GENDER CONSTRUCTIONS AND ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN MERU COUNTY, KENYA

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GENDER CONSTRUCTIONS AND ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN MERU COUNTY, KENYA

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A Dissertation Submitted to the Faculty of Education in Partial Fulfilment of the Requirement for Degree of Doctor of Philosophy in Education.

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

September, 2013
DECLARATION

I, the undersigned, hereby declare that this dissertation is my original work and that all sources used are made explicit in the text, and that this dissertation has not been submitted for a degree award in any other university.

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DEDICATION

This dissertation is dedicated to my husband, Karuti Kanyinga, and sons,
Eric, Mike and Ryan. It is also dedicated to the memory of my late parents,

Bernard Kiao Liria and Mary Nkatha.
ABSTRACT

This study was conceived to explore the influence of gender constructions on academic achievement in public secondary schools with specific reference to Meru County, Kenya. It sought to provide satisfactory responses to the following overarching research questions: First, what role do social perceptions play in constructing feminine and masculine genders among male and female students in secondary schools? Second, how does the gender socialization process influence academic achievement for male and female students in secondary schools? Third, what challenges do male and female students face in schools based on their gender constructions? Fourth, what support mechanisms should the school system adopt to address the influence of gender constructions on academic achievement of male and female students in secondary schools? Fifth, to what extent do gender constructions influence academic achievement of male and female students in secondary schools? The study employed a mixed method approach that combined elements of qualitative and quantitative aspects.

This research employed a descriptive survey design to explore how gender constructions influence academic achievement in secondary schools. Naturalistic design was also used to generate in-depth information from study participants in their natural environment. Data was collected using various methods including; administering questionnaires to 500 randomly sampled male and female students in 85 schools; held focus group discussions with male and female students’ participants in 10 schools; interviewed 85 principals, 171 teachers, 92 parents and 8 education officers. Quantitative data analysis involved both descriptive and inferential analysis using SPSS version 20. Qualitative data analysis employed thematic
analysis that entailed analysing transcripts of focus group discussions and data generated from interviews.

The main findings of this study include inter-alia, that femininity and masculinity influence the academic achievement of male and female students in diverse ways. For instance, although school retention is higher for girls, boys are more likely to perform better than girls in KCSE. Correspondingly, Form Three is a level at which most boys get disadvantaged in secondary education because, perhaps it is where masculinity becomes more pronounced.

Upon carrying out a correlation analysis, a negative coefficient was obtained that indicated an inverse relationship between gender constructions and performance. Despite revealing a weak relationship between gender constructions and academic performance, it was nonetheless significant enough to reject the null hypothesis, which stated that; there is no significant relationship between gender constructions and academic performance.

Findings of this study have implications for the formulation of gender policies and programs in education. Recommendations for addressing aspects of gender constructions that negatively influence academic performance were made. These included; a critical examination at the decreasing disadvantaged position of the boy-child in education; proactive measures to mitigate the influence of feminine-based factors that impact negatively on girls’ education; gender-balanced policies in education to bridge gender gaps in subject preference and performance along gender lines; alongside strengthening girl-focused programs, it is also imperative to institute boy-empowerment support mechanisms such as programs for discussing male-centred topics and equipping them with skills that enable them navigate masculinity, while enhancing academic achievement.
ACKNOWLEDGEMENT

I begin by thanking God for granting me persistence, commitment and dedication to carry out this study to its completion. My sincere appreciation goes to my supervisors, Prof. Maurice Amutabi and Dr. Simon Kang’ethe, who mentored me intellectually and provided me with inspiration during the study period. Without their objective criticism, professionalism and accessibility, I would not have successfully completed this study.

Special appreciation goes to Mr Chabari, the Meru County Quality Assurance and Standards Officer (CQASO), all the District Education Officers (DEOs), the District Quality Assurance and Standards Officers (DQASOs), as well as all the District Examination Officers (DXOs) in Meru County, who not only provided valuable responses and records, but also authorized this study in their respective jurisdictions. I am equally grateful to all the principals, teachers and students of the selected secondary schools, who shared with me their experiences and knowledge, and greatly enriched this study. I am also indebted to all parents who participated in this study.

Field work for this study involved extensive interviewing and administration of questionnaires in the entire Meru County. My special thanks go my research assistants – Edward Mutuma, Benjamin Mwiti, Evans Munene Ngiyo, Sarah Kauri Charles, Joy Kaireri Mwambia, Andrew Kipmaiyo Cheboi, Evans Muchui Kathuthu, Maurice Theuri Kobia, and Timothy Kiunga – who worked tirelessly with me during the data collection phase. I single out for special appreciation Edward Mutuma, the Research Assistants’ supervisor, who worked with me from the piloting stage until the collection of field data. My sincere gratitude also goes to Jotham Mithika and his proficient team of data entry clerks, whose diligence and professionalism enabled me to complete entering and classifying data within
my schedule. In addition, I am thankful to Kevin Nyamongo Motaroki for his input in editing and proof-reading this work.

My heartfelt appreciation goes to my dear husband, Karuti Kanyinga, who provided me with emotional and intellectual support throughout the entire period of my research. To my beloved sons, Eric Karani, Mike Munene and Ryan Mwenda, thank you for withstanding my absence while I was away collecting data. In addition you all provided me with love, encouragement and peaceful atmosphere that made the writing of this thesis possible.

Finally, I would like to sincerely thank all those who contributed towards the completion of this work in diverse ways and whose names I have not mentioned here, and declare that despite your immense support, I am solely responsible for whatever is expressed in this thesis.
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<tr>
<td>ASAL</td>
<td>Arid and Semi-Arid Lands</td>
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<tr>
<td>BoG</td>
<td>Board of Governors</td>
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<tr>
<td>CDE</td>
<td>County Director of Education</td>
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<tr>
<td>CRC</td>
<td>Convention on the Right of the Child</td>
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<td>CSA</td>
<td>Centre for the Study of Adolescence</td>
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<td>CSOs</td>
<td>Civil Society Organizations</td>
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<tr>
<td>CQASO</td>
<td>County Quality Assurance and Standards Officer</td>
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<tr>
<td>CUEB</td>
<td>Centre for Universal Education at Brookings</td>
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<tr>
<td>DANIDA</td>
<td>Danish International Development Agency</td>
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<tr>
<td>DEO</td>
<td>District Education Officer</td>
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<tr>
<td>DSO</td>
<td>District Staffing Officer</td>
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<td>DQASO</td>
<td>District Quality Assurance and Standards Officer</td>
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<td>DXO</td>
<td>District Examination Officer</td>
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<tr>
<td>EFA</td>
<td>Education for All</td>
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<td>FAWE</td>
<td>Forum for African Women Educationalists</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>FGM</td>
<td>Female Genital Mutilation</td>
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<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>GAD</td>
<td>Gender and Development</td>
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<td>GER</td>
<td>Gross Enrolment Rates</td>
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<td>KCSE</td>
<td>Kenya Certificate of Secondary Education</td>
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<td>KICD</td>
<td>Kenya Institute of Curriculum Development</td>
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<td>KIE</td>
<td>Kenya Institute of Education</td>
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<td>KNEC</td>
<td>Kenya National Examinations Council</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
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<td>NACADA</td>
<td>National Authority for the Campaign against Alcohol and Drug Abuse</td>
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<td>Acronym</td>
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<td>NER</td>
<td>Net Enrolment Rates</td>
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<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>PTA</td>
<td>Parent Teachers’ Association</td>
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<tr>
<td>SI</td>
<td>Symbolic Interactionism Theory</td>
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<td>SMT</td>
<td>Science, Mathematics and Technology</td>
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<td>SPSS</td>
<td>Statistical Package for Social Science</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>TSC</td>
<td>Teachers Service Commission</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>UNESCO</td>
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<td>USAID</td>
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CHAPTER ONE

INTRODUCTION

1.1 Background to the Problem

Education is a basic human right, and a key catalyst to economic growth, social progress and personal development. Over the years, national government have invested heavily to provide citizens with equal opportunity to access education. A major concern however, is that since the worldwide Education for All (EFA) process was initiated in Jomtien in 1990, the significant priority given to primary education in many countries has become evident. According to the World Bank (2008), various institutions such as the international donors, development partners, as well as national policies have tended to focus mainly on the first years of schooling. Consequently, limited attention is accorded to secondary and other levels of the education system, leading to imbalances between the sectors. Subsequently, secondary education continues to be a growing concern and major challenge for education policymakers and researchers worldwide as it plays an increasingly important role in creating healthy and cohesive societies, and spurs economic growth (UNESCO, 2011).

The limited emphasis on secondary education has had various ramifications. In particular, Africa still faces serious development challenges in human development, particularly in post-primary education. Notably, many challenges to expanding secondary education are particularly pronounced in Sub-Saharan Africa (SSA) where participation rates for secondary education are the lowest for any region of the world (World Bank, 2008). Similar trends are reflected in Kenya, because while education is considered a basic right and need, the delivery of secondary education has been slow due to several bottlenecks.
Some of these challenges include high wastage, declining completion rates, decreased transition rates from primary school to secondary, and low female enrolment in science and technical courses (Njeru and Orodho, 2003).

Despite limited focus on secondary education, various benefits are associated with this level of schooling. In particular, secondary education equips learners with the necessary knowledge and skills to thrive in an advanced technological society. It also instils the cognitive skills crucial to national economic growth. Acquiring secondary education provides a firm base for entry into tertiary and higher education (Achoka, 2007; CUEB, 2011; Verspoor & Bregman, 2008; World Bank, 2008), and is strongly linked with increased decision-making capacity and mobility. It is, therefore, a level of education that contributes to expanded economic growth and social development (Chege and Sifuna, 2006; Rihani, 2006; USAID, 2008). Despite these indisputable benefits associated with secondary education, this level of education is also characterised by wider gender disparities (OECD, 2011) as compared to any other level in the education system. In Sub-Saharan Africa (SSA), while only approximately 25 per cent of secondary school-age children were enrolled in secondary school in 2006 (UNESCO, 2008), school drop-out rates were also higher at this level. One fundamental factor identified by Randell and Gergel (2009) as a key contributor to gender gaps in secondary education has to do with cultural attitudes, which reinforce the norm that girls do not need further education after primary school. Adolescent boys, too, get disadvantaged by certain various factors that this study attempted to explore in relation to how they create gender inequalities in academic performance.

Further, while some regions grapple with low academic achievement for girls, others content with underachievement of boys. For instance, while the Francophone countries, and
others such as Somalia, Mali, Liberia and Ethiopia, record female enrolment at secondary school below 30 per cent (Kitetu, 1998: Nyaegah & Mwango, 2012), the concern in Australia, USA and the United Kingdom, is that boys constitute a large chunk of early school leavers (OECD, 2011). Boys are also disadvantaged and generally under-perform relative to girls in schools throughout the industrialized world (Legewie and DiPrete, 2011). Similarly, in Botswana, Lesotho, Namibia and Mauritius, female enrolment levels have exceeded those of males at both primary and secondary levels (Jha & Kelleher, 2006). This study explored contributing factors to gender disparities in secondary schools.

Documented evidence in Kenya illustrate that less than half of pupils who sit for the Kenya Certificate of Primary Education (KCPE) examination gain access to secondary schools (Oziery, 2010; Suda, 2001), fewer girls than boys join secondary schools, and still smaller numbers survive the Kenya Certificate of Secondary Education (KCSE) examination (Wamahiu, 1992). As a result, the transition rate to secondary education in Kenya is 40.4 per cent and 33.3 per cent for boys and girls respectively (MoEST, 2009). Low participation rates of male and female students in secondary education, thus present a growing concern and major challenge for education policy-makers and researchers worldwide, particularly because secondary education is also proven to play an increasingly important role in creating healthy and cohesive societies as well as stimulating economic growth (UNESCO, 2011).

Gender ‘construction’ in this study is a concept used to underscore how masculine and feminine gender identities are formed, negotiated and experienced differently by boys and girls in secondary schools to influence academic performance. Gender is a social and cultural construct which distinguishes differences in the attributes and roles of men and women (Fennell and Arnot, 2008). Rather than being rooted in the biological status of being
male and female, gender refers to the social categories of male or female. The term gender thus acknowledges the importance of cultural beliefs, socialization, and other influences on how individuals experience being male or female. Gender perspectives in education prompt education administrator and planners to always analyze how education action, decision and outcome benefit female vis-à-vis male students. This research provided stakeholders with gender perspective in education. The study attempts to illustrate how a gender blind policy and planning decision in education could affect female and male students in diverse ways.

Stromquist (2007) argued that, gender is an important factor in schooling because several factors interplay and, in the process of these interactions, certain male and female students are positioned in ways that can produce cumulative challenges to their schooling. The socialization at school level may be effected through various ways, including classroom interaction (depending on the mode), classroom activities, subject choices, and participation in physical education chores (Sifuna et al, 2006). Schools thus become one of the society’s most powerful socializing forces that foster and support societal stereotypes for gender behaviour (Skelton, 2001). Based on this argument, the school as a social institution is viewed as pertinent to this study because it tends to repeat and instil the cultural labels and values into which individuals have been socialized at the family and social levels. By focusing on secondary schools, this research captured the dynamics of gender equality as they operate within the education system.

1.1.1 Education, Gender and Socialization: The Interface

According to Ogachi (2006), education is the main avenue through which a society’s culture is transmitted from one generation to another. At the same time, through the development of intellect and creativity, education lays the foundation for social and cultural
change. It is through the education process that members of a society acquire the knowledge, and normative system that they require to live in society. At this point, the process of education can be equated to that of socialization. Socialization or enculturation is defined as a process through which individuals learn the culture of their society which includes norms and values. Bennaars, et al (1994) stated that education is characterized by cognitive and individual development, as well social construct. In this regard, although education socializations people’s intellectual abilities and inclinations, their attitudes and moral tendencies and expectations are usually developed within a given social framework. By implication, education becomes a process by which one acquires attitudes and cognitive abilities which society considers desirable and satisfying certain social standards or criteria that are often built into society’s values. The aim is to socialize individuals to conform to what is socially acceptable, hence enable one to fit into the broad societal culture. Subsequently, education becomes a process of socializing the young into these societal values. Education socialization thus involves shaping one’s attitude and habits to conform to what is socially acceptable. In this regard, education provides an important socializing context, such that students’ informal interactions in schools are an influential aspect of their socialization into restricted gender roles EACEA (2012).

Based on the aforementioned argument, both gender socialization and education socialization have some distinct common features. These include the role of enabling individuals acquire social skills. The point of departure however is that while education socialization enables one to acquire general social skills, gender socialization enables one to gendered skills to enable them conform to set social norms considered appropriate for males and females. The importance of analyzing gender socialization in education is to explore
how the gender socialization process position male and female students in situations that
disadvantage their academic achievement, leading to gender inequalities in education.

According to EACEA (2012), apart from the injustice inherent in all gender
stereotyping, gender differences in education can also negatively affect economic growth
and social inclusion. For example, the study revealed that while girls remain a minority in
the fields of Mathematics, Science and Technology, evidence shows that boys on the other
hand are more likely to be amongst the poorest performers in reading ability. Accordingly,
gender differences in education must be taken into account when developing policies and
strategies to improve educational outcomes. The aforementioned justifies the need for
gender in education research to shift from a field largely concerned with righting the wrongs
against girls and women, historically, culturally and educationally, to a policy field
influenced by cross-cultural studies of academic achievement and boys’ education.

Although gender and sexual relations have often been misconstrued to be
synonymous, theorists and researchers have demonstrated that being women or man (as
opposed to being female or male) is the result of social interaction. According to Chege and
Sifuna (2006), these main social institutions where individual interact are the school and
family. These institutions help to reinforce and perpetuate a polarity between the feminine
and the masculine. Consequently, creating gender boundaries that are justified through
myths and related social stereotypes about what is considered appropriate behaviour and
attributes for males and females. The social characteristics considered masculine include
competitiveness and assertiveness, while feminine qualities include sensitivity, humility,
intuition and compassion. This study was designed to explore the role of these gender
stereotypes in education of boys and girls in secondary schools.
1.1.2 Gender Equality in Education

Gender and education are also important development issues. Research on gender concerns in education was thus motivated by the desire to generate knowledge useful for developing policies and programs that would contribute to achieving gender equality in education and sustainable development. Gender parity in education is a quantitative or numerical concept that implies that the same number of boys and girls are receiving educational services at different levels and in diverse forms (UNESCO, 2009). Indicators of gender parity, therefore, tell us about the ‘peopling’ of institutions of education by gender, and indicating whether boys and girls are represented in equal numbers (Subrahmanian, 2005). In this regard, gender parity in education can be viewed as a rather narrow aspiration that simply talks about numbers. Subsequently, reaching parity in enrolment only tells half the story in that it simply explains who enters schools but fails to reveal who advances, succeeds, and completes schooling, or whether learners have acquired knowledge that they can use outside of school (Aikman and Unterhalter, 2007). Further, while gender parity describes what is happening to girls and boys as separate categories, it provides little information about the nature of gender relations between boys and girls as social groupings within the education system (UNESCO, 2003). Gender parity can hence be termed as the first stage measure of progress towards gender equality in education.

Achieving gender parity in education is a pre-requisite to achieving gender equity in education. Equity is premised on the principle of fairness in outcome and sharing of resources, opportunities and benefits (Chesoni, 2006). Equity, as a consequence, does not imply treating all learners in exact same ways because many factors could hinder chances of students achieving equitable outcomes. Gender equity measures, therefore, recognize that, in
order to promote equality between women and men in education, special measures may be required to redress prior inequalities, thus ensuring that women and men operate on an even playing field (Danida, 2008; OECD, 2011; UNESCO, 2009; USAID, 2008).

This study is anchored on gender equality principals, hence the ultimate purpose of ensuring a balanced focus on male and female gender. A gender balanced approach was maintained with the assumption that disadvantage(s) in one gender is likely to threaten reversal of gains in the gender equality trajectory. Gender equality does not, however, mean that boys and girls will become the same; rather it means that boys and girls have equal conditions, treatment and opportunities to realise their full potential (Jha and Kelleher, 2006; Subrahmanian, 2005; UN, 2008). Gender equality is thus the equal valuing, by society, of the similarities and the differences between men and women, and the roles they play (Danida, 2008). In the context of education, gender equality is achieved through similar treatments accorded to the male and female gender, as well as equal opportunity to access quality education, free from any stereotypes (Chesoni, 2006; UNESCO, 2009). Promoting gender equality requires not only a numerical equilibrium, but also a conceptual equilibrium, augmented by a conscientious effort to redress any forms of gender inequality as and how they exist. Focusing on gender relations in education is imperative because an exclusive focus on numbers has often presented apparent progress in gender parity, but concealed real patterns of discrimination and disadvantage that confront boys and girls in school (Onsomu, et al, 2006; Wilson, 2003).

Gender equality is thus not just a women’s issue, it is a development issue. The benefits of female education in creating powerful poverty-reducing synergies and yielding enormous intergenerational gains, is indisputable. However, achieving gender equality
would require investing in the education of both girls and boys, while maintaining a balance between them. Thus, even within the context of gender equality, boys’ education cannot be ignored. This is because various literature have revealed that efforts to improve the education of girls in some countries have resulted in significant increases and progress in female education, but a slight regression in male participation in education. The risk to reverse gender equality gains becomes a cause for concern.

Gender perspectives in education prompt education administrator and planners to always analyze how education action, decision and outcome benefit female vis-à-vis male students. This research will thus enable stakeholders to take a gender perspective in education by ensuring femininity and masculinity is located within education as a relational concept. Similarly, it will enable stakeholders to critique how a gender blind policy and planning decision in education could affect female and male students in diverse ways.

This study broadly defined academic achievement to constitute attendance, completion and performance in secondary schools. Secondary Net enrolment rate (NER) in Kenya secondary schools has remained below 50 percent for years. An analysis of NER for Meru County revealed a grim picture on participation of male and female students in secondary education. Evidently, while NER at all levels are generally low compared to national averages, data by the Ministry of education present declining situations especially for boys’ education in secondary school in Meru County. For instance, in 2009, the NER at pre-school level was at 33.5% for boys and 34.5% for girls compared to national figures of 41.3% and 42.3% for boys and girls respectively. Primary education NER for Meru County during the same period recorded higher than the national average at 84.1% for boys and 85.9% for girls, compared to a national average of 76.2% and 78.3% for boys and girls
respectively. However, secondary level recorded lower NER rates than any other level especially for boys. NER for secondary education during the same period (2009) was recorded at 19.1% for boys and 25.3% for girls compared to a national average 22.2% and 25.9% for boys and girls respectively (Republic of Kenya, 2012). This trend raised the fundamental questions of the role of gender constructions in influencing academic achievement in Meru County.

In addition to low attendance, gender differences in performance at secondary schools for Kenya in general and in Meru County in specific are evident. Thus, despite significant progress made by Kenya in reducing gender gaps in school enrolment, considerable gender differences in performance remain. For instance, in the 2011 KCSE results, out of the top 100 students nationally, 34 were female compared to 66 male students. Similar results were mirrored at county level where only in three counties did girls outnumber boys in the top 10. The same trend was reflected for schools with only three of the top 10 schools being girls’ schools. Similarly, just three of the top 10 students nationally were female students ranking fourth nationally (Odhiambo, 2012). These performance discrepancies translate to gender imbalances in transition to university and other tertiary institutions. Likewise, in Meru County, performance in National examination in public secondary schools is relatively low. In 2011 KCSE results, only four schools (all boys’ boarding) were ranked among the top 100 best performing schools nationally (KNEC, 2011). Based on the aforementioned, it is evident that while girls outnumber boys in school attendance, boys’ outperform girls in KCSE. This unique trend in Meru County is what inspired this research to investigate the influence of gender constructions on academic performance.
1.2 Statement of the Problem

Despite the indisputable benefits of secondary education in equipping learners with the necessary knowledge and skills to thrive in an advanced technological society, secondary education is characterised by wider gender disparities. This study was conceived due to the imperative need to contribute knowledge to unearth what hinders academic performance in secondary education sector in Kenya in general and in Meru County in specific. In particular, this study sought to investigate the contribution of gender constructions in influencing completion and performance of male and female students in public secondary schools.

Although significant progress in achieving gender parity in education is evident, there are limited studies that examine whether male and female students attend school regularly, complete grades successfully or acquired knowledge that they can use outside of school. Moreover, although available data depicts irregular gender differences in educational achievement, literature delving into gender differences in academic achievement tends to cluster around the themes of socio-economic factors and the role of biological differences in influencing academic performance. Consequently, limited attention is given to examining how academic achievement is mediated by gender constructions in the Kenyan context. This study argues that, when examining academic achievement, it is important to understand gender-based components that contribute to underachievement of male and female students in secondary schools. Accordingly, the role of femininity and masculinity in education is an area rarely analysed in many situations when evaluating gender differences in academic achievement in the Kenyan scenario.
This study argued that the manifestation of gender constructions is a result of interaction with various social settings that often lead to conflict between societal and schooling expectations. The theoretical focus of various gender studies acknowledges the fact that, on average, there are significant gender differences in many educational outcomes. However, limited research emphasise the need to analyse how the different social circumstances present challenges that face boys and girls in school based on gender socialization processes.

The Net enrolment rate (NER) for secondary education in Meru County is low compared to the National average. NER for Meru for 2009 was recorded at 19.1% for boys and 25.3% for girls compared to a national average 22.2% and 25.9% for boys and girls respectively (Republic of Kenya, 2012). Likewise, performance in Kenya Certificate of Secondary Education (KCSE) examination is persistently low for Meru County. In 2011 KCSE results, only four schools (all boys’ boarding) in Meru County were among the top 100 best performing schools nationally (KNEC, 2011). While girls outnumber boys in school attendance, boys’ outperform girls in KCSE. Investigating the role played by gender constructions in explaining these trends was what inspired the need to carry out this study.

Gender balanced research focusing on both boys and girls as different gender groups with varied gender needs in education is limited in the Kenyan context in general and in Meru County in particular. Evidently, most studies on gender in education are generally designed to address the disadvantaged position of girls in education. However, in view of the merging trends that depict boys’ underachievement in education, there is need for a gender-balanced approach in addressing gender issues in education. Since gender is relational, failure to address the unique needs of boys and girls may reverse the gains thus
far achieved in bridging gender gaps in education. Evidently, there is limited research in regard to how academic achievement is influenced by masculinity and femininity in public secondary schools in Meru County.

1.3 Research Questions

This study was guided by the following research questions:

1. What role do social perceptions play in constructing feminine and masculine genders among male and female students in secondary schools?
2. How does the gender socialization process influence academic achievement for male and female students in secondary schools?
3. What challenges do male and female students face in schools based on their gender constructions?
4. What support mechanisms should the school system adopt to address the influence of gender constructions on academic achievement of male and female students in secondary schools?
5. To what extent do gender constructions influence academic achievement of male and female students in secondary schools?

1.4 Hypotheses

The overall goal of this study, as stated in section 1.1, was to explore the influence of gender constructions on academic achievement. Specifically, research question five attempted to establish the extent to which gender constructions influence academic achievement in Meru County. While qualitative data gathered through interviews and focus
group discussions was analysed to establish how gender construction influence schooling experiences, quantitative data analysis was imperative to establish the correlation between gender construction and academic performance as well as the magnitude of the relationship.

To this end, the study developed null and alternative hypotheses stated below:

H₀: there is no significant relationship between gender constructions and academic performance

H₁: there is significant relationship between gender constructions and academic performance

1.5 Significance of the Study

The study is significant for educational administration and planning (with its emphasis on design, implementation, and monitoring) and educational policy making (with an emphasis on how educational policy alternatives are identified and final choices made).

In order to improve the learning outcomes of male and female students, it is important to enhance understanding of various sources of gender gaps in education, as well as understand how they might contribute variously to existing trends in this sector. This might be considered as a prelude and a first step in designing effective educational policies that can address gender concerns in education. The significance of this study, therefore, lies not only on its academic contribution but also on the practical usefulness of its findings. For instance, school principals, Boards of Governors (BoGs), the Ministry of education (MoE) and the Teachers Service Commission (TSC) can use findings to develop targeted interventions for male and female students in secondary schools. The Ministry of education in particular can use the findings in planning for specific school-based programs to support boys’ and girls’
academic endeavours. Similarly, male and female students can utilize the findings of this study to improve on attitude and behaviour in schools. This study’s findings could also provide parents with skills for supporting their children to manage masculinity and femininity in a healthy manner, thereby reducing the negative influence of gender construction on education.

In addition, the study aims at complementing existing research on gender in education, which will be achieved by advancing the knowledge that although girls comprise the majority of underachieving students in education; emerging trends reveal that boys too have special needs that remain unmet, hence their underachievement. By employing a gender-balanced approach, this study will address the salient but rather neglected issue of boys and masculinity, besides unearthing pertinent challenges for the girl-child in relation to femininity.

Further, data collected will be used in developing knowledge on the concepts under study for further research on masculinity and femininity in education. The above-mentioned examples provide compelling justification on the importance of this study. To further underscore its relevance, this research will contribute to knowledge by exploring a little-studied area that attempts to understand the contribution of gender constructions on academic achievement.

1.6 Scope of the study

The core objective of this study was to analyse the influence of gender constructions on academic achievement in selected public secondary schools in Meru County. The study was delimited to exploring how gender perceptions, socialization processes and schooling
experiences, influence construction of masculine and feminine gender identities. The ultimate goal was to establish the implications of these processes on academic achievement.

In regards to geographical delineation, this study covered all constituencies that make up Meru County. Study respondents were delimitated to secondary school female and male students aged between 15 and 18 to capture the dynamics of gender constructions on academic achievement in the context of adolescences. Due to time and financial constraints, the number of respondents who participated in the survey was restricted to 500 female and male students in 85 selected public secondary schools. The study however included 160 additional students in 20 schools to participate in focus group discussions. To supplement students’ views, the study also incorporated the participation of school principals, teachers, education officers and parents within the study location.

1.7 Assumptions of the study

This study was based on several assumptions. Firstly, the study assumed that all factors not included in the study, such as teaching approaches, classroom interactions and school management influencers and determinants, among others, remain constant. The second assumption rests on the premise that the selected sample was representative of the total population. Third, the study assumed that male and female students interviewed provided accurate information and, therefore, the conclusions to be made are accurate representations of reality of how gender constructions influence education. Fourth, it was assumed that masculinity and femininity escalate during adolescence, which denotes the same age period during which students are expected to be in secondary school, hence the reason for this study’s focus on secondary education. The fifth assumption was that social
perceptions are entrenched in peoples’ cultures. Thus perceptions on gender constructions do not change over a short time; it is a gradual process that takes some time. Since culture is cumulative of experiences, beliefs, values, attitudes, meanings and perceptions of a particular social group, it is thus embedded in people’s way of life, and is long lasting. In this regard, perceptions held by current student in school were assumed to be similar to those held by previous students who sat for KCSE in 2011. Consequently, because students from the same community are acculturated by similar social perceptions and school cultures, the study made conclusions about current students’ performance based on the 2011 KCSE performance. The study assumed that data provided was a true reflection of students’ scores, and that the arguments and conclusions made herein are reliable.

Finally, the study assumed that some variables were technical for secondary schools students, such as “gender constructions”, “masculinity”, “femininity” and “academic achievement”. The researcher thus provided clear explanations in the tools as well as explaining before commencing data collection sessions.

1.8 Theoretical Framework

1.8.1 Contemporary Feminist Theory

Feminism is the ideology of women’s liberation founded on the intrinsic belief that women suffer injustice because of their sex. Hence, feminism is founded on a moral imperative to understand the power that governs the oppression of women and to seek how such power could be challenged and negotiated for women’s liberation and empowerment in order to create equitable societies (Chege and Sakurai, 2011). Ritzer (1996) defines feminist theory as a theoretical discourse that aims to understand the nature of gender inequality from a
women-centered perspective. While generally providing a critique of social relations, much of feminist theory also focuses on analyzing gender inequality and the promotion of women's rights, interests, and issues. Themes explored in feminism include discrimination, stereotyping, sexual objectification, oppression and patriarchy. This research employed feminist perspectives to explore social relations that lead to subordination of female students within patriarchal societies. Furthermore, feminist theories allowed issues of social gender perceptions and construction of masculinities and femininities to be addressed in a relational manner. Understanding the relationship between the feminine and masculine gender and how they relate facilitated understanding how gender constructions function in school setups to influence academic achievement.

This theory is therefore relevant for this study in helping the researcher gain theoretical perspective of how gender play a role in influencing education for the female student. The impetus for contemporary feminist theory is in explaining that women’s absence in most social situations is not because they lack ability or interest but because there have been deliberate efforts to exclude them. This is relevant in uncovering the role of Meru socio-cultural practices and beliefs in hindering girls’ access to secondary education. The “third –wave feminism” a movement focus on the implications of monolithic sameness that comes from speaking about “women” and from an intense interest in the issue of differences among women. Feminist theoretical work is relevant in analyzing the different impact of gender perspectives for female students located in rural and urban areas, those in low and high potential agriculture areas, those in high cost schools and low quality day secondary schools in marginalized areas.
The four major types of contemporary feminism include the cultural feminism that explain gender differences, liberal feminism that discuss gender inequality, radical and socialist feminism, both discuss the issue of gender oppression. Cultural feminism is typically more concerned with promoting the values of women’s differences (Ritzer, 1996). The first argument of immutable gender differences was used against women in male patriarchal discourse to claim that women were inferior and subservient to men. Other explanations of origin of gender differences offered by feminist include: biology, institutional structures and socialization experiences, interactive practices and social-psychological processes.

Liberal feminism focuses mainly on issues of equal opportunity in access to resources for women and men, especially in education and employment. Thus, it supports affirmative action as a contemporary strategy for redressing past inequalities, particularly against women and girls (Chege and Sifuna). Similar views are held by Ritzer (1996) who argued that liberal feminism’s explanation of gender inequality begins where an identification of the sexual division of labour, the existence of separate public and private spheres of social activity. Liberal feminists strategies involve altering socialization practices, changing attitudes and making use of relevant legislation. The theory is thus relevant to this study in identifying how various gender policy and legal frameworks enhance academic achievement of the female child in Kenya.

According to Ritzer (1996), radical feminist see in every institution and society’s most basic structures (class, caste, ethnicity, age and gender) and systems of oppression in which some people dominate others. Similarly Chege and Sifuna (2006) content that Radical Feminism challenges the core of male domination that is perpetuated via patriarchal
ideologies of male hegemonic tendencies. These, in turn, tends to labour oppressive tendencies towards women, denying them autonomy and agency. Accordingly, patriarchy is accused of defining characteristics of society based on all forms of oppression that are extensions of male supremacy. This, this theory thus tends to focus on dismantling the foundation upon which particular structures are anchored. Accordingly, all theories of gender oppression describe women’s situation as the consequence of a direct power relationship between men and women in which men have fundamental and concrete interest in controlling, using, subjugating and oppressing women – that is a practice of domination. Critics argue that radical feminism tends towards biological reductionism, description rather than explanation.

