence are critical in determining the quality of education. ADEA (2006) found that the teacher-student ratio in some schools is much above the recommended ratio of 1:40 by the ministry of education implying that close student-teacher interaction was likely to be uncommon and this may not really work out for students especially those who need close teacher attention.

Inadequacy of classrooms and laboratories had a mean of 3.25 and Poor/inadequate toilets had a mean of 3.17 which was above the overall index of mean = 3.00 underscoring their high potential to contribute to gender disparities in enrolment in the schools. However, lack of field/ P.E facilities and lack of teaching/ learning resources both had a mean of 2.92 as well. In most institutions of learning, teaching and learning resources as well as physical facilities are vital and it is almost impossible for any learning to successfully take place without them. In most institutions of learning, teaching/learning resources such as textbooks, teaching aids, reference books, chalkboards are vital and it is almost impossible for any learning to successfully take place without them (Plan International, 2012).

Harassment of girls by male students had a mean of 3.08; however, harassment of girls by male teachers had the lowest mean of 2.60 meaning that most school girls faced aggression from their fellow male students rather than their teachers in schools in the area. According to UNESCO Global Status Report (2017), girls face a lot of violence at school such as humiliating punishment, sexual assault, harassment and verbal degradation. This type of violence acts as a major barrier to their education. This means

that when these factors dominate in learning institutions, girls will not be in a position to focus on their studies and others may drop out of the system. This could be a reason why there exists gender disparity in enrollment of students in schools.

Lack of female teachers to act as role models had a mean of 2.92. According to Haugen, Klees, Lin, Chot, Choti and Corneilse (2011), a greater number of female teachers in a school highly affects the completion of school by girls. Female teachers act as role models to the girl child, also offer protection, and are able to understand the girls as opposed to the male teachers (Haugen et al., 2011). The presence of women in schools can also influence positively on girls' retention in school and on their achievement (UNESCO, 2016).

Student/ teacher relationship had a mean of 2.86. According to Hubbard (2008) teachers' attitudes towards the learners is a major factor that can influence students' enrolment and retention in a school. Teachers' negative attitude to students affects enrolment of students negatively. Teachers' support has greater influence on female adolescents' motivation and participation than on boys' (Chhuon & Wallace, 2014) and the more support female adolescents receive, the more classroom belonging influences their prospects of success. Students fear punishment even when they have made a mistake (Fanklin & Smith 2011). Punishment by teachers can make some students drop out of school. When punishment is too harsh, students may run away from school.

### 4.4.7 Mean Difference in Institution Based Factors by Gender

**Table 46: T-test on institution based factors by gender**

| Gender | N | Mean | SD | df | t-value | ρ-value |
|---|---|---|---|---|---|---|
| Girls | 170 | 2.86 | 0.48 | 335 | 0.076 | 0.940 |
| Boys | 167 | 2.86 | 0.49 | | | |

The finding shows that there was no significant mean difference between girls' and boys' views in relation to institution based factors affecting gender disparity in enrolment (t = 0.076, p >0.05, d.f =335). This implies that there were close agreements between both groups of students on the items and where there were differences observed on some items this could be attributed to chance and not reality. This means that Institution based factors cited by the students could be responsible for the gender disparity in enrolment of students. This view agrees with Owan (2017) who says that there are many reasons that could hamper female enrolment in schools.

### 4.4.8 Correlation Analysis of Data obtained from Girls

**Table 47: Relationship between institution based factors and gender disparity according to girls**

| | | Gender Disparity | Institution Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .610* |
| | Sig. (2-tailed) | | .000 |
| | N | 170 | 170 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study established that there exists a statistically significant relationship between gender disparity and the institution based factors ($r=0.610^{*}$; $p<0.05$). This indicates that the institution based factors reviewed had a strong correlation with gender disparities on enrolment in their schools from the school girls' point of view. It further suggests that when the institution based factors under analysis increase, gender disparity also increases. This agrees with findings by Rahji and Fakayode (2012) which revealed that school enrolment and gender gap for rural household children at the secondary levels was affected by institutional factors.

### 4.4.9 Correlation Analysis of Data obtained from Boys

**Table 48: Relationship between institution based factors and gender disparity according boys**

| | | Gender Disparity | Institution based factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .129 |
| | Sig. (2-tailed) | | .097 |
| | N | 167 | 167 |

The study established that there is no statistically significant relationship between gender disparity and the Institution Based Factors ($r=0.129$; $p>0.05$). This finding could be attributed to the fact that as compared to girls, boys were not equally affected by the institution based factors and, hence, were less likely to drop out than girls. Owan (2017) avers that analysis of gender patterns of access to higher basic education revealed that male students cope differently than female students under the same set of institutional environments.

### 4.4.10 Correlation Analysis of Data obtained from Head Teachers

**Table 49: Relationship between institution based factors and gender disparity according head teachers**

| | | Gender Disparity | Institution Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .107 |
| | Sig. (2-tailed) | | .536 |
| | N | 36 | 36 |

The study established that no statistically significant relationship existed between gender disparity and the institution based factors ($r=0.107$; $p>0.05$) from the school principals' perspective. However according to Owan (2017) there are many reasons that could

hamper female enrolment in schools. The main reasons that have been documented in various studies include socio-economic, socio-cultural and school related factors.

### 4.4.11 Overall Correlation

**Table 50: Relationship between institution based factors and gender disparity according to all respondents**

| | | Gender Disparity | Institution Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .316* |
| | Sig. (2-tailed) | | .000 |
| | N | 373 | 373 |

* Correlation is significant at the 0.05 level (2-tailed).

In conclusion, the study established that there exists a statistically significant relationship between gender disparity and the institution based factors ($r=0.316^{*}$; $p<0.05$). This indicates that overall, there was a moderate correlation between the two variables. This implied that when Institution based factors under study increase, gender disparity also increases. Muyeka (2012) reports that a combination of factors contributed to low enrolment of girls in public mixed day secondary schools supported this finding. The key factors were funding of the schools by the Government of Kenya.

## 4.5 Descriptive Analysis of Home Based Factors

The Fourth objective of this study was to establish the relationship between home based factors and gender disparity in enrolment. The data was analysed through percentages, means, t-test, and correlation and regression statistics. The findings are presented in the subsequent tables.

### 4.5.1 Descriptive Analysis of Home Based Factors according to Girls

Descriptive analysis of home based factors according to girls was conducted through percentages. Table 51 shows the findings.

**Table 51: Descriptive analysis of home based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Domestic chores is related to gender disparity in enrolment | 170 | 19.4 | 27.1 | 37.6 | 15.9 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | 170 | 10.6 | 19.4 | 29.4 | 40.6 |
| Low parental level of education is related to gender disparity in enrolment | 170 | 9.4 | 6.5 | 32.9 | 51.2 |
| Distance to school is related to gender disparity in enrolment | 170 | 8.2 | 18.2 | 27.1 | 46.5 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 170 | 18.2 | 19.4 | 31.8 | 30.6 |
| Lack of study rooms is related to gender disparity in enrolment in enrolment | 170 | 15.9 | 20.6 | 21.2 | 42.4 |
| Girls insecurity between home and school is related to gender disparity in enrolment | 170 | 21.2 | 24.7 | 29.4 | 24.7 |
| Poverty at home is related to gender disparity in enrolment | 170 | 29.4 | 27.1 | 24.7 | 18.8 |
| Lack of parental support is related to gender disparity in enrolment | 170 | 8.8 | 17.1 | 46.5 | 27.6 |

The results in Table 51, indicate that majority of school girls attributed low parental level of education (84.1%) and lack of parental support (74.1%) to gender disparity in public mixed day secondary schools in the area. This implies that lowly educated parents were unlikely to give their children adequate support concerning educational matters, hence, some students may not perceive the importance of studying hence drop out of school. Ferreira (2014) observed that family educational background is a factor that brings about educational inequality in the society. Higher parental education is associated with increased access to education, higher attendance rates and lower dropout rates (Ainsworrth et al., 2005; Grant & Hallman, 2006). In addition, according to Olufeni

(2013), high school parental control and support is associated with high achievement in school.

Distance to school is an issue that leads to lack of gender parity in enrolment in schools. This was cited by 73.6% of the respondents. This implies that students who can access school with ease are better placed to complete their studies as compared to others who have to travel long distances to school. Distance between home and school is a critical factor that can hampers girls' participation in secondary education. In a situational analysis UNICEF/GOK (2008) found that long distance to school from home affected female students. This was because of problems associated with girls' safety such as attacks by wild animals, poor and bushy roads, and insecurity among others.

Related to distance from home to school was the finding that girls' insecurity in day schools was indicated by 54.1% of the respondents as one of the factors related to gender disparity in schools. This implies that when girls face security challenges, some of them may develop fear towards school leading to termination of their studies. It is reported that girls in day schools, unlike those in boarding schools, face many risks between home and school. According to Huissman and Smith (2012), effects of distance are severe for girls partly due to parents' concern for their daughter's safety, which becomes more critical when girls reach the stage of puberty.

Lack of adequate lighting facilities in the homes was indicated by 70% of the school girls as being responsible for poor girls' enrolment in public mixed day secondary schools in the area. Other factors are lack of study room and secure and conducive environment for sleeping in most families lead to gender disparity in enrolment as was cited by 63.6% and 62.4% of the respondents respectively. This means that when there is lack of study room, security and conducive environment in most of the house holds some of the

learners develop a negative attitude towards learning. Parents who managed to go through formal education find it easier to understand the need for a child to have access to basic needs. They provide conducive environment for learning, including lighting facilities that is supportive to the girl child (Egalite, 2016).

The findings established that 53.5% of the respondents indicated that domestic chores are issues that bring about disparity in enrolment in schools. This means that when girls engage in domestic chores more than their studies, they may lose focus in academic work. Some may drop out of school to pursue short term employment. According to Barbara and Sperling (2004) girls are expected to do more chores at home than are sons. However, 56.5% of the respondents disagreed with the fact that poverty in the homes has a relationship with disparity in enrolment in schools. According to Olufemi (2013), family's economic status has an effect on educational attainment of a child.

### 4.5.2 Mean Descriptive Statistics of Home Based Factors according to Girls

The girls' views on the relationship between home-based factors and gender disparity in enrolment of students in public mixed day secondary schools was analysed to establish the mean and standard deviation. The results are given in Table 52.