Despite these limitations, liberal feminists and radical feminists perspectives are relevant in analyzing gender inequalities in secondary schools. According to Weaver-Hightower (2003), liberal feminists and some radical feminists see schools as significant causes of inequality for women. At the same time, schools are viewed as a key institution through which such inequalities could be dismantled.

Marxist/Socialist feminist provide the interface between production and reproduction, ownership of means of production and the models of exchanging labour are the key factors of analysis (Chege and Sifuna, 2006). Socialist feminists analyze the role of the school in the perpetuation of gender divisions under capitalism. Socialist feminist is concerned with the complex intertwining of a wide range of social inequalities. While the feminist theory adequately explain the position of women and girls, Chege and Sifuna (2006) argues that generally, feminists comprise scholars, theorists, researchers and activities whose common denominator is an interest in the interrogation of women’s
inequality and subordination to men. In view of the above–mentioned, feminist theory is relevant to this study, however there was need for an additional theoretical perspective to complete the gender piece, a theory that provide explanations for the situation of the boy child in education. To fill this gap, an additional theory, the hegemonic masculinity was used to discuss the masculine perceptions. Hence this research was compelled to also analyze hegemonic masculinity to explore the issue of boys and masculinity.

1.8.2 Hegemonic masculinity

According Connell (1987), the theory of hegemonic masculinity refers to the belief in the existence of a culturally normative ideal of male behavior. However, despite being largely associated with males, masculinities can be enacted by people with female bodies because masculinities are configurations of practice that are accomplished in social action and, therefore, can differ according to the gender relations in a particular social setting (Connell & Messerschmidt, 2005). Traditional and hegemonic forms of masculinity maintain the privilege of masculinity by differentiating and elevating a young man from females and femininity. As such, many young men gain benefit from identifying with a 'hegemonic masculinity' and may be described as adopting complicit masculine identities. Proponents of hegemonic masculinity point to characteristics such as aggressiveness, strength, drive, ambition, and self-reliance, which they argue are encouraged in males but discouraged in females. The male ideal that stands out as the 'hegemonic' masculinity in Meru is referred to as the 'breadwinner'. Accordingly, the male earns authority through the practice of providing economically for their female partners and families (Silberschmidt, 2001). Although this study targeted male students who may not already be providing for their families, they are perceived as future breadwinner. This expectation influence parents’
and teachers’ attitudes in terms of how boys are treated and expected to perform at home and school.

Hegemonic masculinity is said to be marked by a tendency for the male to dominate other males and subordinate females. Connell further argues that hegemonic masculinity is centrally connected to the subordination of women (Connell, 1978). The theory was thus developed in an attempt to give an account of the sex role framework and the question of patriarchal power and social change. According to Connell and Messerschmidt, (2005), the concept of hegemonic masculinity, has considerably influenced recent thinking about men, gender, and social hierarchy. It has provided a link between the growing research field of men’s studies, popular anxieties about men and boys, feminist accounts of patriarchy, and sociological models of gender. Hegemonic practices of masculinity are those ways in which 'approved' modes of being male are produced, supported and resisted. Although 'hegemonic masculinity' is a contested notion (Connell & Messerschmidt, 2005), this study does not attempt to provide a comprehensive review of the various criticisms that have been levelled at it. Rather, hegemonic masculinity is conceptualised here as the dominant norms, or standards, of masculine practice (Connell, 1987), which become a point of reference for the socialization and behaviour of boys in secondary schools. Other criticisms identified regarding this theory is that hegemonic masculinities can be constructed in a manner that does not correspond closely to the lives of any actual men.

“... Hegemonic masculinities can be constructed that do not correspond closely to the lives of any actual men. Yet these models do, in various ways, express widespread ideals, fantasies, and desires. They provide models of relations with women and solutions to problems of gender relations. Furthermore, they articulate loosely with the practical constitution of masculinities as ways of living in everyday local circumstances.” (Connell & Messerschmidt, 2005, p. 838).
In addition, masculinity, although the dominant gender in most societies, often remains invisible from scrutiny and challenge. As a result, any discussion of “gender”, elicits an immediate assumption that it solely involves women, never men. This phenomenon renders masculinity obscured and directs all focus on women and femininity instead of the way in which both masculinity and femininity exist relationally. It also discounts the social constructionist viewpoint which seeks to untangle common understandings of gender as necessarily attached to sex. Another critique of this theory is that there is a tendency in the men’s studies field to presume “separate spheres,” to proceed as if women were not a relevant part of the analysis, and therefore to analyze masculinities by looking only at men and relations among men (Brod, 1994). To address this shortcoming, the study will take a consistently relational approach to gender dynamics by analyzing the situation of men and women concurrently.

Despite the weakness, the theory of hegemonic masculinity is useful for the study in understand the dynamics of classroom life, including patterns of resistance and bullying among boys. It will also be used to explore relations to the curriculum and the difficulties in gender-neutral pedagogy. It will further be used to understand teacher strategies and teacher identities among boys and girls in secondary schools. Hegemonic masculinity theory is also relevant in explaining the forces and the pressures experienced by boys in secondary schools to conform to the dominant norms and practices of social- cultural hegemonic masculinities. Some of the actions constructed as masculine in Meru include display of courage and confidence, showing emotional invulnerability, independence or self-containment, aggression, strength and risk taking.
It is evident that while the feminist theories are mainly focused on women, hegemonic masculinity theories are targeted towards masculinity. Moreover, feminist thoughts in Kenya are still treated with suspicion, not just by men but even some women who have worked with women and with gender movements for many years (Kamau, 2011). To alleviate this limitation, the researcher used the structural interactionism theory that provided theoretical and conceptual tools for understanding how femininity and masculinity are constructed to influence schooling and performance of boys’ and girls’ education in secondary schools. Structural interactionism theory also provided knowledge to bridge the gap in explaining how both masculinity and femininity are acquired and addressed in a gender balanced perspective.

1.8.3 Symbolic Interactionism (SI) Theory

The study was guided by Symbolic Interactionism (SI), a theory propounded upon by Earvin Goffman, George Herbert Mead and Herbert Blumer (Babbie and Mouton, 2007; Haralambos and Holborn, 2000; Ritzer, 1996), even as it is generally concurred that Mead (1863-1931) is the founder of Symbolic Interactionism (Haralambos and Holborn, 2000). The Symbolic Interactionism theory is a framework characteristically suited for explaining how masculine and feminine gender realities are constructed, as well how these gendered constructions influence academic achievement. Symbolic Interactionism, also referred to as interactionism, or the symbolic interaction perspective, can be defined as “a theoretical orientation infused with assumptions proposing that the social world is made up of symbols which human beings use as means of interaction (Sifuna et al, 2006). In relation to this study, the theory is used to explain the gendered perceptions, attitudes and behaviour
patterns emanating from various social institutions with which male and female students interact, leading to the construction of femininity and masculinity.

Symbolic Interactionists are concerned with explaining social actions in terms of the meanings that individuals give to them. The theory holds that socialization is a major determinant of human nature and that human behaviour is determined not only by the objective facts of situation but also by the meanings they attribute to them (Ritzer, 1996). This argument has been variously adopted by this research in examining the various meanings accorded masculinity and femininity, and how perceptions held influence male and female students’ attitudes and behaviour in school.

Mead discusses the notion of “self” and argues that the “self” is not inborn; rather, it is acquired during the early formative years. On the basis of Mead’s viewpoint, this study argues that femininity and masculinity are learned through the socialization process. For instance, girls learn femininity by playing the role of mothers, which is how the idea of self is developed as the girl-child takes the role of a make-believe mother. Similarly, boys adopt masculinity by emulating social roles considered masculine, and that are undertaken by their fathers. In this regard, male and female children take the role of others and observe themselves from a gendered standpoint. In the process, they become aware of their gender construction and what society considers appropriate for each gender. Since the conventional social culture suggests appropriate types of behaviour for particular social roles based on one’s gender construction, individuals tend to act in ways that are consistent with the expected behaviour for a particular gender role.

Subsequently, where societies identify care-giving as a female role, girls are socialized to perceive feminine roles to include cooking, housework, and childcare.
Socializations into the gendered roles and stereotypes are often manifested in the ways male and female students develop affinity for certain subjects. Accordingly, girls are more likely to select Home Economics as opposed to Metalwork because the former resonates with gendered role allocations at home. Mead’s ideas, therefore, tend to accord causal significance to social interactions by maintaining that individuals and societies are intractably linked (Haralambos and Holborn, 2000; Ritzer, 1996). The individual is thus born into an already formed society. This premise promotes the understanding of how gendered roles at home are further emphasized at school to foster or deter academic progress.

In order to engage in joint actions or interactions, individuals need to communicate with others through the use of symbols. As a consequence, the term ‘symbolic’ was added to Mead’s interaction concept by Herbert Blumer, one of Mead’s students (Sifuna et al, 2006). Symbols are arbitrary and human-made, and they provide the means whereby humans can interact meaningfully with their natural and social environments (Ritzer, 1996). Social life can thus only proceed if the meaning of symbols is largely shared by members of society (Haralambos and Holborn, 2000). This theory adequately explains the role of peer networks in sustaining symbols attached to masculinity and femininity. In relation to this study, schools are social institutions where interaction happens through the use of symbols in the form of classroom modes of instruction, and schools rules and regulations. How these symbols are employed at school level may either support or disenfranchise certain male or female students, ultimately impacting on their academic achievement.

Blumer further argued that the emphasis placed on meaning and its influence on social behaviour is the key feature of symbolic interactionism (Babbie and Mouton, 2007).
This perspective explains how certain behaviours are maintained and sanctioned by peer groups. For instance, if boys identify violence as “cool” masculine behaviour, members may be required to portray similar traits in order to conform and fit into the group. As such, people act towards things on the basis of the meanings that these things imply for them, which also explain how hegemonic masculinity is often associated with deviant behaviour, because the symbolic meaning of ‘indiscipline’ overrides the consequences of deviant behaviour.

However, meaning in Symbolic Interaction is not permanently fixed or unchanging because meaning is handled in and modified through an interpretive process, where meaning is derived from context (Babbie and Mouton, 2007; Haralambos and Holborn, 2000). As a result, negative masculine or feminine behaviours and attitudes can be deconstructed because meaning is created, developed, modified and changed within the process of interaction, based on interactions with acceptable values that students get into contact with. For instance, guidance and counselling and related psychological support may provide alternative acceptable behaviour, and, subsequently, promote academic achievement.

Ervin Goffman discusses the conflict between “I”, the spontaneous “self”, and “me”. The arising tension is often due to the differences between what people expect ‘us’ to do and what we may want to do spontaneously. As a result, we are confronted with the demand to do what is expected of us and not waver (Haralambos and Holborn, 2000). In order to maintain a stable self-image, people often perform for their social audiences (Ritzer, 1996). Goffman’s argument is relevant to this study in explaining how societal and schooling expectations conflict to influence academic achievement for boys and girls.
A major limitation of the social interactionism theory is that it is difficult to support the Interactionists controversy that meaning and definitions of situations are simply constructed when individuals interact (Haralambos and Holborn, 2000). Contrary to this belief, meanings are not simply constructed in single social institutions; it is important to account for a wider and more fundamental basis for constructing gender. This would entail exploring gender construction beyond school settings to also capture the role of the family, religious institutions, role models, peer groups and the media. By addressing a range of other social institutions, Symbolic Interaction will not be accused of holding onto and propagating too narrow a focus. Despite focusing on schools, this research also explored the role of other social institutions to better understand gender construction in education.

Symbolic interaction has also been accused of focusing on the individual rather than the collective. Hence, Symbolic Interaction has been criticized as having the tendency to focus on small-scale interaction situations, and ignoring the macro level of social interpretation, large-scale structures and social change, thus downplaying or disregarding larger structures in the process (Sifuna et al, 2006). This study argues that ‘collective’ consists of groups, institutions, organizations, and social classes. Further, ‘collective’ is comprised of multiple individuals that include students and teachers in a school context.

Interactionists have also often been accused of examining human interactions in a vacuum by concentrating on particular situations and encounters. Because of this, they have limited reference to the historical events or social settings in which such interactions occur. This scant attention has been regarded as a serious omission (Haralambos and Holborn, 2000). In addition, Interactionists largely fail to explain why individuals consistently choose to act in given ways in certain situations, instead of in all other ways through which they
might possibly have acted. Further, Symbolic Interactionists fail to explain the source of the meaning to which they attach such importance. Critics argue that such meanings are not spontaneously created in interactive situations but are systematically generated by the social structure (Ritzer, 1996). In addition, Symbolic interactionism also ignores psychological factors such as need, motive, intent and aspiration. Despite these limitations, Symbolic Interactionism theory is useful in studying gender constructions and academic performance because it enhances understanding of how individuals construct masculinity and femininity through interactions with families, schools and other relevant social institutions.

1.9 Conceptual Framework

How male and female students construct masculine and feminine gender identities has a bearing on their attitude and behaviour. Gender perceptions, attitudes and behaviour determine male and female students’ schooling and academic achievement. Based on this argument, this study rests on the premise that feminine and masculine gender identities are constructed through socialization and interaction with various social institutions. For example, at the family level, boys are socialized to take up masculine roles that are considered socially appropriate for males, while girls are socialized to be feminine. Gender roles and stereotypes acquired through socialization at home are accentuated in school and other social-institutions. For instance, gender roles learned at home through the socialization process may be repeated and reinforced in the school system through differentiated treatment, sporting activities and subject preferences. While the schools may present dynamics that may directly or indirectly perpetuate gender stereotypes, the school, as a
social institution, may also provide ground for modifying acquired gendered beliefs and attitudes.

Figure 1.1 demonstrates the direction taken by and influence of different variables under investigation. The independent variables are social perception factors and school contexts that play defining roles in constructing masculine and feminine gender identities. The argument advanced here is that gender is not a characteristic of individuals but of societies, drawn from the idea that multiple institutions interplay and impact on how male and female students construct femininity and masculinity. Socialization processes are the intervening or moderator variables because they can either hinder or support academic achievement.

The dependent variable is academic achievement, measured by school completion and academic performance. For instance, when the school context fails to adequately address the gender needs of male and female students, the consequence may be irregular school attendance, indiscipline, early school withdrawal and poor academic performance. Conversely, if the school environment is supportive and responsive to the gender needs of male and female students, academic performance is enhanced. School management can mediate challenges associated with masculinity and femininity by developing gender responsive support mechanisms to address the needs of boys and girls in school. These may include support to ensure effective implementation of gender-sensitive policy guidelines, as well as gender responsive curricula delivery approaches to enhance academic achievement.
Male and Female Students’ Social Perceptions:
- Characteristics considered appropriate for males and females
- Gendered stereotyped attitudes and behaviour
- Gender-differentiated expectations

School Context
- Communication and interaction processes at school
- School culture and environment
- Schooling experiences
- School management/leadership
- Teacher factor
- School curriculum and gender-targeted support
- Gender policy and practice

Gender Socialization Process:
- Communication and interaction processes at home
- Social-cultural practices
- Role-modeling
- Peer influence and adolescent reward system
- Mass media and technology
- Economic factors

Academic Achievement: Completion and Performance

Key:
- Double arrow: variable interaction
- Single arrow: direction of influence

Figure 1.1: The Influence Of Gender Constructions On Academic Achievement

Source: Author’s Conceptualization
1.10 Definition of Key Terms

**Academic achievement**: The outcome of education, or the extent to which male and female students achieve their educational goals. In this study, it was considered as a dependent variable and was measured using ratios of secondary school completion and performance in KCSE examination.

Academic Achievement was measured using school attendance, repetition, dropout and completion using enrolment trends for the period 2008-2012. In addition, the study considered academic performance as an indicator of academic achievement. In this regard, academic performance was measured using KCSE mean score for the period 2008-2011.

**Academic Performance**: Denotes the success of students to meet mean-grade standards set out by the Kenya National Examinations Council (KNEC). It was considered as an outcome variable.

Academic performance was measured using 2011 KCSE mean score collected in 85 schools using a document analysis schedule. These were the same schools that the 500 sampled students attended.

**Constructions**: Used in this study to emphasize how gender identities are formed, negotiated and experienced in social relationships.

**Emphasized femininity**: is exaggerated ideal form of femininity. It is about women's subordination and the idea that woman must conform to the needs and desires of men. It is thus oriented to accommodating the interests and needs of men. It can also be considered as the female compliance of gender inequality.

**Femininity**: Femininity is made up of both socially defined and biologically created factors associated with women and girls. Attributes, behaviours and roles generally
associated with the female gender include care, affection, soft-spoken demeanour, empathy and submissiveness.

Femininity Score was measured using question items that described socially perceived characteristics, attitudes, behaviour and roles considered appropriate for girls, were used to compute the femininity score. The selected 22 items were from questions number 7, 8, 9, 11, 13 (1 and 2), 37 and 40. In this case the 5 scale-Likert values were reversed to represent 1 for Strongly Agreed, 2 for Agreed, 3 for Not Sure, 4 for Disagreed and 5 for Strongly Disagree.

**Gender**: Refers to the socially-constructed roles and meanings that a particular society considers appropriate for men and women, boys and girls. This study treated gender as a qualitative variable with two distinct classifications, namely, male and female, and in some instances: boy and girl. This anticipates the association of masculine perceptions with males, and femininity with the females.

**Gender constructions**: Entails the construction of masculine and feminine gender identities, which are not biological aspects but rather products of social and cultural processes that vary through time and space. Gender constructions were considered intervening or moderator variables because they directly or indirectly influence academic performance, that is, the dependent variable.

Gender constructions in this study refer to masculinity and femininity. The gender construction value was thus computed using responses from seven questions from the students’ questionnaire. These were questions 7, 8, 9, 11, 13 (1 and 2), 37 and 40. The 7 questions contained 44 items, where 22 described masculine attributes and the other half feminine characteristics.
Gender equality: A reference to the notion that males and females have equal opportunity to access right of schooling and other rights to facilitate realization of potential.

Gender equity: Is the first step towards achieving gender equality. It denotes fairness in treating males and females. It however does not mean that boys and girls should necessarily receive the same treatment or that one group should receive preferential treatment given the individual differences between males and females, which demand different interventions in addressing their gender-determined needs.

Gender parity: Is the proportional representation of males and females in an education system, and is the initial phase in achieving gender equality.

Gender Stereotypes: Are patterns of behaviour associated to women or men. They can also denote beliefs about the psychological traits and characteristics considered appropriate for men or women.

Hegemonic masculinity: is the gender practice that guarantees the dominant social position of men, and the subordinate social position of women. It is thus the dominant form of masculinity within the gender hierarchy.

Masculinity: is made up of both socially defined and biologically created characteristics considered typical of boys and men. Attributes, behaviours, and roles generally associated with the male gender include being aggression, courage, adventure, competition, dominance.

Masculinity score was measured using question items that described socially perceived characteristics, attitudes, behaviour and roles considered appropriate for boys, were used to compute the masculinity score. The selected 22 items were from questions
number 7, 8, 9, 11, 13 (1 and 2), 37 and 40. In this case the 5 scale-Likert values were 5 for Strongly Agreed, 4 for Agreed, 3 for Not Sure, 2 for Disagreed and 1 for Strongly Disagree.

**School completion:** Enrolment trends for the period 2008-2012 for the 85 schools attended by the respondents were collected using a document analysis schedule. Completion rate was measured by tracking progression from one class level to another. Enrolment trends for two groups (that is, 2008 – 2012 and 209 -2011 groups) were analyzed to track their progression from when they joined form one to the time they completed form four.

**School context:** This entails the school cultures, environment, organization and management. School context was considered an independent variable because it influences changes in other variables, that is, how students construct gender in schools, as well as its influence on academic performance.

**Social Perceptions:** The common impressions particular societies have regarding masculinity and femininity. These include the various stereotypes held regarding behaviour, attitude and the characteristics of being a woman or man. Perceptions are, therefore, mainly peoples’ opinions, positions and myths, and are not necessarily factual.

**Socialization:** The process of personality formation, which entails inheriting and disseminating norms, customs and ideologies that then provide an individual with the skills and habits necessary for participating in interactions within his or her own society. Socialization was treated as an independent variable because it influences changes in other variables, that is, how males and females construct masculinity and femininity respectively.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter is to provide critical insights on the influence of gender constructions on academic achievement in the Kenyan context. The literature reviewed was useful in providing a systematic identification and critical analysis of relevant theories, empirical studies and other research works related to the problem. This section is thus a review of existing literature, aimed at determining contribution from and by other researchers. It also critiqued and highlighted contradictions and inconsistencies in existing literature. This chapter further discusses identified gaps in knowledge that made this study necessary.

The first part of this chapter located gender constructions and education within the social construction and the social learning theories. Both theories are expected to enhance the researcher’s understanding of gender constructions and how they influence male and female students’ academic achievement in secondary schools. The second part of this chapter is a review of related empirical evidences which inform the research questions for this study.

2.1 Theories of Social Construction of Gender Identities

The process of constructing gender takes place through the socialization process, within multiple social institutions and settings. Socialization links the individual to collective life by moulding members into exhibiting compliance and cooperation with social requirements (Sifuna et al, 2006). Agents of socialization include the family, religious
institutions, the school, as well as mass media and peer networks (Stromquist, 2007). The Social Constructionist Theory provides a useful framework that explains the gender construction process. The basic assumption of Social Constructionism, as postulated by German Sociologist Peter Berger and Thomas Luckmann (1966), is that meaning is socially situated and mutually constructed through social interaction. Social constructionists seek locally contextualized knowledge, created and used in an organization through unique socialization processes and transmission of the collective “know-how” (Bess and Dee, 2008). The collective knowledge base of the organization is transmitted to new members, but it is changed – perhaps expanded or upgraded – in the process (Paechter, 2003). This theoretical position legitimizes the interrogation of gender constructions in schools as a bounded unit where interactions between students, peers and teachers take place.

The other key focus of the social constructionist perspective is communication. The theory suggests that communication is the basic unit of organization; it is the process through which the organization and its environment are created and reproduced over time (Bess & Dee, 2008). Similarly, this study argues that gendered identities are constructed through communication, and that gendered messages are shared through the formal and hidden curricular. In this regard, femininity and masculinity as gender identities are constructed in ways that are deemed most appropriate to the society and peers.

Further, the Social Constructionist Theory platforms gender as relational. The implication here is that there can be no conceptions of masculinity without femininity, with which to compare and contrast it (Connell, 2005). It is due to this theoretical position that this study explored the relational aspects of masculinity and femininity in secondary schools.
Specifically, it examined the relational aspects of how male and female students relate with each other, with peers and with teachers in schools.

Other theorists hold the view that gender construction is a product of how individuals are shaped in fundamental ways by their environment through observational and learning processes. Some of the theories that hold this position include the Social Learning Theory as propounded upon by Robert Sears and Albert Bandura. According to these theorists, vicarious learning occurs through observation of how others are reinforced positively or negatively for particular beliefs or behaviours (Haralambos and Holborn, 2000). The social environment is, therefore, particularly important as an influence on behaviour. Similarly, through interaction with peers and other social institutions, male and female students learn masculine and feminine behaviours respectively, through observation, imitation, and modelling. Conversely, by positing that behaviours are learned from the environment, this also means that deviant behaviour can be deconstructed when the right environment is provided.

Bandura’s Social Learning Theory is based on the idea that learners observe others’ behaviour in order to initiate the learning process. Therefore, behaviour is learnt in the context of reciprocal determinism, or the interaction between observed behaviour, cognitive factors and external environments (Smith & Berge, 2009). In this regard, the family can also provide numerous learning opportunities for gender construction. For instance, girls attempt to emulate their mothers and boys their fathers. Early life experiences and social learning influence the development of body image, beliefs and attitudes. In this case, learning and modelling at home arise from parental role modelling, gender stereotyped allocation of roles, and gendered attitude and perceptions. These interactions at home affect the self-
efficacy of male and female students by discouraging or enhancing particular behaviour that may negatively influence academic performance.

The two theories discussed above offer consistent and complementary explanations of how gender is constructed. Specifically, the two theories are in conformity that first, interaction with the social context influences behaviour learning process, and, second, that individual learning processes are not fixed, but can be changed or re-learned. For purposes of this study, behaviour problems have potential negative impact on academic performance can be modified through interventions like guidance and counselling programmes.

The two theories, however, have some limitations. The major weakness of the Social Learning Theory is that the imitative or social learning model tends to concentrate on short-term effects only, and ignores the cumulative effects of exposure to the numerous messages to which individuals are exposed every day. A major restriction of Social Constructionism is that it is inadequate in explaining how gender is deconstructed to free individuals from socially-constructed stereotypes that often impact negatively on academic achievement.

Despite these limitations, the two theories are relevant in revealing how masculine and feminine gender constructions are learned, and how they influence schooling processes. As such, they have the capacity to explain gender construction and education processes, the focus upon which this study is anchored.

2.1.1 Gender and Development Perspectives

Gender and education are both important development issues. The genesis of gender equality in the development arena can be traced back in Women in Development (WID) initiatives that evolved in the early 1970s (Reeves and Baden, 2000). WID, however,
focused on women exclusively, and used statistical measures to identify the contribution of women to economic production and progress. Subsequently, soon after WID emerged and got established, researchers and development practitioners began questioning the adequacy of focusing on women in isolation. According to Reeves and Baden (2000), the resultant gender gap led to the emergence of Women and Development (WAD). The new approach focused on the relationship between women and the development process. Thereafter, the shortcomings of WAD also emerged mainly because WID failed to question the relations between gender roles (Rathgeber, 1989). To address the challenges emerging from WID and WAD, the Gender and Development (GAD) approach was introduced. GAD focused on gender relations rather than women, thus providing a new way of tackling women’s subordination by examining socially and historically-constructed gender relations between women and men (Razavi and Miller, 1995).

GAD was also anchored on the growing affirmation that studying and targeting women was not enough to redress gender inequities, and that traditional gender programming that focus on women and girls are limited if they do not also include men and boys (Bannon and Correia, 2006). In addition, the GAD approach recommended a move away from the study of statistical gender gaps in education to studying the social construction of gender inequalities and gender dynamics at local levels (Bannon and Correia, 2006). This dimension evokes the need for studies to move beyond just analysing gender parity in education, to exploring the role of gender relations in education.
2.2 The Role of Social Perceptions in Constructing Gender Identities

Various empirical studies have attempted to explore the contribution of and relationships between gender and academic achievement. One of such studies is the research by USAID that analysed gender and the educational achievement of boys and girls in the Jamaican educational system. The purpose of this study was to explore the role that gender plays in boys’ and girls’ development, performance, and outcomes in school. These factors were analysed with the goal of unearthing strategies that could address differences in performance and impact. The study revealed that the net effect of systemic inequalities (for instance, staffing, quality of instruction, and leadership) is significant. In their absence, boys and girls perform at unacceptable academic standards, which hinder realisation of their full potential (USAID, 2005). The USAID study also examined the nature and function of gender dynamics in teaching and learning at home, at school, and in the wider society. The study combined participatory learning and action (PLA) research methods with the traditional quantitative analysis. A key finding of the USAID study was that traditional gender socialization and stereotypes are significant factors in the educational experiences, expectations, and outcomes for boys and girls. The relevance of the USAID research to this study is that it took a gender-balanced approach to gender issues in education. However, the USAID study generalized schooling, thus failing to provide differences in schooling experiences at different levels. It is necessary to analyse gender constructions and how it influences schooling and academic performance of teenagers in secondary schools.

A study by Dunne and Leach (2005) on “Gendered School Experiences: The impact on Retention and Achievement in Botswana and Ghana”, identified in-school cultures and practices that made life in these schools a gendered experience, and traced the effect that
these gendered experiences had on the retention of girls and boys at the junior secondary level, and their relative achievement. The researchers found out that all twelve sampled schools revealed a highly-gendered school environment that served to constrain the learning opportunities of girls in particular, and to encourage gender segregation and stereotypical gender behaviour.

This highly-gendered school environment, with distinct school experiences for females and males, had varying impacts on retention and achievement, often in interaction with other factors such as the quality of leadership, class size and socio-economic status of students (Dunne and Leach, 2005). A key recommendation for future research was that the process of dropping out of schools needs to be understood better, both in general and specific local contexts. Dunne and Leach (2005) recommended further studies to explore boys’ attitudes to schooling, their behaviour in school and their academic performance to identify emerging and existing patterns. There is a compelling need to do similar studies in the Kenyan context.

Chege and Sifuna (2006) assert that when money is scarce, parents prefer to invest in their sons’ education because of the anticipated economic returns. Parents’ reluctance to invest in girls’ education draws from the fact that labour from the girl child is critical for the survival of households. Those who subscribe to such thinking are of the opinion that schooling the girl child represents a high opportunity cost that ought to be avoided.

However, while girls are disadvantaged in many countries in Africa, a study by Jha and Kelleher (2006) revealed that male child labour is very common in Lesotho, with young boys in the rural areas being denied their right to education because they are hired out as herds’ boys from a very young age. This phenomenon is rooted in Lesotho’s past, where
boys from 18 years of age would go the South African mines to work for their families’ upkeep, and parents felt, and still do, that boys do not need any education to carry out such manual work (Jha and Kelleher, 2006).

In an attempt to address the influence of gender in education, Stromquist (2007) argued that single-sex schools provided stronger grounding in academics, free from social distractions, for both boys and girls than do co-educational settings. Single-sex schools allow the freedom of multiple masculinities, thus helping boys embrace the diversity of male roles. Similarly, single-sex schools have also been preferred and endorsed advocacy efforts to increase the academic performance of girls, and to achieve more assertive personalities, confidence, as well as encourage them to adopt math and science-related courses. Stromquist, however, also noted that single-sex settings promote stereotypical attitudes toward the other sex. These views were supported by other studies such as the work of Jha and Kelleher (2006) on the Jamaican experience that argued that the reasons for boys’ underachievement suggests that simply being a single-sex school at the outset did not automatically make the boys feel less alienated or become better performers. This called for more research to come up with definitive inference on the role of gender constructions on academic achievement in different school types. This study focused on both single sex and co-education public secondary schools in order to fill this gap.

Studies documenting gender construction within the Sub-Saharan Africa Region include a journal article by Chege (2006). Her work focused on teachers’ identities, pedagogy and HIV/AIDS education in African settings within the Eastern and Southern Africa Region (ESAR). This article employs data selected from two studies that Chege undertook to explore how teachers used gender to construct their identities and those of their
students. The first study was conducted between 1998 and 1999 in two Kenyan urban primary schools – one located in an affluent part of the city of Nairobi and the other in a more economically-deprived setting. In total, the study involved 300 Kenyan primary school girls and boys. The second study was cross-national, conducted in seven countries – Botswana, Kenya, Rwanda, South Africa, Tanzania, Zambia and Zimbabwe – and was conducted between 2001 and 2002. Chege (2006) argued that some significant ethnocultural differences between various ethnic communities within and across the ESAR countries do exist, even as it is concurred that there are numerous points of cultural convergence and commonality across the political borders. The ESAR work provides adequate foundation for research on gender constructions in education. The study generated evidence-based knowledge regarding the complexities linked to identity formations within schools in the ESAR where education on HIV/AIDS prevention, reproductive health and sexuality tended to elicit teacher and learner anxiety (Chege, 2006). Chege’s work was a longitudinal study that focused on gender construction in the context of HIV/AIDS education. Moreover, the study targeted urban primary schools in Nairobi. This study is, therefore, relevant in generating knowledge on the contribution of gender constructions in rural-based public secondary schools in Kenya.

Juma et al (2011) investigated the gender factor in performance in the Kenya Certificate of Primary Education Examinations (KCPE) in Kombewa Division, Kisumu District, Kenya. The study used the stratified random sampling technique to select participants. The relevance of the study to this research is that it provides a gender dimension of schooling and academic performance for boys and girls. A major finding of the Kisumu study was that girls perform poorly in KCPE as compared to boys. Although the
girls’ disadvantaged position is a common pattern in most regions in Kenya, the situation in some parts of Meru County reveal a different scenario. For instance, a study conducted by Chuka University in Igembe, Meru County, revealed that boys perform more poorly than girls at primary school level. In addition, a majority of the male pupils dropped out in class five and six (37.2 per cent), statistics that were also identified for standard three and four (14.8 per cent) and 30.1 per cent in class seven and eight (Muthaa and Bururia, 2011).

Other studies done to explain why girls outperform boys include the work of Legewie and DiPrete (2012). They note that girls perform better because they are conditioned to follow directions, sit nicely in their chairs, and listen to the teachers. Boys, on the other hand, are expected to misbehave, be subjects of constant reprimands and humiliation, skip school or drop out completely, and generally develop low self-esteem. According to Muthaa and Bururia (2011), the high drop-out rate for boys at primary school level in Igembe, Meru County, was attributed to their participation in circumcision and the *miraa* trade. The latter was specifically said to have a spiral effect on girls’ schooling because boys lure them with money, leading them to drop out of school.

### 2.3 Defining Gender Constructions

Gender is a social and cultural construct, which distinguishes differences in the attributes of men and women (Fennell and Arnot, 2008). The application of this concept varies widely among societies and cultures, and changes over time. Based on the argument that gender is socially-constructed, it is thus not equivalent to sex, and it does not flow automatically from the make-up and main physiological differences of females and males (Dunne, 2008). Rather, it is learned through socially-determined roles in diverse
environmental and social settings. In supporting this claim, Lorber (1994) argues that social statuses are carefully constructed through prescribed processes of teaching, learning, emulation, and enforcement (Lorber, 1994). To explain how gendering is done from birth, Lorber explains thus:

“….Gender construction starts with assignment to a sex category on the basis of what the genitalia look like at birth….A sex category becomes a gender status through naming, dress, and the use of other gender markers… children respond to the different treatments by feeling different and behaving differently. As soon as they can talk, they start to refer to themselves as members of their gender ….”(Lorber, 1994, page 55)

Judith Butler, in her publications titled, “Gender Trouble: Feminism and the Subversion of Identity” and ‘Undoing Gender”, takes conflicting positions regarding gender. She asserts that being female is not "natural”, and that it appears natural only through repeated performances of gender; these performances, in turn, reproduce and define the traditional categories of gender (Butler, 1990; Butler, 2004). In the same way, masculinity and femininity are not necessarily inherent categories that pre-exist in individuals, but are a result of continued internalization of one’s gender role. The two authors provide useful insights which illustrate that gender constructions are not inborn; rather, they are a result of the socialization processes. Through primary socialization, we internalize the basic constructions of reality to guide most of our activities and interaction with others. However, the socialization process often takes many years, given the complexities and intricacies of socially-constructed reality, which emanates from the idea that individuals must internalize
the customs and thought patterns of others in order to define their own (Bess and Dee, 2008).

Gender constructions can be referenced historically and socially, and connected categories identified, which are inscribed in social institutions, processes and practices, including those of the school (Gender Equity Taskforce, 1996). At the individual level, once gender is ascribed, the social order constructs and holds individuals to strongly-gendered norms and expectations. Although individuals may shift genders temporarily, they must fit into the limited number of gender statuses their society recognizes (West & Zimmerman, 2003). These statutes often fall within the male or female divide. Accordingly, gender creates the social differences that define “woman” and “man”, and in the process of social interaction throughout their lives; they learn what is expected, see what is expected, act and react in expected ways, and thus, simultaneously, construct and maintain the existing gender order (Lorber, 1994).

During the process of learning and acquiring gender, boys and girls participate in activities that are labelled as either ‘masculine’ or ‘feminine’, respectively (Paechter, 2003). Boys are thus seen as men apprentices and girls as women apprentices. This is so because girls are often socialized to perform roles that depict feminine characteristics such as being gentle, motherly, caring, sensitive, submissive, non-competitive and dependent (Wamahiu, 1992), while boys perform masculine roles, those that demand physical strength and critical thinking (Sifuna, et al, 2006). Conformity to the gendered roles provides a sense of gender identity that would otherwise be impossible to instil, which regulates performances of gender roles socially considered appropriate for males and females (Butler, 1990).
Despite minor differences in the notions of masculinity and femininity across different societies, certain aspects of what defines masculinity and femininity appear to be fairly universal. Men are universally viewed as warriors and protectors, and women as caregivers. In view of the aforementioned, Chege and Sifuna (2006) contend that societal gender stereotyping informs child-rearing patterns and preferences, as well as expectations of and responses to boys and girls in the teaching and learning environment. These traditional gender-socialization messages may potentially contribute negatively to boys’ and girls’ educational achievement.

### 2.3.1 Femininity in Schools

A study by Hoang (2008) conducted in a single-sex selective primary in North California focused on thirteen-year-old primary-school female students. The research explored girls’ experiences on various aspects such as growing up, feminine identity schools and school transition from primary to secondary school (Hoang, 2008). The study process involved following a group of twelve-year-old female students through their last year of primary school and into their first year of secondary school when they turned thirteen in an attempt to understand how certain dominant discourses constrained or limited female students in their identity constructions across the school transition period. The ethnographic study collected data based on participant observations, diaries, and interviews. The theoretical approach employed by Hoang’s study was feminist post-structural theory and the social generalizing theory, while this study used symbolic interactionism perspective.

According to Hoang’s study, the school context is central in understanding how dominant discourses are produced and reproduced by girls in their everyday lives. Hoang
further noted that school contexts foster a sense of maturity upon which thirteen-year-old female students can build their various identities, both individually and collectively as a peer group. The study further revealed that middle class, single-sex school environments intensified dominant discourses of femininity and limited the ways in which the girls felt that they could grow up and become women. Further, the study demonstrated that the selective nature of the school and its strict academic ethos intensified the dominant developmental discourses of maturity so that the girls felt forced to grow up if they wanted to become achievers at school (Hoang, 2008).

By focusing on single-sex schools, the study failed to provide data on how femininity is constructed in co-education schools. Focusing on single-sex schools only limits comparison and generation of lessons from various systems. Further, by focusing on female students alone, generation of data on the relational aspect of gender becomes limited. Hoang’s study recommended the need to explore feminine discourses within and beyond the school context to include sites such as the home, after-school clubs and even the medium of popular culture.

Hoang’s study further revealed that the female body is central to discourses of femininity in the secondary school. At this level, girls strive to achieve a highly feminine look (Hoang 2008), even though, some girls prefer to actively disassociate themselves from all things feminine and claim an alternative tomboy identity. Hoang’s study recommended more longitudinal research to explore school transition and the interface of identity construction and schooling. This research need identified by Hoang also inspired this study.

A journal article authored by Ozkazanc and Sayılan (2008) documented the results of an ethnographic study conducted in a high school in Ankara, Turkey. The study explored the
complexities of gender discourses and, specifically, the construction of school-girl femininities. The main question addressed was how multiple schoolgirl femininities are constructed within the context of gendered school culture in relation to hegemonic masculinity. Ozkazanc and Sayılan viewed the school as an institution where the discursive construction of the tension between femininity and academic success and/or intelligence takes place. The study further argued that the main contradiction that schoolgirls are confronted with is the expectation that they should be both ‘feminine’ and ‘successful’ at the same time. As long as being clever and intelligent is seen as a masculine trait, schoolgirls cannot escape the destructive effects of this paradoxical expectation. Confronted with this contradictory demand, most schoolgirls perform poorly in school (Ozkazanc and Sayılan, 2008). Another observation made by the research is that high expectations of girls remain unmet by existing gender regimes of school. The study, however, failed to satisfactorily explain the specific school-based factors that influence femininity in schools.

Wamahiu and Umbima (1992) conducted a study to document the situation of the female child in Kenya. Data was derived from two major sources: literature surveys and field research in three former districts of Kenya, namely, Nairobi, Kisumu and Kwale. According to Wamahiu and Umbima, through the process of socialization, females are perceived as passive, submissive to male authority and physically and intellectually inferior to men. Female destiny is thus perceived to be related to marriage and children; her productive roles and autonomy are vastly downplayed. The study argues that, these messages are reinforced in various ways, for instance, through differences in allocation of roles at home to boys and girls. The differences in allocation of roles tend to orientate girls towards lower educational and career aspirations, thereby impacting negatively on their
school participation, survival and achievement. Other factors that impact on girls’ performance include gender bias, attitudes and values through the hidden curriculum, as well as influence of teachers in the classroom, which is a significant factor in the performance of girls. According to EACEA (2010), the hidden curriculum transmits to children a collection of messages which often reinforce sex stereotyping thus sustaining ‘a sexual division of labour in the social process of schooling. As a result, students’ informal interactions within the school are the most influential aspect of their socialisation into what it means to be female and male in society. A key recommendation made by Wamahiu and Umbima (1992) is the need for qualitative studies on the impact of various categories of schools on learning achievement and career aspirations of the female child. This study is an attempt to contribute to knowledge and fill this apparent gap.

A study by Chege and Sifuna (2006) on “Girls’ and Women’s Education in Kenya: Gender Perspectives and Trends” endeavoured to analyse the participation of girls and women as well as boys and men in education. The two authors revealed the underlying reasons for the persistent gender gaps in education in Kenya through a gender analysis. The authors explained the feminist and historical perspective to analyse the trends of girls’ and women’s and boys’ and men’s participation in education in various levels. Based on the feminist perspective, the authors recognized the importance of gender in education. Accordingly, they perceive gender as a social construct (socially defined) that is fundamental to the ways girls and boys, men and women interact with each other. In regard to secondary education, the publication noted that since the early 1960s, the enrolment of females has risen faster than that of males, representing a rise from around 31.8 per cent to 46.4 per cent in 1996 (Chege and Sifuna, 2006). Despite the apparently widespread
participation of girls at the secondary school level, the structure of secondary school opportunities also seriously disadvantages girls from less-developed regions and less affluent families. Socio-economic factors also play a major role in determining girls’ access to secondary education, with more affluent families having more of their girls in school. In all secondary schools in the country, the proportionate loss between each successive year of schooling is greater for girls than for boys.

The higher cost of education in the unaided schools is a major cause of the higher attrition of girls, followed by sexual harassment, which results in premarital pregnancies, and violence meted out to girls, particularly in mixed secondary schools. Chege’s and Sifuna’s work provide insights into the disadvantaged position of girls’ in education. However, despite taking a gender perspective, there is limited attention to factors that inhibit participation of boys in education. Moreover, the main focus was on social and economic factors as they hinder schooling for girls, hence a gap in more in-depth analysis of the role of gender constructions in education.

2.3.2 Masculinity in Schools

In the 1990s, interest in research on the male gender emerged from concerns over rising rates of male unemployment, the declining proportion of men in higher education, and underperformance of boys’ in primary and secondary schools (Bannon and Correia, 2006). Other reasons advanced for boys concerns is that in Ireland, for example, young males are more likely than girls to appear in court, and to be convicted of a juvenile crime (Rowan et al, 2001). In Australia, USA and the United Kingdom, boys predominate among early school leavers as compared to a higher proportion of girls attaining upper secondary school
qualification (OECD, 2011). Further, the decline in participation of men in developed countries is due the fact that stable social processes that make demands on men's masculinity, such as serving as soldiers, or demands for labour calling for physical strength, for example construction or mining work, prevent men from participating in the tertiary education system, as they have alternatives that do not necessarily demand academic qualification (UNESCO, 2012).

Other studies on masculinity in education include an exploratory study on Boys’ *Underachievement in Education* commissioned by the Commonwealth Secretariat. The study revealed that while school life expectancy is higher for boys in Sub-Saharan Africa (SSA), East Asia, the Pacific, and South and West Asia, boys are under-represented in education in Latin America, the Caribbean, North America and Western Europe (Jha and Keller, 2006). Boys’ underachievement is particularly evidenced by lower transition and participation rates in secondary and higher levels of education. The Commonwealth study revealed that conformity to ‘masculine’ gender identity clashed with the demands of ‘feminised’ education, which emerged as the most important and commonest reason given to explain underperformance of boys in general, and in humanities and reading in particular. The argument advanced here is that boys underachieve at primary school level because education is supposedly “feminised” because the teaching personnel is predominantly female. Consequently, the practice and delivery of the curriculum, management strategies and teacher expectations favour girls. Gibb, et al, (2008), supported similar views and argued that teaching and schooling has become ‘feminised’ and schools no longer adequately address boys’ educational needs.
However, although women account for the large majority of teachers in primary and lower secondary education, female representation decreases markedly the higher the level of education in all countries (EACEA, 2010). With the emerging underachievement of boys in secondary school, this research sought to explore other factors that hinder achievement of boys in secondary education. Skelton (2002) also provided compelling reasons to dispute that the “Feminisation” argument by stating that the greater number of female teachers in primary education does not create a ‘feminised’ environment. Skelton argued that if primary schools are believed to be ‘feminised’ environments because women teachers far outnumber men teachers then this assumes that females only act in stereotypical feminine ways. By citing Feminisation of schooling as a hindrance to boys schooling, the implication is that more male teachers need to be in place to act as role models for boys. This assumption that male teachers are needed to enhance boys achievement however implies that male teachers are needed because they are able to model traditional masculine characteristics. If this is the case the fundamental concern is ensuring “masculinisation” of education is able to simultaneously provide boys with alternative, more compliant, and less ‘cool’, forms of masculinity (Skelton, 2002). In the Meru cultural context, although the perception that schools are ‘feminised’ can be seen to be inaccurate factor that contribute to boys underachievement, the cultural socialization of boys in Meru perceive men to be superior to women. As a result the traditional initiation process has been associated with indiscipline among boys. Some boys disrespect and undermine female teachers, and this leads to behaviour problems that negatively affect boys achievement. This study sought to comprehensively analyze school-based, socio-cultural and other diverse masculinity factors, in relation to how they influence boys’ educational achievement.
According to Legewie and DiPrete (2012), resources that create a learning-oriented environment raise the valuation of academics in adolescent male cultures and facilitate commitment to schooling. The two authors suggest that boys’ resistance to schooling is not purely a function of either their class background or a fact of their masculinity, but instead depends on schools’ and classrooms’ local cultural environment. As a result, teaching methods that emphasize academic competition are particularly beneficial for boys.

Evidently, existing literature on boys’ underachievement is mostly focused on the industrialized countries such as the USA, United Kingdom (UK) and Australia. This includes the work of Plummer et al (2008), which explored Caribbean masculinities and boys’ schooling. The study targeted young men in their late teens and early twenties, particularly in peer groups and at school, using a grounded theory approach. Key findings were that academic achievement is increasingly considered taboo for some Caribbean boys. In addition, achieving a gendered identity and being able to convincingly project oneself as ‘masculine’ takes centre-stage for most boys as they mature (Plummer, et al, 2008). This is so because there is a sense that boys both aspire to achieve masculine status and that their behaviour is policed to ensure that it conforms to prevailing masculine standards. The Caribbean study contended that, central to this policing process is the peer group, a formidable force in boys’ lives, especially during adolescence.

A more relevant study on masculinity in East Africa is the work of Silberschmidt (2001), titled “Disempowerment of Men in Rural and Urban East Africa: Implications for Male Identity and Sexual Behaviour”. The longitudinal study focused on the Kisii District of Kenya; the study also conducted research in Dar-es-Salaam, the Tanzanian commercial capital. A key finding was that men and boys are getting disadvantaged because of
patriarchal structures and stereotyped notions of gender that hide the increasing
disempowerment of many men in rural and urban East Africa. The author further explains
that, while the impact of socio-economic change on women’s lives in East Africa has been
widely documented, such documentaries do not exist on men’s lives. This is because the
stereotyped roles and relations abound with men as the dominant gender who have profited
more from the development process than women. A key recommendation for this study was
that, while there is increasing interest in men as a gendered constituency and recognition of
the need to include men in development, there is, first of all, a need for overall economic
empowerment of both men and women, which should be complimented with efforts to make
both genders centre on alliance work (Silberschmidt, 2001). The call for a balanced focus on
both male and female gender is what inspired this study to explore the role of gender
constructions on boys and girls academic performance in Meru.

Chege and Sakurai (2011), in their work titled “Feminist Research and Boys’
Schooling: Gender Equality and Construction of African Masculinity – An Example of
Study of the Africa-Asia University Dialogue Network”, was designed to provide
information on boy’s schooling in the context of girl-focused educational programmes in the
Kenyan setting. The study employed a feminist approach to research that was meant to
demonstrate the outcomes and impact of power relations on women and men. The two
authors acknowledge that, while various gender and equity group works of research explore
access to and retention among girls and women of the various educational levels, few studies
address gender in the context of disability, traditional cultures, or boys’ education. The
problem with using girls’ as measure of gender equity through schooling for the boy child is
that boy’s education may be equally problematic if not addressed purposefully in the context of girls’ education (Chege and Sakurai, 2011).

Other reasons advanced for the disadvantaging of boys include the fact that both classroom and school culture were becoming less friendly to the boys, often manifested in activities that were relatively friendlier to the girls. For instance, corporal punishment by teachers is harsher on boys, and teachers perceived girls as relatively more serious with academic regimes of the schools, and also more socially mature within and outside the classroom. Conversely, boys were constructed as the ‘the problem’ during classroom learning. In addition, many teachers expressed the need to discipline boys more in order to instil reasonable controls on what they described as male ‘errant behaviour’ (Chege, 2006).

Otieno-Omutoko (2007), in her unpublished PhD work done in Nairobi to explore masculinity and boys’ academic achievement in secondary schools, recommended the need for research on masculinity and academic achievement for boys in a rural setting and other urban areas. In partial response to that endorsement, this study will attempt to fill and satisfy the gaps identified. Notably, despite the underachievement of boys in education, it is clear from the above reviewed studies that boys’ attendance, interest and commitment to schooling, as well as their levels of achievement, can be improved drastically through effective interventions. Hence, the assumption that the problems of under-participation relate only to girls can be overly misleading. As illustrated by literature reviewed by this study, in many developing countries, girls are now outperforming boys both nationally and in selective environments, which underline the need to take a gender approach that examines the needs of boys and girls in important gender groups.
A study by Muthaa et al (2012) used the ex-post facto research design in conducting a research on “Dropout among Male Pupils in Primary Schools of Igembe District, Kenya”. Findings of the study revealed that a majority of male pupils (37.2%) dropped out of school in class 5 - 6 while 14.8% dropped in Class 3 - 4 and 30.1% in class 7 - 8 whereas 14.1% of pupils indicated that dropout was uniform at all levels. The study further noted that a majority (94.4%) of the respondents indicated that boys who dropped out of school were employed as casuals in miraa picking or did petty miraa trade, 22.4% of the dropouts were employed as house boys, while 15.1% were employed to take care of cattle. In addition, 4.6% of the respondents said that some of dropouts earned their living through stealing. The study further revealed that the dropout of boys also affected girls since boys who dropped out of school acquired money from miraa which they used to lure girls, causing them to drop out. Findings further emphasized that the boys who had dropped out of school enticed girls in primary schools with money earned from miraa and that led to early sex which led to pregnancy. Some respondents argued that the dropouts acquired a lot of money from miraa which they used to buy presents to girls like mobile phones in exchange for sex which led to pregnancy and dropout.

In addition to establishing the economic factor that contribute to school dropout, the study also revealed that the effects of traditions and initiations on dropout in the study was significant after initiation, when boys are said to have grown up and earned freedom to engage in activities of their choice. Muthaa et al (2012) argued that these traditional graduates assume that they have power and authority and when they go to school, they become rebellious and subsequently drop out. In addition, these traditional graduates are also entitled to inherit their parents’ property, therefore most drop out of school with that
assumption of entitlement. The research by Muthaa et al (2012) provides useful insights to the discourse of masculinity and education in Meru. However, in terms of scope, the study covered a small section of Meru County. In addition, the study focused on primary level of education, hence the need to expand coverage to the entire County and explore masculinities in secondary education.

2.4 Socialization and Gender Constructions

As discussed in section 2.3, gender is socially constructed through societies’ norms, roles, and expectations. Gender socialization is therefore the learning of behaviour and attitudes considered appropriate for a given sex (Crespi, 2003). The gender socialization process occurs in multiple social institutions, including the family, religious and educational institutions, mass media and peer networks (Sifuna et al, 2006; Stromquist, 2007).

Following is a discussion of the roles played by some of these agents of socialization.

2.4.1. The Family

Various studies identify the family as the primary and most important agent that an individual is socialized because parents are present in a child's life from birth. Consequently, gender conditioning and sex stereotyping messages are reinforced through distinguishable allocation of roles at the family level (Chege and Sifuna, 2006: Wamaihui, 1992). Gender socialization at home draws from behaviour and attitudes, allocation of household roles considered masculine or feminine, and from gender-based toys. As a result, differentiated interactions with children along gender lines serve as primary gender models that socialize children as either masculine or feminine. These gendered interactions also communicate
gender ideals and expectations for male and female children. Through role learning, the feminine character is produced by socializing individuals into social roles allocated to the female gender, while the masculine character is fitted into what are defined as male roles (Kitetu, 1998).

Chege and Sifuna (2006) revealed that the process of defining roles along gender lines gives rise to a social dichotomy that stresses gender differences. The arising polarization leads to the politicization of gender relations and the creation of artificially-rigid dissimilarities between female and males. Similar views were held by Gilbert and Gilbert (1998) who argued that gender identity definitions mirrored typical binary conceptions of femininity and masculinity, in which the key attributes were identified by their oppositional character, based on the relation of the dominant other. Thus, according to Chege and Sifuna (2006), in order to conform to the socially-constructed gender labels, individuals are compelled to feel obliged to fit into a pre-determined stereotypical model of masculinity and femininity. This dichotomy serves to label the non-conforming males and females as deviant, causing them to feel or be ostracized. Gilbert and Gilbert (1998), however, noted that despite the traditional dichotomous models of constructing gender, feminine and masculine traits lie on a continuum because certain situations may require an individual to adopt characteristics of the opposite gender, hence placing them in a neutral position. The neutral or “genderless” position is what may be referred to as ‘androgynous’, and it allows individuals to express both masculine and feminine traits that they adopt for various situations (Marrs and Brammer, 2012).

Parents as members of the family unit are the initial role models that children emulate. As a consequence, the absence of parental role modelling may have devastating
effect on children’s academic performance. For instance, lack of male role models has been identified by various studies as a factor that contributes to boys’ underachievement. In the Caribbean context, where the number of women-dominated and single-parent households has been on the rise, there are current strong concerns about the lack of male presence within the home as well as the school (Jha and Kelleher, 2006). A similar study by Geisler and Pardiwalla (2010) that examines boys’ underperformance in Seychellois schools examined boys’ home socialization patterns and education. Among the most salient findings of that study was that fathers have little to do with their children’s education and grossly fail to act as role-models to their sons. The study further revealed that Seychellois parents’ career choices for their children reflected stereotypical attitudes about appropriate jobs for men and women. For instance, over 80% of parents were strongly opposed to girls taking up careers in engineering and construction, fishing, sailing and aviation because such disciplines were considered too undesirable or too complex for girls. A majority of parents agreed that caregiving jobs were appropriate career choices for their daughters, while over 65% of parents voiced objections to the idea of their sons becoming nurses or primary school teachers (Geisler and Pardiwalla, 2010). Evidently, the family has significant influence on academic achievement of their male and female children.

Studies within Kenyan that have attempted to explore the role of the family in the gender socialization process include a study conducted by Ngare and Njoroge (2011). The research titled “Gender paradigm shift within the family structure in Kiambu” zeroed in on the economic emancipation of women in central Kenya, with the main focus being to examine the transformation of gender roles and attitudes in relation to how gender roles are reversed to enable women dominate in the economic empowerment arena. The study
revealed a direct correlation of the economic emancipation of women with the growing incapacity of fathers, many who are no longer regarded as heads of their families. Consequently, this has put the central role of men as the family patriarchs in jeopardy. As a result, most men have turned to idleness, alcohol and petty crimes. Ultimately, boys lack strong men in their lives to look up to. The lack of male role models to emulate has disadvantaged boys’ schooling and academic performance.

Related findings were revealed by Mbote in a study commissioned by the Federation of Women’s Lawyers (FIDA). The study focused on gender-based violence in Nairobi, Nyanza and Western Provinces. The study explained the reversed gender roles and the declining dominance of the male parent as some women enjoy the upper hand in the family. This was associated with economic emancipation of women that was claimed to have contributed to the shrinking role of the patriarch of the family. Another contributory factor identified was that the policy and legal frameworks instituted in the country allow women to inherit property, previously considered a birth right of only male children.

Similar perspectives on the declining role of fathers in the family were provided by a study done by the Kenya Agricultural research Institute (KARI) in 2011. The study indicated that in Imenti South women took up massive ventures in commercial banana farming, and also own land and manage own banks accounts. As a result, women were claimed to outmanoeuvre the men, who become disempowered and turn into abusing alcohol and idleness. Consequently, children from such families no longer ask their fathers for school fees, instead, looking upon mothers for money and guidance (KARI, 2011).
2.4.2 The School Context

Given that schools are social settings where gender and sexual identities are constructed, negotiated, and officially sanctioned, the overall educational environment offers influential messages about gender (Stromquist, 2007). The school system is thus a powerful socializing force that fosters and supports societal stereotypes for gender behaviour (Skelton, 2001). Moreover, schools tends to repeat the cultural labels and values that children have been socialized into at the family level through classroom interaction, classroom activities, subject choices, and distribution in physical education chores (Kitetu, 1998). Children bring to school strong gender notions from family and society (Stromquist, 2007), in that gender-biased attitudes and values internalized at home are further accentuated in the school through the hidden curriculum (Wamahi, 1992).

Gender constructions take place not only in relation to teachers and the official curriculum, but also through interaction with classmates and engagement in co-curricular activities. Based on the school curriculum, some professions are considered feminine because they have their roots in the care-giving roles. These include subjects such as home-science, teaching, languages and nursing (Chege and Sifuna, 2006). Masculinity is thus associated with physical and mental toughness, the capacity to conceal emotion, capacity for sexual conquest and fatherhood, and laced with notions of “not being feminine”. The desire not to be associated with femininity assumes special importance to boys when one tries to trace the relationship between masculinity and boys’ underachievement in education (Jha and Kelleher, 2006). As such, subjects such as mathematics, Sciences and Technical subjects that are considered as subjects that demanded either precision or ‘application of
mind’, or physical strength and power, are associated with masculinity (Chege and Sifuna, 2006; Jha and Kelleher, 2006).

A study by Legewie and DiPrete (2012) suggests that teachers directly influence academic environment. They have the potential to modify student behaviour and produce stronger academic student-cultures. In explaining the role of teachers, Stromquist (2007) suggests that teachers are influential role models because students spend a majority of their time with their instructors. Teachers also send multiple gendered messages through the curriculum as well as organizational decisions. Their attitudes may reflect biases toward either girls or boys. These behaviours may foster, among the less favoured students, a sense of alienation and hinder personal, academic, and professional development. However, while education plays a big role in the construction of learners’ genders through transmitting society’s dominant values, it is also through education that desirable changes to deviant behaviour can be worked out and implemented (Kitetu, 1998).

2.4.3 Peer Influence

The construction of gender identity during childhood is reinforced by peers and the adolescent reward system (Kitetu, 1998). Peer interactions can reinforce or contradict messages about gender in ways that impact upon academic performance. According to Legewie and DiPrete (2012), boys draw more influence from peers than do girls. The authors argue that, in certain contexts, disruptive behaviour is encouraged by male peers and leads to status gains in the adolescent peer group as a result. Working for academic achievement is thus labelled as feminine and thereby stigmatized (Legewie and DiPrete, 2012). Girls’ peer groups, by contrast, do not vary as strongly between different social
environments in the extent to which they encourage academic engagement, and they are less likely to stigmatize school engagement as un-feminine. Girls typically view schoolwork as acceptable, for which they also draw encouragement from amongst themselves. Legewie and DiPrete (2012) provide an explanation to this – it is because female identity during adolescent or pre-adolescent is not based on resistance to authority or disengagement from school; rather, it is geared towards conformity.

A Study by Weaver- Hightower (2003) on “The Boy Turn” suggests that boys are more likely than girls to be ridiculed by their peers for working hard at school, and frequently resort to ‘laddish’ behaviour such as challenging authority, drawing attention to themselves and pretending not to care about schoolwork in order to gain acceptance from their peer groups (Weaver- Hightower, 2003). Similar findings are presented in the work of Lengewie and DiPrete (2012) who discuss the role of peers in shaping attitudes towards school and working habits. Their study revealed that due to peer pressure, masculinity is constructed among young boys, at least partly, in terms of resistance to school. This resistance may be partially responsible for male underachievement in school. The construction of female identity and their peer culture, in contrast, is not as closely tied to resistance to school and, indeed, may even support schoolwork as a positive attribute of femininity, with the result being that girls consistently have better working habits and a stronger pro-school orientation (Legewie and DiPrete, 2012). The role of peers is, therefore, significant, for instance, the active policing by peers of boys who are not perceived to occupy appropriate forms of masculinity (Stromquist, 2007). These findings may explain how peers influence male and female students in ways that either support or compromise academic performance.
2.5 Gender-Based Challenges in Schools

According to the World Health organization (WHO), about 16 million adolescent girls aged 15-19 give birth each year, roughly 11% of all births worldwide (WHO, 2008). In Kenya, an estimated 13,000 girls drop out of school every year as a result of pregnancy (Muganda-Onyando and Omondi, 2008). The school re-admission policy was introduced in 1994 to ensure teenage mothers are re-admitted into the mainstream of formal education after delivery (Chege and Sifuna, 2006; Muganda-Onyando and Omondi, 2008). Despite this provision, the re-entry policy was not fully supported by some head teachers, who preferred that affected students relocate to other schools to deter other girls from emulating them. This is also done as an attempt to save teenage mothers the embarrassment of being mocked by their schoolmates as the associated stigma may hinder effective participation (Dawo and Simatwa, 2010). Because of such provision in these policy frameworks, implementation and enforcement of legislation has been weak and inconsistent (Muganda-Onyando and Omondi, 2008; Wanyama and Simatwa, 2011). As a result, the educational needs of pregnant schoolgirls and student-mothers have often received minimal attention from policy-makers and implementers (Nelima, 2012). The knowledge gap that this paper aims to address is the inadequacy in provision of practical suggestions on how teenage mothers can be supported, especially at secondary school level.

Ten (2007) discusses the inadequacy of mechanisms to address menstrual hygiene and management as a major challenge facing girls in schools. The author argues that most of the school sanitation programs do not address menstrual management in latrine design and construction. The lack of appropriate and adequate sanitation facilities prevents girls across the developing world from attending school regularly during menstruation, which causes
some to eventually drop out. Existing efforts that need elaborate support to address challenges associated with menstrual hygiene and management in Kenya include abolishing taxes on sanitary napkins and proposal by the government to provide sanitary napkins for needy girls. These attempts have not adequately addressed problems that face girls due to challenges that they face based on their femininity. There is thus need for more studies to generate knowledge on effective mechanisms for addressing gender-based challenges that hinder academic achievement of the female child.

Beyond the classroom, boys undergo different experiences from girls’ as evidenced by crime-level statistics. In the United States, it is generally conceded that boys are four times more likely to kill themselves than girls; in Australia, the suicide rate for males aged 15–24 is four to five times that of women in the same age cohort (Rowan, et al, 2001). Boys also face the challenge of drug and substance abuse. A study on drug abuse in Kenyan secondary schools revealed that alcohol was the most frequently abused drug followed by *Miraa*, *Kuber* (tobacco), bhang and indigenous alcoholic drinks. Alcohol leads in the list of abused drugs largely because most alcohol adverts target men and tend to portray a picture that drinking is masculine. The study revealed that intense peer pressure led students to take of drugs, either to have a sense of belonging or to seem more powerful than their peers (Ngesu et al, 2008). There is need for studies that generate knowledge on how to effectively address masculine behaviour and attitudes that negatively impact on boys’ education.

As part of the socialization process, education for the boy child may be sacrificed for the sake of conforming to socially-defined gender roles and expectations. For instance, according to Chang’ach (2012), among some Kalenjin Communities, boys are socialized to take up roles such as livestock herding and agricultural labour. These roles have negative
impact on boys’ education. In addition, at a very early age, the boy-child is taught to be masculine, and socialized not to display weakness by crying or showing emotion. These dynamics have contributed to the neglect of issues that affect the boys amongst the Kalenjin.

In discussing the influence of masculinity on boys’ education in Meru, Muthaa and Bururia (2011) indicated that boys in Igembe were dropping out of primary school due to circumcision and miraa trade. The explanation provided was that, boys were considered to have graduated into adulthood after undergoing the initiation rite. Consequently, most boys turned into the lucrative Miraa (*Carthaendulis*) business at the expense of schooling (Muthaa and Bururia, 2011). It is evident from these studies that boys and girls face specific challenges unique to their gender constructions. An in-depth analysis of how these challenges influence academic performance in Meru County forms part of what inspired this research.