**Table 52: Mean descriptive statistics of home based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.93 | 0.89 |
| Poverty at home is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.33 | 1.09 |
| Girls insecurity between home and school is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.58 | 1.08 |
| Lack of study room at home is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.90 | 1.12 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.75 | 1.08 |
| Distance to school is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.12 | 0.98 |
| Low parental level of education is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.26 | 0.94 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 3.00 | 1.01 |
| Domestic chores is related to gender disparity in enrolment | 170 | 1.00 | 4.00 | 2.50 | 0.98 |
| **Home based factors Overall Index** | **170** | **1.45** | **3.91** | **2.80** | **0.45** |

Table 52 indicates that the overall index of home-based factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.80 which was significantly above the mid mark of 2 for the 4-point Likert scale used to measure this variable. The standard deviation was also 0.45 which being less than 1 suggests that most of the girls agreed with the statements posited regarding the effect of home-based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

As shown on table 52 above, Low parental level of education (mean = 3.26) and Lack of parental support (mean = 2.93) were rated by the majority of the school girls as playing a very significant role in the promotion of children participation in education. According to

the study, it appears that most of the parents fail in their role of supporting their children's education. Parents' level of education and encouragement have a strong positive relationship with the student's academic achievement (Hanzen, Linderwood, Razzouck and Shute, 2011).This implies that when these factors prevail, gender disparity occur. Conversely, when these factors are addressed, gender disparity could be resolved. Distance to school (mean = 3.12) and girls' insecurity between home and school (mean = 2.58) were also rated as having important implications for gender disparity in enrolment in secondary schools in the area. Travel distance from school in the community influences student's work in both household chores and school attendance. The longer the travel time to school the more difficult it is for students to reconcile work and school attendance. Distance between home and school is a critical factor that can hamper girls' participation in secondary education. According to Huissman and Smith (2012), effects of distance are severe for girls partly due to parents' concern for their daughters' safety, which becomes more critical when girls reach the stage of puberty.

Lighting facilities in the homes had a mean of 3.00 whereas lack of study rooms had a mean of 2.89. Domestic chores had a mean of 2.83 and lack of secure and conducive room to sleep had a mean of 2.75. Good environment at home is necessary for students to be able to conduct their studies well. From the findings of the study, most of the students lacked the facilities in their homes. Poverty at home, being a factor related to gender parity in schools is the only item whose mean (2.33) was below the average score. According to Lugonzo et al., (2017) many secondary school girls do not participate in education due to poverty. They lack parental support and they end up being laborers for the rich in the society.

### 4.5.3: Descriptive Analysis of Home Based Factors according to Boys

Boys' views on home based factors were analyzed through percentages and the results are shown in Table 53.

**Table 53: Descriptive analysis of home based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Domestic chores is related to gender disparity in enrolment | 167 | 16.2 | 28.1 | 34.1 | 21.6 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | 167 | 17.4 | 14.4 | 36.5 | 31.7 |
| Low parental level of education is related to gender disparity in enrolment | 167 | 13.8 | 15.6 | 34.7 | 35.9 |
| Distance to school is related to gender disparity in enrolment | 167 | 15.6 | 16.8 | 35.3 | 32.3 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 167 | 22.8 | 18.6 | 34.1 | 24.6 |
| Lack of study room at home is related to gender disparity in enrolment | 167 | 18.0 | 11.4 | 32.3 | 38.3 |
| Girls insecurity between home and school is related to gender disparity in enrolment | 167 | 24.6 | 29.9 | 28.1 | 17.4 |
| Poverty at home is related to gender disparity in enrolment | 167 | 17.4 | 35.9 | 34.1 | 12.6 |
| Lack of parental support is related to gender disparity in enrolment | 167 | 22.8 | 22.2 | 35.3 | 19.8 |

According to Table 53, it is indicated that lack of study rooms and low level of parental education are the greatest factors related to gender disparity in enrolment in public mixed day secondary schools as each was agreed by 70.6% of the respondents. This suggests that when students are faced with lack of study rooms and low level of parental education, they get demotivated and lose seriousness with their studies and, hence, opt not to continue with their education. High parental experience in education is associated

with increased access to education, highest attendance rates and lower dropout rates (Ainsworth et al., 2005; Grant & Hallman, 2006). Oguta (2013) also asserts that educated parents support their girls by providing requirements that can boost their education. He reiterates that they are also capable of understanding their learning needs and unlike uneducated parents, they provide them with these needs.

It was found that 68.2% of the respondents indicated that lack of adequate lighting facilities is related to gender disparity in schools, whereas lack of secure and conducive room for sleeping was pointed out by 58.7% of the respondents. This implies that parents are not seriously involved with the welfare of their children. Consequently, some students are forced to drop out of school. Parental involvement in the education of their children plays a very crucial role in the academic achievement of a child (Breiner, Ford & Gadsden, 2016).

The findings showed that 67.6% of the respondents agreed that distance to school is related to gender disparity in enrolment. This implies that long distances may discourage learners from school attendance. This could also affect enrolment rates between boys and girls. Long distance to school particularly in day schools exposes girls to sexual assault leading to traumatization and this affects girls' completion of secondary school (Ondiek, 2010).

Insecurity between home and school is related to gender disparity in enrolment as was agreed by 45.5% of the respondents. This means that lack of security for girls may be an impediment to their success in attending and even participating in their studies. As it has been reported that distance between home and school pauses a number of challenges particularly to the girls. This includes early pregnancies due to sexual assault leading to traumatization (Oguta, 2013; Ondiek, 2010).

It was observed that 55.1% of the respondents supported the fact that lack of parental support is related to gender disparity. Motivation and parental support are associated with higher education levels of a child (Olufemi, 2013). Moreover, it was found that domestic chores are factors that are related to gender disparity in schools as 54.7% of the respondents indicated. This means that culturally, girls suffer more when it comes to traditional division of labour such as home chores, fetching of water and firewood (UNICEF, 2002).

The study further showed that 53.3% of the respondents disagreed with the fact that poverty at home is related to gender disparity. This implies when parents are in a position to provide necessary personal effects for their children, gender disparity could be minimized. Educational attainment of parents besides household income influences the continuation of children in schools. Such parents are capable of paying school fees of their children as well as meeting their day-to-day needs (William 2010).

### 4.5.4 Mean Descriptive Statistics of Home Based Factors according to Boys

Boys' views on the relationship between home based factors and gender disparity in enrolment of students in public mixed day secondary schools were analysed to get the mean and standard deviation. The findings are presented in Table 54.

**Table 54: Mean descriptive statistics of home based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.52 | 1.052 |
| Poverty at home is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.42 | .921 |
| Girls insecurity between home and school is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.38 | 1.04 |
| Lack of study room at home is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.91 | 1.10 |
| Secure and conducive room to sleep at home is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.60 | 1.09 |
| Distance to school is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.84 | 1.05 |
| Low parental level of education is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.93 | 1.03 |
| Lack of adequate lighting facilities at home is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.83 | 1.06 |
| Domestic chores is related to gender disparity in enrolment | 167 | 1.00 | 4.00 | 2.61 | .999 |
| **Home based factors Overall Index** | **167** | **1.55** | **3.45** | **2.67** | **0.42** |

The results in Table 54 show that the overall index of home based factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 2.67 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.42 which being less than 1 suggests that most of the boys agreed with the statements posited regarding the effect of home based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

According to Table 54 low parental level of education had the highest mean (2.93) and lack of parental support had a mean of 2.52. It is clear that lack of proper education and lack of proper understanding about education on the part the parents contribute heavily towards gender disparity in enrolment of students in schools. Parental involvement in the education of their children plays a very crucial role in the academic achievement of a child (Bereiner, Ford and Gadsden, 2016). Distance to school had a mean of 2.84.This implies that the effect of distance on children's time allocation for homework and private studies in the evening at home is harmful because of fatigue. Long distance to school particularly in day schools exposes girls to sexual assault leading to traumatisation and this influences girls' completion of secondary school (Ondiek, 2010).

Lack of adequate lighting facilities at home had a mean of 2.93 and lack of study rooms at home had a mean of 2.91 whereas domestic chores had a mean of 2.61. Poverty at home with a mean of 2.42 and girl's insecurity between home and school with a mean of 2.38 were the only factors with means below average. According to these findings, it can be inferred, however that poverty in the society contributes negatively towards gender disparity in enrolment of students in schools. Parents of lower economic status face a lot of challenge in assisting their children financially to attain secondary education (Chepchieng and Kibos, 2004). This means that when parents do not provide for academic well being of their children, gender disparity in enrolment may persist as some of the students may lose focus and drop out of school. Nevertheless, when parents take centre stage in academic provision to their children, gender disparity in enrolment may be addressed.

### 4.5.5 Descriptive Analysis of Home Based Factors according to Head teachers

Home based factors according to head teachers were analyzed using percentages. Table 55 shows the findings.

**Table 55: Descriptive analysis of home based factors**

| Statement | N | SD (%) | D (%) | A (%) | SA (%) |
|---|---|---|---|---|---|
| Domestic chores is related to gender disparity in enrolment | 36 | 8.3 | 27.8 | 36.1 | 27.8 |
| Lack of adequate lighting facilities at home is related to gender disparity in enrolment | 36 | 5.6 | 5.6 | 47.2 | 41.7 |
| Low parental level of education is related to gender disparity in enrolment | 36 | 0.0 | 5.6 | 33.3 | 61.1 |
| Distance to school is related to gender disparity in enrolment | 36 | 8.3 | 25.0 | 13.9 | 52.8 |
| Secure and conducive room to sleep at home is related to gender disparity in enrolment | 36 | 5.6 | 33.3 | 33.3 | 27.8 |
| Lack of study room at home is related to gender disparity in enrolment | 36 | 11.1 | 30.6 | 16.7 | 41.7 |
| Girls insecurity between home and school is related to gender disparity in enrolment | 36 | 5.6 | 27.8 | 33.3 | 33.3 |
| Poverty at home is related to gender disparity in enrolment | 36 | 8.3 | 30.6 | 16.7 | 44.4 |
| Lack of parental support is related to gender disparity in enrolment | 36 | 2.8 | 0.0 | 52.8 | 44.4 |

Table 55 shows that the head teachers were of the opinion that lack of parental support (97.2%), low parental level of education (94.4%) and lack of adequate lighting facilities (88.9%) were the major home-based factors contributing to gender disparities in enrolment in public mixed day secondary schools in the area. The finding that the head teachers were unanimous in their view that lack of parental support is related to gender disparity in enrolment in the area could suggest that either some parents were not interested in the education of their children or that they did not have the material capacity to provide adequate support to their children in high school. According to Olufemi (2013), parental support are associated with higher education levels of a child.

Further, the findings show that low parental level of education (94.4%) was associated with the levels of gender disparity in enrolment of students in the area. Previous findings in this study indicated that the majority of the students' fathers' highest level of education was standard 7/8 (56.4%) while most of their mothers never went beyond primary level of education (75.7%). This shows that more than half the students' parents never attended secondary school. This could be a contributing factor to gender disparity in enrolment. According to Oguta (2013), educated parents do support their girls by providing requirements that boost their participation in education. Olufemi (2013) also asserts that motivation and parental support are associated with higher education levels of a parent. Parents' education and encouragement has a strong positive relationship with improved student academic achievement, (Hanzen, Underwood, Razzauck & Shute, 2011). Families with sound academic background can always assist their children to gain access to better performing schools and are also capable of paying their school fees as well as meeting their day to day needs (Williams, 2010). Similarly, Ntitika (2014) affirms that those girls whose parents had received formal education tend to have positive attitude towards participation in secondary education as compared to those girls whose parents did not go to school at all.