### 2.6 Gender Sensitive Support Mechanisms in Schools

Various global and national gender related policies have been constituted as part of the mechanisms for addressing gender needs in education. Among these policies is the landmark Dakar Framework of Action that was constituted to facilitate achievement of Education for All (EFA) goals. Specifically, goals two, four and six are explicit in the description of their gender concerns in order to achieve Education for All (EFA). Goal two states that by 2015, all children, particularly girls, children growing up under difficult circumstances and those belonging to ethnic minorities, have access to and successfully complete free and compulsory primary education; Goal four commits to achieving a 50-per cent improvement in levels of adult literacy by 2015, especially for women, and equitable
access to basic and continuing education for all adults, while goal six targets to eliminate

The EFA goals are complemented by two of the eight Millennium Development
Goals (MDGs) that set out clear targets for education and gender. Goal two puts the
achievement of Universal Primary Education (UPE) in perspective, with the target of
ensuring that, by 2015, children everywhere, boys and girls alike, can complete a full course
of primary schooling. Goal three seeks to promote gender equality and empower women,
and targets to eliminate gender disparities in primary and secondary education, preferably by
2005, and, by 2015, for all levels of education (UN Millennium Project, 2005). Despite the
impressive progress made by Kenya in achieving the MDGs on education, particularly at the
primary school level, challenges still remain at secondary education level (UNDP, 2010).

Other related policy and legal provisions that can be used to address gender concerns
in education are provided in existing legal frameworks such as the Children’s Act 2001. The
Act asserts that girls and boys have the right to quality education that respects their human
dignity and promotes the development of their full potentials. They also have the right to be
protected from all forms of violence, abuse, exploitation and neglect (Republic of Kenya,
2001). Despite outlawing cultural and traditional practices – such as Female Genital
Mutation (FGM) – that inhibit the education of girls, the practice is still practiced openly or
secretly in some parts of Kenya. In addition, despite the Act articulating education as
compulsory, school-going age children still remain out of school (Muganda-Onyando and
Omondi (2008).

Another significant milestone in establishing mechanisms to address gender concerns
in education was the development of the Gender Policy in Education. The policy framework
is aimed at promoting gender mainstreaming in the Kenyan education system. The policy articulates equal educational opportunities for boys and girls as well as the elimination of gender stereotypes in the curriculum (Republic of Kenya, 2007). Despite extensive focus on strategies and programmes meant to address the gender needs of girls in education, the policy does not extensively address boys’ gender needs in education. As a complementary measure to ensure gender equity in education, the current constitution addresses issues of gender equality; specifically, the constitution prohibits discrimination among different social groups based on their gender, tribe and religious affiliation (Republic of Kenya, 2010).

The Gender policy of Education expresses concern on gender disparities in academic achievement and proposes to ensure gender-balanced entry into teacher education and employment, engender management structures, ensure gender considerations in infrastructure development and strengthen educational structures. However, some of the strategies identified to eliminate disparities are not directly related to realization of the policies and implementation plans lack which leaves a gap in actualizing gender concerns (MOE, 2007).

Ohba (2009) explains that another daunting challenge of gaining access to secondary education in Sub-Saharan Africa (SSA) is affordability. Consequently, children from poor households, those whose parents cannot meet the costs of education, are less likely to participate in secondary education. The same challenge is highlighted in the Sessional Paper No.1 of 2005 that underscores the cost of secondary education as the main reason for low transition rates to high school education (Republic of Kenya, 2005). To address this challenge, the bursary scheme was introduced by government to help needy students gain more access. Although there are students who have benefited from bursaries, the scheme has
ignored students who had not already gained access despite their eligibility (Njeru and Orodho, 2003). The result of this is that the really needy students have been locked out of secondary schooling. Additional measures taken include the development of the Kenya Education Sector Support Programme 2005-2010, which clearly states the government’s intention to integrate secondary education into the basic education package. This policy framework became the backbone for the implementation of the free secondary education programme that was officially launched in 2008 (Ohba, 2009).

Despite the increasing access, major problems associated with day secondary schools have been documented. This include the work of Jagero, et al (2010) which revealed that while, girls who were day scholars were mainly affected by lack of parental and family support, boys in similar situations were mainly affected by their parental socio-economic statuses. In view of the high number of day schools in Meru County, this study attempted to contribute knowledge on how to address these challenges if academic achievement in Meru County is to be enhanced.

2.7 Gender Constructions and Academic Achievement

As pointed out in chapter one, the key indicators used to measure academic achievement are school attendance, completion and performance. This section attempted to review and analyse available data and records on school participation, completion and performance in secondary level of education in Kenya in general and Meru County in specific. The idea was to compare performance of Meru County in relation to other counties in Kenya, and thus attempt to explain reasons behind identified gaps that motivated the choice of Meru County for this study. It is important to note that although this study focuses
on secondary education, it was imperative to analyse participation at primary school level to track transition trends from primary to secondary education.

| Table 2.1: Primary Schools Gross Enrolment Rates (GER) in Selected Districts, 2003-2007 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Taita                          | 102.8           | 99.1            | 108.1           | 104.2           | 106.6           | 101.5           | 107.6           | 102.8           | 109.9           | 104.1           |
| Mombasa                        | 69.8            | 63.4            | 77.7            | 73.7            | 75.3            | 71.3            | 76.4            | 74.8            | 64.7            | 62.0            |
| Nyeri                          | 101.9           | 100.3           | 99.9            | 98.3            | 104.5           | 101.3           | 101.6           | 99.3            | 92.5            | 87.7            |
| Kiambu                         | 91.6            | 90.3            | 92.2            | 90.4            | 94.3            | 88.4            | 107.3           | 102.8           | 88.2            | 84.3            |
| Kirinyaga                      | 105.7           | 105.6           | 107.3           | 104.5           | 121.6           | 117.8           | 102.6           | 102.6           | 100.1           | 98.1            |
| Machakos                       | 128.7           | 125.8           | 131.9           | 127.7           | 130.9           | 127.3           | 131.4           | 128.6           | 135.9           | 131.1           |
| Meru                           | 103.6           | 104.5           | 105.5           | 104.0           | 104.8           | 104.5           | 106.5           | 105.5           | 101.3           | 99.8            |
| Meru South                     | 107.1           | 106.0           | 109.8           | 105.3           | 123.6           | 120.7           | 122.2           | 116.8           | 96.8            | 93.4            |
| Nyambene                       | 109.9           | 112.2           | 119.8           | 121.5           | 122.8           | 129.8           | 124.5           | 130.4           | 120.4           | 123.7           |
| Tharaka                        | 123.8           | 119.1           | 121.5           | 120.0           | 163.7           | 165.0           | 151.9           | 148.8           | 160.6           | 159.6           |
| Samburu                        | 81.1            | 55.1            | 91.0            | 63.3            | 85.8            | 60.8            | 47.0            | 34.6            | 89.5            | 65.2            |
| Nakuru                         | 148.5           | 140.9           | 157.0           | 146.7           | 116.4           | 108.9           | 120.0           | 115.4           | 121.8           | 114.6           |
| Kakamega                       | 135.3           | 124.1           | 136.8           | 123.8           | 132.1           | 121.2           | 140.5           | 132.2           | 146.7           | 134.2           |
| Siaya                          | 133.9           | 128.2           | 137.2           | 128.3           | 138.9           | 128.6           | 131.2           | 128.4           | 142.3           | 136.4           |
| Garissa                        | 49.6            | 31.2            | 49.9            | 29.2            | 28.0            | 18.0            | 30.5            | 22.2            | 32.3            | 21.2            |
| National                       | 105.0           | 100.5           | 108.0           | 101.6           | 109.9           | 104.4           | 109.3           | 105.5           | 110.7           | 104.4           |

Source: EMIS, Ministry of Education, 2009

Table 2.1 indicates gross enrolment rates (GER) in public primary schools in selected former districts in Kenya. The table shows that a number of the former districts in Kenya managed to attain GERs above 100 percent at primary education level. It is also
apparent from the table that progress in attaining gender parity at primary level has been achieved in a number of districts except those located in northern Kenya. For example, Samburu and Garissa, attained a GER of less than 50 percent for both boys and girls (MoEST, 2009). Another interesting dimension indicated is that Nyambene District (part of the current Meru County), consistently recorded a higher GER for girls compared to that of boys within the period 2003 - 2007. Thus, although this study focused on secondary school, analysing enrolment trends at primary school level helped to trace academic achievement for male and female students prior to joining secondary schools.

Table 2.2: Secondary Schools Gross Enrolment Rate (GER) in Selected District, 2003-2007

<table>
<thead>
<tr>
<th>District</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Boys</td>
<td>Girls</td>
<td>Boys</td>
</tr>
<tr>
<td>Taita Taveta</td>
<td>21.4</td>
<td>22.7</td>
<td>23.9</td>
<td>24.3</td>
<td>22.9</td>
</tr>
<tr>
<td>Mombasa</td>
<td>31.3</td>
<td>25.2</td>
<td>41.5</td>
<td>24.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Nyeri</td>
<td>27.7</td>
<td>33.8</td>
<td>26.6</td>
<td>30.6</td>
<td>35.1</td>
</tr>
<tr>
<td>Kiambu</td>
<td>34.5</td>
<td>39.6</td>
<td>49.0</td>
<td>45.5</td>
<td>45.5</td>
</tr>
<tr>
<td>Kirinyaga</td>
<td>16.7</td>
<td>27.4</td>
<td>20.7</td>
<td>28.5</td>
<td>25.3</td>
</tr>
<tr>
<td>Machakos</td>
<td>26.2</td>
<td>29.4</td>
<td>24.3</td>
<td>27.0</td>
<td>27.5</td>
</tr>
<tr>
<td>Meru</td>
<td>33.9</td>
<td>35.7</td>
<td>41.6</td>
<td>50.4</td>
<td>49.5</td>
</tr>
<tr>
<td>Meru South</td>
<td>55.9</td>
<td>63.6</td>
<td>54.3</td>
<td>68.3</td>
<td>59.2</td>
</tr>
<tr>
<td>Nyambene</td>
<td>13.7</td>
<td>12.5</td>
<td>16.4</td>
<td>18.7</td>
<td>16.3</td>
</tr>
<tr>
<td>Tharaka</td>
<td>15.3</td>
<td>12.5</td>
<td>37.4</td>
<td>12.1</td>
<td>18.0</td>
</tr>
<tr>
<td>Samburu</td>
<td>15.3</td>
<td>8.8</td>
<td>18.6</td>
<td>7.7</td>
<td>19.2</td>
</tr>
<tr>
<td>Nakuru</td>
<td>40.0</td>
<td>35.1</td>
<td>33.8</td>
<td>24.5</td>
<td>36.8</td>
</tr>
<tr>
<td>Kakamega</td>
<td>28.4</td>
<td>32.9</td>
<td>33.3</td>
<td>33.3</td>
<td>35.1</td>
</tr>
<tr>
<td>Siaya</td>
<td>22.8</td>
<td>20.2</td>
<td>27.3</td>
<td>20.8</td>
<td>25.4</td>
</tr>
<tr>
<td>Garissa</td>
<td>28.5</td>
<td>3.7</td>
<td>6.2</td>
<td>2.7</td>
<td>6.5</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td><strong>29.7</strong></td>
<td><strong>27.4</strong></td>
<td><strong>31.7</strong></td>
<td><strong>27.3</strong></td>
<td><strong>31.3</strong></td>
</tr>
</tbody>
</table>

*Source: EMIS, Ministry of Education, 2009*
Despite impressive gains at primary education level, progression to secondary school for boys and girls decreases as indicated in Table 2.2. For instance, the remarkable participation rates at primary level in the former Nyambene District in Meru County notwithstanding, net enrolment rates (NER) at secondary school stood at 8.6 percent for boys and 5.1 percent for girls in 2007 compared to the national average of 40.4 percent and 33.3 percent for boys and girls respectively (MoEST, 2009). In addition, while boys in Nyambene have consistently remained under-represented at primary school level, the trend changes sharply in their favour at secondary level. However, in comparison to most districts in Kenya, school attendance rates for both boys and girls are relatively low in former districts that constitute the current Meru County. This study was inspired by the need to understand these unique trends in relation to the contribution of gender construction to schooling and performance.
<table>
<thead>
<tr>
<th>Rank</th>
<th>School Name</th>
<th>County</th>
<th>Mean Score 2011</th>
<th>Mean Score 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maranda High School</td>
<td>Siaya</td>
<td>11.2871</td>
<td>10.5578</td>
</tr>
<tr>
<td>5</td>
<td>Bahati Girls Secondary School</td>
<td>Nakuru</td>
<td>10.4403</td>
<td>10.7777</td>
</tr>
<tr>
<td>10</td>
<td>Bishop Gatimu Ngandu Girls High School</td>
<td>Nyeri</td>
<td>10.0154</td>
<td>9.7748</td>
</tr>
<tr>
<td>15</td>
<td>Naivasha Girls Secondary School</td>
<td>Naivasha</td>
<td>9.9084</td>
<td>8.9572</td>
</tr>
<tr>
<td>20</td>
<td>Njabini Boys High School</td>
<td>Nyandarua</td>
<td>9.7671</td>
<td>8.7539</td>
</tr>
<tr>
<td>25</td>
<td>St. Mary’s Girls High School – Igoji</td>
<td>Meru</td>
<td>9.6216</td>
<td>8.8591</td>
</tr>
<tr>
<td>33</td>
<td>Meru School</td>
<td>Meru</td>
<td>9.4910</td>
<td>8.7767</td>
</tr>
<tr>
<td>46</td>
<td>Bureiruri Boys Secondary School</td>
<td>Meru</td>
<td>9.2385</td>
<td>8.5123</td>
</tr>
<tr>
<td>60</td>
<td>Meteitei Boys Secondary School</td>
<td>Nandi</td>
<td>9.0720</td>
<td>8.4444</td>
</tr>
<tr>
<td>79</td>
<td>Ikuu Boys High School</td>
<td>Tharaka Nithi</td>
<td>8.9172</td>
<td>7.8350</td>
</tr>
<tr>
<td>83</td>
<td>Chuka Boys High School</td>
<td>Tharaka Nithi</td>
<td>8.8489</td>
<td>7.7777</td>
</tr>
<tr>
<td>90</td>
<td>Chogoria Boys High School</td>
<td>Tharaka Nithi</td>
<td>8.8070</td>
<td>8.2500</td>
</tr>
<tr>
<td>97</td>
<td>Nkubu High School</td>
<td>Meru</td>
<td>8.7613</td>
<td>8.2270</td>
</tr>
<tr>
<td>100</td>
<td>Kakamega High School</td>
<td>Kakamega</td>
<td>8.7079</td>
<td>8.2569</td>
</tr>
</tbody>
</table>

Table 2.3: Top 100 Selected County Schools in Kenya, 2010-2011 KCSE Results

Source: Based on Top 100 County Schools, KNEC 2011 KCSE Result

Table 2.3 indicates that performance in national examinations in public secondary schools in Meru is relatively low compared to most of the other Counties in Kenya.

Accordingly, Meru County had only four (1.2 percent) out of 316 public secondary schools that managed to attain the top 100 best performing schools nationally. Out of the four schools, only one is a girls’ school. This is an indication that academic performance of both boys and girls in secondary school in Meru County is wanting, more so for girls.
Table 2.4: KCSE 2011 Results Analysis for selected Constituencies, Meru County

<table>
<thead>
<tr>
<th>District</th>
<th>Number of schools with a mean score of:</th>
<th>8.1 and above</th>
<th>7.1-8.00</th>
<th>6.1-7.00</th>
<th>5.1-6.00</th>
<th>4.1-5.00</th>
<th>3.1-4.0</th>
<th>3.00 and below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meru Central</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>18</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Imenti North</td>
<td></td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Imenti South</td>
<td></td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>14</td>
<td>24</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Igembe North</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Tigania East</td>
<td></td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Buuri</td>
<td></td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6</td>
<td>5</td>
<td>15</td>
<td>36</td>
<td>73</td>
<td>66</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: 2011 KCSE results analysis, Meru County

Table 2.4 presents an analysis of 2011 KCSE results for 229 schools from selected constituencies in Meru County. Data provided revealed that only 4.8 percent of schools attained a mean of above 7.000, translating to C+, the expected minimum score for university entry in Kenya. According to table 2.4, only 3 percent of schools in Imenti North and 5.9 percent of those in Imenti South attained a mean score of 8.1000. A majority of schools attained a mean score of between 4.1000 and 5.0000, which is 36.7 percent of schools in Meru Central, 32.3 percent of those in Imenti South, 50 percent in Igembe North and 30.7 percent in Tigania East. Other schools fall within those that attained a mean score of 3.1000 - 4.0000, which makes up 27.9 percent of schools in Imenti North and 41.7 percent of schools in Buuri. This implies that overall only a few male and female students attained the minimum required grade for university entry.
Table 2.5: KCSE candidature in selected Subject by Gender in 2004

<table>
<thead>
<tr>
<th>Subject Name</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number sat</td>
<td>Mean percentage</td>
</tr>
<tr>
<td>English</td>
<td>119,271</td>
<td>35</td>
</tr>
<tr>
<td>Mathematics</td>
<td>119,254</td>
<td>21</td>
</tr>
<tr>
<td>Physics</td>
<td>43,116</td>
<td>35</td>
</tr>
<tr>
<td>Home Science</td>
<td>535</td>
<td>52</td>
</tr>
<tr>
<td>Woodwork</td>
<td>1,129</td>
<td>54</td>
</tr>
<tr>
<td>Metalwork</td>
<td>360</td>
<td>55</td>
</tr>
<tr>
<td>Power Mechanics</td>
<td>284</td>
<td>61</td>
</tr>
<tr>
<td>Electricity</td>
<td>503</td>
<td>56</td>
</tr>
<tr>
<td>Aviation Technology</td>
<td>67</td>
<td>35</td>
</tr>
<tr>
<td>Drawing and Design</td>
<td>1,246</td>
<td>46</td>
</tr>
<tr>
<td>French</td>
<td>711</td>
<td>27</td>
</tr>
<tr>
<td>Typing with office practice</td>
<td>37</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Kenya National Examination Council (KNEC), EMIS, Ministry of Education, 2009

Table 2.5 shows the influence of gender constructions on subject preference and performance. It is evident that more boys than girls choose industrial education, which includes subjects such as power mechanics (285 males compared to only 2 females) and Woodwork (1,129 males compared to 27 females) – these subjects are traditionally male-dominated. Similarly, more boys are aligned to science subjects like Physics (43,116 males compared to 16,966 females) and Mathematics (119,254 to 102,041). It should be noted that Mathematics is a compulsory examinable subject for boys and girls in Kenyan secondary education. However, data presented in Table 2.5 illustrate different figures in some compulsory subjects that recorded fewer male and female candidates in Mathematics than were recorded in English. There is need for further research to understand this trend. Further, Aviation technology hardly attracts female candidates (67 males and no female
candidate in 2004) compared to other subjects like Home Science (535 males and 9,472 females) and Typing (37 males and 369 females) that record more female candidate than their male counterparts (EMIS, 2009).

Male-dominated subjects are generally those that predominately demand either precision or application of mind (Jha and Kelleher, 2006). Feminine-oriented subjects, on the other hand, are considered easy and related to roles like cooking, which are considered socially appropriate for the female gender. In this regard, while girls perform relatively poorly in Mathematics and science subjects, they have an edge over boys in the “feminine” subjects. Hence students’ gender constructs seem to be linked with certain subjects based on attitudes rooted in societal perceptions of women’s and men’s role in society. These differences in achievement patterns in certain subjects raise questions on the influence of gender constructions on academic achievements. It is on this basis that this study is designed to explore how gender constructions attitudes and perceptions are transmitted and reinforced through the educational system to influence academic achievement.

2.8 Summary of Literature Review and Research Gaps

This study reviewed both theoretical and empirical literature relevant to this research. The theoretical approach was informed by models such as Social Constructionism and Social Learning Theories. By reviewing these theories, the researcher managed to develop a clear linkage of how masculinity and femininity are constructed through conscious and unconscious interactions with various social institutions. In the process, individuals learn about what is socially accepted for the male and female genders, through observing and imitating behaviours of others. Analysing how masculine and feminine
genders are constructed in secondary schools is useful in understanding the role of gender socialization and the gender relational factors that influence academic achievement. Focusing on gender socialization in schools is viewed as an over-arching cause of the gender gaps identified in academic achievement trends for male and female students in secondary schools.

Various literatures reviewed have demonstrated the importance of secondary education. These included studies such as CUEB (2011), OECD (2011), Rihani (2006), UNESCO (2011), USAID (2008), Verspoor & Bregman (2008), World Bank (2008). A common theme discussed by these studies demonstrates that despite the indisputable benefits of secondary education in equipping learners with the necessary knowledge and skills to thrive in an advanced technological society, secondary education is characterised by wider gender disparities. Thus, while various studies focus attention on primary education because it is considered a basic right and need, limited attention is accorded to secondary education, yet existing literature clearly demonstrate that the delivery of secondary education has been slow due to several bottlenecks that include inter-alia, wide gender disparities in participation, high wastage, declining completion rates, gender differences in performance in various subjects along gender lines and decreased transition rates from secondary to university and other tertiary institutions. These global trends are echoed by studies done in the Kenyan context that include; Achoka (2007), Chege and Sifuna (2006), Njeru and Orodho (2003), Oziery (2010) and Suda (2001). Notably, limited studies focus on Meru County. This study was conceived due to the imperative need to contribute knowledge to unearth what ails secondary education sector in Kenya in general and in Meru County in specific. In particular, this study sought to investigate the contribution of gender
constructions in influencing completion and performance of male and female students in public secondary schools.

Most gender studies in education emphasize the achievement of gender parity, and are more concerned with progress toward numerical equality in access to schooling. These achievements notwithstanding, gender parity is limited in explaining whether male and female children attend school regularly, complete grades successfully or whether they have acquired knowledge that they can use outside of school. Other literature reviewed, including the work of Chege and Sifuna (2006) and Wamahiu and Umbima (1992), adequately illustrates that learners’ educational experiences, school completion and subsequent academic performance depict irregular gender differences in educational achievement. Available literature delving into gender differences in academic achievement tends to cluster around the themes of socio-economic factors and the role of biological differences in influencing academic performance. In addition, available literature postulates that behaviour, societal values, attitudes and perceptions may interfere to influence academic achievement. Hence, limited attention is accorded to examining how academic achievement is mediated by gender constructions in the Kenyan context.

A number of studies reviewed have established the link between gender constructions and academic achievement of boys and girls. For instance, a study in Turkey by Ozkazanc and Sayilan (2008) revealed that the main contradiction that schoolgirls are confronted with is the expectation that they should be both ‘feminine’ and ‘successful’ at the same time. Confronted with this self-opposing demand, most schoolgirls perform poorly in school. Similarly, studies on masculinity and boys’ academic achievement include research by the work of Jha and Keller (2006), Skelton (2002), Gibb, et al, (2008) and Legewie &
DiPrete (2012). Common findings revealed by these studies is that boys’ underachievement was because conformity to ‘masculine’ gender identity clashed with the demands of ‘feminised’ education failing to adequately address boys’ educational needs. Another factor that impacts on boys’ academic achievement revealed by Plummer, et al (2008) and Weaver- Hightower (2003) was the role of peer influence. Accordingly, masculinity is constructed among young boys in terms of resistance to school that was seen to be partially responsible for male underachievement in school. These studies are clear evidence to the underachievement of boys in education. However, most of these studies are based within the industrialized nations, hence the need for similar studies in the Kenyan context.

Most gender-in-education studies reviewed, including the work of Wamahiu and Umbima (1992), Chege and Sifuna (2006), were generally designed to address the disadvantaged position of girls in education. However, in view of the merging trends that depict boys’ underachievement in education, there is need for a gender-balanced approach in addressing gender issued in education. Chege and Sakurai (2011) acknowledged that, while various gender and equity research explore access to and retention among girls and women of the various educational levels, few studies address gender in the context of disability, traditional cultures or boys’ education. The authors further argued that the problem with using girls’ as measure of gender equity through schooling for the boy child is that boy’s education may be equally problematic if not addressed purposefully in the context of girls’ education. This study focused on boys and girls to generate a gender balanced mechanism for achieving gender equality in education. The argument advanced in this study is that research that side-line one gender risks reversing the gender equality gains achieved over the years.
CHAPTER THREE
RESEARCH METHODOLOGY AND DESIGN

3.0 Introduction
This chapter outlines the research design and methodology employed by this study, as well as details the rationale for choosing the designs and methodologies. It offers a description of how the requisite data was obtained, processed and analyzed to address the research questions identified in chapter one. The latter parts of this chapter include a detailed discussion on reliability and validity of research instruments, along with the ethical considerations.

3.1 Research Design
This study employed a mixed research methodology that combined elements of qualitative and quantitative aspects. Mixed methods enable the researcher to converge quantitative and qualitative data to provide a comprehensive analysis of the research problem. Studies that combine elements of the two approaches have been proven to be more comprehensive than those that employ one type of methodology (Creswell, 2003). Adopting a mixed research method was informed by the nature of the research problem under investigation, which required the researcher to collect and analyse data, and make inferences. The need to explore the influence of gender constructions on academic achievement called for a detailed analysis of the experiences of boys and girls in schools, which could be best described using a qualitative approach. In addition, to be able to describe relationships between gender constructions and academic achievement, the need to generate quantitative data was unavoidable and necessary. Besides, the quantitative data
generated enhanced the reliability and validity of findings, and increased the communicative ability of the data.

This study employed a descriptive survey design based on several considerations, with the main one being that, within the descriptive research design regime, the concern was to describe a population with respect to important variables articulated in the preceding chapters. This consideration was based on findings by Babbie and Mouton (2007), who argued that the survey method presents the most effective paradigm for collecting data in describing a population that is too large to observe directly. In the same breath, Kerlinger and Lee (2000) contended that a survey is suitable to systematically collect information at a specific point in time, with the intention of describing existing situations. This study, consequently, employed a descriptive survey design in examining masculinity and femininity in schools, and how these socially-constructed gender identities influence academic achievement for boys and girls in public secondary schools. Quantitative data was collected using a student’s questionnaire, while qualitative data was gathered using focus group discussions and interview methods.

On the other hand, for collecting qualitative data, a naturalistic design was used. Naturalistic design aims at understanding the phenomena being used. The phenomena being examined was how gender constructions influence academic achievement of male and female students in public secondary schools focusing on Meru County, Kenya. Naturalistic designs provide in depth investigation of individuals, groups or institutions as they naturally occur (Orodho, 2009). The naturalistic design was thus chosen for this study due to its suitability in generating in-depth information from the principals, teachers, education officers, parents and students in their natural environment, which in this case was the school.
environment by use of interview guides and FGDs guides. The researcher used the interview
guides to obtain information from the principals, teachers, education officers and parents on
the influence of gender constructions on academic achievement. Similarly, FGD guides were
used to generate data from male and female students. Document analysis was carried out to
obtain further information on the students’ attendance, completion, discipline cases and
mean scores. Observation guides was used to observe school facilities conditions and
interactions in the school.

3.2 **Background to the Study Area**

Meru County is one of the 47 Counties located in the former Eastern Province of
Kenya. It borders Isiolo County to the North and North East, Tharaka County to the South
West, Nyeri County to the South West and Laikipia County to the West (Softkenya.com,
n.d.; Saykenya.com, 2011). Currently, Meru County is made up of Igembe South, Igembe
Central, Igembe North, Tigania West, Tigania East, North Imenti, Buuri, Central Imenti, and
South Imenti constituencies (Republic of Kenya, 2010). It is important to note that the
district education offices are located within similar administrative boundaries with the
exception of Igembe Central – apportioned within Igembe North and Igembe South – which
constitute the eight district education offices in the county.

A common feature of these sections is that they were all traditionally governed by
elected and hierarchical councils of elders from the clan level right up to the supreme Njuri
Ncheke council, the only traditional judicial system recognized by the Kenyan state, and
which has powerful persuasion when it comes to making important political decisions
amongst the Ameru (Jenkins, 2008). The Meru traditional practices and attitudes may have a
role to play in the way individuals construct their gendered identities. For instance, some pockets of Meru communities still value and practice the traditional methods of male circumcision which socialize boys into acquiring behaviours and attitudes of hegemonic masculinity. The manifestation of the effects on cultural practices on academic performance is the conflict between societal and schooling expectations that often impact negatively on educational achievement.

Meru is also classified as a highly-patriarchal society where female genital mutilation (FGM) is still practiced by some conservative Ameru communities (Jenkins, 2008). These deeply entrenched socio-cultural dynamics were assumed to form part of the socialization processes that construct femininity among girls. These traditional ways of socializing girls into womanhood underwrite to experiencing attitudinal changes which contributed significantly to poor academic performance (Sifuna, et al, 2006). This study sought to establish some of the key agents of socialization that shape femininity in ways that disadvantage academic achievement.

Meru County is also unique due to the region’s economic diversity. The county is endowed, albeit modestly, with tourist attraction sites such as the Meru National Park and Meru National Museums (Wikimedia Foundation, n.d.). However, the main economic activity of Meru County is agriculture. Some of the major cash crops include miraa (khat), coffee and tea especially in areas near Nyambene hills. Other areas are endowed with horticulture and wheat, especially areas near Mt. Kenya, while tobacco is grown in some other areas especially those neighbouring Tharaka Nithi County. Subsistence farming and livestock production, specifically, dairy farming also form a significant part of the county’s economy.
A key distinct feature of Meru County is Miraa (Khat) growing. Miraa has been referred to as the “green gold” because it is considered a key driver of Meru’s economy. Notably, the best quality miraa twigs come from Nyambene Hills (Kenya Miraa.com, n.d.). In particular, the variety of miraa grown in Igembe Constituency is superior and appropriate for export due to its high water content, which makes it suitable for the long-haul export market (Pesatalk, 2013). Despite the economic benefits of this crop, miraa has been seen to adversely affect schooling, particularly for boys, with spiral effects on girls’ education (Muthaa et al, 2012). Determining the gender dimension of miraa in relation to how it influences academic performance of boys and girls in secondary schools, formed part of what inspired this study.

Currently, Meru County has about 300 public secondary schools. These include well-known secondary institutions such as Meru School, Nkubu Boys High School, Kaaga Girls High School, and Kaaga Boys High School. Tertiary institutions within the county include the Kenya Methodist University (KEMU), the Meru University College of Science and Technology, Meru Technical Training Institute and Nkabune Technical Institute. Field work for this study covered public secondary schools sampled across all constituencies within Meru County.

The aspects of academic achievement in education that were considered in this study are completion and performance in the Kenya Certificate of Secondary Examination (KCSE). An analysis of net enrolment rates (NER) for Meru County revealed a grim picture on participation of male and female students in secondary education. Evidently, while NER at all levels are generally low compared to national averages, data by the Ministry of education presents declining situations especially for boys’ education in secondary school in
Meru County. For instance, in 2009, the NER at pre-school level was at 33.5% for boys and 34.5% for girls compared to national figures of 41.3% and 42.3% for boys and girls respectively. Primary education NER for the county during the same period recorded a higher than the national average figure of 84.1% for boys and 85.9% for girls, compared to a national average of 76.2% and 78.3% for boys and girls respectively. However, secondary level recorded lower NER rates than any other level, especially for boys. NER for secondary education during the same period (2009) was recorded at 19.1% for boys and 25.3% for girls compared to a national average 22.2% and 25.9% for boys and girls respectively (Republic of Kenya, 2012). This trend raised fundamental questions on the role of gender constructions in influencing academic achievement in the county.

Despite significant progress made by Kenya in reducing gender gaps in school enrolment, considerable gender differences in performance remain. In the 2011 KCSE results, out of the top 100 students nationally, 34 were female compared to 66 male students. Similar results were mirrored at county level where girls outnumbered boys in the top 10 in only three counties. The same trend was reflected for schools with only three of the top 10 schools being girls’ schools. Similarly, just three of the top 10 students nationally were female students ranking fourth nationally (Odhiambo, 2012). These performance discrepancies translate to gender imbalances in transition to university and other tertiary institutions. In Meru County, performance in National examination in public secondary schools is relatively low compared the rest of the country. In 2011 KCSE results, only four schools (all boys’ boarding) managed to attain the top 100 best performing schools nationally (KNEC, 2011). The low academic achievement of boys and girls in the county is what inspired the need to carry out this study.
3.2.1 Selection of Study Area

Indicators of academic achievement in this study included school completion and performance the Kenya Certificate of Secondary Examination (KCSE). Measuring completion entailed tracking attendance, class progression and drop-out rates among boys and girls in public secondary schools. Gender disparities in school participation exist at secondary education level. Selection of Meru as a study area was informed by a number of factors. First, data from the Ministry of Education indicated a unique trend in education that pointed to the fact that there are fewer boys than girls in the education system in the county. Available data revealed that participation of boys in education has been consistently lower than that of girls in some parts of the county. For instance, in Tigania and Igembe areas (formerly Nyambene district), Gross Enrolment Rates (GER) in public primary schools was 109% for boys and 112% for girls in 2003, 119.8% to 121/8% in 2004, 122.8% to 129.8% in 2005, 124.5% to 130.4% in 2006 and 120% to 123% in 2007 (MoE, 2009).

The situation does not change much at secondary school level. For instance, out of the total 63,350 students enrolled in public secondary schools in Meru County, 30,803 are boys while 32,547 are girls (Meru CDE, 2013). A further analysis of net enrolment rates (NER) revealed a grim picture on participation of male and female students in secondary education in Meru County. For instance, in 2009, the NER at pre-school level was at 33.5% for boys and 34.5% for girls compared to national figures of 41.3% and 42.3% for boys and girls respectively. Primary education NER for county during the same period was recorded higher than the national average at 84.1% for boys and 85.9% for girls, compared to a national average of 76.2% and 78.3% for boys and girls respectively. However, secondary level recorded lower NER rates than any other level especially for boys. NER for secondary
education during the same period was recorded at 19.1% for boys and 25.3% for girls compared to a national average 22.2% and 25.9% for boys and girls respectively (Republic of Kenya, 2012). Evidently, while NER at all levels are generally low compared to national averages, data by the Ministry of education present declining situations especially for boys’ education in secondary school in Meru County. This trend raised the fundamental questions of the role of gender constructions in influencing academic achievement in the county.

Secondly, significant gender differences in academic performance are evident in Meru County. In the 2011 KCSE results, only four schools namely, Meru School, Nkubu Boys, Ontulili Boys and Bureiruri Boys obtained competitive grades that placed these schools among the top 100 best performing schools nationally (KNEC, 2011). The low academic achievement of in the county is what inspired the need to carry out this study. Moreover, despite girls recording higher participation rates than boys, their performance continues to be below that of boys. The need to explore factors that occasion these trends is part of what motivated this study.

The third reason emanated from the diverse socio-economic activities in Meru that may influence academic achievement differently for male and female students. For example, Meru is the largest Miraa-growing zone in Kenya. The area is also endowed with agricultural capacity for other agricultural cash crops like wheat, coffee and tea. Despite the economic benefits of miraa, the crop has adverse effects on academic achievement for especially boys. This study sought to explore the role of socio-economic activities characteristic to the area, and their contribution in perpetuating boys’ and girls’ behaviour and attitudes towards schooling. The study was especially keen to explore the role of socio-
economic activities perceived as appropriate for boys and girls, and how gendered role allocations influence academic achievement.

The fourth reason was to explore the role of socio-cultural practices that are deeply entrenched in some parts of the county in regards to how they influence construction of masculinity and femininity. Some parts of Meru still practice Female Genital Mutilation (FGM), albeit secretly, while traditional methods of circumcision for boys prevail in some pockets of the area. This study was inspired by the need to establish the contribution of socio-cultural beliefs and practices in constructing gender identities, and how these interplay with academic achievement.

The fifth reason was pegged on the apparent low academic performance of boys and girls in the county. As indicated in chapter one, academic performance is relatively low as demonstrated by KCSE results. For instance, in 2011, only three schools from the county appeared in the list of the top 100 best performing schools in Kenya. Notably, the three schools were all boys’ schools. This trend indicates that performance is not only dismal but is characterised by wide gender gaps. The motivation to explore the role of gender constructions on the performance of female and male students formed part of the inspiration to opt for Meru County as the most deserving region for study.

3.3 **Unit of Analysis**

The unit of analysis is the most elementary part of the phenomenon to be studied that influences the researcher’s design, data collection and data analysis decisions (Nachmias and Nachmias, 1996). The unit of analysis refer to the “what” of your study: what object, phenomenon, entity, process or event you are interested in investigating (Babbie and
Mouton, 2007). The unit of analysis for this study therefore is gender constructions in public secondary schools. The units of observation were male and female students in public secondary school, while, the levels of analysis points to the location, size, or scale of a research target. It is thus the distinct unit or structural level from which data have been or will be gathered. Therefore, level of analysis for this study was the county. Collectively, the unit of analysis and the level of analysis guide in defining the population of a research project.

3.4 Target Population

The target population includes all cases about which the researcher can generalize findings (Mugenda and Mugenda, 2012). Target population can also be defined as the eligible population that is included in research. It the entire set of units for which the survey data is to be used to make inferences. Target population is thus the entire aggregation of respondents about which information is desired. It is the population from which a researcher ends up deriving a sample that participates in the study. The target population for this research was made up by all the 63,141 male and female students in the 285 public secondary schools in Meru County. This target population was informed by the research problem that aimed at exploring the influence of gender constructions on academic achievement of male and female students in public secondary schools in Meru County.

To supplement information generated from the main target population, school principals in all the 285 public secondary schools in Meru County were also targeted because, as administrators and managers of their respective schools, they were in a position to provide data on the influence of school-based dynamics on boys’ and girls’ academic
performance. In addition, all the 1,303 teachers in public secondary school were targeted because they interact with students on a daily basis and were thus best placed to provide perspectives on students’ behaviour and performance. The teachers also provided useful information on behaviour management, peer influence, and school culture and school-based interventions that support the gender needs of boys and girls in school. The study specifically targeted responses from guidance and counselling teachers, discipline masters and mistress, teachers in charge of academics or curriculum and class teachers.

To enable the research generate generalised administrative and policy perspectives, all district education officers (DEOs) in the eight districts education officers were targeted as key informants. The education officers are individuals considered as endowed with professional and technical know-how on education, and who were ready to share their knowledge with the researcher (Orodho, 2009). In particular, they provided recommendations on policy frameworks and curriculum implementation strategies for supporting the gender needs of male and female students in education. In addition, male and female parents in Meru County were targeted to represent parents’ views. Parents provided their views on the role of the family in socializing male and female students in constructing masculine and feminine gender identities, as well as their opinion on the influence of cultural and socio-economic factors on boys’ and girls’ academic achievement.

3.5 Description of Sample and Sampling Procedures

Sampling entails processes of selecting sub-sections of a population to represent the entire population to obtain information regarding the matter of interest (Kerlinger & Lee, 2000). A sample thus refers to a portion of a population representative of the entire
population. This research employed probability and non-probability sampling procedures to settle on respondents. Probability sampling was done to ensure that each case in the population had a known probability of being included in the sample. In particular, random sampling was used to accord individuals in the target population equal and independent chances of being included.

Non-probability sampling was used to select certain cases non-randomly in situations where very few cases were included in the sample (Orodho, 2009). Non-probability sampling does not afford any basis for estimating the probability that each item in the population will be included in the sample, and was adopted for convenience and purposive objectives.

3.5.1 Sampling Students

Data obtained from the eight district education offices in Meru County indicate that the total number of students currently enrolled in public secondary schools is 63,141 in 2013, translating to 30,800 boys and 32,341 girls. Several methods were used to determine the sample size, including formulas that determined appropriate sample sizes for population-based surveys. These were largely based on three factors – the estimated prevalence of the variable of interest, the desired level of confidence and an acceptable margin of error. Using this formula for a survey design based on a simple random sample, the sample size required can be calculated according a mathematical formula developed by Taro Yamane in 1967 to determine the size of a sample (Israel, 1992; Mora & Kloet, 2010).

\[ n = \frac{N}{1 + N (e)^2} \]
Where,

\[ n = \text{sample size}; \]

\[ N = \text{population size}; \]

\[ e = \text{the level of precision (or the margin of error or the Confidence Interval)}. \]

Accordingly, the population size for this study was 63,141 male and female students enrolled in public secondary schools in Meru County. The level of precision was kept at \( \pm 5\% \), while confidence level was kept at 95 \%. Accordingly the calculated sample size was:

\[
\frac{n}{1 + 63,141(0.05)^2} = \frac{63,141}{397.475} \approx 398
\]

Although the 398 sample size is within the recommended sample size (please see appendix 14). This study however, increased the sample size to 500 based on the following considerations. First, the sample size needed to be appropriate for the data analysis planned. If descriptive statistics are to be used, then nearly any sample size will suffice. In addition, a good size sample, is needed for inferential analysis (Israel, 1992). Secondly, an adjustment in the sample size was needed to accommodate a comparative analysis of various categories of schools in the eight districts. Thirdly, to avoid skewed distributions of the different categories of schools, a larger sample was required, which provides leeway for a researcher to add 10\% to the sample size to compensate for persons that the researcher may be unable to contact. The sample size also is often increased by 30\% to compensate for non-response (Israel, 1992). It was for these reasons that the researcher increased the students’ sample size.
from 398 to 500. The number of students’ respondents was, therefore, substantially larger than the number required for the desired level of confidence and precision.

The next step was to select the 500 students that the researcher intended to include in the sample. It was however imperative to determine the number of schools that these students were to be picked from. To achieve this, the researcher used lists of schools obtained from each district education office to serve as a sampling frame. According to Neuman (2006), a sampling frame, defined as a list that contains and closely matches the elements of a researcher’s defined population. The schools were then stratified by type and number of schools in each district as indicated in Table 3.1:

<table>
<thead>
<tr>
<th>District</th>
<th>School Type</th>
<th>Boys</th>
<th>Girls</th>
<th>Mixed</th>
<th>Mixed Day</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Boarding</td>
<td>Boarding</td>
<td>Boarding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imenti Central</td>
<td></td>
<td>4</td>
<td>7</td>
<td>-</td>
<td>38</td>
<td>49</td>
</tr>
<tr>
<td>Imenti North</td>
<td></td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>Imenti South</td>
<td></td>
<td>8</td>
<td>11</td>
<td>2</td>
<td>42</td>
<td>63</td>
</tr>
<tr>
<td>Igembe North</td>
<td></td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Igembe South</td>
<td></td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Tigania East</td>
<td></td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>27</td>
<td>34</td>
</tr>
<tr>
<td>Tigania West</td>
<td></td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Buuri</td>
<td></td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>26</strong></td>
<td><strong>40</strong></td>
<td><strong>14</strong></td>
<td><strong>205</strong></td>
<td><strong>285</strong></td>
</tr>
</tbody>
</table>

*Source: Author’s Fieldwork, 2013*
Table 3.1 indicates that day secondary schools comprise the largest type of schools in Meru County. This trend is evident countrywide since 2008 when the government of Kenya committed to increasing access to secondary education. As indicated in background section in chapter one, a significant percentage of secondary school-age children still do not have access to secondary education. UNESCO (2006) data indicate that at the secondary education level, only 25 per cent of secondary school-age children had access to this level of education in sub-Saharan Africa in 2006. In order to increase access to secondary education, in 2008 free Day Secondary Schooling was rolled out as stipulated in Kenya Education Sector Support Programme (KESSP). Under this programme, the government committed to ensure that Free Education went beyond primary school (Njoroge and Kerei, 2012). The aim was to increase access to secondary education, a level that plays a key role as a transitional level of education that links basic education with skills and professional development (World Bank, 2005). Currently, free Day schools are subsidized hence affordable to most poor households. As a result, the transition rate from primary to secondary has risen to 72% in 2011, up from 47 percent in 2002 (Economic Survey, 2011).

A keen analysis of table 3.1 depicts that Imenti South has more public secondary schools compared to other constituencies in Meru County. According to Murithi (2013) South Imenti is the most developed constituency in Meru County. Socio-economic development is evident through investment in transport infrastructure such as roads infrastructure. This has played a significant role in stimulating development in other domains including education. Similarly, the area has seen improvement in agriculture making it the leading producer of bananas in the country. The second reason could be associated with the presence of churches particularly the Catholic Church that has made
immense contribution through construction of school. Thirdly, this can be attributed to political will and leadership from leaders such as the Honorable Kiraitu Murungi who made significant contribution to social-economic development of the area. All these factors may have been instrumental in creating an enabling environment for development in education. This is demonstrated by high numbers of education institutions and good graded posted by schools in Imenti South. Subsequently, the constituency was ranked position one in the Kenya Certificate of Primary Education (KCPE) in Meru County, and managed to get a mean score of 5.5776 in 2011 KCSE results (Murithi, 2013). Finally, the high presence of secondary schools in Imenti South may be because of a similarly large numbers of primary schools in the constituency. Subsequently, since most secondary schools, particularly day secondary schools are established within existing primary school, this may have led to equivalent high number of public secondary schools in the area.

In order to ensure equitable inclusion of schools from each constituency, the researcher used stratified sampling. This technique was used to determine the sample size of schools that would be included in the study out of the total 285 schools in Meru County. The process entailed stratifying the 285 schools into four categories, or strata. These were categorized five main types, namely, boys boarding, girls boarding, mixed boarding and mixed day schools. Stratified sampling necessitated dividing Meru County into eight strata, in this case, the eight districts that make up the county. It should be noted at this juncture that although Meru County comprise nine constituencies, the district education offices are stationed within eight constituencies. The eight education offices are located within; Meru town for Imenti North; Nkubu for Imenti South; Equator for Imenti central; Timau for Buuri; Maua for Igembe South; Laare for Igembe North; Muthaara for Tigania East; and
Uuru for Tigania West. Notably, schools in Igembe Central constituency are split within Igembe North and South.

To get the school sample size, the researcher sampled 30 per cent of the total number of schools in Meru to determine the ideal number to be included in the sample. This implied including 85 schools in the study. Stratified sampling was used to determine the number of schools to be included from each school category that would constitute the required 85 schools. In stratified sampling, the number of sampling units drawn from each stratum is arrived at in proportion to the relative population size of that stratum (Orodho, 2009). Stratified sampling technique was used to select schools proportionately from each school category. Stratified sampling permits a researcher to identify sub-groups within a population and create a sample which mirrors these sub-groups by randomly choosing subjects from each stratum (Mugenda & Mugenda, 2012). This type of sampling method was used because the researcher wanted to ensure equal representation of schools type from each district to capture gender and education dynamics as they operate within the diverse subgroups in Meru County. The relative size of each school category was determined by stratified proportionate formula adapted from Stat Trek (2013):

\[ n_h = \left( \frac{N_h}{N} \right) \times n \]

Where,

- \( n_h \) = is the sample size for stratum \( h \),
- \( N_h \) is the population size for stratum \( h \),
- \( N \) is total population size, and
- \( n \) is total sample size.
Based on the aforementioned formula, the sample size for boys’ boarding schools for instance, was determined as indicated below:

\[
\frac{26}{285} \times 85 = 7.7 \sim 8
\]

Table 3.2: Distribution of sampled schools by category

<table>
<thead>
<tr>
<th>School Type</th>
<th>Total Number of schools (N)</th>
<th>Sample size ((\Pi_h))</th>
<th>Percent (%) of the sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys’ Boarding</td>
<td>26</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Girls’ Boarding</td>
<td>40</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Mixed Boarding</td>
<td>14</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mixed Day</td>
<td>205</td>
<td>61</td>
<td>72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>N= 285</strong></td>
<td><strong>(\Pi_h = 85)</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Author’s Fieldwork, 2013*

Table 3.2 indicates that 85 schools were to be included in the sample. The researcher was also keen to determine how to select the 85 schools. Using a list of all public secondary schools obtained from each district education office, the schools were selected using systematic random sampling. In systematic or interval sampling, every \(K^{th}\) element in the total list is chosen systematically for inclusion in the sample (Orodho, 2009). The “\(K\)” refers
to the sampling interval and its value was determined by dividing the population size by the sample size. The sampling constant “K” thus was determined using the formula:

\[
\text{Sampling constant, } K = \frac{\text{Total population}}{\text{Sample size}}
\]

\[
K = \frac{285}{85} = 3.3, \text{ which is approximately 3}
\]

Every 3\textsuperscript{rd} (K=3) school on list was selected for inclusion in the sample. Similarly, to insure against any possible human bias in using systematic sampling, the researcher randomly selected the first school in each category in each constituency. A random number between one and three was selected and whatever school that fell on that number was included in the sample, plus every other subsequent school took the third position following the one selected. The final list of all sampled schools in Meru County is presented as annex 10. Systematic sampling was employed to select students who participated in the study in each school. This sampling procedure reduced bias while ensuring gender representation, especially in the cases of mixed schools.

The next step was to randomly sample 500 students randomly in the 85 selected schools. The 500 were selected to participate in the survey, hence were those who filled the student questionnaire. In addition to selecting survey respondents, an extra 120 were selected to participate in focus group discussions. Purposive sampling was employed to allow for participation of students available to take part in focus group discussions when the
researcher visited each selected school. This technique also ensured representation of various class levels, a representation of the best and poor performers, as well as gender balance. Participants comprised male and female students predominately from mixed day schools. The aim of focusing on day schools was to ensure gender representation and increase the possibility of reaching students from the locality.

3.5.2 Selecting Key Informants and Other Study Participants

Secondary school principals who took part in the study were selected purposively on the basis of their management and leadership role in schools. In total, 85 principals were selected to participate in interviews that were conducted using a Principals’ interview schedule. In addition, the study sought teachers’ views, particularly those responsible for discipline, academics, and guidance and counselling and class teachers. At least two teachers per school were selected, constituting a total of 171 teachers who participated in providing information for the teachers’ interview schedule. To further supplement students’ views, parents of some of the sampled students were selected using the snow ball technique. According to Babbie and Mouton (2007) snow ball sampling is appropriate when the members of a special population are difficult to locate. The researcher identifies a parent within the school locality to provide requisite data, and then asked the parent to provide information needed to locate other parents they know who had children in the same schools selected for this research. A total of 92 parents across the eight districts of Meru County participated in the study.

Education officers were selected using purposive sampling technique. The researcher targeted to interview at least one education official per district. Those targeted included
District Education Officers (DEOs), District Quality Assurance and Standards Officer (DQASOs) and District Examination Officers (DXOs). In order to carry out the interviews efficiently, an initial visit was made to introduce the purpose of the study. Appointment dates and times for the interviews was secured for each participant. A total of 8 education officers from each of the eight district education offices district were interviewed.

3.6 Description of Research Instruments

One of the key methods of data collection for this study was survey method, which informed the use of questionnaire as the main research instrument. The researcher also used focus group discussions, interview, document analysis and observation methods. Key-informant interviews were conducted to gather information mainly on gender policy issues in education and to provide recommendations. Overall, the study used eight types of research instruments to capture required information. Research tools used included; students’ questionnaire; focus group discussion guides (FGD), semi-structured interview guides for principals, teachers’, parents, and education officers; observation guide; and document analysis guide. These tools were used to augment information collected using the students’ questionnaire.

3.6.1 Student Questionnaire

A students’ questionnaire was administered to 500 male and female students who were randomly sampled students from 85 schools. The students’ questionnaire had 50 questions organized in sections that corresponded to the research questions. The questionnaire predominately contained five point likert-type questions. The questions
generally asked respondents to indicate the extent to which they agreed or disagreed with set statements. The responses categorized list of choices for respondents to select their level of agreement based on items that were in the form of a 5-point Likert scale. The choices provided were: Strongly Agree (5), Agree (4), Not Sure (3), Disagree (2) and Strongly Disagree (1), while other questions provided choices like Strong Influence (5), Moderate Influence (4), Not Sure (3), Minimal Influence (2), and No Influence (1). The students’ questionnaire contained some questions done in a matrix format that covered a series of questions concerning common themes. This format was used to shorten the questionnaire by reducing the number of words used for each question. The format was also used to emphasize the common themes among the questions and to invite respondents in answering each question in relation to other questions in the matrix to ensure accuracy. The researcher provided explicit instructions for example, to “tick one response on each line” in a matrix question.

The questionnaire contained structured and semi-structured questions that captured all study variables directly or indirectly (see appendix I). Part One of the tool attempted to source demographic information on gender of the respondent, age, class, family background and other basic characteristics of the respondents. Part two captured information on perceptions and attitudes towards gender constructions, while questions in part three explored the role of socialization in constructing masculine and feminine genders. For instance, the tool sought to establish how role models influence behaviour differently for boys and girls in school. Questions to capture this consisted closed-ended and open-ended items, for example: “Do you have a role model?”, to which two choices, 1 Yes ( ) and 2 No ( ) were provided for students to select. In this case, respondents were required to tick the
one answer they deemed appropriate. A subsequent open-ended question was included to generate more information on this item, for example: “Please describe how your role model motivates/supports you”. In this case, respondents were required to provide their own opinion and ideas. The researcher included only a few open-ended questions to reduce the likelihood of respondents being put off by the idea of having to write out long answers. Besides, the study captured additional in-depth responses using a focus groups guide.

As a precursor to seeking permission to embark on data collection in schools, several preparatory measures were undertaken. For example, the researcher had to deliver letters of introduction to sampled schools to inform them of the impending study. The contents of the letter were carefully crafted to indicate the credibility of the research, and noted ethical obligations, such as confidentiality and guarantees of voluntariness in participation. These letters were personalized to each school principal and were signed by the researcher. Contact information (phone number and email address) of the researcher were included to allow respondents to make inquiries or seek clarifications prior to data collection. Copies of the research permit and authority to carry out the research signed by the County Director of Education and respective District Education Officers were also attached. These advance visits to schools provided an opportunity to seek appointment regarding appropriate dates for administering questionnaires and interviews in each school, so as not to ambush schools, hence, increase response rates.

Once the respondents confirmed participation, the researcher expressed appreciation for their participation, and thereafter described the steps of the survey, and offered assurances that the survey was not an exam to enable them relax and provide honest responses. An introductory statement was included in the questionnaire to emphasize
confidentiality and other ethical considerations. To further enhance confidentiality, the researcher assigned numbers to respondents and schools, such as FSR1-1-1 to denote female students respondent 1 in school 1, located in district 1. Using this coding process, students were assigned numbers from 1-500, school from 1-85, while districts took numbers 1-8. An identifying number was subsequently indicated on each questionnaire as soon as they were collected from each respondent. This coding procedure was also essential in determining non-respondents, as well as making follow-up efforts where needed. The identification method was explained in the introductory statement in the tools.

3.6.2 Focus Group Discussion (FGD) Guide

Focus group discussions were designed to complement the students’ survey by exploring social perceptions towards masculinity and femininity with specific focus on how these gender constructs influence academic achievement. Male and female students were purposively selected to participate in discussion-based interviews that produced verbal data generated through group interactions. The rationale behind utilizing the focus group approach was to save time and money while generating a broader and more in-depth understanding of the research problem. The other comparative advantage of focus group interviews over individual interviews is that the interaction process in a group stimulates memories, discussion, debate and disclosure (Babbie and Mouton, 2007). The researcher purposively selected 10 mixed day secondary schools for this exercise. Selecting day school increased the probability of including local students who offered deeper insights on gender constructions and academic achievement within the Meru socio-cultural context. The focus
group discussions were used to supplement information provided by students through surveys.

The purpose of using the FGD guide (See appendix 2) was to generate rich data and provide deeper insights into the research problem. The focus groups were homogeneous in terms of age bracket and education level to ensure participants interacted with each other on a level playing ground. In determining the idea number of participants for each group, Babbie and Mouton (2007) recommends a typical number of participants comprising between 8 – 12 participants. This study then, involved 10 groups comprising 12 participants in each of the 10 selected schools. The principal researcher managed the focus group interviews by providing participants opportunities to respond. The researcher thus played the role of a moderator to maintain focused discussions and keep the discussions on track. A research Assistant (RA) was involved in taking comprehensive notes, and describing the prevailing mood in the group, as well as capturing relevant quotes.

At the beginning and end of each session, the researcher emphasized the need for participants to respect each other’s privacy and anonymity. Participants were advised not to reveal the identities of other members or give out specific comments during the discussion. Discussions were held in venues within the school that were comfortable, private, and free from distraction. Discussions took about one hour per session in each school. To enhance confidentiality, the researcher assigned participants numbers, such as MSP1- FGD1 for male student participant one in focus group discussion one, or FSP1- FGD1 for female student participant in focus group discussion one. Each focus group was assigned an identification number identical to the school identity number that ranged from 1- 10.
3.6.3 Semi-Structured Interview Guides

Interviews are face-to-face interpersonal role situations in which the interviewer asks
informants questions designed to obtain answers pertinent to the research problem
(Kerlinger and Lee, 2000). Interview schedules were designed for principals, teachers,
parents and education officers. The researcher depended on them to find out levels of
knowledge and understand various insights of the respondents. The researcher developed an
interview schedule that contained a framework of themes to be explored, and the specific
topics that the researcher wanted to explore during the interview. The interview schedule
contained fundamental questions structured around gender construction and academic
achievement. The tool for the education officers provided information on policy and general
gender issues in education. Data obtained through the interviews supplemented information
provided by students (appendices 3-6). To enhance confidentiality, participants were also
assigned unique numbers for example, FTP1-1-1 to represent female teacher participant one,
in school one, district one. Each school was assigned an identification number from 1-85,
while districts were assigned number 1-8.

3.6.4 Document Analysis Guides

The document analysis schedule was use to collect secondary information – that
already documented by schools. Data collected using this tool included enrolment by gender
and class for a period of five years (2008-2012), information of behavioral attributes for
students and remedial actions taken from school records, and KCSE results mean score
analysis by gender for the period 2008 – 2011 (see appendix 7). Data from the document
analysis schedule was summarized into tables to facilitate analysis of trends of the items
under examination.
3.6.5 Observation Guides

The observation technique employed in this study entailed structured spot checks, whereby the observer recorded the presence or absence of behaviour or physical characteristic of interest at the first moment of observation. Spot checks are done as soon as the observer arrives in order to capture the “real situation” before there is time for the observer’s presence to affect people’s behaviour (Orodho, 2009). An observation schedule was used to record observed school environments in terms of school population by gender, condition of school infrastructure and other indicators that captured general school atmosphere (see appendix 8).

3.7 Pilot Study

A pilot study denotes the pre-testing or 'trying out' of draft research tools in the field before the actual data collection starts (Mugenda and Mugenda, 2012). Piloting of data collection instruments is the most important stage of questionnaire design because it reveals what works and what doesn’t, such as vague questions and unclear instructions (Nachmias and Nachmias, 1996). The pilot also helps to establish how the instrument will assist a researcher draw up coding frameworks for open-ended questions (Orodho, 2009). This study piloted the research instruments in Tharaka Nithi County, specifically, in Chuka district. This was done in three schools; a boys’ boarding, a girls’ boarding and a mixed day school. Respondents included 20 students (10 boys and 10 girls), 6 teachers (3 males and 3 females), 2 parents (male and female), 1 male education officer and 3 principals (that is, a male principal for the boys’ school, a male principal for the mixed day school, while the females was for the girls’ school). Respondent that were selected to fill in the student’s questionnaire
and participant selected for interviews were conducted separately for each individual (as opposed to putting them in groups) to enhance reliability of responses provided.

The pilot study sought to establish if the wordings were clear and whether all respondents understood the questions the same way. It also checked if respondents interpreted all questions in the same way, hence helped in identifying and correcting ambiguity. During the process of piloting the tools, the researcher observed certain reactions from respondents that were pointers to areas of confusion about particular items in the instruments. Some of the observed reactions included long pauses and shifts in responses. The pilot study was thus instrumental in revealing ambiguity and sensitivity of items.

The pilot study also assisted in establishing if the questionnaire and interview schedules succeeded in measuring what they were intended to measure. The pilot was, therefore, beneficial in checking if the questions had proper layouts to minimize researcher bias. Consequently, questions that did not yield expected response and those that did not add value to the study were refined by re-phrasing them, while questions that were deemed irrelevant were modified, restructured or removed. Similarly, vague items were rectified and grammatical errors and numbering corrected. The pilot was also useful in assessing interview and questionnaire administration timing. Similarly, it was instrumental in testing reliability and validity of the tool. According to Mugenda and Mugenda (2012), the Spearman-Brown prophecy formula is used to predict the reliability of an entire test when the existing estimate of the reliability is based on two halves (split half) of the full test (Mugenda and Mugenda, 2012). The Spearman-Brown prophecy formula was applied to test the length of the questionnaire. The split-half method was used to estimate reliability; therefore, results obtained were utilized to reduce the size of the tools, ensuring research
instruments were conducted within manageable time. In a nutshell, the pilot testing process helped to reformat the instruments with the aim of improving efficiency and maximizing response rate.

3.8 Validity and Reliability of the Instruments

3.8.1 Validity of the Instruments

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie and Mouton, 2007). It is the degree to which a test measures what it purports to measure or the accuracy and meaningfulness of inferences, which are based on the research results (Orodho, 2009). Validity is thus an indication of the extent to which results obtained in a study are a true reflection of what is real and whether the findings can be generalized beyond the sample used. To enhance validity, the research instruments were developed in close consultation with academic supervisors. In addition, the instruments were piloted and revised before actual data collection. This study further used triangulation methodology by combining the qualitative and quantitative approaches. Using the various approaches, the researcher initiated the study under the assumption that the measurement instruments met the required validity standards.

In addition, this study intended to measure the extent to which the study instruments provided adequate coverage of the research questions. According to Mugenda and Mugenda (2012), content validity is concerned with whether or not a test or measuring instrument is representative of the full content of the concept being measured. To achieve this, the questionnaires were persistently checked to ensure they covered all the main areas of the study, that is, perception on gender constructions, the socialization process and gender
construction, the influence of masculinity and femininity on academic achievement, and challenges, as well as support mechanisms, for gender needs in school.

Further this research measured the construct validity of the instruments. According to Orodho (2009), construct validity is perceived as a measure of the degree to which data obtained from an instrument meaningfully and accurately reflects or represents a theoretical concept, and is based on the logical relationships among variables. Construct validity was thus applied with the purpose of establishing the extent to which a particular measure is in tandem with other variables with which it is expected to be, on logical grounds. To measure construct validity, the researcher identified femininity and masculinity as variables related to gender construction, while, attendance, completion and performance were variables identified to measure academic achievement. The next step was to establish, through statistical tests, the degree to which masculine characteristics were associated with boys, while the feminine characteristics were linked to the girls.

Internal invalidity account for only some of the complications faced by researchers, hence the need to also guard against external invalidity. Babbie and Mouton (2007) noted that external invalidity relates to the generalizability of experimental or study findings to the real world. External validity thus refers to the degree to which the results of an empirical investigation can be generalized to and across individuals, settings, and times. The researcher therefore established the extent to which this study can be applied to the individuals and settings beyond those that were studied. One method the researcher demonstrated external validity was by testing hypothesis that were stated to echo similar studies done elsewhere to check replication of findings in the Kenyan context. The study focused on Meru County to establishing the relationship between gender constructions and
academic achievement in secondary schools. Results obtained from the case study can be used as evidence for replicating similar studies across other Counties in Kenya and beyond.

Validity in qualitative research was considered to research findings accurately reflect the real situation, and that findings are supported by evidence. To achieve this, the researcher employed triangulation to check and establish validity of this research by analyzing a research question from multiple perspectives. According to Babbie and Mouton (2007), triangulation is generally considered to be one of the best ways to enhance validity and reliability in qualitative research.

3.8.2 Instrument Reliability

Reliability of measurement concerns the degree to which a particular measurement procedure gives equivalent results over a number of repeated trials. In this regard, if a researcher measures the same set of object repeatedly, with the same comparable measuring instrument, one is expected to arrive at similar results (Kerlinger and Lee, 2000). Reliability is, therefore, mainly concerned with accuracy, consistency, stability and repeatability of variable and data measurements in presenting the true score of the subject being assessed (Neuman, 2006). This study measured reliability of the students’ questionnaire using the split-half method, an approach that requires only one testing session to estimate internal consistency (Orodho, 2009).

The process involved obtaining results of two sets of scores taken from the student questionnaire that were generated from the same tool, one set from odd items and the other set from even items. The researcher then correlated scores of the two sets. The split-half procedure was based on the correlation between scores obtained on only half the test, to
determine the reliability of the entire test. The Statistical Package for Social Sciences (SPSS) data analysis program was used to compute the correlation coefficient. The Spearman-Brown prophecy formula used in the split-half method is illustrated as:

\[
R = \frac{2r}{1 + r}
\]

Where, “r” is the actual correlation between the two halves of the instrument. Results obtained indicated a reliability coefficient of 0.74 (see annex 9). An ideal correlation coefficient of 0.6 to 0.8 suggested the instrument was substantially reliable (Best and Khan, 1998; Oluwatayo, 2012).

3.9 Data Collection Procedure

Data collection began after the proposal was approved by the Department of Postgraduate Studies at the Catholic University of Eastern Africa (CUEA). The researcher then proceeded to obtain a research permit from the National Council for Science and Technology (NCST), a constituent council of the Ministry of Higher Education, Science and Technology (MHEST). The permit was used to secure authority from the County Director of Education’s (CDE) office to conduct the research in Meru County.

This study involved a wide spread of locales because it covered eight districts in Meru County. This necessitated recruitment of research assistants to help in data collection. The other purpose for engaging research assistants was due to the scheduled nature of interview appointments that were made with school principals, teachers, parents and education officers. In total nine research assistants were recruited for field work to assist the
principal researcher in the data collection process. One of them doubled up as a Supervisor. The team comprised of university graduates drawn from the locale because they understood the language and terrain of the study area. The other reason was to build capacity among the local community. Although most of the Research Assistants had also participated in the pilot study, it was imperative for the principal researcher to take the team through requisite training in view of revisions made on the instruments after the pilot study. The main areas covered by the training were to understand the purpose of the study, target population and geographical location, and how to use of the research instruments. This implied taking them through each item in the instruments and explaining all the instructions. The training also focused on methods of data collection, with emphasis on ethical principles, how to create rapport with respondents and how to manage complete questionnaires. The principal researcher was actively involved in data collection throughout the period, supervising the whole process.