Lack of lighting facilities in the homes of the students is another factor related to gender disparity in enrolment and it was indicated by 88.9% of the respondents. For day school students, adequate lighting at home is important in enabling them continue with the homework as well as extra-reading. For the schoolgirls, this is especially important as it means that they can leave home and come back from school within the daylight hours (due to security reasons) and continue with their chores and school assignments at home. Lack of adequate lighting may force them to seek accommodation in their friends' homes in neighbor hoods to finish their homework or stay longer in school where there is

adequate lighting further exposing them to insecurity. This implies that students who come from backgrounds with no proper lighting facilities may not be in a position to compete fairly with their counterparts hailing from homes with adequate lighting or those in boarding school where the lighting is also adequate. This suggests that family's economic status is related to education attainment of a child. Egalite (2016) found that those parents who managed to go through formal education find it easier to understand the need for a child to have access to basic materials such as books, newspapers in addition to conducive environment for learning, such as lighting and quiet environment that is supportive to education.

According to table 55, lack of conducive study room for studies were cited by 58.4% of the respondents as a factor related to gender disparity in enrolment in schools. Lack of secure and conducive rooms to sleep was cited by 61.1 % of the respondents. In most cases children in poor environment drop out of school and in most contexts girls have less access and are more affected than boys (Leach et al., 2003).

Domestic chores were indicated as a factor affecting gender parity in schools as was cited by 63.9% of the respondents. This means that when some students engage in domestic chores while others are in school gender parity in enrolment of students is adversely affected. Culturally girls suffer more when it comes to traditional division of labour such as home chores, fetching of water and firewood (UNICEF, 2002). Furthermore, 61.1% of the head teachers indicated that poverty at home is one of the causes of gender disparity in enrolment. Girls' insecurity along the way to school is related to gender disparity as 66.6% of the respondents observed. Further, 66.7% of the respondents indicated that distance to school is related to gender disparity in enrolment. Lack of study rooms at home was cited by 58.4% of the respondents as a factor that is related to gender disparity in enrolment. This means poverty as a factor could hinder

students from maximizing their potential in education. Travelling long distance to school brings a lot of fatigue to the students besides other challenges they face between home and school such as early pregnancies (Oguta, 2013).

### 4.5.6 Mean Descriptive Statistics of Home Based Factors According to Head Teachers

Head teachers' views on the relationship between home based factors and gender disparity in enrolment were analysed to determine the mean and standard deviation. The results are presented in Table 56.

**Table 56: Mean descriptive statistics of home based factors**

| Statement | N | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.39 | .645 |
| Poverty at home is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.97 | 1.06 |
| Girls' insecurity between home and school is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.94 | .924 |
| Lack of study room at home is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.89 | 1.09 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.83 | .910 |
| Distance to school is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.11 | 1.06 |
| Low parental level of education is related to gender disparity in enrolment | 36 | 2.00 | 4.00 | 3.56 | .607 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 3.25 | .806 |
| Domestic chores is related to gender disparity in enrolment | 36 | 1.00 | 4.00 | 2.83 | .941 |
| **Home based factors Overall Index** | **36** | **2.00** | **3.82** | **3.13** | **.420** |

The results in Table 56 show that the overall index of home based factors affecting enrolment of students in public mixed day secondary schools in the area was mean = 3.13 which was above the mid mark of 2 for the 4-point Likert scale used to measure this construct. The standard deviation was also 0.42 which being less than 1 suggests that most of the teachers agreed with the statements posited regarding the effect of home based factors on the enrolment of students in public mixed day secondary schools in Kericho County.

As shown in Table 56, low parental level of education was cited by the majority (3.56) of the respondents. This was followed by lack of parental support with a mean of 3.39. Parental education and parental support are indeed very important factors in promoting children's education. When these two factors are low the chances of children participating in education effectively becomes correspondingly low. This agrees with Olufemi (2013) who asserts that motivation and parental support are associated with higher education levels of a parent.

Lack of adequate lighting facilities at home (mean = 3.25) and distance to school (mean = 3.11) were also rated above the mean mark of 3.00 showing that the head teachers also strongly agreed with these points as highly influential on gender disparities on enrolment. Lack of adequate lighting at home could mean that the students may be unable to proceed with their learning activities such as homework and assignments at home, hence, disadvantaging them academically. In the same vein, lack of study room had a mean of 2.90 and lack of sleeping room had a mean of 2.83. This shows that when students come from humble background they suffer a great deal, because they lack basic requirements for their studies and this in turn may affect gender parity in enrolment of students.

Most of the head teachers agreed that distance to school is related to gender disparity in enrolment (mean = 2.94). Girls' insecurity between home and school increases with distance and, as such, the higher the distance from school, the less likely children attend school on full time basis. According to Ogur (2014), girls' security and distance from school really determines girls' participation in secondary education. This concurs with Ondiek (2010) long distance exposes girls to sexual assault leading to traumatisation and dropping out of school.

Domestic chores had a mean of 2.83 where as poverty at home had a mean of 2.97. From the findings, it is strongly evident that the girl child faces a lot of interference in education when it comes to domestic chores. It can also be inferred that due to poverty in the society most of the families fail to provide their children with basic requirements to be able to conduct their private studies at home. This finding agrees with Ogur (2014) who observed that low income of many parents greatly influenced their student's participation negatively. According to UNICEF (2002), culturally girls suffer more when it comes to traditional division of labour such as home chores, fetching of water and firewood.

### 4.5.7 Mean Difference in Home Based Factors by Gender

Independent sample t-test was computed to determine if there was a significant mean difference between boys' and girls' views in relation to home based factors as a factor influencing gender disparity in enrolment of students. The finding is presented in Table 57.

**Table 57: T-test on home based factors by gender**

| Gender | N | Mean | SD | Df | t-value | ρ-value |
|---|---|---|---|---|---|---|
| Girls | 170 | 2.80 | 0.45 | 335 | 2.771 | .006* |
| Boys | 167 | 2.67 | 0.42 | | | |

*Significant at 0.05 level

The finding shows that there was a significant mean difference between girls' and boys' views in relation to home based factors causing gender disparity in enrolment t (335) = 2.771, p <0.05). This implies that their views on home based factors were significantly different and not spontaneous. It could also mean that each set of students were speaking from their own experience and this was not necessarily the same for adolescent boys and girls given that gender was more emphasized at home than at school (Dakwa et al., 2014). James (2014) explains that gender disparity between boys and girls is due to the difference in the ways the households perceive male and female children. According to the study, it is reported that there is a preference for boys over girls in secondary school enrolment.

### 4.5.8 Correlation Analysis of Data obtained from Girls

The study also sought to establish whether a correlation existed between the home based factors and gender disparity in enrolment in secondary schools in Kericho County; from the schoolgirls' perspective. The results are given in Table 58.

**Table 58: Relationship between home based factors and gender disparity according to girls**

| | | Gender Disparity | Home Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .740* |
| | Sig. (2-tailed) | | .000 |
| | N | 170 | 170 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study established that there exists a statistically significant relationship between home based factors and gender disparity in enrolment in the area from the schoolgirls' perspective ($r = 0.740^{*}$; $p<0.05$). This indicates that the prevalence of Home based factors under study could lead to gender disparity in enrolment. Menashy (2016) reiterates that gender disparities tend to be particularly pronounced in secondary school, as social, economic and health related barriers; that put increased pressure on students' ability to stay in school and learn.

### 4.5.9 Correlation Analysis of Data obtained from Boys

The study further sought to establish whether a correlation existed between the home based factors and gender disparity in enrolment in secondary schools in Kericho County from the schoolboys' perspective. The results are given in Table 59.

**Table 59: Relationship between home based factors and gender disparity according to boys**

| | | Gender Disparity | Home Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .964** |
| | Sig. (2-tailed) | | .000 |
| | N | 167 | 167 |

*. Correlation is significant at the 0.05 level (2-tailed).

The study established that there exists a statistically significant relationship between gender disparity and home based factors ($r=0.964^{*}$; $p<0.05$).This indicates that the schoolboys also strongly identified with the home based factors that could affect the education prospects of girls in the area. This view concurs with the findings by McCleary-Sills, Hanmer, Parsons and Klugman (2015) who suggest that levelling the playing field for girls in education has proved to be a global challenge, despite the progress of recent decades. This is a reflection of the persistent gendered barriers, including child marriage, that prevent many girls around the world from attending and

completing school. Families make decisions about their daughters' marriages within the context of social norms, financial constraints, and economic opportunities

### 4.5.10 Correlation Analysis of Data obtained from Head Teachers

The study further sought to establish whether a correlation existed between home based factors and gender disparity in enrolment in secondary schools in Kericho County from the head teachers' perspective. The results are given in Table 60.

**Table 60: Relationship between home based factors and gender disparity according to head teachers**

| | | Gender Disparity | Home based factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .226 |
| | Sig. (2-tailed) | | .185 |
| | N | 36 | 36 |

Table 60 shows that there is no statistically significant relationship between home based factors and gender disparity in enrolment in secondary schools in the area ($r= 0.226$; $p>0.05$). This indicates that from the head teachers' perspective, home based factors while being acknowledged were not significantly influencing gender disparity in enrolment in secondary schools in the area. Nyamweya (2012) reports that girls' parents' level of education and occupation determined the level of family in-come which affected girls' participation in formal secondary school education. Most parents were also not able to pay school fees for the girls since their level of family in-come was low.

### 4.5.11 Overall Correlation

**Table 61: Relationship between home based factors and gender disparity according to all respondents**

| | | Gender Disparity | Home Based Factors |
|---|---|---|---|
| Gender Disparity | Pearson Correlation | 1 | .774* |
| | Sig. (2-tailed) | | .000 |
| | N | 373 | 373 |

*. Correlation is significant at the 0.05 level (2-tailed).

In conclusion, the study established that there exists a statistically significant relationship between gender disparity and the Home based factors ($r = 0.774$; $p<0.05$).This indicates that when home based factors under analysis prevail, gender disparity also increases. According to a study by Kuli (2011), parents' financial background and level of in-come as one of the reasons for not sending girls to school. This could affect gender parity in enrolment of students.

### 4.5.12 Analysis of Gender Parity Index

Gender Parity, which is the converse of Gender disparity, was computed using mean statistics ranging from the year 2015 to 2018. The findings are presented in Table 62.