Prior to the fieldwork, the research assistants made appointments with sampled schools and arranged for interviews at convenient dates and times for the respondents. Data collection was done in two phases: The first was to distribute the questionnaires to all samples school. To ensure high return rate, filled questionnaires were collected the same day they were given out, where this arrangement was possible. The second phase was to conduct focus group discussions with students and hold face-to face interviews (with principals, teachers, parents, and education officers). Overall, data collection took eight weeks, from February to March, 2013.

The main task of the research assistants was to drop the questionnaires in sampled schools and check through completed questionnaires to identify errors and omissions before
leaving the school. Because the team used public means of transport, completed questionnaires for each school were packed in waterproof envelopes to avoid possibility of destruction by rain or dirt. The trained team also accompanied the researcher during interviews and focus group discussions. The lead researcher was responsible for conducting the interviews and moderating discussions as the research assistants took notes.

3.10 Description of Data Analysis Procedures

Data was checked for completeness and gaps immediately filled before leaving the research site. In addition, verification was done every evening, collectively with the research assistants, for rectification of any irregular information. Where gaps were identified, confirmation was sought from the respective respondents. Thereafter, the tools were serialized in readiness for data entry and analysis. Below is an account of how quantitative and qualitative data analysis was carried out.

3.10.1 Quantitative Data Analysis

Data entry templates were developed for each instrument using Epi-data 3.0 program. Epi-data was used because it a more effective program that minimises error. In addition, this program enables a researcher to export data in various formats. To enhance data entry accuracy, two separate entries were done and the process of counter-checking used in comparing data entered in the first round, with comparisons done in the second round to identify outliers and incorrect entries. Any irregular entries were corrected by referring to the raw data.
In addition to eliminating data entry errors, the data cleaning process involved performing analyses of missing data to identify the patterns and reasons underlying the missing data. The purpose was to maintain the original distribution of values as much as possible. The analysis revealed that some of the missing data resulted from failure to complete entire questionnaire by the respondents. The amount of missing data was determined by tabulating the frequency and percentage of variables with missing data for each case. This was reported as either “missing in system” or “no-response”.

Data generated from open-ended questions was coded to facilitate computer input. Once verification was complete, the final data was transferred to Statistical Package for Social Science (SPSS) for analysis. Quantitative data was analysed using SPSS Version 20 because it is a flexible programme that allows for management of data into various formats. The next step involved summarizing the data using descriptive and inferential statistics. Results for the univariate analysis were generated using frequency distribution tables. Overall, descriptive data analysis results were presented using tables, pie charts and graphs.

Bivariate analysis involved cross-tabulation and carrying out inferential analysis to establish extent to which gender construction influence academic performance. Inferential analysis was used to allow the researcher infer and reach conclusion about the larger population from which the sample was drawn. To enable inferential analysis, the study standardized gender constructions values to make them measurable. The gender construction value was computed using selected variables from the student questionnaire. These were questions number 7, 8, 9, 11, 13 (1 and 2), 37 and 40. These were questions that described perceptions, characteristics, behaviour and roles socially attributed to being male or female. In total, 44 question items were used to compute gender construction score. Masculinity
score was computed using responses for 22 items from the selected questions. These were items that described socially perceived characteristics, attitudes, behaviour and roles considered appropriate for boys. The 5 scale-likert values were 5 for strongly agreed, 4 for agreed, 3 for not sure, 2 for disagreed and 1 for strongly disagree. Femininity score was computed using responses for 22 items that described socially perceived characteristics, attitudes, behaviour and roles considered appropriate for girls. In this case the 5 scale-likert values were reversed to represent 1 for strongly agreed, 2 for agreed, 3 for not sure, 4 for disagreed and 5 for strongly disagree.

The 2011 KCSE mean score for each school were used as proxy to represent respondents’ grade. The assumption made was that since the current and recent former students are from the same cultural setting, they are likely to have had similar perceptions regarding masculinity and femininity (gender constructions). This was based on the assumption that culture is gradual and takes a while to change. Hence, the presumption that KCSE grades are less likely to change significantly within a period of one to five years. Once the gender construction variable was transformed into a quantitative value, the next step was to normalize the data. In this regard, the z-score for the KCSE means score and the gender construction score was computed.

Thereafter, Pearson correlation(r) coefficient was computed to find if there was any relationship between gender construction and academic performance. The Gender construction score (GCS) was considered as the x- value, while mean 2011 KCSE performance the y- value. The study then attempted to determine the extent to which gender construction influence academic performance by computing the coefficient of determination (r²). The final analysis involved determine if the influence was significant or a chance effect.
This was achieved by computing the significance of the correlation using a t-test to establish the magnitude and direction of the relationship. A test statistic was computed that represented the correlation coefficient of the points that made up a normal probability plot. The test statistic was compared with the critical value to establish if the test statistic was less or greater than the tabulated value. The aim was to determine if the test statistic was more extreme than the critical value, hence reject the null hypothesis (stated in chapter one) in favor of the alternative hypothesis, or if the test statistic is less extreme than the critical value, to inform the decision not to reject the null hypothesis. Results of the analysis are presented in chapter four.

3.10.2 Qualitative Data Analysis

Qualitative data, recorded by taking notes, was gathered through interviews and focus group discussions. Recorded data taken after each session were summarized into daily briefs after each interview session. Areas that required additional information were identified and requisite data filled. The verification process involved going back to the respondents, as well as discussing with others on phone. The next step involved compiling transcripts for the various groups interviewed and involved in the focus group discussions. Thereafter, the researcher went through the transcripts to identify sections that were relevant to the research questions.

Orodho (2009) identified three major techniques for the analysis of textual data; the first is a quick impressionistic summary – a rapid data analysis technique – which can be used in situations requiring urgent information to make decisions for programming. The second is a thematic analysis that involves categorization of related themes, and the third
content analysis, a more rigorous approach to analysing the content of discussions. Babbie and Mouton (2006) assert that content analysis is used mostly in communication. The two authors classify content analysis into two, namely; conceptual analysis and relational analysis. They further contend that conceptual analysis is also sometimes known as thematic analysis (Babbie and Mouton, 2006). We can summarize this based on Braun & Clarke (2006) argument that thematic analysis is a qualitative method used for identifying, analysing and reporting patterns (themes) within data.

Braun & Clarke (2006) indicate that the major difference between content and thematic analysis is that in the latter, the categories are not predetermined but rather emerge as the researcher reviews the data. This study analysed transcripts using thematic analysis. Description of each of the focus group discussions held with students and interviews held with various individuals involved devising a coding framework and the emerging main themes included in report. During data analysis, the researcher examined data collected from various participants and identified themes as they emerged when examining the data. A theme was considered as what captured important essences about the data in relation to the research question, and what represented some level of patterned response or meaning within the data set. These themes were labelled as codes or categories. As the same themes continued to emerge, the researcher grouped the data together. Identified themes were important to the description of a phenomenon under study and were those associated to specified research questions. The themes became the categories for analysis.

Thematic analysis was performed through the process of coding in six phases identified by Braun and Clarke (2006). The step-by-step guide was instrumental in creating established, meaningful patterns. These phases are, first, familiarization with data through
the process of transcription, generation of initial codes. The second phase involved identifying features of the data that were assessed in a meaningful way regarding the phenomenon under study. The third phase entailed searching for themes among codes, which essentially involved analyzing the codes and combining different significance codes to form overarching themes. This ideally involved classifying data into major issues or topics. The fourth stage involved reviewing themes through refinement of candidate themes to determine those that were genuine themes in relation to the research questions. Those that had a coherent pattern and were relevant to the research questions were collapsed, while the less significant ones were discarded.

The fifth step involved defining and naming themes. This was done after establishing a satisfactory thematic map of the data. For each individual theme, the researcher conducted a detailed analysis and identified how each individual theme fitted into the study in relation to the research questions, and ensured there was not too much overlap between themes. Each theme was given a concise title to provide a sense of what the theme was about in relation to each research question. The sixth phase entailed producing the report; the write-up contained extracts that captured the essence of the arguments being demonstrated in the report. These extracts were not only embedded within an analytic narrative illustrated by the data, but also used to inform arguments in relation to the research question.

The report also captured the intensity of the number of times a particular issue was discussed by the various respondents. In addition, the report presented selected vital quotes made by participants. Some participants provided their responses in Kimeru (a local dialect) and Kiswahili (the national language). This necessitated the use of both paraphrased and verbatim quotes. Direct quotations were used to report fundamental views provided by
participants that were deemed relevant in answering the research questions. The paraphrasing process on the other hand, entailed presenting participants’ views indirectly, while ensuring the original meaning was maintained. The analysed qualitative data was integrated into the quantitative data to compile the final report.

3.11 Ethical Considerations

Prior to embarking on a research process, the researcher and the participant are required to enter into an agreement that clarifies obligation and responsibilities through informed consent (Kerlinger and Lee, 2000). The ethical principles that were observed by study, therefore, were related to the researcher as the person conducting the study, and the one who had to be aware of her obligations and responsibilities. The second level of ethics was related to the respondents as parties who needed to be aware of their basic rights that needed to be protected during the research process. As a critical part of honouring the ethical requirement, permission to conduct this study was obtained from the NCST and the Meru CDE. The intention to carry out the research was also communicated to all the DEOs and Principals of all sampled schools.

There was also need to explain the nature of the study to all respondents. This involved making respondents aware of any positive and negative aspects or consequences of their participation in the study (Nachmias and Nachmias, 1996). Once the researcher fully explained the nature of the study, participants were asked to provide consent of their willingness to participate to the study. Consent in this study was mainly verbal in nature. In carrying out the study, the researcher sought the informed consent of respondents, and did not in any way compel participants to give information. Further, despite using random
sampling to select respondents for the survey, participation to the study was voluntary and respondents were made aware of their right to withdraw or refuse to divulge information they deemed sensitive. The primary respondents were students, and it was necessary to observe their right to privacy by seeking consent from the school administration. Explanations were provided to schools principals regarding the purpose and nature of the research.

Also important to note was that the data collected was safeguarded and not disclosed to the public in a way that could identify the participants. To enhance confidentiality, the researcher used identification numbers, rather than names of the respondents. Among the steps taken to ensure anonymity included non-indication of names of respondents on the instruments. A master identification file was created to link unique numbers to schools and districts to permit later correction of missing or contradictory information. The master file was secured by the principal researcher and only accessed when needed. Similarly, respondents were asked not to provide names of their schools or districts. Moreover, interviews were conducted in private locations to guarantee confidentiality.
CHAPTER FOUR
DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents the results of the study as set out in the research methodology section. Data was gathered using questionnaires, interview guides, focus group discussion guides, document analyses and observation guides. These research instruments were designed in line with the research questions of this study.

4.1 Response Rate

An analysis of the response rate was carried out to determine the validity of the results. In survey research, the concept of response rate refers to the completion rate or return levels. According to Mugenda and Mugenda (2012), a response rate is often arrived at by dividing the number of respondents who participated in the study by the number of people in the sample who were eligible to participate and should have been interviewed, and is basically expressed in the form of a percentage. Determining response is important because a low response rate is an indicator that the validity of the results may be in question.

This study targeted various respondents that included; students, principals, teachers, parents and education officers. Students’ questionnaires were distributed to 500 sampled students in 85 schools. All the questionnaires were returned, indicating a response rate of 100 per cent. To supplement survey responses, 10 groups each comprising 12 male and female students took part in focus group discussions. The researcher was able to conduct 10 focus group discussions in 10 schools.
Similarly all the targeted teachers, parents and education officers were interviewed using interview schedules, which also returned a response rate of 100 per cent. However, because Form one selection for the year 2013 coincided with the period this study was being undertaken, three of the targeted 85 principals were not able to participate in the study. Despite this drawback, the response rate was fairly high at 96.47%. This was within the acceptable rate, bearing in mind that a response rate of 85% is the minimum that must be achieved if researchers are to assume that non-responses do not threaten the external validity of a research project (Jordan et al, 2011).

4.2 Background and Characteristics of Respondents

This section highlights demographic information and characteristics of the respondents. Results presented here include students’ genders, ages, social classes and family backgrounds. The section also presents background data of other respondents, such as gender, designation and marital status of principals, teachers, parents and education officers.

4.2.1 Students’ Gender

The researcher sought to get data from both male and female students in public secondary school. Respondents were, therefore, requested to indicate their gender on the questionnaire forms. As illustrated in Figure 4.1, out of the 500 sampled students, the study covered 232 (46.4 percent) male students, and 268 (53.6 percent) females.
The study covered slightly more female students than males as demonstrated in figure 4.1. This trend was attributed to the fact that there are more female students enrolled in secondary schools in Meru County. Records obtained from the County Director of Education’s (CDE) office indicated that out of 63141 students enrolled public secondary school in Meru, 32,341 and 30,800 are girls and boys respectively. Further, records from the CDE’s office indicated presence of more girls schools in the county, that is 40 in total, compared to 26 boy’s schools.

4.2.2 Students’ Age

Respondents were asked to select their appropriate age category from a list provided in the students’ questionnaire. According to the study findings, a majority of students covered (81.8 %) were aged between 14-18 years, 17.8 per cent) were 19 years and above, while a few (0.8 %) were 13 years and below. About 0.2% of the respondents did not respond to that question.
Table 4.1: Distribution of Students by Age

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 years and below</td>
<td>4</td>
<td>0.8</td>
</tr>
<tr>
<td>14 - 18 years</td>
<td>409</td>
<td>81.8</td>
</tr>
<tr>
<td>19 year and above</td>
<td>86</td>
<td>17.2</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Field Data*

A majority of students (81.8%) covered by the study fell within the official secondary school age. This was also considered as the period within the adolescent age. This age category was important for this study because the researcher assumed it was a period when construction of one's gender identity is heightened. Studies supporting the same position include the work of Hoang (2008), which revealed that the female body is central to discourses of femininity in secondary schools. At this level, girls strive to achieve highly-feminine looks (Hoang 2008), an argument that could also be advanced for boys – that achieving a gendered identity and being able to convincingly project oneself as masculine takes centre stage for most boys as they mature (Plummer, et al, 2008).

Results also revealed that 17.2 percent of the students were above 19 years. In one of the schools visited during data collection, the researcher met a 21-year-old female student in one school, while another one had a 42-year-old male student enrolled. Cases of studying students beyond the conventional secondary school age were associated with various factors...
such as late entry into school, repeating classes and re-entry of students who had previously dropped out of school—such as teen mothers who had previously dropped out of school or those that had been unable to raise the required school fees.

4.2.3 Students’ Class Level

It emerged that class level of participants was likely to shape participants’ reading skills and comprehension of key concepts that the study sought to explore. In order to minimize biases arising from level of education, participants were asked to indicate their class level. The intention was to include respondents from each class level as much as possible. Students’ responses regarding their class are summarized in figure 4.2:

Figure 4.2: Distribution of Students by Class

Source: Field Data
Figure 4.3 indicates that out of the 500 sampled students, majority were in Form Four, representing 52.2% of the total respondents. There were 172 form threes, (34.4 per cent) and 66 students in form two (13.2 percent), while 0.2 per cent did not indicate their class level. Data collection for this study took place at a period when selection of form one students was ongoing nationally, hence the reason for non-inclusion of Form Ones in this study.

The large participation of Form Fours can be attributed to various factors. For instance, the study took place during various inter-school competitions, hence often Form Four class was the one available when the research team visited. Nevertheless, this group was instrumental in enriching information provided because Form Fours constituted the group that had stayed longest in school, hence were assumed to better articulate their experiences in relation to how they construct gender identities, and their views how academic performance is influence. The group was also better positioned to express challenges that face boys and girls in secondary schools. Besides, they constituted the current candidate for the Kenya Certificate of Secondary Examination (KCSE). Thus were assumed to have better experience regarding how masculinity and femininity may influence academic performance. It is important to note that, despite the large coverage of Form Four class, the principles of random selection of respondents still applied. This was done by systematically selecting respondents from a class list or class register that was availed by the school, for the specific class that was accessible to take part in the study.
4.2.4 Students’ Family Background

In analyzing information about the adult responsible for the student, the study revealed that most students 341 (68 %) live with both parents. The study also noted that 73 (14.3 %) of the respondents live with single mothers, 21 (4.2%) with single fathers, while 62 (12.4 %) indicated that they are taken care of by guardians. Three students (0.6 %) did not respond to this question.

Figure 4.3: Adults Living with Respondents

Source: Field Data

Family background provides an indication of how students were brought up. It is also possible to deduce reasons for the behaviour of students that has an influence on academic performance. Adults who live with students may also act as role models. In addition, socialization at home has a bearing on how students construct their gender identities as well as their behaviour. Children living with single parents may have
behavioural challenges in the absence of either a mother or father figure to provide requisite guidance. When one or both parents are absent, children may suffer emotionally, intellectually, socially, and behaviourally. A father’s absence in particular can be detrimental to the social adjustment of boys, and may be a possible explanation of problems related to masculinity and academic achievement of boys.

Table 4.2: Respondents’ Parents Occupation

<table>
<thead>
<tr>
<th>Parents/Guardian</th>
<th>Occupation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother's occupation</td>
<td>Employed</td>
<td>55</td>
<td>13.4</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>264</td>
<td>64.4</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>91</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>410</td>
<td>100.0</td>
</tr>
<tr>
<td>Father's occupation</td>
<td>Employed</td>
<td>93</td>
<td>25.6</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>189</td>
<td>52.1</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>81</td>
<td>22.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>363</td>
<td>100.0</td>
</tr>
<tr>
<td>Guardian's occupation</td>
<td>Employed</td>
<td>24</td>
<td>28.2</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>54</td>
<td>63.5</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>7</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>85</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data
This study revealed that a majority of parents and guardians living with the respondents were predominately farmers, which translated to 64% for mothers, 52.1 % for fathers and 63 % of guardians. The study revealed that many parents are involved in business enterprise, comprising of 22.2 % and 22.3 % of mothers and fathers respectively. Trading in agricultural products such as potatoes, coffee, tea and miraa in Meru, may explain the large number of parents engaged in businesses.

Parents and guardians’ occupation may be linked with students’ school retention capacity and performance. A study by Bala (2011) concluded that parents’ occupation positively influences the academic achievement of students. In addition, it demonstrated that students belonging to labour or agriculture-dependent families obtained the lowest scores. Mean scores of students with businessman and serviceman fathers were calculated and indicated that fathers’ occupations exerted influence on the academic achievement of children. However, the impact of mother’s occupation was more pronounced on the academic achievement of the child as compared to that of the father. The study was not able to establish if there was any correlation between more mothers as farmers, with academic achievement of their children in the County.

4.2.5 Background Information of other Respondents

In order to supplement students’ responses, the researcher sought views from other respondents that were assumed to be directly linked with students either within the home and school context. These participants’ views complemented and enriched information provided by students. These participants included school principals, teachers, parents and education officers. Data regarding the gender of each respondent was collected, analyzed
and presented in Table 4.3. The results indicated that 57.7% of secondary school principals were male while 38.8% were female. With regard to teachers, 66.7% were male and 32.7% female, while parents and guardians comprised 68.48% males and 30.43% female. Last but not least, the education officers were 75% male and 25% female.

Table 4.3: Distribution of Non-Student Respondents by Gender

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Principals</td>
<td></td>
<td>49</td>
<td>57.7</td>
<td>33</td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td>114</td>
<td>66.7</td>
<td>56</td>
</tr>
<tr>
<td>Parents</td>
<td></td>
<td>63</td>
<td>68.48</td>
<td>28</td>
</tr>
<tr>
<td>Education Officers</td>
<td></td>
<td>6</td>
<td>75</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Field Data

The low participation of female education officers, principals and teachers, may demonstrate what Chege and Sifuna (2006) indicated as obstacles to female education and employment, as well as the segmented nature of the labour market along gender lines. This finding illustrates that while female education and employment has been on the increase since independence, gender inequalities still persist. This has been sufficiently demonstrated by gender disparities, particularly at secondary education level which is a link to higher education and the labour market. Gender norms that define the man as breadwinner and
woman as homemaker may also explain this trend. On the other hand, less participation of female parents compared to their male counterparts may explain primacy of women’s engagement in domestic roles that often restrict their geographical mobility.

4.3 Social Perceptions towards Gender Constructions

The first research question sought to explore the social perceptions held by students regarding feminine and masculine gender constructions. This study defined social perceptions, as the gender stereotypes commonly associated to being masculine or feminine.

The first research question was aimed at unearthing existing stereotypes regarding how being a girl or a boy is socially defined. Perceptions are, therefore, not necessary factual, but assigned to reflect peoples’ opinions, myths associated with socially-accepted gender behaviour, and attitudes associated to being male and female.

The focus of the first research question was to establish how gender identities are constructed in secondary schools, and what influence they have on academic achievement. Specifically, this question sought to establish individual students’ understanding, thinking and meaning that they attach to being boys and girls. This was done under the assumption that gender perceptions attributed to femininity and masculinity influence boys’ and girls’ attitudes and behaviour towards schooling and academic performance. Moreover, perceptions towards masculinity and femininity may also determine how teachers treat and relate to male and female students, ultimately impacting on schooling and performance.
Figure 4.4: Students’ Perceptions Towards Gender Constructions

Results of students’ perceptions towards their gender constructions are summarized in Figure 4.4. As illustrated, out of the 232 male student respondents who took part, 229 (45.8%) indicated they were ‘masculine’. On the other hand, out of the 268 female students who participated in filling the questionnaires, 234 (46.8%) indicated they were feminine. About 29 of the respondents (5.8%) indicated they were not sure while 8 (1.6%) did not respond to the question. These results show that majority of students were able to define their gender construct. Masculinity and femininity refer to the degree to which individuals define their gender identity based on what the society consider appropriate for male and female gender.

However, 5.8 percent of the respondents were not sure how to define their gender identity. This may be attributed to various factors, including that they may have chosen not to divulge this information because they were unable to distinguish the differences between biological gender and the socially constructed gender identity. The 1.6 percent who chose
not to respond to this question may have found this question debatable, and hence were hesitant to openly disclose their standpoint. Besides, because distinct attributes are associated with a particular gender, this may have led them to choose to dissociate themselves from the stereotypical social definitions of gender constructions. Moreover, the 1.6 % may have believed they are neither masculine nor feminine [hence were androgynous (that is, genderless or neutral)]. Hence they may have missed an appropriate response from the choices provided. According to Marrs and Brammer (2012), individuals are classified as androgynous if they endorse both masculine and feminine traits. The two authors argued that the potential benefits of androgynous sex roles, for both men and women, is that it allows individuals to express both masculine and feminine traits that they can adapt for various situations.

Femininity and masculinity are rooted in the social (one's gender) rather than the biological (one's sex). Societal members decide what being male or female means, and individuals generally respond by defining themselves as either masculine or feminine. This may therefore explain why some female students (10.8 %) indicated that they considered themselves masculine, while a few male students (4.3 %) indicated they were feminine. These findings may also indicate that while girls may not mind being considered as having male characteristics, most boys are generally uncomfortable being associated with femininity.

Respondents who ascribed to self-gender identities that contrasted with their biological make-up may have had several reasons for doing so. One possible explanation is that these students may be cross-gender or transgender, a situation where individuals portray characters of the opposite gender. Assuming this is the case, these students were, therefore,
able to differentiate between biological and sociological gender constructions. This group, which did not align its gender construction along biological parameters demonstrate that it is possible for one to be female and see herself as masculine or male and see himself as feminine, because femininity and masculinity are social definitions.

4.3.1 Masculine and Feminine Gender Attributes

This study aimed at establishing respondents’ perception towards feminine and masculine gender constructions. Various questions in the students’ questionnaire were framed with a Likert Scale where respondents were given five choices which had values attached on them: Strongly Agree (5), Agree (4), Not sure (3), Disagree (2) and Strongly Disagree (1). A summary of results obtained are presented in Table 4.4 below:

Table 4.4: Respondents’ Perceptions towards Gender Constructions

<table>
<thead>
<tr>
<th>Masculine and Feminine Characteristics</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys are emotional and affectionate</td>
<td>1.8</td>
<td>5.6</td>
<td>0.6</td>
<td>40.6</td>
<td>51.2</td>
</tr>
<tr>
<td>Girls are shy and naive</td>
<td>36.2</td>
<td>33.8</td>
<td>2.0</td>
<td>17.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Boys are aggressive and competitive</td>
<td>36.2</td>
<td>33.8</td>
<td>2.0</td>
<td>17.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Boys are strong and violent</td>
<td>56.0</td>
<td>34.2</td>
<td>2.0</td>
<td>4.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Girls are dependent</td>
<td>37.4</td>
<td>44.2</td>
<td>1.6</td>
<td>12.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Girls are emotional</td>
<td>38.4</td>
<td>44.2</td>
<td>4.2</td>
<td>9.2</td>
<td>3.0</td>
</tr>
<tr>
<td>Boys are risk takers</td>
<td>38.4</td>
<td>43.6</td>
<td>3.4</td>
<td>10.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Girls are compassionate and caring</td>
<td>51.4</td>
<td>37.6</td>
<td>2.4</td>
<td>6.2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: Field Data
Study outcome revealed that majority of respondents strongly disagreed that boys are emotional and affectionate (51.2 %), 40.6 % disagreed with that statement, 5.6% agreed, while only 1.8% strongly agreed. The rest 0.6% were not sure, while 0.2% did not respond to this item. Attributes considered appropriate for girls include being compassionate and caring, that respondents overwhelmingly agreed with (89%). This result implied a definition of femininity in opposition to masculinity. The study findings concur with previous studies, such as the work of Gilbert and Gilbert (1998) who argued that gender identity definitions mirrored typical binary conceptions of femininity and masculinity in which the key attributes were identified by their oppositional character based on the relation of the dominant other. Connell (2005) however perceived gender construction as relational, he argued that masculinities’ are not the same as ‘men’, but concerns gender relations and the position of men in a gendered order. Other studies have argued that the differences between male and female attributes are due to influences of socialization, social-cultural conditioning, as well as undeniable biological differences (Chege and Sifuna, 2006). The subsequent sections present additional results of how femininity and masculinity were defined by various respondents.

4.3.2 Perception towards Masculinity

This study explored how male and female students endorse traits that are typically considered by the society as masculine or feminine. Some of the traits they generally perceived as characteristics of masculinity included lack of affection, independence, confidence, competitiveness, strength, risk-taking, indiscipline and violence. Attributes that were considered the opposite of what is masculine were expressed as "unmanly" or
feminine. Masculinity was, therefore, generally seen to be in opposition to femininity.

Results regarding participants’ views of whether they agreed or disagreed with the statements “boys are competitive and aggressive” and “boys are strong and violent” are presented in Table 4.5.

Table 4.5: Perception towards Masculinity

<table>
<thead>
<tr>
<th>Masculine Attributes</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys are competitive and aggressive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>181</td>
<td>36.2</td>
</tr>
<tr>
<td>Agree</td>
<td>169</td>
<td>33.8</td>
</tr>
<tr>
<td>Not sure</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>86</td>
<td>17.2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>39</td>
<td>7.8</td>
</tr>
<tr>
<td>No responses</td>
<td>15</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

| Boys are strong and violent           |           |         |
| Strongly agree                        | 280       | 56.0    |
| Agree                                 | 171       | 34.2    |
| Not sure                              | 10        | 2.0     |
| Disagree                              | 23        | 4.6     |
| Strongly disagree                     | 11        | 2.2     |
| No responses                          | 5         | 1.0     |
| Total                                 | 500       | 100.0   |

Source: Field Data

Accordingly, 97% generally agreed that boys are competitive and aggressive, while 90.2% agreed that boys are strong and violent. The myth that boys are strong may motivate them to also embrace violence. Violent behaviour is learned and used by some boys as an
affirmation of conformity to male norms, or masculinity. The desire to be considered as a “real man” could inspire boys to view strength and violence as part of the power structure of the male domain. The flipside to this is that, such perceptions may work against their behaviour because they bully other boys whom they consider weak, as well as subjugate girls. This call for programs and interventions targeting boys that would help them redefine masculinity. Such interventions should offer alternative options for what being a strong male in a community means, and hence exploit positive aspects of masculinity to modify behaviour and support academic achievement.

Contrary to common believes that perceive boys as naturally ambitious and competitive, 24.4 % of the respondents differed. This may be attributed to the perceived underachievement of boys that has contributed to the current generation of boys being viewed as lacking focus, lethargic and lacking self-drive. Further, some respondents argued that boys are generally proud, contemptuous, perpetual truants and disinterested in education. These behavioural attributes have caused some to develop negative attitudes towards schooling and, ultimately, poor performance and premature withdrawal from school. Some previous studies established that typically masculine traits include self-reliance, assertiveness and ambition, while typically feminine traits include yielding nature, sympathy and accommodativeness (Marrs and Brammer, 2012).

A different question item in the students’ questionnaire required respondents to indicate if they agreed or disagreed with the statement that “boys are emotional and affectionate’. A similar question was posed for asked asking respondent to indicate if they agreed or disagreed with the statement that “girls are not aggressive and competitive”.
Majority of respondents, representing 91.8%, expressed disagreement that boys are affectionate and emotional (figure 4.5). Views presented by focus group discussions concurred with these responses. Participants argued that boys do not show their emotions because doing so would affect their egos and may portray them as wimps. Lack of emotion was attributed to the way some boys are socialized by the Meru culture, which leads them to believe it is unmanly to express ones emotions. The denial of ones emotions is ingrained in men from a very early age. For example, they often are reminded not to “cry like girls”. Similar messages are repeated during circumcision where they are encouraged to always portray boldness and in-control attitudes. Boys are socialized to belief that they must possess the ability to suppress personal feelings to enable them maintain an objective view of the world, and to be able to make rational decisions, circumstance notwithstanding. These findings corresponds to a study by Kindlon and Thomson (2000) who argued that emotional literacy is a component that lacks in most boys’ upbringing, both at home and at school.
Chang’ach (2012) held similar views, arguing that the socialization process may have negative impact on boys’ education, which draws from the premise that, a very early age, the boy-child is taught to be masculine and socialized not to display ‘weakness’ by crying or showing emotion. Chang’ach associated these dynamics as the main factors that have contributed to the neglect of issues that affect the boy child among the Kalenjin (Chang’ach, 2012).

Respondents who held the opinion that boys are unemotional claimed that the only emotion men are capable of displaying/ought to express is anger. As a result, boys’ emotional health is damaged in a myriad of ways from very early in their lives. Societal pressure to uphold stereotyped notion of masculinity implies that men often suppress this aspect of their human personas. Consequently, boys suffer psychologically due to such gender stereotyping. In the absence of emotional and psychological wellness, academic performance is significantly affected. This calls for interventional measures to address boys’ immediate needs, as well as help them respect and care for themselves and their female counterparts. This study argues that it is necessary and healthy for boys to have someone that they can confide in and to whom they can express emotions to avoid the devastating effect of bottled-up stress.

Internalizing some of the stereotypical attributes associated with being male contribute to discipline problems for the boy-child. For instance, focus group discussions indicated that boys break school rules because of “they are boys” and thus naturally indisciplined. The study interviewed teachers to get their views regarding how they constructed masculinity for boys. Results are presented in table 4.6:
Table 4.6: Teachers’ Perception towards Masculinity

<table>
<thead>
<tr>
<th>Perception</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indisciplined</td>
<td>32</td>
<td>17%</td>
</tr>
<tr>
<td>Independent</td>
<td>20</td>
<td>10%</td>
</tr>
<tr>
<td>Highly capable</td>
<td>81</td>
<td>42%</td>
</tr>
<tr>
<td>Male Chauvinist</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>Indifferent</td>
<td>13</td>
<td>7%</td>
</tr>
<tr>
<td>Strong</td>
<td>26</td>
<td>13%</td>
</tr>
<tr>
<td>Others</td>
<td>14</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>194</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Field Data*

Majority of teachers have positive perceptions towards boys and masculinities. This is demonstrated by majority who viewed boys as highly capable (42%). Others viewed boys as strong (13%) and independent (10%). However, a good number perceive boys as indisciplined (17%). Study participants indicated that the socialization process accords boys the freedom to explore and experiment. School rules may, therefore, present a constraining environment for boys, and they explain why some drop out of school at a very early age. As a result, although discipline is a vital requirement for good academic performance, some boys will break school rules as a way of expressing discontent with any form of restriction.
Table 4.7: Students’ Perceptions of Boys as Risk-takers

<table>
<thead>
<tr>
<th>Attributes/Characteristics</th>
<th>Responses</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys are risk takers</td>
<td>Strongly agree</td>
<td>192</td>
<td>38.4</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>218</td>
<td>43.6</td>
</tr>
<tr>
<td></td>
<td>Not sure</td>
<td>17</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>52</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>No response</td>
<td>11</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Field Data*

Responses by sampled students echoed this claim as illustrated in table 4.7.