**Table 62: Descriptive Statistics of Gender Parity Index**

| Variable | N | Min | Max | GPI | Std. Dev |
|---|---|---|---|---|---|
| GPI of 2015 | 36 | 0.17 | 1.96 | 0.82 | .429 |
| GPI of 2016 | 36 | 0.25 | 1.05 | 0.72 | .227 |
| GPI of 2017 | 36 | 0.25 | 1.35 | 0.78 | .283 |
| GPI of 2018 | 36 | 0.33 | 1.27 | 0.85 | .200 |
| Valid (list wise) | 36 | | | | |

Source: Field data from the Schools participating in the study (2018)

Data from principals were used to compute the gender parity indices from the year 2015 to 2018 in the sampled schools. From the findings, it was found that the mean gender parity index in the year 2015 was 0.82 while in 2016, the GPI declined to 0.72. Furthermore, in 2017, the GPI rose slightly to 0.78 and it further rose to 0.85 in 2018. The findings show that the GPI in public mixed day secondary schools in the area has been consistently lower than 0.97 over the four academic years under review. This suggests that the girl enrollment has been less than that of the boys for the last four years as indicated by the GPIs. According to UNESCO (2015), an entity with a Gender Parity Index (GPI) between 0.97 and 1.03 has achieved gender parity. GPI below 0.97 indicates disparity in favour of males while GPI above 1.03 indicates disparity in favour of females. It also shows that the GPIs were below the national average. According to UNESCO (2015) and the Ministry of Education (2020), Kenya has already achieved gender parity in secondary school level at 1.00.

### 4.6 Regression Analysis

Regression analysis was conducted to establish the extend of the relationship between selected factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. Both bivariate and multivariate models were sued to explain the relationships between the independent variables and the dependent variables separately, in the case of the bivariate model, and also as the joint effect in the case of the multivariate model. The findings are presented subsequently in tables of model summary and regression coefficients.

### 4.6.1 Model Summary

**Table 63: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .802a | 0.644 | 0.64 | 0.268 |
| F | 166.175 | P-value | 0.000 | df (4,368) |

a. Predictors: (Constant), Home based factors, Institution based factors, Socio-cultural factors, Economic factors

The model summary shows that on the basis of the Adjusted R-square ($R^2$ = 0.640), 64% of the variations in the gender disparity in the enrolment in mixed public day secondary schools in the County could be explained by home based factors, institution based factors, socio-cultural factors and economic factors. The other 36% constituted unexplained variation that could be described by other factors outside the study variables. The findings also showed an f-Statistic value of 166.175 indicating that the model is significant at F (4, 368) =166.175 > F = 2.46; p <0.05. This means that the model as a whole has statistically significant predictive capability hence the regression model in Table 63 provides a better fit to the data and proves that the model is significant.

The first objective of the study was to establish the relationship between Economic factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. This was achieved through regression analysis. The findings are presented in Table 64.

**Table 64: Unstandardized Beta Coefficients**

| | Unstandardized Coefficients | | T | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | **B** | **Std. Error** | | | **Tolerance** | **VIF** |
| (Constant) | 0.658 | 0.108 | 6.117 | 0.000 | | |
| Economic factors | 0.309 | 0.056 | 5.522 | 0.000 | 0.218 | 4.577 |

a. Dependent Variable: Gender Disparity

Concerning the unstandardized beta coefficients in Table 64, it can be deduced that Economic factors had a significant relationship with gender disparity (B = 0.309, p <0.05). The results further show that the relationship between the two variables was positive and linear indicating that a unit change in the independent variable (economic factors) would result in a corresponding change in gender disparity in enrolment by up to 0.309 standard deviations. This means that Economic factors could independently explain up to 31% of the gender disparities in enrolment in the public mixed secondary schools in the area. As observed by Bolton (2020), factors influencing girls' access to primary and secondary education include early marriage, living in rural areas, financial barriers, gender insensitive school-environments, and girls' domestic responsibilities.

The second objective of the study was to establish the relationship between Socio-cultural factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. This was achieved through regression analysis and a summary of the results in presented in Table 65.

**Table 65: Unstandardized Beta Coefficients**

| | Unstandardized Coefficients | | T | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | B | Std. Error | | | Tolerance | VIF |
| (Constant) | 0.658 | 0.108 | 6.117 | 0.000 | | |
| Socio-cultural factors | 0.071 | 0.035 | 2.004 | 0.046 | 0.624 | 1.602 |

a. Dependent Variable: Gender Disparity

Using unstandardized beta coefficients in Table 65, it is evident that Socio-cultural factors had a significant relationship with gender disparity ($B = 0.071$, $p < 0.05$). The result further shows that the relationship between the two variables was positive and linear indicating that a unit change in the independent variable (Socio-cultural factors) would result in a change in gender disparity in enrolment in mixed secondary schools in the area by 0.071 standard deviations. This suggests that Socio-cultural factors could independently explain up to 7.1% of the gender disparities in enrolment in the public mixed secondary schools in the area. As observed by Kapur (2018), there are number of factors, such as economic, social, familial, educational and cultural that leads to barriers within the course of acquisition of education. In some cases, these factors impose major effects, due to which girls do not obtain any opportunities to acquire education, while on the other hand they impose minor effects, which may hinder their development of educational qualifications.

The third objective of the current study was to establish the relationship between Institution based factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. This was achieved through regression analysis. The findings of multi collinearity and regression coefficients are presented in Table 66.

**Table 66: Unstandardized Beta Coefficients**

| | Unstandardized Coefficients | | T | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | **B** | **Std. Error** | | | **Tolerance** | **VIF** |
| (Constant) | .658 | .108 | 6.117 | .000 | | |
| Institution based Factors | .065 | .032 | 2.016 | .045 | .761 | 1.314 |

a. Dependent Variable: Gender Disparity

According to Table 66 regarding the unstandardized beta coefficients, it was found that Institution based factors had a significant relationship with gender disparity ($B = 0.065$, $p < 0.05$). The results further show that the relationship between the two variables was positive and linear indicating that a unit increase in the independent variable (Institution based factors) would address gender disparity by 0.065 standard deviations. This suggests that Institution based factors could independently explain up to 6.5% of the gender disparities in enrolment in the public mixed day secondary schools in the area. This suggests that factors such as harassment of girls by male students, student teacher relationship and lack of female teachers to act as role models have a relationship with gender disparity. This implies that when these factors intensify in learning institutions, girls will not be in a position to focus on their studies as others may drop out of the school system. This agrees with Warrington, Fentiman and Kiragu (2011) who opine that school safety is very crucial in girls' attendance and completion of school.

The fourth objective of the study was to establish the relationship between Home based factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. This was achieved through regression analysis. The findings of regression coefficients are presented in Table 67.

**Table 67: Unstandardized Beta Coefficients**

| | Unstandardized Coefficients | | T | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | B | Std. Error | | | Tolerance | VIF |
| (Constant) | 0.658 | 0.108 | 6.117 | 0.000 | | |
| Home based factors | 0.435 | 0.065 | 6.705 | 0.000 | 0.223 | 4.476 |

a. Dependent Variable: Gender Disparity

Finally, in relation to the results in Table 67, it is evident that Home based factors had a significant relationship with gender disparity ($B = 0.435$, $p < 0.05$). The results further show that the relationship between the two variables was positive and linear indicating that a unit increase in the independent variable (Home based factors) would address gender disparity by up to 0.435 standard deviations. This means that home based factors could independently explain up to 44% of the gender disparities in enrolment in the public mixed day secondary schools in the area. According to Adhikari (2013), the reasons of gender inequality are the results of structural, cultural, religious, social and economic factors which influence female's involvement and drop out of school.

### 4.6.2 An overall Regression predicting Gender Disparity

The main objective of the study was to establish the relationship between selected factors and gender disparity in enrolment in public mixed day secondary schools in Kericho County, Kenya. This was achieved through regression analysis. The findings of multi collinearity and regression coefficients are presented in Table 68.

**Table 68: Coefficients**

| | Unstandardized Coefficients | | T | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | B | Std. Error | | | Tolerance | VIF |
| (Constant) | 0.658 | 0.108 | 6.117 | 0.000 | | |
| Economic factors | 0.309 | 0.056 | 5.522 | 0.000 | 0.218 | 4.577 |
| Socio-cultural factors | 0.071 | 0.035 | 2.004 | 0.046 | 0.624 | 1.602 |
| Institutional factors | 0.065 | 0.032 | 2.016 | 0.045 | 0.761 | 1.314 |
| Home based factors | 0.435 | 0.065 | 6.705 | 0.000 | 0.223 | 4.476 |

a. Dependent Variable: Gender Disparity

### 4.6.3. Multi collinearity Analysis

Multi collinearity exists when two or more of the predictors in a regression model are moderately or highly correlated. Multi collinearity occurs when independent variables in a regression model are correlated. This correlation is a problem because predictor variables should be independent. If the degree of correlation between variables is high enough, it can limit the research conclusions to be drawn (Frost, 2017). It means that when multi collinearity exists in a data set, prediction of a dependent variable becomes difficult. Multi collinearity can be assessed by examining tolerance and the Variance Inflation Factor (VIF). Values of VIF that exceed 10 are often regarded as indicating multi collinearity, similarly, tolerance values of less than 0.1 are also an indication of multi collinearity which may be a cause for concern (Kutner, Nachtsheim, & Neter, 2004). The finding of the study produced the VIF values between the acceptable range of 1 to 10 hence validating the model. It can be concluded that there are no multi collinearity indicators in the model and therefore the independent variables are capable of predicting the gender disparity without interference from each other.

### 4.6.4 Unstandardized Beta Coefficients

Regarding the unstandardized beta coefficients, it was found that Economic factors significantly affect up to 30.9% of gender disparity in enrolment. Similarly, Socio cultural factors significantly affect 7.1% of gender disparity in enrolment. Furthermore, Institution based factors are related to 6.5% of gender disparity in enrolment while Home based factors is related to 43.5% of gender disparity in enrolment. As observed by Kapur (2018), there are a number of factors, such as, economic, social, familial, educational and cultural that leads to barriers within the course of acquisition of education. In some cases, these factors impose major effects, due to which girls do not obtain any opportunities to acquire education, while on the other hand; they impose minor effects, which may hinder their development of educational qualifications.

### 4.6.5 Hypothesis Testing

Null hypothesis was applied in the study. The benchmark for Hypothesis Testing of this study was based on the following criteria: If the p-value was less than 5% the null hypothesis would be rejected and the alternative hypothesis would be accepted i.e.

**Reject $H_0$: $\beta x = 0$; if $p < 0.05$,**

**Otherwise fail to reject the $H_0$: $\beta x = 0$**

**$H_{O1}$**: Economic factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

According to Table 69, it was noted that the corresponding p value for the economic factors variable was 0.000, therefore, the null hypothesis was rejected and the conclusion was made that Economic factors have a statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho

County, Kenya. This finding corroborates with that of Ogur (2014) suggests that many parents had low income, which greatly influenced their student's participation negatively.

**$H_{O2}$**: Socio-cultural factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

According to Table 69, it was noted that the corresponding p-value for the Socio-cultural factors variable was 0.046, leading to the rejection of the null hypothesis. The conclusion was made that Socio-cultural factors have a statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. Oprong (2015) discusses that socio-economic factors like poverty, parent education level, early marriage, cultural environment and social environment negatively affected girl child and hence drop out from secondary school. This could affect gender parity in enrolment of students.