According to the results presented 82% of the respondent generally agreed respectively that boys are risk-takers. Due to risk-taking boys are exposed to vulnerability because they are more likely to experiment with behaviours, such as risky sexual activities, or engaging in alcohol and drug abuse. These findings were corroborated by data collected through focus group discussions as demonstrated by a quote made by a study participant:

“...Boys take risk to impress their peers. Another reason for their behaviour is that they are egocentric...the more girls they “conquer”, the manlier and macho they feel. Unfortunately, a large number of such boys end up impregnating these girls, while others get infections like HIV/AIDS, all of which are factors that disrupt their schooling and performance...”  (Female student respondent, group 6)
The above quote suggests that boys are not only physically strong but also risk-takers emanating from male attributes such as being perceived as brave and courageous. As a result, parents accord boys unlimited freedom, which they often abuse and land into trouble. Risk taking behaviours become heightened after circumcision. After initiation, boys are perceived as independent, mature and hardy. In view of this a male students in one focus group discussion said that,

“….boys are potential achievers but are more likely to fail if not well-monitored…..this is because they are prone to bad habits like drug abuse, which stems from the fact that parents do not monitor them closely, and they lack role models to guide them…” (Male student participant, group 2)

Perceiving masculinity as strong, courageous and risk-taking can be interpreted to mean that society attributed appropriate masculine behaviour as dominating, intimidating and oppressive to others. These are attributes that Connell (2005) described as hegemonic masculinity. The idea of hegemonic masculinity is in the context of men's dominance over other men and women. Study participants attributed dominance and bullying as factors that influence academic achievement. The oppressed ones suffer psychological torture, which is detrimental to learning and schooling. Study participants noted that some of the easy targets for such oppression include uncircumcised boys, who are subjected to physical abuse and stigma, humiliation and expulsion from peer groups. Participants observed that some circumcised boys do not share bathroom or dressing areas with the uncircumcised. Other levels of bullying include harassing, insulting and demeaning girls, which created low self-esteem among girls.
Masculinity was also associated with leadership, superiority and dominance. Some viewed masculine attributes as important ingredients for academic excellence. Boys were seen as persistent and always aspiring to lead in all aspects. Some participants stated, while to some parents it is acceptable for girls to be defeated by boys, the reverse is considered odd. A section of participants indicated that some parents exert a lot of pressure on their sons to not just perform but to also ensure they are not defeated by girls. The repercussion of the unwarranted pressure placed on boys is that some begin to resent school.

These findings correspond with those of other studies, which revealed that parents generally prefer that their children adhere to traditional gender-roles, and are concerned when they do not. The extent to which cross-gender behaviour in children is discouraged, for example, has been found to be dependent upon the sex of the child (Martin, 1990).

Various perceptions towards masculinity carry hidden messages that portray the boy as superior to the girl. Coupled with the notion that ‘real men’ are strong and tough, such attitudes could be the explanation of violence towards women and girls. Beliefs that glorify masculinity can be attributed to patriarchal systems in which those boys are brought up. In such situations, boys grow up disrespecting women and believing that it is acceptable to abuse women and girls. Cases of some boys resisting punishment from female teachers, for example, were associated with traditional socialization processes. Despite these traditional views about masculinity, respondents acknowledged that these perceptions are gradually changing. For instance, boys are now being taught to respect the human rights of girls and women. Such progressive thoughts can be attributed to various sensitization and advocacy efforts, as well as gender empowerment interventions that government and non-governmental organizations have initiated over the years.
4.3.3 Perceptions Towards Femininity

While the defining attributes of femininity are not universally identical, there emerged some common patterns from this study. The common characteristics considered feminine included shyness and timidity, submissiveness, dependence, softness, compassionate and caring. Respondents were asked to provide their views about girls and emotional wellbeing. Results are provided in table 4.8

Table 4.8: Perceptions of Girls as Emotional

<table>
<thead>
<tr>
<th>Feminine Characteristics</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>192</td>
<td>38.4</td>
</tr>
<tr>
<td>Agree</td>
<td>221</td>
<td>44.2</td>
</tr>
<tr>
<td>Disagree</td>
<td>46</td>
<td>9.2</td>
</tr>
<tr>
<td>Not sure</td>
<td>21</td>
<td>4.2</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>15</td>
<td>3.0</td>
</tr>
<tr>
<td>disagree</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Majority of respondents (82.6%) generally agreed that girls are emotional, compassionate and caring. It can thus be concluded that being emotional is generally attributed to femininity. Further, possessing emotional qualities may also mean that females
are naturalistic in nature. Since females possess the ability to nurture, they are, therefore, wired to demand and provide more affection and emotional support than males. In comparison, there was consensus from respondent that girls are more emotion than boys. Nevertheless, respondents agreed that expressing ones emotion reduces tension and enhances emotional and psychological health. This finding corresponds with a study by Kindlon and Thomson (2000), who argued that emotional literacy is a component that lacks in most boys’ upbringing, both at home and in school. The authors recommended teaching empathy and emotional awareness to boys to help them navigate social trauma. Addressing emotional needs of boys significantly reduces pressure on them and has long-term impact on their adult life (Kindlon and Thomson, 2000). It should however be noted that, while some participants views emotional health as an asset, others viewed open display of emotions as a weakness. Some argued that because girls are more emotionally-attached, domestic conflict and relationships affect them more than the boys. The few participants who held this viewed claimed that because boys are able to suppress their emotion, boys are thus emotionally stronger than girls.

This study established three distinct types of emotional attributes that girls portray namely; emotional intimacy, emotional vulnerability and emotional intelligence. Emotional intimacy was considered as the reason girls get engrossed in relationships to the detriment of their leaning. Emotional vulnerability was viewed as a situation where girls expose themselves to exploitative relationships due to their submissive nature. Emotional intelligence was considered positive, and was associated with the balance and diplomacy women bring in to neutralize masculine traits. Further, it was seen as a trait that makes females more resilient than the male gender.
Table 4.9: Girls are Shy and Timid

<table>
<thead>
<tr>
<th>Feminine Characteristics</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls are shy and timid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>188</td>
<td>37.6</td>
</tr>
<tr>
<td>Agree</td>
<td>236</td>
<td>47.2</td>
</tr>
<tr>
<td>Not sure</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Disagree</td>
<td>52</td>
<td>10.4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>19</td>
<td>3.8</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>.8</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Study results indicated that 84.8% of the respondents overall agreed that girls are shy and timid. Analyzed views provided during focus group discussions and interview sessions generally provided similar sentiments. Their views further expounded on this opinion and stated that the advantage of the ‘girlish’ characteristics of shyness, timidity and submissiveness is that girls are easier to manage and control, and are thus unlikely to resist school rules or undermine authority. These feminine constructions translate to girls being respectful and disciplined. At school level, girls were said to generally exhibit better responsibility and commitment to schoolwork. However, the flip side of shyness, timidity and submissiveness is that they may position girls to vulnerability and become easy target for abuse and exploitation. In addition, lack of robustness and competitiveness may lead to compliance with mediocre grades and, ultimately, poor academic performance.
Study participants further considered an ideal girl as one who is keen on beauty, always organized, clean, smart and neatly dressed. Although preoccupation with beauty was considered natural for girls, it was also viewed as a pointer to the sexual objectification of femininity. These attributes may lead to harassment, rape and other forms of sexual violence directed towards girls and women. Table 4.10 indicates 87.2% of respondents agreed that girls are remarkably conscious about their physical appearance.

Table 4.10: Girls are Keen on Beauty

<table>
<thead>
<tr>
<th>Feminine Behaviour</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls are beauty-conscious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>210</td>
<td>42.0</td>
</tr>
<tr>
<td>Agree</td>
<td>226</td>
<td>45.2</td>
</tr>
<tr>
<td>Not sure</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>34</td>
<td>6.8</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>21</td>
<td>4.2</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>.8</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

According to some participants, the desire to look beautiful may lead to conflict with school rules and academic performance. Physical appearance was therefore considered central to femininity. Accordingly, the female body is central to discourses of femininity in secondary schools as most girls make effort to attain highly-feminine looks (Hoang, 2008).
Girls’ feeling of inferior and unconfident was associated with how they view their physical appearance. Some respondents indicated that most “plus-size” girls suffer low self-esteem, especially when boys label them as “fat”. Their preoccupation with physical appearance eventually affects their concentration in class, leading to poor performance. Below are some views from focus group discussions,

“… girls are passionate about their beauty; they carry hair brushes, lotions, perfumes and other cosmetics ….in the absence of these beauty paraphernalia, they find it challenging to cope, thus impacting on concentration in class…” (Female student participant, group 3)

“….Girls spent too much time on their beauty because it’s natural for girls to maintain an attractive appearance…” (Female student participant, group 13)

“Girls spend a lot of time on beauty, to become marketable. As a result, they lack concentration – for example, they dress in short and tight skirts leading to a conflict with school dressing code…” (Male student participant, group 17)

According to these quotes, while female participants considered it natural for girls to be beauty conscious, boys views beauty-conscious attributes as a tool that girls use to manipulate males. Interestingly, both genders views beauty conscious as a retrogressive attribute vis-à-vis academic performance, if not well managed. The main contradiction that schoolgirls are confronted with is the expectation that they should be both ‘feminine’ and ‘successful’ at the same time. As long as being clever and intelligent is seen as a masculine trait, schoolgirls cannot escape the destructive effects of this paradoxical expectation.
Confronted with this contradictory demand, most schoolgirls perform poorly (Ozkazanc and Sayılan, 2008).

Despite overwhelming majority agreeing that girls are beauty conscious, 11% disputed this perception. Some girls who fall under this group, are those who prefer to actively disassociate themselves from all things feminine and claim an alternative tomboy identity (Hoang, 2008). For this group, femininity does not imply sexual attractiveness, manipulation or enticement. Others claimed that femininity is not just the preoccupation of one’s physical appearance, it is about portraying respectable qualities of a female gender that are a representation of who an empowered woman really is.

The study also sought to get participants views regarding girls’ perceptions towards marriage. Participants noted that some girls get disoriented by the anticipated marriage to financially stable husbands. It was claimed that girls who hold such perceptions, have the opinion that even if they do not excel, they will get married to ‘rich men’. For such a group, marriage becomes a “career path”. To emphasize view regarding how girls are socialized towards embracing marriage as an important institution for females, opinions provided by some participants stated that,

“….Some girls believe that they will be married by rich men, irrespective of their performance. Such perceptions stifle girls’ commitment to school because they take education for granted…” (Female student respondent, Group 6, Imenti North)

“…girls are socialized to undertake domestic chores to prepare them as responsible future wives… they should undertake motherly roles to enhance their marriageability… eligible bachelors are attracted by ‘wife-material’ not beauty. Girls have to participate in domestic chores to prepare for their future roles as good wives …” (Female parent respondent, Group 5, Imenti Central)
The socialization process plays a big role in shaping girls perception regarding femininity. Figure 4.6 indicate that 76.4 percent of the respondents generally agreed that femininity is perceived to be marriage oriented. Such perceptions are likely to contribute to low academic achievement for girls, who feel they have a guaranteed future through marriage. Such girls may not see the need to continue with schooling if a potential husband presents.

![Figure 4.6: Girls are Marriage-Oriented](image)

Despite the idea that some girls get disoriented with anticipated marriages to wealthy men, which dilutes the need to work hard in school, 22.2 % of respondents held different views (figure 4.6). Various girl-child programs and interventions supported by governmental and non-governmental organizations have empowered the girl child to value education and protect her independence. Besides, some respondents argued that this notion is outdated and
has no grounding in modern society. Wealthy men prefer educated wives who can contribute intelligent ideas and supplement family income. Others argued that beauty without education is a fundamental liability that most strive to avoid. Moreover, the underlying principle for the modelling industry upholds “beauty and brains” as the bottom-line, unlike previously when only beauty mattered.

“….education has taken a centre-stage and everyone, regardless of their gender, needs education to compete in the modern world…today’s society requires smart-brained individuals, and empowered women fare better than those who are not. Beauty is no longer the only requisite for femininity… we are working with various organizations to help us change such perceptions because they often work against girls’ education …” (Female principal participants, Imenti North)

Hence despite some views that indicated that the destiny of the female child is to get married and bear children, some participants held the opinion that social perceptions have tremendously changed. This progress is a move towards the right direction because otherwise, continued value of marriage for girls at the expense of schooling is disastrous to female education and development. Wamahiu and Umbima (1992) noted that the female-child’s productiveness as a member of society and autonomy are downplayed. It was further noted that messages that subjugate femininity are reinforced through differences in the allocation of roles at home. Such messages are those that often prescribe married women’s roles as reproductive and domestic in nature. Chege and Sifuna (2006) argued that these distinguishable allocations of roles tend to orientate girls towards lower educational and career aspirations thereby impacting negatively on their participation in school, survival and achievement.
Various views regarding femininity were provided by study participants. It was noted that most of these social perceptions towards femininity partially contributed to low academic achievement of girls. However, study participants also acknowledged that a lot has been done to empower women and girls. The results of the various female focused interventions that are policy, legal and programmatic in nature, have born fruits. For instance, this study took place during an important political milestone for Kenya. Hence participants were able to relate gender constructions with current happenings that were taking place. Since it was during electioneering period, the country saw an increased number of male and female presidential aspirants offering their candidature as presidential aspirants.

It was noted that characteristics generally associated with leadership traits were the rather masculine behaviours such as aggressiveness, competitiveness, confidence, assertiveness, firmness, and physical and emotional strength. While characteristics attributed to femininity differed from the traditionally-set leadership benchmarks. For example, one female presidential aspirant who got emotional and cried on TV in the process of announcing her candidature only portrayed a natural feminine attribute. Conversely, as much her feminine characteristics may have appealed to women, crying publically, may have exhibited ‘undesirable leadership traits’. In contract, another female presidential candidate was a perfect case of those women who suppress femininity to adopt masculine characteristics.

Notably despite gaining respect and acceptance as a capable female leader, perhaps, women leaders who repress their femininity and adopt more masculine behaviour alienate themselves from the mainstream of women. Hence despite her strong character, high level of integrity and competence, the female candidate may have failed in her presidential bid because she did not adequately represent feminine qualities that resonate with femininity.
Despite the isolated aforementioned examples, it is important to note that various legal and policy provisions exist which provide opportunities for girls to maximize their potential. For instance, the current constitutional dispensation provides for the inclusion of women in leadership positions. Indeed, the inclusion of high-ranking women as cabinet secretaries in key ministries in Kenya’s newly elected government was a key milestone. The specific offices include defence and lands dockets that demonstrate a major step in addressing gender stereotypes regarding femininity and leadership. For example, having a woman head the defence docket which was traditionally a reserve of men is certainly a breakthrough in overcoming gender typecasts. Similarly, land has traditionally been a male domain in most patriarchal societies. The inclusion of women in such dockets marked a significantly development. Moreover, these women leaders disproved the myth that beauty and brains are incompatible. Further, the women leaders joined a powerful pool of female role models for girls to emulate. It is thus evident that what girls need to succeed is not to adapt masculine traits; rather, it is for girls to be empowered with skills to enable women and girls overcome internal impediments and become more visible and vocal. This study recommended policies and programs aimed at expanding interventions such as empowerment programs that equip girls with skills to enable them balance feminine traits with positive masculine ones, in a manner that does not subjugate the innate female nature.
4.4 Socialization and Gender Constructions

The second research question attempted to explore how socialization process interface with schooling experiences to influence academic achievement for boys and girls. This study defined socialization as the process whereby individuals acquire gender identities through learning social skills, behaviour and attitudes as defined by the particular society in which they thrive. The second question of this study was aimed at exploring how gender identities are constructed through socialization and interaction with family, socio-cultural practices, peers, mass media and role models.

4.4.1 Socialization at Home

To generate data for responding to question two, the researcher sought to establish gender roles that boys and girls perform at home, and how they influence academic performance. Respondents believed that women have a caring nature and have greater expertise in domestic manual chores than men. Socialization of boys at home rotates around moulding them into future breadwinners and socializing them to provide security and leadership. Boys are seen as apprentice fathers because they model and imitate their fathers’ roles. The issue of domestic chores as a factor influencing girls’ education was raised as a concern across all districts in Meru County. Existing studies attributed the influence of domestic roles on girls’ education due to parents’ reluctance to invest in their daughter’s education because child labour for girls is critical for the survival of some households (Chege and Sifuna, 2006). Schooling represents a high opportunity cost to those sending girls in school.
According to figure 4.7, about 85 per cent of respondents agreed that domestic roles are a ‘female domain’. It was noted that, while domestic chores are traditionally considered appropriate for girls and women, boys participate in domestic chores in the absence of a sister or any other female member in the family. The influence of these roles on girls’ academic performance is that time to accomplish roles compete with time for studying. Some participants in day schools claimed that they often sleep late and wake up very early in the morning to perform chores before they leave for school. This leads to fatigue that inhibits concentration in class. The study analyzed respondents’ views regarding whether domestic roles are time consuming.
Results presented in figure 4.8 indicate that 75.4% of respondents generally agreed that domestic roles predominately carried out by females are time consuming. This finding correspond with Wamahiu and Umbima (1992) who analyzed time allocation studies to reveal that due to domestic chores, girls get little time for supplementary studying at home and for recreational purposes. They further argued that, boys may be involved in similar chores but to a lesser extent, and especially when time-saving technology is available. Views provided by participants during interview sessions concurred as demonstrated in the quoted excerpt below:

“…due to household chores that girls are involved in, some are perpetually late for school because they have to prepare breakfast for the family before going to school…similar duties await them in the evening…” (Male teacher, participant 45, Igembe South)
Findings demonstrate that parents assign their daughters household chores like cooking, cleaning and caring for other siblings while boys, on the other hand, are assigned duties such as outside maintenance, farm-related duties, heavy lifting or assisting in family business. Such behaviour sends clear gendered messages to children and set the stage for sex differences in the family, education, and work roles later in life. These different role allocations along gender lines may also foster the development of different cognitive abilities and social skills in girls and boys. Perhaps, gender role allocation influence girls’ subject preference and career paths. For instance, Home Science is considered as a female domain because it is linked to the domestic chores that girls perform, such as cooking, sewing and cleaning. Boys, on the other hand, are assigned roles that require muscle, brains and/or courage. For instance, they are usually sent at night to run errands or asked to climb delicate “miraa” stems. In the process, they are socialized to be tough and independent. These perceptions are, however, changing, and society is slowly accepting that different roles hitherto demarcated along gender lines, can be performed by any. Views from study participants portray similar opinion,

“… Parents should ensure that, right from childhood, boys and girls are treated equally….they need to teach their children that all chores can be done by anyone irrespective of gender…” (Parent, participant 9, Imenti North)

“….Both boys and girls should be treated equally by allocating household chores equitably, and not leaving every domestic task to only girls…this will help alleviate girls’ workload and accord them adequate time for study…” (Parent, participant 23, Imenti Central)
Participants however noted that despite increased awareness on the need to overcome demarcation of roles along gender lines, adoption of roles traditionally considered feminine is slow. Moreover, changes of attitude differ in different socio-economic setting. For instance, communities within the urban setting may have faster uptake of modern ideas compared to the rather conservative communities in rural areas.

The study similarly sought to establish the role social inheritance practices in the gender socialization process. It was revealed that society generally perceives boys as the rightful inheritors of family property. Respondents indicated that sons are regarded highly and seen as inheritors, those given the responsibility of continuing family lineages. As illustrated in table 4.11, majority of respondents (72.6%) generally agreed that the inheritance mentality affects boys’ retention in school and academic performance. Those who disagreed comprised 26.2%, while, 0.6 % were not sure.

### Table 4.11: Boys and Inheritance Mentality

<table>
<thead>
<tr>
<th>Factors that constrain schooling for male students</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inheritance Mentality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>146</td>
<td>29.2</td>
</tr>
<tr>
<td>Agree</td>
<td>217</td>
<td>43.4</td>
</tr>
<tr>
<td>Not sure</td>
<td>3</td>
<td>.6</td>
</tr>
<tr>
<td>Disagree</td>
<td>68</td>
<td>13.6</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>63</td>
<td>12.6</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Field Data*
Study participants indicated discussed the downside of the inheritance mentality as one a contributor to underachievement of boys in school. Participants explained that the implication of this on education is that boys develop what respondents termed as “the inheritance mentality”. This attitude causes boys to get disoriented by the anticipating inheritance of family property. Some of the natural assets that constitute family properties within the Meru context are land and cash crops such as the lucrative miraa plant, as well as coffee and tea. Focus group discussions argued that some boys in the predominately miraa-growing area see no need for academic excellence because they know they can make money by engaging in miraa trade. Others are disoriented by the anticipated inheritance of miraa crop from their parents. The male-centric views surrounding inheritance was thus seen as a factor that impact negatively of boys’ education. Participants argued that once boys consider inheritance as an assured right, they foresee an economically secure future that does not require them to work hard.

Further, despite reforms on land law policies and relevant legal provisions that facilitate equitable distribution of family property to both genders, findings revealed the prevalence of patrilineal inheritance systems that favour boys over girls. Boys are perceived as prime beneficiaries of family assets and are thus often favoured in human capital investment decisions. Overall, this study revealed a prevailing adherence to male-dominated traditional attitude towards property ownership and control. Gender imbalances towards property and inheritance generally mean that women cannot take advantage of the wide range of benefits associated with ownership and control of property. For instance, land and other forms of property provide sustenance; they can be bases for income-generation and markers of social status. Furthermore, holding title-deeds to land is a prerequisite for
securing loans and credit for other activities. Based on this argument, some participants commended the recent gender equitable laws and policies that have been provided to accord sons and daughters equal rights to family property. As a consequence, boys can no longer count on inheriting family property at the expense of schooling. In addition, land, the major asset in rural areas is diminishing due to increasing population rates, and is thus hardly reliable. This study recommended the need to intensify programs for sensitizing communities in general and boys in particular, about gender responsive inheritance rights.

4.4.2 Socialization through Socio-Cultural Practices

A major element in the rites of passage of adolescent boys and girls in Meru is circumcision – a rite often administered to boys when they attain pubescent age. Parents participants perceive circumcision of boys as a major inhibitor to boys’ schooling and academic performance. Table 4.12 show results of responses from parents who participated in the study.

<table>
<thead>
<tr>
<th>Factors influencing boys’ schooling</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Circumcision for boys</td>
<td>262</td>
</tr>
<tr>
<td>Inheritance Mentality</td>
<td>125</td>
</tr>
<tr>
<td>Lack of school fees</td>
<td>178</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>136</td>
</tr>
<tr>
<td>Miraa farming and trade</td>
<td>113</td>
</tr>
<tr>
<td>Indiscipline</td>
<td>142</td>
</tr>
<tr>
<td>Others</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>1059</td>
</tr>
</tbody>
</table>

*Source: Field Data*
As indicated in table 4.14, circumcision of boys was reported as a factor that negatively influences boys’ education. This is illustrated by 24% of the respondents who held this view (table 4.12). Participants explained that Meru traditional beliefs and practices prohibit circumcised boys from participating in domestic-related roles. Once circumcised, boys are outrightly discouraged from associating with their mothers, while the kitchen is declared a no-go zone. The resultant social and emotional distance created between boys and their mothers disconnects them from the familial primary source of parental guidance and monitoring. To emphasize how circumcision influences boys schooling, an education office said,

“….after circumcision, boys are regarded as mature and left to live permissively … they leave home and loiter aimlessly in nearby markets… they return at night and are not questioned…..in the end they get involved in bad company and eventually drop out of school…” (Female Education Officer, participant 6, Igembe North)

The study sought to understand the specific dimensions of circumcision socialize boys in a way that impact negatively on their schooling. A male respondent argued that during the period of seclusion, boys are taught to exhibit ‘masculine’ behaviours such as strength and courage, as well as fearlessness – characteristics that distinguish them from the uncircumcised. These behaviours and attitudes are manifested in the school context by way of indiscipline and the undermining female teachers. The male parent indicated that,
“…circumcision affects boys because they are made to believe they have become adults capable of making their own decisions... teaching done during the seclusion period instills a feeling of superiority... they feel above the law ... they acquire the DC (District Commissioner) mentality... they undermine women indiscriminately, including their female teachers...” (Male parent participant 25, Imenti North)

Although the traditional method of circumcision is gradually being phased out, some parts of Tigania and Igembe still practice this form of initiation. The concern here is not with the “cut” but with the knowledge imparted during the period of seclusion. Quite often, the process ends up moulding individuals who undermine authority due to acquired attitudes that participants generally referred to as “the DC mentality”. Some boys transfer the same attitude and behaviour to school, leading to indiscipline and under-performance in school. Another source of attitude that participants associated with circumcision was excessive freedom accorded to boys after circumcision. The unlimited freedom translates to limited time for studies. It also exposes boys to drug abuse and leads them to engage in other risky activities that may jeopardize not only their schooling but also pose security and health threats. Circumcision is thus a salient factor that influences boys’ attitude and behaviour, and ultimately schooling and academic performance.

Interactions with various respondents indicated traditional methods of circumcision, are increasingly getting outdated. For instance, behaviour and attitudes previously synonymous with this rite are now considered archaic. Respondents attributed these changing perceptions to intensified sensitization programs that have enabled the community to embrace modern rites of passage. These contemporary methods include replacing seclusion period with seminars organized by churches or non-governmental organizations.
Participants also noted that some parts of Igembe and Tigania practice female genital mutilation (FGM), albeit secretly. The negative effect of traditional methods of FGM is that some girls quit school to marry because society considers them as adult women ‘ripe for marriage’. However, even in areas of Meru where FGM was principally practiced, parents have increasingly embraced “alternative rites of passage”, colloquially referred to as “circumcision by word”. These emerging developments have received wide acceptance to the extent of bringing FGM and traditional methods of male circumcision to near extinction.

4.4.3 Mass Media and Technology

Mass media and technology were regarded as significant agents of socializing male and female students along masculinity and femininity. As a result, participants indicated that mass media influence students’ attitudes and behaviour in school. According to study participants, mass media and technology influence students’ performance negatively. In particular, technology was seen to adversely influence how students manage their time for study and leisure. Rather than use their time productively, a majority of students use their time on Facebook, texting on cell phones or watching videos during and after school hours. The study selected responses for “strong influence” for all mass media and technology items that were provided to establish which type had the highest influence on academic achievement. Results that presented in figure 4.9.
Results obtained indicated that the cell phone had the highest impact on student’s education (52.8 %). Participants noted that students in day schools use cell phones to listen to music, especially during evening classes, or sending text messages discretely during class hours. Other key mass media and technology influencers on education included social media, mainly Facebook and twitter (49.4 %), and social internet networks (48.4 %). TV and video gaming were mentioned by 37.6 of the respondents while radio and electronic games were considered as having the least influence (21.6 %). According to the Symbolic Interactionism Theory, individuals communicate with others through the use of symbols. The mass media is thus a powerful agent that conveys messages to viewers. For instance, adverts that glorify cigarette smoking, alcohol and violence, tend to steer students towards imitating values that promote defiance.

Participants mentioned that some Television (T)V programs such “Tahidi High” and “Machachari” greatly influence schooling for male and female students. This is because students may spend a lot of time on mass media at the expense of learning. Moreover, since...
actors and characters in these programs are predominately young people, students identify with them. Despite unanimously lauding these programs, some participants pointed out some aspects that are liable to misinterpretation. For instance, actors of some TV programs may depict students’ involvement in drug abuse, undermining of authority, or engage in reckless sexual relationships with fellow students or in some cases, with teachers. Although the idea is to expose these vices and educate the public against such behaviour, some young audiences fail to differentiate between fiction and reality, instead taking what is portrayed on the face-value. As a consequence, they imitate the behaviour portrayed in these programs, which impacts negatively on their academic performance. Besides, the time spent on mass media and technology adversely impacts on schooling and academic performance.

Celebrities portrayed in mass media, such as musicians, athletes, artists and designers ‘infect’ students with the “celebrity lifestyle”. Celebrity culture was reported to have a decidedly detrimental effect on socialization. Many perceive the wealth, allure and glamour of celebrities as something to crave for. The fixation with celebrity culture becomes a yardstick on how most students behave, leading to significant decline in academics achievement. Furthermore, besides being informative and entraining, some TV channels may portray unfiltered programs such as those with extreme violence or and sexual connotations that border on pornography. These messages may adversely influence students’ behaviour and attitude. There is need to enforce effective legal and policy measures to control and censor specific programs that have no direct link with students’ moral and academic development.

On the flipside, some participants lauded mass media and claimed that it provides powerful role models for both male and female students. Respondents indicated that
journalists are their role models because they are eloquent, smartly dressed, confident and composed. These qualities depict mass media as a decent and professional industry, and are the reason most respondents expressed aspirations to be journalists after school, while yet others proposed the establishment of journalism clubs in their schools.

The study also sought to determine who among boys and girls is more influenced by mass media and technology. The idea was to establish if there were gender differences in regards to mass media influence patterns. Results obtained are presented in table 4.13:

**Table 4.13: Influence of Technology by Gender**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>252</td>
<td>50.4</td>
</tr>
<tr>
<td>Girls</td>
<td>219</td>
<td>43.8</td>
</tr>
<tr>
<td>Total</td>
<td>471</td>
<td>94.2</td>
</tr>
<tr>
<td>No Response</td>
<td>29</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Field Data*

Results revealed that majority of respondents (50.4 %) indicated that more boys than girls are affected by mass media. Participants argued that boys are more influenced by technology due to the “unlimited” freedom accorded to them by parents. Boys are also aggressive about technology because they venture to learn more from the outside world as opposed to girls who are more reserved. Some are so much into music that they listen to it even during class and prep time. Boys also spend a lot of their free time on Face Book, tweeting and texting. Some of the most favourite television programmes for boys include
soccer and action-packed movies. To emphasize the influence of media, a male student respondent said,

“My role model is Lionel Messi, (an Argentinian footballer who plays for FC Barcelona) … because of his fame, money and achievements...” (Male student respondent)

Focus group discussions revealed that watching football was so important to some boys that they engaged in petty trades. Money earned is used pay entrance fees charged by local CD shop owners. Boys can thus engage in small businesses like boda boda, selling miraa or matatu touting to generate money for activities related to mass media. Participants claimed that money earned by boys is used for watching football programs or purchasing videos in nearby local markets.

Tables 4.13 also illustrate that 43.8 % of the respondents belief girls too are influenced by mass media. Some of those who held this position argued that soap operas, particularly the romanticized Mexican series and Nigerian movies on television, take up a lot of girls’ time for study. These results suggest that many students may be obsessed with celebrities and their lifestyles that they see portrayed on media. Overall, it was clear that the time spent on mass media could potentially influences students’ behaviour and jeopardize academic performance. This recommends the need for appropriate interventions to ensure that professionalism among young people is not affected negatively through abuse of information technology.
4.4.4 Role Models

Related to mass media, was the role of role models as agents of socialization. The Social Learning Theory developed by Albert Bandura is based on the ideas that people learn by watching what others do (imitation). Based on this theory, the study suggests that students adopt behaviour by observing and imitating role models. This study defined a role model as a person who inspires others with his/her thoughts, persona, values or goals that the observer can emulate. In a nutshell, a role model is a person who serves as an example to influence others. These are people who embody qualities that students perceive as ideal traits that they would like to possess as well. Role models were defined as those who range from closely-related people such as parents, relatives, peers, and teachers, to remotely-related role models such as celebrities. The vicariously related group may include movie stars, footballers and media personalities. The researcher asked responds to indicate role models with the greatest influence on their schooling. Results obtained are presented in Figure 4.10.

![Figure 4.10: Role Models with Greatest Influence](chart.png)
As illustrated in figure 4.10, mothers were found to have the greatest influence on students’ education (62.2%), followed by teachers (54.6%), while celebrates as footballers had the least influence (14.2%). We can conclude from these findings that parents act as primary sources of conveying beliefs and reinforcing the behaviour of their children. Respondents indicated that fathers have less influence compared to mothers. Study participated explained this scenario by indicating that most fathers are absentee parents, while others play double standards, which often influence behaviour negatively, especially for boys. These results match with previous findings that identified the absence of male role models as a factor that contributes to boys’ underachievement. In the Caribbean context, where the number of women-dominated and single-parent households has been on the rise, strong concerns have been raised about the lack of male presence within the home as well as the school (Jha and Kelleher, 2006). The influence of parents on their children cannot be underestimated as respondents clearly indicated,

“…A majority of parents are not educated, so they do not take education seriously… some children, especially boys, are brought up by irresponsible fathers who are often absent, drunk and/or abusive. In such situations, boys do not also see the value for school, and opt to drop out…” (Parent participant)

“…my role mode is my mother because she provides me with material and moral support... she has strongly influenced me through giving me advice and encouragement, and showing me compassion…..”(Female student participant)

Studies in Kenya that attempt to explore the role of the family in the gender socialization process include a study conducted by Ngare and Njoroge (2011). The research
titled “Gender paradigm shift within the family structure in Kiambu” zeroed in on the economic emancipation of women in central Kenya, with the main focus being to examine the transformation of gender roles and attitudes in relation to how gender roles are reversed to enable women dominate in the economic empowerment arena. The study revealed a direct correlation of the economic emancipation of women with the growing incapacity of fathers, many who are no longer regarded as heads of their families. Consequently, this has put the central role of men as the family patriarchs in jeopardy. As a result, most men have turned to idleness, alcohol and petty crimes. Ultimately boys lack strong men in their lives to look up to. The lack of male role models to emulate has disadvantaged boys’ schooling and academic performance.