**$H_{O3}$**: Institution based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

According to Table 69, it was noted that the corresponding p value for the Institution based factors variable was 0.045, leading to the rejection of the null hypothesis. The conclusion was made that Institution based factors have a statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. It was reported by Orodho, Waweru, Ndichu and Nthinguri (2013) that among the key challenges affecting effective implementation of basic education include insufficient physical facilities and

instructional resources to cope with the exponential growth of student population resulting from the abolition of school fees and introduction of FPE and FSE. This could affect gender parity in enrolment.

**$H_{O4}$**: Home based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya.

According to Table 69, it was found that the corresponding p value for the Home based factors variable was 0.000, leading to the rejection of the null hypothesis. The conclusion was made that Home based factors have a statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. This finding agrees with Ogur (2014) who observed that many parents had low income, which greatly affects their student's participation negatively. Most Parents' level of education was found to be low therefore; the student's participation was influenced negatively.

**Table 69: Summary of Hypothesis**

| Hypothesis | t-statistic<br>P-value | Decision rule<br>Reject $H_0$: $\beta x = 0$;<br>if $p < 0.05$,<br>Otherwise fail to<br>reject the $H_0$: $\beta x = 0$ |
|---|---|---|
| **$H_{O1}$**: Economic factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. | T = 5.522<br>P = 0.000 | P = 0.000 ≤ p = 0.05<br>Therefore, the null hypothesis was rejected |
| **$H_{O2}$**: Socio-cultural factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. | T = 2.004<br>P = 0.046 | P = 0.046 ≤ p = 0.05<br>Therefore, the null hypothesis was rejected |
| **$H_{O3}$**: Institution based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. | T = 2.016<br>P = 0.045 | P = 0.045 ≤ p = 0.05<br>Therefore, the null hypothesis was rejected |
| **$H_{O4}$**: Home based factors have no statistically significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County, Kenya. | T = 6.705<br>P = 0.000 | P = 0.000 ≤ p = 0.05<br>Therefore, the null hypothesis was rejected |

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1. Introduction

This chapter presents the Summary of notable findings, conclusions and Recommendations.

## 5.2. Summary

A summary of the major findings is presented in the subsequent sections. The presentation is based on the mean values of the findings from the three types of respondents.

### 5.2.1 Relationship between Economic Factors and Gender Disparity in Enrolment of Students in Public Mixed Day Secondary Schools in Kericho County, Kenya.

The findings revealed that socio-economic conditions of the area significantly contributed to gender disparity in enrolment in the schools in the area that mostly affected girls. Particularly, failure by their parents to provide personal effects such as clothes and sanitary towels and other necessities like school meals and pocket money made the girls vulnerable and unable to attend or continue with school. Generally, it was observed that some parents were not willing to contribute materially to the education of their children and, thus, their children lacked necessities for learning that the schools could not provide.

It was also revealed that inadequacy of FSE funds in schools is related to gender disparity in enrolment. Inability to pay fees for secondary education is one of the major causes of students' failure to complete their education in secondary schools. Further, with the findings indicating that the parents were also reluctant to pay school fees and the

high demand for domestic child labour in the area made the situation more pronounced as it led to early and high turnover of the students. This mostly affected girls who dropped out earlier than boys leading to gender disparities in enrolment in the schools as evidenced by the independent sample t-test showing that there was a significant mean difference in enrolment between girls' and boys' views implying that economic factors significantly affected girls' enrolment more than boys' enrolment in the area.

A high correlation was also found between gender disparity in enrolment and the economic factors suggesting that when these economic factors under investigation prevail, gender disparity also rises. Finally, regression analysis revealed that economic factors significantly influence up to 30.9% of gender disparity in enrolment in public mixed day secondary schools in the County.

### 5.2.2 Relationship between Socio-Cultural Factors and Gender Disparity in Enrolment of Students in Public Mixed Day Secondary Schools in Kericho County, Kenya

According to the study, it was revealed that early marriages and early pregnancies were the most prominent socio-cultural factors influencing gender disparity in enrolment in schools. The findings revealed that the occurrences of early pregnancies and practices of early marriages were still considerably happening in the area. It also emerged that the students have negative attitude towards education (especially female students) and that most students felt that they were already adults. This coupled with peer influence led to premature exit from school. As such, more school girls than boys were likely to be out of school resulting in gender disparity in enrolment of students in schools.

There was also evidence that most parents still preferred to educate a boy child as opposed to a girl child and this meant that fewer girls than boys had the opportunity to

attend school under such circumstances in the area. This also significantly contributed to gender disparity in the schools in the area. However, it emerged that there was no significant difference between the school girls' and school boys' perception of socio-cultural factors causing gender disparity in enrolment. Nevertheless, there was a significant correlation between gender disparity in enrolment and the socio-cultural factors. Further, the regression analysis revealed that socio-cultural factors had the second least significant (7.1%) influence on the model predicting gender disparity in enrolment in public mixed day secondary schools in the County.

### 5.2.3 Relationship between Institution Based Factors and Gender Disparity in Enrolment of Students in Public Mixed Day Secondary Schools in Kericho County, Kenya.

The findings on this objective revealed that institution based factors significantly related to gender disparity in enrolment in public mixed day secondary schools. Among these factors, the most prominent was poor physical infrastructure, lack of classrooms, laboratories, and inadequate toilet facilities. When there is lack of classrooms, laboratories and toilets, students may get discouraged during the course of learning, and others may decide to drop out of the school. Further, the poor state of the toilets in the schools could especially be discouraging for the girls, most of whom were in the puberty stage and had pronounced needs for better sanitation.

The findings further revealed that harassment of girls by male students was related to gender disparity in enrolment in public mixed day secondary schools. When girls are harassed in school, they develop a negative attitude towards the school set up and this could lead to their choosing to discontinue their education. Other findings revealed that teacher factors such as student/ teacher ratio as well as student teacher relationship and lack of female teachers in schools influenced gender disparity in enrolment. Some of the

public mixed day secondary schools in the area were understaffed and in most cases the staff gender ratio was in favor of male teachers. This meant that in addition to the schools lacking teachers and thus individualized attention for the learners, for the girls, the lack of female teachers who could understand them better could discourage them from continuing with education. Further, the teacher-student relationship was found to be poor in some cases and this could make it difficult for the students to cope with learning in the schools.

The finding also revealed that lack of field/ P.E facilities are related to gender disparity in enrolment in schools. Most respondents cited the lack of teaching and learning materials as being related to gender disparity in enrolment in schools. Moreover, the results revealed that harassment of girls by male teachers influenced gender disparity in enrolment in public mixed day public secondary schools in the County. Similarly, student teacher relationship is a factor related to gender disparity in enrolment. This meant that when girls were faced with harassment of all sorts, some might have dropped out of the school setup.

However, the perception of the institution based factors as contributing to gender disparity in enrolment in the schools in the area did not significantly vary between the schoolboys and schoolgirls implying that Institution based factors were perceived to be equally affecting both girls and boys. Nevertheless, the study found a statistically significant moderate relationship between gender disparity in enrolment in public mixed day secondary schools in the County and the Institution based factors. This implied that changes in the Institution based factors under study led to corresponding changes in gender parity in the schools in the area. Regression analysis indicated that Institution based factors could explain up to 6.5% of the variation in gender disparity in enrolment in public mixed day secondary schools in the County.

### 5.2.4 Relationship between Home Based Factors and Gender Disparity in Enrolment in Kericho County, Kenya

According to the study, it was revealed that lack of parental support was related to gender disparity in enrolment in public mixed day secondary schools. This meant that when students are not given proper support by their parents concerning educational matters, some may not perceive the importance of studying and end up dropping out of school. Distance to school was also cited as being related to gender disparities in enrolment, as students who can access school with ease are better placed to complete their studies as compared to others who have to travel long distances to school.

The findings further revealed that poverty in the homes was also cited as giving rise to gender disparity in enrolment. This meant that when students lack personal requirements due to poverty at home, they might get discouraged and discontinue with school attendance. Also low parental level of education gives rise to gender disparity in enrolment. Other factors found to be related to gender disparities in enrolment in the area were lack of adequate lighting facilities, lack of study room and secure and conducive room to sleep in most households. This suggests that when there is lack of study room, secure and conducive environment to sleep, in most families learners may get discouraged and develop a negative attitude towards learning.

Girls' insecurity between home and school in public mixed day secondary schools was also cited as a factor affecting gender disparity in enrollment in schools. This implies that when girls face security challenges, some of them may develop fear towards school leading to termination of their studies. The findings also established that domestic chores are an issue that bring about lack of parity in enrolment in schools. This means that when girls engage in domestic chores more than their studies, they may lose focus in academic work. Moreover, some may opt to drop out of school to pursue short-term employment.

The finding further shows that there were significant differences between girls' and boys' perception of Home Based Factors in relation to gender disparity in enrolment. More school girls as compared to school boys cited home based factors as affecting girls' enrolment in secondary schools in the area. This could explain the presence of gender disparity in enrolment in schools. The study further established a strong correlation between gender disparity in enrolment and the home based factors. Finally, regression analysis showed that home based factors could account for 43.5% of gender disparity in enrolment.

### 5.3. Conclusion

From the findings, in connection with economic factors, the study concludes that economic factors were significant factors affecting gender disparity in enrolment of students in public mixed day secondary schools in Kericho County that must be taken into account. The economic factors significantly affected girls' enrolment more than boys' enrolment in the area. The economic factors that contributed majorly to gender disparity in enrolment were; child labour, parents' reluctance to pay fees due to false notion of free education, lack of adequate food due to poverty at home, lack of personal effects.

As regards socio-cultural factors, the study concludes that socio-cultural factors had a significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County that needed to be put into consideration. However, there were no significant differences observed between the school girls' and school boys' perception of socio-cultural factors causing gender disparity in enrolment. The socio-cultural factors with the most influence were respectively; early pregnancies among girls, students' negative attitude towards education, peer influence and parent's preference to educate the boy at the expense of the girl. Initiation ceremonies though

practiced widely in the area had the least influence on gender disparity in enrolment, which was an indication that the culture is dying out with time.

Regarding institution based factors, the study concluded that institution based factors had a significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County that needed to be addressed. Institution based factors were perceived to be equally affecting both girls and boys. Student/teacher ratio was the major institution based factor contributing towards gender disparity in enrolment. Other highly rated institution based factors contributing towards gender disparity in enrolment were harassment of girls by male students, lack of female teachers to act as role models and inadequacy of classrooms and laboratories.

Further, concerning home based factors, the study concluded that home based factors had a significant relationship with gender disparity in enrolment of students in public mixed day secondary schools in Kericho County that needed special attention. Significantly, more schoolgirls as compared to schoolboys cited home based factors as affecting girls' enrolment in secondary schools in the area. In terms of the individual home based factors, the study concludes that; low parental level of education, lack of adequate lighting facilities at home, distance to school from home, insecurity between home and school, parental support and lack of study rooms at homes adversely affected gender parity in enrolment of students.

## 5.4. Recommendation

The study recommends that:

i. Parents and students as well should also be continuously sensitized on the illegality and adverse effect of child labour on the education and future employment prospects of the student. The parents should also be sensitized on scope of FSE funding to address their reluctance to pay fees arising from the false notion that free education covers all education expenses of the secondary school student.

ii. Both female and male students should be regularly educated on the risks of early pregnancies, early marriage and their consequences. Accommodation should be made for girls who have already been impregnated while those who have eloped into early marriages should be encouraged to re enroll and complete school. Parents should also be made aware that limiting education for their children on the basis of gender has a more negative effect on future household income prospects

iii. All teachers and especially the female teachers in the secondary schools in the area should be encouraged to act as role models for the students. They should also be encouraged to be approachable and more resourceful to be able to handle a variety of students' needs. Appropriate student-teacher relationship should also be advocated in order to promote conducive learning environment in schools to reduce gender disparity in enrolment. The schools management should also strive to enhance security within their premises to reduce the incidences of mostly female students being harassed.

iv. Stakeholders should encourage parents to take a centre role in the impartial education of their children in order to eliminate gender disparity in enrolment.

They should be made aware that both academic and career progression prospects for their children are equal in spite of their gender differences if they give them sufficient support in their education. Parents should be discouraged from over involving their children, especially girls, in domestic chores in order to encourage the girls to concentrate on their studies.

### 5.4.1 Recommendation for Policy

It was evident from the findings that economic factors and home based factors were the weightier variables compared to socio-cultural and institution-based factors. This suggests that more attention should be devoted to them when resolving gender disparities in the enrolment of students in secondary schools in the area. Therefore, the study recommended that policy makers find ways of increasing the depth of economic interventions to reduce the incidences of students, especially the female students missing school due to financial constraints, as they are more vulnerable to societal influences. Such interventions should include differential fees or fee tuition, and increased public subsidies for female education at this level. Policy makers should also make it easier to report child abuse and child labour cases through online resources to discourage adults from taking advantage of learners for economic reasons and impairing their education progression prospects.

Education administrators alongside local administration should hold regular meetings with the parents and the school community to sensitize them on the need to provide their children with the necessary parental support. The parents should be made aware of the need to avail lighting facilities and conducive study rooms for their children in their homes. The stakeholders should also encourage the school community to cooperate with the school in ensuring the security of their students between home and school.

### 5.4.2. Recommendations for Further Research

i. The study recommends that similar research should be carried out in a comparative manner between the rural and urban contexts.

ii. Future studies on a similar topic should be carried out to compare the same factors in urban, rural and ASAL regions of Kenya.

iii. A study should be carried out to establish how the child friendly school concept affects gender disparity in enrolment among students in Kenya.

iv. A study should be carried out on gender disparities during transition from primary schools to secondary schools in Kericho County.

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# APPENDICES

## Appendix I: Letter of Introduction

Kabarak University,
Department of Education
P.O Box
Nakuru.

Dear Sir/Madam,

**Re: Introduction. Letter**

I am a student pursuing post graduate program (PHD) in Kabarak University. My study is on gender disparity among secondary school students in Kericho County. All responses will be reported only in terms of the entire population. Therefore, do not write your name in anything that may identify your institution in the questionnaire.

Kindly respond honestly to all the items in the questionnaire. Your cooperation and responses will be highly appreciated.
Thank you.

Yours faithfully,

KOECH JOHANNES

## Appendix II: Headteacher's Questionnaire

**Part A. Enrolment of students**

You are kindly requested to complete this questionnaire indicating your honest response.

1. Kindly fill the table below showing enrolment of students in your school for the last four years.

| **Gender** | **2015** | **2016** | **2017** | **2018** |
|---|---|---|---|---|
| Boys | | | | |
| Girls | | | | |
| Total | | | | |

2. Kindly fill the table below showing form one intake in the last four years

| Gender | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Boys | | | | |
| Girls | | | | |
| Gender Parity Index | | | | |

**Part B**: **Relationship between Selected Factors and Gender Disparity in enrolment in public day secondary schools**

Below are statements describing some of the factors that affect gender disparity in public mixed day secondary education. Provided also are four possible options corresponding to the statements given below.

Strongly agree (SA)

Agree (A)

Disagree (D)

Strongly disagree (SD)

Kindly tick the option that best suits your opinion on the corresponding statement in sections A, B C and D.

**Section A. Economic Factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | | | | |
| Lack of personal effects is related to gender disparity in enrolment | | | | |
| Lack of transport expenses is related to gender disparity in enrolment | | | | |
| Lack of pocket money is related to gender disparity in enrolment | | | | |
| Lack of money for lunch programme is related to gender disparity in enrolment | | | | |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | | | | |
| Child labour is related to gender disparity in enrolment in enrolment. | | | | |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender parity in enrolment | | | | |
| Extra levies is related to gender disparity in enrolment | | | | |
| Inadequacy of FSE funds is related to gender disparity in enrolment | | | | |
| Lack of food at home due to poverty at home is related to +gender disparity in enrolment. | | | | |

**Section B. Socio-cultural Factors Related to Gender Disparity in Enrolment**

| Cause | Strongly Disagreed | Disagreed | Agreed | Strongly Agreed |
|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | | | | |
| Initiation ceremonies is related to enrolment in enrolment | | | | |
| Early marriages is related to gender disparity in enrolment | | | | |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | | | | |
| Feeling of being adult is related to gender disparity in enrolment | | | | |
| Peer influence is related to gender disparity in enrolment | | | | |
| Early pregnancies is related to gender disparity in enrolment | | | | |
| Students' negative attitude towards school is related to gender disparity in enrolment | | | | |

**Section C. Institution Based factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | | | | |
| Lack of field/PE facilities is related to gender disparity in enrolment | | | | |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | | | | |
| Lack of teaching/Learning materials at school is related to gender disparity in enrolment | | | | |
| Student teacher relationship is related to gender disparity in enrolment | | | | |
| Harassment of girls by male counterparts is related to gender disparity in enrolment | | | | |
| Student teacher ratio is related to gender disparity in enrolment | | | | |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | | | | |
| Harassment of girls by male teachers is related to gender disparity in enrolment | | | | |

**Section D. Home Based Factors Related to Gender Disparity in Enrolment**

| Cause | Strongly Disagreed | Disagreed | Agreed | Strongly Agreed |
|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | | | | |
| Secure and conducive room to sleep is related to gender disparity in enrolment | | | | |
| Poverty at home is related to gender disparity in enrolment | | | | |
| Girl's insecurity between home and school is related to gender disparity in enrolment | | | | |
| Lack of study room at home is related to gender disparity in enrolment | | | | |
| Distance to school is related to gender disparity in enrolment | | | | |
| Low parental level of education is related to gender disparity in enrolment | | | | |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | | | | |
| Domestic chores is related to gender disparity in enrolment | | | | |

## Appendix III: Questionnaire for Secondary School Girls

**Part 1 Demographic Background Information**

1(a) What is your father's level of education?

| **Level** | **No education** | **Below 7/8** | **Class 7/8** | **O level** | **A level** | **Diploma** | **University** |
|---|---|---|---|---|---|---|---|
| Tick | | | | | | | |

(b) What is your father's source of income? _____

2(a) What is your mother's level of education?

| Level | No education | Below 7/8 | Class 7/8 | O level | A level | Diploma | University |
|---|---|---|---|---|---|---|---|
| Tick | | | | | | | |

(b) What is your mother's source of income? _____

**Part 2**: **Factors related to Gender Disparity in secondary school**

Below are statements describing some of the factors that affect gender disparity in public mixed day secondary education. Provided also are four possible options corresponding to the statements given below.

Strongly agree (SA)
Agree (A)
Disagree (D)
Strongly disagree (SD)

Kindly tick the option that best suits your opinion on the corresponding statement in sections A, B, C and D.

**Section A. Economic factors Related to Gender Disparity in Enrolment**

| Cause | Strongly Disagreed | Disagreed | Agreed | Strongly Agreed |
|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | | | | |
| Lack of personal effects is related to gender disparity in enrolment | | | | |
| Lack of transport expenses is related to gender disparity in enrolment | | | | |
| Lack of pocket money is related to gender disparity in enrolment | | | | |
| Lack of money for lunch programme is related to gender disparity in enrolment | | | | |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | | | | |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender parity | | | | |
| Child labour is related to gender disparity in enrolment. | | | | |
| Lack of at food at home due to poverty at home is related to gender disparity in enrolment | | | | |
| Extra levies are related to gender disparity in enrolment | | | | |

**Section B. Socio-cultural Factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Parents' preference to educate boy child is related to gender disparity in enrolment | | | | |
| Initiation ceremonies is related to gender disparity in enrolment | | | | |
| Early marriages is related to gender disparity in enrolment | | | | |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | | | | |
| Feeling of being adult is related to enrolment | | | | |
| Peer influence is related to gender disparity in enrolment | | | | |
| Early pregnancies are related to gender disparity in enrolment | | | | |
| Students' negative attitude towards school is related to gender disparity in enrolment | | | | |

**Section C. Institution Based Factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | | | | |
| Lack of field/PE facilities is related to gender disparity in enrolment | | | | |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | | | | |
| Lack of teaching /Learning materials at school is related to gender disparity in enrolment | | | | |
| Student teacher relationship is related to gender disparity in enrolment | | | | |
| Harassment of girls by male counterparts is related to gender disparity in enrolment | | | | |
| Student teacher ratio is related to gender disparity in enrolment | | | | |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | | | | |
| Harassment of girls by male teachers is related to gender disparity in enrolment | | | | |

**Section D: Home Based Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | | | | |
| Secure and conducive room to sleep is related to gender disparity in enrolment | | | | |
| Poverty at home is related to gender disparity in enrolment | | | | |
| Lack of study room at home is related to gender disparity in enrolment in enrolment | | | | |
| Distance to school is related to gender disparity in enrolment | | | | |
| Low parental level of education is related to gender disparity in enrolment | | | | |
| Domestic chores are related to is related to gender disparity in enrolment | | | | |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | | | | |
| Domestic chores is related to gender disparity in enrolment | | | | |

## Appendix IV: Questionnaire for Secondary School Boys

### Part 1 Demographic Background Information

1(a) What is your father's level of education?

| Level | No education | Below 7/8 | Class 7/8 | O level | A level | Diploma | University |
|---|---|---|---|---|---|---|---|
| Tick | | | | | | | |

(b) What is your father's source of income? _____

2(a) What is your mother's level of education?

| Level | No education | Below 7/8 | Class 7/8 | O level | A level | Diploma | University |
|---|---|---|---|---|---|---|---|
| Tick | | | | | | | |

(b) What is your mother's source of income? _____

### Part 2: Factors related to Gender Disparity in secondary school

Below are statements describing some of the factors that affect gender disparity in public mixed day secondary education. Provided also are four possible options corresponding to the statements given below.

Strongly agree (SA)
Agree (A)
Disagree (D)
Strongly disagree (SD)

Kindly tick the option that best suits your opinion on the corresponding statement in sections A, B, C and D.

**Section A. Economic factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | | | | |
| Lack of personal effects is related to gender disparity in enrolment | | | | |
| Lack of transport expenses is related to gender disparity in enrolment | | | | |
| Lack of pocket money is related to gender disparity in enrolment | | | | |
| Lack of money for lunch programme is related to gender disparity in enrolment | | | | |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | | | | |
| Child labour is related to gender disparity in enrolment | | | | |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | | | | |
| Lack of food at home due to poverty is related to gender disparity in enrolment | | | | |
| Extra levies is related to gender disparity in enrolment | | | | |

**Section B. Socio-cultural Factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Parents preference to educate boy child is related to gender in enrolment | | | | |
| Initiation ceremonies is related to gender disparity in enrolment | | | | |
| Early marriages is related to gender disparity in enrolment | | | | |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | | | | |
| Feeling of being adult is related to gender disparity in enrolment | | | | |
| Peer influence is related to gender disparity in enrolment in enrolment | | | | |
| Students' negative attitude towards education is related to gender disparity in enrolment | | | | |
| Early pregnancies is related to gender disparity in enrolment | | | | |

**Section C. Institutional Based Factors Related to Gender Disparity in Enrolment**

| **Cause** | **Strongly Disagreed** | **Disagreed** | **Agreed** | **Strongly Agreed** |
|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | | | | |
| Lack of field/PE facilities is related to gender disparity in enrolment | | | | |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | | | | |
| Lack of teaching /Learning materials at school is related to gender disparity in enrolment | | | | |
| Student teacher relationship is related to gender disparity in enrolment | | | | |
| Harassment of girls by male counterparts is related to gender disparity in enrolment | | | | |
| Student teacher ratio is related to gender disparity in enrolment | | | | |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | | | | |
| Harassment of girls by male teachers is related to gender disparity in enrolment | | | | |

**Section D. Home Based Factors related to Gender Disparity in Enrolment**

| Cause | Strongly Disagreed | Disagreed | Agreed | Strongly Agreed |
|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | | | | |
| Poverty at home is related to gender disparity in enrolment | | | | |
| Secure and conducive room to sleep is related to gender disparity in enrolment | | | | |
| Girls' insecurity between school and home is related to gender disparity in enrolment | | | | |
| Lack of adequate lighting facilities is related to gender disparity in enrolment. | | | | |
| Distance to school is related to gender disparity in enrolment | | | | |
| Low parental level of education is related to gender disparity in enrolment | | | | |
| Lack of study room at home is related to gender disparity in enrolment | | | | |
| Lack of adequate lighting is related to gender disparity in facilities is related to gender disparity in enrolment | | | | |

## Appendix V: Mean Values of the Findings

**Part one: Expressed in Percentages**

**Section A: Relationship between Economic Factors and Gender Disparity in enrolment**

| **Cause** | Girls | Boys | Heads | Mean | **Ranking** |
|---|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | 65.3 | 36.5 | 58.3 | 53.4 | 9 |
| Lack of personal effects is related to gender disparity in enrolment | 74.1 | 62.9 | 91.7 | 76.2 | 3 |
| Lack of transport expenses is related to gender disparity in enrolment | 43.5 | 46.7 | 57.2 | 49.1 | 10 |
| Lack of pocket money is related to gender disparity in enrolment | 54.1 | 45.5 | 66.7 | 55.4 | 8 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 63.5 | 70.6 | 63.9 | 66 | 5 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 62.4 | 58.7 | 55.6 | 58.9 | 7 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 73.6 | 67.6 | 85.9 | 75.7 | 4 |
| Child labour is related to gender disparity in enrolment | 84.1 | 70.6 | 91.6 | 82.1 | 1 |
| Lack of food at home due to poverty is related to gender disparity in enrolment. | 70 | 74.2 | 89.1 | 77.8 | 2 |
| Extra levies is related to gender disparity in enrolment | 52.4 | 66.4 | 63.9 | 60.9 | 6 |

**Section B: Relationship between Socio-cultural Factors and Gender Disparity in enrolment**

| Cause | Girls | Boys | Head teachers | Mean | Ranking |
|---|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | 69.4 | 86.4 | 72.2 | 76.0 | 2 |
| Initiation ceremonies is related to gender disparity in enrolment | 57.1 | 45.5 | 61.1 | 54.6 | 8 |
| Early marriages is related to gender disparity in enrolment | 85.3 | 50.3 | 66.6 | 67.4 | 5 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 66.5 | 68.8 | 58.4 | 64.6 | 6 |
| Feeling of being adult is related to gender disparity in enrolment | 62.5 | 62.9 | 61.1 | 61.2 | 7 |
| Peer influence is related to gender parity in enrolment | 70.6 | 66.4 | 66.7 | 67.9 | 4 |
| Early pregnancies is related to gender disparity in enrolment | 85.3 | 73.6 | 93.4 | 84.1 | 1 |
| Students' negative attitude towards school is related to gender disparity in enrolment | 66.5 | 68.2 | 88.9 | 74.5 | 3 |

**Section C: Relationship between Institution Based Factors and Gender Disparity in enrolment**

| Cause | Girls | Boys | Heads | Mean | Ranking |
|---|---|---|---|---|---|
| Poor/inadequate toilet facilities is related to gender disparity in enrolment | 72.3 | 71.8 | 80.6 | 74.9 | 2 |
| Lack of field/PE facilities is related to gender disparity in enrolment | 54.7 | 54.4 | 69.4 | 59.5 | 9 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 65.9 | 64.7 | 77.8 | 69.5 | 6 |
| Lack of teaching / Learning materials at school is related to gender disparity in enrolment | 64.2 | 64 | 66.7 | 65 | 7 |
| Student teacher relationship is related to gender disparity in enrolment | 74.7 | 75.5 | 72.2 | 74.1 | 3 |
| Harassment of girls by male counterparts is related to gender disparity in enrolment | 82.9 | 82.6 | 73.4 | 79.6 | 1 |
| Student teacher ratio is related to gender disparity in enrolment | 70.6 | 73.0 | 72.2 | 71.9 | 4 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 70.6 | 71.8 | 7202 | 71.5 | 5 |
| Harassment of girls by male teachers is related to gender disparity in enrolment | 54.1 | 82.6 | 58.3 | 65 | 7 |

**Section D: Relationship between Home Based Factors and Gender Disparity in enrolment**

| Cause | Girls | Boys | Head teachers | Mean | Ranking |
|---|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | 74.1 | 55.1 | 97.2 | 75.5 | 3 |
| Poverty at home is related to gender disparity in enrolment | 43.5 | 46.7 | 61.1 | 50.4 | 9 |
| Girl's insecurity between home and school is related to gender disparity in enrolment | 54.1 | 58.7 | 66.6 | 59.8 | 7 |
| Lack of study room at home is related to gender disparity in enrolment | 63.6 | 70.6 | 58.4 | 64.2 | 6 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 62.4 | 70.6 | 71.1 | 68.0 | 5 |
| Distance to school is related to gender disparity in enrolment | 73.6 | 67.6 | 66.7 | 69.3 | 4 |
| Low parental level of education is related to gender disparity in enrolment | 69.1 | 70.6 | 94.4 | 78.0 | 1 |
| Lack of adequate lighting facilities is related to gender disparity in enrolment | 70 | 68.2 | 88.9 | 75.7 | 2 |
| Domestic chores is related to gender disparity in enrolment | 53.5 | 54.7 | 63.9 | 57.4 | 8 |

**Part One: Average values of the means**

**Section A. Economic Factors Related to Gender Disparity in Enrolment**

| Cause | Girls | Boys | Head teachers | Average | Ranking |
|---|---|---|---|---|---|
| Lack of school uniform is related to gender disparity in enrolment | 2.79 | 2.22 | 2.86 | 2.62 | 9 |
| Lack of personal effects is related to gender disparity in enrolment | 2.93 | 2.70 | 3.39 | 3.00 | 4 |
| Lack of transport expenses is related to gender disparity in enrolment | 2.33 | 2.42 | 2.56 | 2.43 | 10 |
| Lack of pocket money is related to gender disparity in enrolment | 2.58 | 2.38 | 3.08 | 2.68 | 8 |
| Lack of money for lunch programme is related to gender disparity in enrolment | 2.90 | 2.91 | 2.92 | 2.91 | 5 |
| Lack of money to buy pens & geometrical sets is related to gender disparity in enrolment | 2.75 | 2.60 | 2.81 | 2.72 | 6 |
| Child labour is related to gender disparity in enrolment | 3.26 | 2.93 | 3.44 | 3.21 | 1 |
| Parents' reluctance to pay fees due to the false notion of free education is related to gender disparity in enrolment | 3.12 | 2.84 | 3.36 | 3.10 | 2 |
| Lack of food due to poverty is related to gender disparity in enrolment | 3.00 | 2.83 | 3.28 | 3.03 | 3 |
| Extra levies is related to gender disparity in enrolment | 2.48 | 2.81 | 2.83 | 2.70 | 7 |

**Section B: Socio-cultural Factors Related to Gender Disparity in Enrolment**

| Cause | Girls | Boys | Head teachers | Average | Ranking |
|---|---|---|---|---|---|
| Parents preference to educate boy child is related to gender disparity in enrolment | 2.82 | 2.79 | 3.17 | 2.92 | 4 |
| Initiation ceremonies are related to gender disparity in enrolment | 2.31 | 2.41 | 2.97 | 2.56 | 8 |
| Early marriages is related to gender disparity in enrolment | 2.66 | 2.46 | 2.94 | 2.69 | 7 |
| Community's negative attitude to educate girl child is related to gender disparity in enrolment | 2.96 | 2.89 | 2.89 | 2.91 | 5 |
| Feeling of being adult is related to gender disparity in enrolment | 2.73 | 2.63 | 2.83 | 2.73 | 6 |
| Peer influence is related to gender disparity in enrolment | 3.00 | 2.84 | 3.11 | 2.98 | 3 |
| Students' negative attitude towards education is related to gender disparity in enrolment | 2.91 | 2.89 | 3.25 | 3.02 | 2 |
| Early pregnancies is related to gender disparity in enrolment | 3.29 | 2.99 | 3.56 | 3.28 | 1 |

**Section C: Institutional Based Factors Related to Gender Disparity in Enrolment**

| Cause | Girls | Boys | Head teachers | Average | Ranking |
|---|---|---|---|---|---|
| Poor/inadequate toilets is related to gender disparity in enrolment | 2.91 | 2.90 | 3.17 | 2.99 | 6 |
| Lack of field/PE facilities is related to gender disparity in enrolment | 2.37 | 2.37 | 2.92 | 2.55 | 8 |
| Inadequacy of classrooms and laboratories is related to gender disparity in enrolment | 2.93 | 2.91 | 3.25 | 3.03 | 4 |
| Lack of teaching /Learning materials at school is related to gender disparity in enrolment | 2.79 | 2.79 | 2.92 | 2.83 | 7 |
| Student teacher relationship is related to gender disparity in enrolment | 3.16 | 3.03 | 2.86 | 3.01 | 5 |
| Harassment of girls by male counterparts is related to gender disparity in enrolment | 3.24 | 3.19 | 3.08 | 3.17 | 2 |
| Student teacher ratio is related to gender disparity in enrolment | 3.02 | 3.28 | 3.31 | 3.20 | 1 |
| Lack of female teachers to act as role models is related to gender disparity in enrolment | 3.02 | 3.23 | 2.92 | 3.06 | 3 |
| Harassment of girls by male teachers is related to gender disparity in enrolment | 2.51 | 2.51 | 2.60 | 2.54 | 9 |

**Section D: Home Based Factors related to Gender Disparity in Enrolment**

| Cause | Girls | Boys | Head teacher | Average | Ranking |
|---|---|---|---|---|---|
| Lack of parental support is related to gender disparity in enrolment | 2.93 | 2.52 | 3.39 | 2.95 | 5 |
| Poverty at home is related to gender disparity in enrolment | 2.33 | 2.42 | 2.97 | 2.57 | 9 |
| Secure and conducive room to sleep is related to gender disparity in enrolment | 2.75 | 2.60 | 2.83 | 2.73 | 7 |
| Girls' insecurity between school and home is related to gender disparity in enrolment | 3.12 | 2.84 | 3.11 | 3.02 | 3 |
| Domestic chores are related to gender disparity in enrollment | 2.50 | 2.61 | 2.83 | 2.65 | 8 |
| Distance to school is related to gender disparity in enrolment | 3.12 | 2.84 | 3.11 | 3.02 | 3 |
| Low parental level of education is related to gender disparity in enrolment | 3.26 | 2.93 | 3.56 | 3.25 | 1 |
| Lack of study room at home is related to gender disparity in enrolment | 2.90 | 2.91 | 2.89 | 2.90 | 6 |
| Lack of adequate lighting is related to gender disparity in facilities is related to gender parity in enrolment | 3.00 | 2.83 | 3.25 | 3.03 | 2 |

## Appendix VI: Sampling Frame

**Public Mixed Day Secondary schools in Belgut Sub-County**

1. Seretet
2. Kaplutiet
3. Chepkoilen
4. Chepkutung
5. Borborwet
6. Kamaso
7. Cheribo
8. Chebirbel
9. Chemamul mixed day
10. Kapkitony
11. Kiptome
12. Nyabangi

**Public Mixed Day Secondary school in Londiani Sub-County**

1. Masaita
2. Tulwap
3. Chepseon Complex
4. Chepcholiet
5. Momoniat
6. Tugunon
7. Kiprengwe
8. Kimugul
9. Kedowa day
10. Chebewor
11. Tulwap
12. Londiani
13. Township
14. Barotion
15. Kapkondo
16. Jubilee
17. Kapsende
18. Jagoror
19. Saramek
20. Kimugul
21. Kapcheplanga
22. Kipsirichet
23. Tendeno
24. Finch
25. Sorget
26. Cheres
27. Tendeno
28. Baraka

**Public Mixed Day Secondary Schools in Kipkelion Sub-County**

1. Barsiele
2. Kimologit
3. Kalyet

4. Murao
5. Kasheen
6. Kamarus
7. Tuyobei
8. Kipchorian
9. Liloch
10. Kipsegi
11. Lesirwo
12. Tunnel
13. Siret
14. Kapias
15. Kutun
16. Kures
17. Kaplelit
18. Cherara
19. Kokwet
20. Magire
21. Siret
22. Nyarobi
23. Kunyak
24. Chemogoch
25. Sugutek
26. chepkoton
27. Koisagat
28. Tulwapmoi
29. Kapkwen

**Public Mixed Day Secondary Schools in Bureti Sub-County**

1. Itoik
2. Kapkatet
3. Chebitel
4. Chemoiben
5. Kamanamsim
6. Ngesumin
7. Kapsogeru
8. Tiriitabmoita
9. Bustin
10. Kapsinendet
11. Lelach girls
12. Mosubeti girls
13. Mombwo
14. Kapkarin
15. Litein day
16. Kibugat
17. Kaptele
18. Siongi
19. Kibolgong
20. Chepkulgong
21. Kaminjeiwa
22. Cheptenndeniet

23. Kabusientun
24. Ngororga
25. Tapkutwet
26. Getarwet
27. Nelson Mandela
28. Ngoina
29. Kelunet
30. Mabasi
31. Kiptobon
32. Kapchelach

**Public Mixed Day Secondary Schools in Kericho Sub-County**

1. Kaboloin
2. Buchenge
3. Kapngetuny
4. Manyoror
5. Maso
6. Chepngobob
7. Poiywek
8. Keongo
9. Brooke day
10. Kericho day
11. Kericho township
12. Matobo
13. Kaptebeswet
14. Kenegut day
15. Ketitui

**Public Mixed Day Secondary Schools in Sigowet Sub-County**

1. Kebeneti
2. Marumbasi
3. Kipsomoi
4. Sondu
5. Kaplelartet
6. Kapsorok
7. Kapokyek
8. Kaitui

## Appendix V: University Research Authorization Letter

**KABARAK UNIVERSITY**

**INSTITUTE OF POST GRADUATE STUDIES**

**Private Bag - 20157**
**KABARAK, KENYA**
**E-mail: directorpostgraduate@kabarak.ac.ke**
**Tel: 0773265999**
**Fax: 254-51-343012**
**www.kabarak.ac.ke**

**27th July, 2018**

**Ministry of Higher Education Science and Technology.**
**National Council for Science, Technology & Innovation,**
**P.O. Box 30623 - 00100,**
**Dear Sir/Madam.**

**RE: RESEARCH BY KOECH JOHANNES-GDE/M/0882/09/14**

The above named is a student at Kabarak University taking PhD Degree in Education. He is carrying out research entitled "Influence of Selected Factors on Gender Party in Enrolment of Student in Public Mixed Secondary Schools in Kericho County, Kenya"

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

**Please provide the necessary assistance.**
**Thank you.**

Yours faithfully

KABARAK UNIVERSITY POST GRADUATE STUDIES 30 JUL 2018 PRIVATE BAG - 20157 KABARAK

Dr. Betty Tikoko
DIRECTOR - (POST-GRADUATE STUDIES)

## Appendix VIII: NACOSTI Research Authorization Letter


**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION**

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/32563/16997** Date: **30th May, 2019**

Johannes Kipkemoi Koech
Kabarak University
Private Bag - 20157
**KABARAK.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on ***"Influence of selected factors on gender parity in enrollment of students in public mixed secondary schools in Kericho County, Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **Kericho County** for the period ending **30th May, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Kericho County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**BONIFACE WANYAMA**
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Kericho County.

The County Director of Education
Kericho County.

## Appendix IX: NACOSTI Research Permit

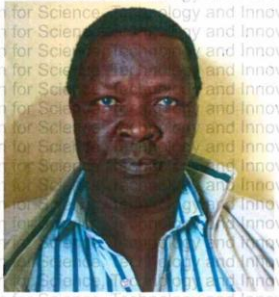
THIS IS TO CERTIFY THAT:
*MR. JOHANNES KIPKEMOI KOECH*
of KABARAK UNIVERSITY,
722842694-20217 CHESINENDE,has
been permitted to conduct research in
*Kericho County*

on the topic: *INFLUENCE OF SELECTED FACTORS ON GENDER PARITY IN ENROLLMENT OF STUDENTS IN PUBLIC MIXED SECONDARY SCHOOLS IN KERICHO COUNTY, KENYA*

for the period ending:
*30th May,2020*

.....
*Applicant's Signature*

Permit No : NACOSTI/P/19/32563/16997
Date Of Issue : 30th May,2019
Fee Recieved :Ksh 2000



.....
*Director General*
*National Commission for Science, Technology & Innovation*

**THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013**

rant of Research Licenses is guided by the Science, ology and Innovation (Research Licensing) Regulations, 2014.

**ONDITIONS**

License is valid for the proposed research, location and ified period.
License and any rights thereunder are non-transferable.
Licensee shall inform the County Governor before mencement of the research.
avation, filming and collection of specimens are subject to ther necessary clearance from relevant Government Agencies.
License does not give authority to transfer research materials.
COSTI may monitor and evaluate the licensed research project.
Licensee shall submit one hard copy and upload a soft copy eir final report within one year of completion of the research.
COSTI reserves the right to modify the conditions of the ense including cancellation without prior notice.

ional Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

NACOSTI

**National Commission for Science, Technology and Innovation**

**RESEARCH LICENSE**

**Serial No.A 25105**

**CONDITIONS: see back page**

**Appendix X: Permit from County Director of Education**

# MINISTRY OF EDUCATION

## STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Email:cdekerichocounty@gmail.com
When Replying Please Quote:

County Education Office
P.O BOX 149
**KERICHO**

**REF:** KER/C/ED/GC/2/VOL.II/

11TH JULY, 2019.

**TO WHOM IT MAY CONCERN.**

**RE: RESEARCH AUTHORIZATION.**
**JOHANNES KIPKEMOI KOECH.**

The above student has been authorized by the National Commission for Science, Technology and innovation to undertake research on "***Influence of selected factors o gender parity in enrolment of students in Public Mixed Secondary schools in Keric County, Kenya***", for the period ending 30th May, 2020.

Kindly accord him the necessary assistance.

COUNTY DIRECTOR OF EDUCATION
11 JUL 2019
P.O. Box 149-20200 KERICHO

ZACHARY MUTUIRI
COUNTY DIRECTOR OF EDUCATION
**KERICHO COUNTY**.

**Appendix XI: Permit from County Commissioner**

**OFFICE OF THE PRESIDENT**
**MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT**

Telegrams: .....
Telephone: Kericho 20132
When replying please quote
kerichocc@yahoo.com

THE COUNTY COMMISSIONER
KERICHO COUNTY
P.O. BOX 19
KERICHO

REF: MISC.19 VOL.III/242

11th July, 2019

Johannes Kipkemoi KOECH
Kabarak University
P.O Box 20157
**KABARAK**

**RE: RESEARCH AUTHORISATION**

I am pleased to inform you that you are authorized to undertake research as per the letter Ref. No. NACOSTI/P/19/32563/16997 dated 30th May, 2019 on ***"Influence of selected factors on gender parity in enrollment of students in public mixed secondary schools in Kericho, Kenya"*** for a period ending 30th May, 2020.

Any assistance accorded to him is highly appreciated.

COUNTY COMMISSIONER
KERICHO COUNTY

Ezekiel Amonde
FOR: COUNTY COMMISSIONER
**KERICHO COUNTY**

CC: County Director of Education
**KERICHO**

## Appendix XII: Map of Kericho County