Similar findings were revealed by Mbote in a study commissioned by the Federation of Women’s Lawyers (FIDA). The study focused on gender-based violence in Nairobi, Nyanza and Western Provinces. The study explained the reversed gender roles and the declining dominance of the male parent as some women enjoy the upper hand in the family. This was associated with economic emancipation of women that was claimed to have contributed to the shrinking role of the patriarch of the family. Another contributory factor identified was that the policy and legal frameworks instituted in the country allow women to inherit property, previously considered a birth right of male children.

Related perspectives on the declining role of fathers in the family were provided by a study done by the Kenya Agricultural research Institute (KARI) in 2011. The study indicated that in Imenti South women took up massive ventures in commercial banana farming and own land and manage own banks accounts. As a result, women were claimed to outmaneuver the men, who become disempowered and turn into abusing alcohol and
idleness. Consequently, children from such families no longer ask their fathers for school fees, instead, they look upon mothers for money and guidance (KARI, 2011).

Respondents further indicated that students’ from disadvantaged families have limited role models to emulate. For some students, their parents may never have been to school, and so lack adequate skills to guide their children through secondary schools. This may explain why majority (56.6%) of respondents indicated that teachers are among the most highly-ranked role models (Figure 4.11). This may suggest that respondents considered teachers as surrogate parents since they spend a lot of time together, and are available to guide and counsel them. Teachers also inculcate confidence and motivation in students,

“… in the very remote areas in particular, teachers are the only professionals available, hence the only role models … teachers also act as guardians as they often interact and spend most of their time with students… for especially students whose parents are not educated, teachers provide psychological and moral support, as well as academic and career guidance…..” (Female education officer, Buuri District)

The study findings suggest that parents and teachers are both important role models, and that they have greater influence on male and female students’ academic performance. It is also clear that mothers exert greater influence on children than fathers. Therefore, interventions targeted at enhancing academic achievement for rural learners should consider working with teachers and parents (especially mothers) as role models to inspire and motivate students’ academic performance.
4.4.5 Peer Influence

Peers influence was seen from two dimensions, the influence of those in school, and peers outside the school. Interactions among peers in schools were regarded as a major determinant of the socialization process. The researcher was keen to explore the role played by peers in relation to influencing academic performance. Results are shown in figure 4.11.

![Peer Influence on Schooling](image)

**Figure 4.11: Peer Influence on Schooling**

Findings indicate that a majority (83.6%) of respondents agreed that peers have a great influence on their schooling. The study noted that participants viewed peer influence as a negative aspect because peers take up a lot of time for study. The most influential peer group were said to be mainly the ones who drop outs to engage in casual jobs and petty businesses. Such activities include miraa (khat) trade, boda boda (motor cycles) and matatu (public transport vehicles) touting. Money earned those outside school dissuades their male peers from engaging in studies or taking schooling seriously, and they, too, eventually
Some use the money to lure girls whom they impregnate and elope with. Overall, boys were reported as the group most affected by peers. In explaining why peers could potentially influence others negatively, a female student said,

“… Peer groups are a bad influence because they are time-consuming and are sources of bad advice for members… for example in day schools, boys engage in truancy and waste a lot of time in that manner…this undesirable behaviour affects their studies in the long run (Female student participant, Imenti Central)

This study findings were in line with the work of Legewie and DiPrete (2012) who noted that boys are more prone to succumb to pressure from peers than are girls. The findings further revealed that due to peer pressure, masculinity is constructed among young boys, at least partly so in terms of resisting schooling. Such resistance may be partially responsible for male underachievement. Another relevant study revealed that boys both aspire to achieve masculine status because their behaviour is policed to ensure that it conforms to prevailing masculine standards. Central to this policing process is the peer group, a formidable force in boys’ lives especially during adolescence (Plummer, et al, 2008). Other scholars with related views include Weaver-Hightower (2003), who argued that boys are more likely than girls to be ridiculed by their peers for ‘being too serious with schoolwork’. As a result, boys frequently resort to ‘laddish’ behaviour, such as challenging authority, drawing attention to themselves and pretending not to care about academics in order to gain acceptance (Weaver-Hightower, 2003). In conclusion, the role of peers in influencing academic performance cannot be ignored. This study’s finding underscores the
need to address the role of peer groups in and out of school, and how they influence academic performance for boys and girls in secondary schools.

4.5 Challenges Boys and Girls Face in School

The third research question was aimed at analyzing challenges that confront boys and girls in school by virtue of their gender constructs. The study established that male and female students face certain challenges that increase the likelihood of underachievement in education. Despite some similarities in the challenges that confront boys and girls in schools, this research established that there are unique gender-specific social, emotional and developmental needs that confront boys and girls in school. Similarly, boys and girls respond differently to the pressures they face in school.

4.5.1 Neglect of boys

Study participants diverse views that suggested boys face neglect from various dimensions. These were illustrated by statement such “boys are discriminated against”, “girls are favoured”, “no one cared for boys”, “boys are survivors”, boys are marginalized”, “boys are forgotten”, “boys are vulnerable”, “boys are sidelined”, while majority used the term, “boys are neglected”. Views provided by each participant were condensed into one key thematic area that the researcher referred to as “neglect”. The neglect facet was evident in various facets, key among them being the financial and interactional aspects. Respondents categorized financial challenges into two; lack of school fees and inadequacy or lack of pocket money. While respondents unanimously agreed that problems of tuition fees affect both boys and girls in similar ways, the departure point is that parents disproportionately
provide pocket money to their sons and daughters. This implies that decisions made by households and families on supporting subsistence needs of their children are often gender-based. For instance, it was noted that, most parents provide more shopping and pocket money to daughters because of certain essentials they require that are considered basic and non-negotiable. These necessities include sanitary pads, soaps and body lotions. Moreover, parents fear that if girls are not adequately provided for, they may be lured with cash by men who may then sexually exploit them, leading to pregnancy and drop-outs of school. Nevertheless, participants argued that this unequal treatment makes boys feel side-lined and neglected.

This study findings regarding the unequal treatment where parents invest more on their daughters by way of providing financial and moral support brings in a new dimension to what previous findings had established. For instance, a study by Chege and Sifuna (2006) as well as one by Wamahiu and Umbima (1992) indicate that when household were confronted with limited income, parents prefer investing on their sons considering it a more profitable investment. To such parents investing in daughters is a waste of resources and only benefits the family where girls are married to. This study established a different trend where participants indicated that investing in female education is more profitable because daughters always remember home even after they are married. Participants argued that most daughter never desert their parents; they are always available to provide moral and financial support whenever needed. Based on these perceptions, the boy-child is provided secondary treatment that may translate to neglect. This is more so where male education is seen as an investment that benefits an individual, with remote spill over to the “investors”, that is, the parents.
Table 4.14: Teachers’ Views about challenges faced by Boys

<table>
<thead>
<tr>
<th>Challenges Facing Boys</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (n)</td>
</tr>
<tr>
<td>Neglect</td>
<td>118</td>
</tr>
<tr>
<td>Harsh punishment</td>
<td>35</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>59</td>
</tr>
<tr>
<td>Relationships</td>
<td>44</td>
</tr>
<tr>
<td>Others</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>270</td>
</tr>
</tbody>
</table>

*Source: Field Data*

A large proportion (43%) of teachers who participated in the study indicated that boys’ neglect is a key contributor to underachievement. According to study participants, neglect of the boy child denoted the absence of parents ‘and teachers’ support to boys’ unique gender needs. Participants indicated that boys are deprived the needs to be respected for being boys; they are also not adequately accorded the need to be validated as males. Consequently, boys succumb to peer-pressure - this was seen as a prelude to deviance behaviour that ultimately impact negatively on academic performance. Participants argued that exhibiting effort to enhance gender equality predominately target women and girls. This skewed attention by the general society has contributed to the academic and social decline of the boy-child in various ways,
“…..Parent and government are too focused on the girl-child; this ends up marginalising the boy-child…too much attention accorded the girl child makes boys look down on education because they feel neglected…” (Male student participant, Group 16, Igembe South)

“…Girls are given more attention than boys…girls are closely monitored, which instils a sense of commitment to their studies, ultimately performing better than boys….the government and NGOs also give more attention to the rights of girls, on account of perennial traditional subjugation of the female-child, which empowers girls, leaving behind the boys…” (Female student participant, group 16, Igembe South)

“….the socialization process of male circumcision teaches boys to be courageous and independent... They are encouraged to keep to themselves. No one is able to understand their challenges…they suffer in silence because it is taboo to discuss sex-related topics with their parents, this affect learning…” (Male student participant, group 20)

The researcher concluded from the aforementioned quotes that the boy-child is to a certain extent neglected. Some reasons advanced to explain this because girls are perceived as naturally weak, hence require close monitoring and security. The study revealed three broad types of security based on views provided by participants. These include; social security, financial security and family security. Threats to any of these securities make girls vulnerable, hence, are subjected to constant regulation, monitoring and scrutiny. Although this was regarded as a key factor that contributed to making girls dependent, it was nevertheless linked to girls’ better school attendance and retention. The boys, on the other hand, especially the circumcised ones, are given freedom and authority to set their own limits. They are left to get along on their own. In the absence of parental guidance and
supervision, boys take advantage of such lee ways to engage in deviance. Consequently, girls tend to be better behaved and have higher retention rates than boys. On the other hand, boys are accorded ungoverned freedom that often translates to unguarded sex lives. Evidently, the ramifications of limited attention often contribute to boys engaging in activities that distract them from studies,

“…Boys break rules not because they are boys and have superiority complex… but because of other underlying factors that remain unaddressed…” (Male student participant, group 9)

Other dimensions of parental negligence provided by participants was poor parenting skills often affect boys more than girls. For instance, some parents’ disconnect with their sons when they reach secondary school yet adolescent stage is a critical development phase that requires close monitoring to enable students’ progress through adulthood smoothly. This argument was advanced by the education officers during interviews,

“…once circumcised and in secondary school, some parents no longer control their male children… some no longer even provide the basic necessities for their sons…they leave them to fend for themselves….what they fail to understand is that, for these students, constant advise is imperative…” (Male education officer, Igembe North)

While respondents unanimously concurred that boys are more neglected than girls. Despite these widely held stances about boys’ neglect, a number of previous studies hold divergent views. This includes the work of Kanga (2011) who noting that, both the school
and the home are lacking role models for the girls. She further observed that, many girls experience serious rejection and hostile environment with the resultant effect of dropping out of school and sometimes running away from home, usually to worse situations. Another study that held similar views include a research by AAUW (1992) that sought to challenge the common assumption that girls and boys are treated equally in our public schools. The study argued that the American educational system was not meeting girls’ and supported this standpoint by noting that, while girls and boys enter school roughly equal in measured ability, twelve years later, girls fall behind their male classmates in key areas such as higher-level mathematics and measures of self-esteem. The study went further to argue that teachers give more classroom attention and more esteem building encouragement to boys. A few participants in this study supported the aforementioned views and attempted to illustrate how girls are neglect too in Meru County. Those who held these views affirmed that girls are sidelines to a certain extent especially by their parents. For instance, once girls reach puberty stage, fathers create a distance that denies girls fatherly advice,

“…fathers do not interact much with girls, who then end up getting misused by other men due to lack of information…” (Principal, respondent 4, Igembe South)

This study’s results revealed a gap in parental support, especially for the boy child, who they consider mature and independent, after circumcision. Participants suggested the need for enhanced cordial relationships between parents and their children. Parental guidance, therefore, ought to entail facilitation of open and candid discussions on sexual maturation. Similarly, parents should support children of both genders equally in their quest for academic excellence. In this regard, parents also need to allow for enough time for their
daughters in day schools by proving minimal duties at home. Equitable distribution of responsibilities should as well be encouraged to ensure no gender is overburdened by domestic chores.

The influence of parents on student’s school achievement is well-documented in numerous studies. Chohan and Khan (2010) revealed the significant impact of parental support on academic achievement, as well as on the development of the students’ concept of the self, which then contribute to the maturation of a child’s personality and career. Greater parental involvement from the early stages in children’s learning; it also positively affects school performance, including higher academic achievement.

Another avenue that was highlighted by participants as an area that has side-lined boys is the school curriculum. Some participants indicated that the curriculum is skewed towards girls’ gender needs at the expense of boys’ needs. A female teacher participant argued that some literature set books are written with the intentions of inspiring girls. However, quite often, some authors end up exaggerating the “girl-power”. Conversely, some topics in religious studies portray women as submissive maids whose sole object is to get married, thus perpetuating stereotyped messages regarding femininity. This calls for gender balanced content in school curriculum.

This study revealed that the emphasis on girl-child education, though appropriate, may be leading to the neglect of issues promoting boy-child education. Some participants noted that various legal and policy provisions, such as; affirmative action, school re-admission policies and textbook illustrations, have contributed to inequalities in education. Participants argued that, while such interventions have benefited the girl-child, there has been some level of “over-illustrating” and glorifying the girl-child, while sideling the boy-
child. Participants related these factors to the situation in Meru County particularly in Tigania and Igembe where miraa farming dominates that record more girls in school compared to boys. Such trends were partially explained by the skewed emphasis on girls’ education, that intern lead to boys’ under-achievement. This study admits that even though focused attention on girls’ education is not entirely negative, it, nonetheless, called for gender-balanced attention to address factors that militate against the boy-child’s education. A balanced focus is imperative because boys are just as important players if gender equality in education is to be realised in Kenya. There is thus need for a balanced approach to avoid the risk of reversing gains achieved over the years.

4.5.2 Harsh Punishment

Data collected during focus group discussions pointed to the fact differential corrective measures are meted on students based on their gender. Participants indicated that boys always on the receiving end. Some respondents argued that teachers are compelled to be rough on boys because they are perceived to be stubborn and indisciplined. As a result, the study established that despite instituting policies that outlawed corporal punishment, some male students claimed that constant harassment and beating from male teachers in particular was common. The study did not, however, establish the magnitude of this practice since it was not within its scope. Participants indicated that the effect of the harsh treatment makes boys tensed-up and affects their concentration in class.
Table 4.13 illustrate that 57.6% of the respondents agreed that teachers treat girls more delicately than boys (see Figure 4.12). Girls are treated softly and in apparent humaneness while boys are treated harshly. For example, boys may be ordered to uproot a stem while girls are asked to sweep the compound even when the magnitude of the mistake is the same.

“…Teachers handle girls more delicately, leniently and humanely way …boys are treated harshly and their punishments are harsher when compared to girls…” (Male student respondent, Group 4, Buuri)

The effect of disparities in the manner in which interact with and treat boys and girls has a bearing on academic achievement. For instance, because girls are treated with respects, they therefore feel freer to consult and seek assistance from teachers. Boys on the other hand, are given little attention, hence become withdrawn. These are likely contributor of
poor performance and dislike for school. These findings relate to results provided by Chege (2006) who argued that both classroom and school cultures are becoming markedly less friendly to boys, as often manifested in situations where relatively friendlier activities are assigned to girls. Similarly, Dunne and Leach (2005) explained that teachers perceive girls as relatively serious with academic regimes of the schools and socially mature within and outside the classroom. Conversely, boys were constructed as the ‘the problem’ during classroom learning. Consequently, many teachers expressed the need to discipline boys more in order to instil reasonable controls on what they described as ‘errant behaviour’ (Chege, 2006).

Despite the generally agreeing that teachers treat girls friendlier than the boys, a good number of respondents that comprised 37.4 % differed. Similar views provided by focus group discussions indicated that teachers’ attention to certain students is not based on learners’ gender constructions, but students’ intellectual capacity was the fundamental guiding criteria. Participants claimed that some teachers ridicule and sideline weaker students regardless of gender. Indeed because majority of poor performing students are female, they were often condemned for poor grades.

This study suggests that effective discipline should be acknowledged and any punishment meted out to boys should be fair and commensurate with the nature of the offence committed. Guidance and counselling should be strengthened as an alternative disciplinary measure. Moreover, addressing, effectively, disciplinary problems among boys should be more humane. Interventions should be multifaceted and incorporate a wide range of stakeholders, because students learn from their surroundings. It is important to also target the community that may have enhanced deviant behaviour portrayed by students.
4.5.3 School Facilities

This study observed that some schools lacked basic learning resources and facilities. The most affected schools were the newly established mixed day schools. These schools mainly face inadequate essential human resources, for instance, lack of qualified science teachers, thereby hampering instruction, that lead to poor performance in those subjects. Similarly, these schools are characterized by lack of, or inadequate, while in other instances poor quality essential physical facilities such as classrooms, dining halls, laboratories, sanitary facilities and dormitories. It was also noted that most schools had no libraries, and those that had, were ill equipped mostly with a few outdated books. Consequently, students are discouraged from using such libraries contributing to increased poor reading cultures.

Lack of facilities was widely cited as a setback to academic performance. The study sought to establish the situation of facilities in public secondary schools and how they relate to academic performance of boys and girls. Results obtained from analyzing information gathered using the observation schedule are presented in table 4.15

<table>
<thead>
<tr>
<th>Table 4.15: Schools with laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Missing System</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Field Data

As illustrated in Table 4.15, out of the 85 sampled schools, 27.1 per cent do not have science laboratories. Notably, despite majority of the institutions (71.8 %) having
laboratories, most of them were ill-equipped and were hardly adequate for effective instructions and demonstrations. Focus group discussions revealed that lack of or inadequate or ill-equipped school faculties affect performance in various ways. Participants described laboratory as the single-most critical facility that has a direct bearing on performance in sciences. Consequently, teachers rely on theoretical approaches even for practical topics.

Table 4.16: Schools with Dining Hall Facilities

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>37.6</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>61.2</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>98.8</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Table 4.16 show that most schools in Meru County lack dining facilities. Out of the 85 schools included in the survey, only 37.6 schools have dining facilities. As a result, students are often forced to take their meals outside, in unhygienic conditions. Some schools reported lack of water facilities in school. Respondents claimed that lack of water affects girls more than boys because girls need water to maintain hygiene especially during menstruation periods.
Table 4.17: School Fence Facilities

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>73</td>
<td>85.9</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>10.6</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>96.5</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Field Data*

The study further observed security measures taken by particularly mixed boarding schools. It was established that 10.6% of schools do not have secure fences around the dormitories (table 4.17). This was said to pose insecurity threats due to improper fencing around the school compound. Participants indicated that lack of secure fencing exposed particularly female students to insecurity and possibilities of attacks or rape. Potential perpetrators were reported to be outsiders, as well as school boys and male teachers.

Table 4.18: Availability of Electricity

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>69</td>
<td>81.2</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>17.6</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>98.8</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Field Data*
A few schools also lacked some basic infrastructure, such as electricity. Table 4.18 indicates that 17.6% of schools visited did not have electricity. While some schools have improvised school lighting systems by installing solar power or generators, electricity provides a more sustainable solution to power needs in schools. The implication of lack of electric power means that some schools are not able to effectively conduct evening studies. Besides, proper lighting enhances security. Although some schools reported using alternative source of power electrical power was nevertheless preferred as more reliable means for supporting computers hardware and software for e-learning.

Participants further highlighted lack of boarding facilities as a key hindrance to schooling. This is due to long distances that some students have to ensure, that often translate to reporting late to school. Participants indicated that most students leave home as early as 5.45 a.m. and leave school as late as 5pm – 6pm in the evening. Girls expressed fears of being molestation as they walk to and from school. Observation made during school visits indicated that in some mixed boarding schools, girls’ facilities such as dormitories are more decent than boys’. Some male facilities are congested and ill-equipped, with poor-quality beds and bedding. Participants claimed that the discomfort experienced interrupts sleep patterns and affects alertness during class time. This study argues that the unequal treatment contributes to boys’ feelings of neglect and invisibility, this may partially explains why boys fall through the cracks.

Mixed school set-ups also presented a highly-gendered school environment, which serves to constrain available learning opportunities. Such set-up may encourage gender segregation and stereotypical gender behaviour. Dunne and Leach (2005) argued that in mixed schools, gendered school environments often interact with other factors, such as
quality of leadership, class size and socio-economic status, to have varying impact on retention and achievement of boys and girls.

In view of the various challenges that respondents associated with day schools in particular, this study recommended the need by the government to institute targeted programs geared towards alleviating identified gaps that constraint delivery of quality education in these schools. Such measures may include continue giving bursaries on merit, as opposed to situations where participants alleged that money is awarded based on political affiliations. The other recommendation was that parents should ensure that there is adequate lighting system for night studies. In addition, parents and the community in general should accord especially female students, adequate time and space to do private studies, by reducing their workload.

4.5.4 Reproductive Health

Study participants were asked to provide their views on specific challenges that face female students in school. A factor commonly mentioned was sexual relationships and harassments that were said to be rampant in especially mixed schools. Likewise, coupling between boys and girls was identified as a pervasive trend in mixed schools. In addition, participants reported that male teachers also engage into sexual relationships with female students often through coercion. There were also claims of isolated but equally serious cased of female teachers engaging into sexual relationships with male students. The implications are that students get preoccupied with thoughts and emotions arising from these relationships. Ultimately, limited time is allocated for studies, leading to poor performance. Girls suffer double tragedies as some end up getting pregnant and eventually drop out of
school. Participants alluded to timidity and submissive as feminine attributed that make girls more vulnerable to sexual relationships than boys. Similarly, because girls are more emotional than boys, they are more psychologically affected by the aftermaths of such affairs. It was claimed that when these relationships break, girls are more distressed than the boys. Views from some participants shed more light on this course,

“…Girls are lured by miraa traders…they also fall for tricks of boda boda operators who pick and drop them at school…they get free rides but pay in kind…eventually, they get pregnant and drop out of school…” (Male student participant, group 7, Igembe North)

“…boys too suffer due to unhealthy relationships with girlfriends, teachers or outsiders, but not as much as girls because boys forget easily and move on, unperturbed by what happened during the school holidays …”(Male teacher participant, Imenti Central)

Participants indicated that girls are more vulnerable to sexual relationships. While boys too suffer the consequences of sexual relationships, these factors are less likely to interfere with performance because they are able to suppress emotions. Teachers who participated in the study were also asked to provide their views regarding challenges that confront girls in school. Their responses are presented in table 4.19
Table 4.19: Teachers’ Views about Challenges faced by Girls

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Responses</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy and marriage</td>
<td></td>
<td>48</td>
<td>26.2%</td>
</tr>
<tr>
<td>Sexual harassment</td>
<td></td>
<td>44</td>
<td>24.0%</td>
</tr>
<tr>
<td>Puberty (sexual maturation)</td>
<td></td>
<td>36</td>
<td>19.6%</td>
</tr>
<tr>
<td>Relationship</td>
<td></td>
<td>23</td>
<td>12.6%</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td>12</td>
<td>6.6%</td>
</tr>
<tr>
<td>Lack of fees</td>
<td></td>
<td>10</td>
<td>5.5%</td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td>10</td>
<td>5.5%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>183</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Source: Field Data*

Results obtained indicate that pregnancies and marriage accounted for 26.2%, the highest challenge identified that face girls. Other factors identified were sexual harassment (24%), puberty or sexual maturation (19.6 %) and relationships (12.6%). Overall these factors can be categorized as reproductive health related that cumulatively constitute 82.4 % of challenges that confront girls in school. It should however be noted that while pregnancy and marriage can be considered as the outcome effect, factors such as sexual harassment, inability to effectively manage puberty, and relationships, are precursor factors that lead to pregnancy and marriages. Hence, through analyzed as separate factors, they are interrelated. Chege and Sifuna (2006) revealed that sexual harassment in schools include that by who argued that sexual harassment is not a new phenomenon in schools, and that it is reported to
exist more in Harambee schools than in those in higher classification. The authors further contend that teachers promise to reward female students who cooperate with good grades, or promise tuition fee waivers. Those who fail to cooperate are threatened to be failed or face publicly humiliation, as a way of coercing them into sexual relationships. Chege and Sifuna’s work was however silent on sexual harassment some boys face in schools, which equally impact on their academic achievement.

Other reproductive health-related problems that adolescent girls face in school include lack of inadequate information on sexual maturation, lack of or inadequacy of guidance and counselling services, absenteeism among girls during menstruation, poor management of menstruation due to lack of affordability of necessary materials such as pads, poor sanitation facilities, as well as lack of water in schools. Table 4.19 indicates that 19.6% of teachers involved in the study indicated sexual maturation or the onset of puberty stage as a factor affecting girls’ education in diverse ways. Despite being the most remarkable events in the lifespan of adolescents, most girls experience a lot of challenges as they go through this stage. For instance, menstruation was mentioned by respondents as the most significant because some girls from disadvantaged household are absent from school at least 3-5 days each month because they cannot afford sanitary pads. This irregular attendance of school affects girls’ academic performance.

A report by the Commonwealth Secretariat (2005) indicates that poor sanitary facilities in schools, a culture of silence surrounding sexual maturation, and a lack of information and guidance are some key challenges that girls face in schools. The study further noted that girls themselves exhibit poor menstrual hygiene and management skills, insecurity and embarrassment during menstruation and poor concentration in class. All these
factors, combined, lead to high rates of absenteeism, low achievement and drop-out amongst adolescent girls. This study finding is further corroborated by Ten (2007) who identifies the scarcity of mechanisms to address and manage challenges of menstrual hygiene as a major challenge facing girls in schools. The author argues that, most of the school sanitation programs do not address menstrual management in their pit latrine design and construction. Consequently, the lack of appropriate and adequate sanitation facilities prevents girls across the developing world from attending school regularly when they are menstruating. Some eventually drop out of school because they cannot bear the sustained embarrassment caused them. To address these gaps, this study recommends that the Ministry of education should enforce policies related to supporting reproductive health in schools. This can be achieved by training teachers to support the various gender needs of girls in high school. The government should also make effort to provide subsidized sanitary pads in secondary schools. In addition, they ought to ensure that sanitary materials are cheap and affordable.

Ineffective communication between parents and their children was also highlighted as a gap by respondents. This should also be addressed. Responded further suggested that parents ought to make effort to demystify myths and taboos surrounding sexual maturation to give their children a balanced worldview of matters of sexuality. Such interventions would endow pubescent girls with the capacity to effectively navigate teen age. The study further recommended that in order to prevent irresponsible coupling amongst students, there should be more focus on improving sexual reproductive health rights through provision of proactive measure such as education on sexual maturation. Findings of this study are expected to enhance policy makers’ realization that teenage pregnancies are a major contributor to school drop-out. Addressing reproductive health related challenges that
confront girls is imperative because while the effects of dropping out of school are acutely felt by individual girls, there are spiral effects on their families, the government, and society as a whole. Another major suggestion made by this research was the need to enforce policy and legal frameworks provided under the new constitution in Kenya. For instance, children have the right to be protected from abuse, harmful cultural practices, all forms of violence, inhumane treatment and punishment, and hazardous or exploitative labour (Republic of Kenya, 2010). Subsequently, sexual exploitation perpetrated by especially teachers should be criminalized. Effective and stern measures should be taken to curb such violations of children’s rights and the teachers’ code of conduct.

4.5.5 School Diet

Further probing to establish challenges that face male and female students revealed that the type of diet provided in some schools constrained learning in diverse ways. The purpose was to unearth the role played by ongoing school meals programs, focusing on gender dimensions that emerged. While boys lamented about the quantity of food served, girls were more concerned about the quality. A quote from one of the respondents in focus group discussions is presented below,

“…the school meal is inadequate and imbalanced ….we eat githeri almost every day…boys are most affected since they eat a lot… because they require more energy…” (Male student participant, group 2)

This study suggests that interventions for redressing boys’ underachievement should invest in improving the food quantity and quality in schools. This is particularly important
for schools in the region of Meru that borders Isiolo County and parts of Tharaka Nithi County. These areas area is predominately semi-arid and often suffers drought and food shortages. Addressing this gap will ensure learners across the board compete on an equal footing with their colleagues in the more endowed regions. A study by Luo et al. (2009) discovered that poor nutrition and health in schools are correlated with poor educational performance. Similar studies have provided the long-established link between mental and physical health by arguing that poorly-nourished learners perform poorly at physical and cognitive tasks compared to their well-nourished counterparts. Food deprivation, contributed to sluggishness in the thinking process, and increased lethargy and apathy to one’s surrounding. More fundamentally, poor nourishment may significantly reduce learners’ intellectual capacities (Atwoli, 2011).

4.5.6 “Miraa” Factor and other Petty Businesses

The International Labour Organization (ILO) defines work done by children that affects their health and personal development or interferes with their schooling, as child labour (Edmonds, 2009: ILO, 2013). Various responses provided by participants were analyzed to establish activities that qualified to be categorized as child labour. Some participants argued that although girls participate more in domestic activities in a manner that interfere with their studies, the nature of activities they mostly engage in are aimed at helping their parents at home. Hence failed to classify activities undertaken by girls at home as child labour. Some participants argued that, besides, domestic chores contribute to children’s development and to the welfare of their families. Moreover, activities at home also provide them with skills and experience, as well as help to prepare them to be
productive members of society during their adult life. On the contrary, participants indicated that certain activities performed by boys squarely fall within child labour. For instance, it was noted that boys miss or drop out of school as a result of engaging in petty businesses such as miraa trade, boda boda and matatu touting. Following are the views of one parent participant,

“… boys are usually involved in picking miraa because they are light enough to climb the delicate stems…they also prepare and package the same…they are also used by middlemen to do petty activities like hawking miraa around….what they are paid represents exploitation because it is meager and never spent productively – boys often use it for local brew, cigarettes, videos and on gifts for girls. Eventually, they drop out of school. ….” (Parent participant 29, Igembe North)

Unlike girls who are not involved in miraa trade because it is unfeminine and taboo for girls to climb trees, boys are extensively engaged in doing petty trade in miraa. The study established that miraa (khat) farming and trade is widely-practised in Meru County. The economic benefit of the crop notwithstanding, miraa is also a stimulant, and is classified by the National Authority for the Campaign against Alcohol and Drug Abuse (NACADA) as a stimulant and an addictive drug (NACADA, 2006). Respondents indicated that miraa is the most abused drug because of its readily available in the area. It was also noted that more boys than girls are involved in drug and substance abuse. Participants associated this with the masculine attributes such as risk-taking, high desire to experiment and the unlimited freedom they are accorded by parents. Field results further demonstrated that students abuse miraa and other substance due to peer pressure. Since boys are more influence by the peers, they therefore constitute the bulk of drug abusers.
According to Ngesu, et al (2008), the interest and expectation of the peer groups determine on whether or not a person will try dependence-inducing drugs. This is close-knit peer groups are likely to be the primary source of information about the availability of other drugs and their effects. This study revealed that, often, information communicated by peers emanates from misconceptions. Usually, peers concentrate on the alleged benefit of what drugs do, and package these messages in a manner that entice their peers to join the vice. Participants indicated that students thus abuse drugs to either have a sense of belonging, or look “cool” and appear more powerful than their peers. In addition to peer influence, this study results another dimension of influence. Participants argued that boys chew miraa because they imitate the behaviour of their fathers and other male members in the community. The study observed that chewing miraa is commonplace, which is why boys are likely to copy the behaviour modelled by their fathers.

Another perspective provided by participants on the effects of miraa is that some boys use miraa as a source of money to access other drugs and substances. The availability of excessive cash in the hands of such boys is redirected into the purchasing of drugs such as bhang, cigarettes and local brews. The following views provide more insights,

“…boys are lured by peers into drug abuse, and end up dropping out of school… the type of drug most commonly abused depends on the area. In Tigania and Igembe, it’s miraa because its grown in plenty… here, bhang is illegally cultivated in Mt. Kenya, and is easily accessible to students…. as a result, this is one of the most drug-prone regions and students from schools in the area are the most indisciplined in Meru area…” (Male Principal, participant 26, Imenti central)
The views presented suggest that although participants unanimously agreed some students abuse drugs, the type of substance varied depending on what was available in the particular region. Miraa was however top on the list of substance widely abused by most students in Meru. Participants noted that, while students do not chew miraa in school – because it is prohibited – some, especially those in day schools, are involved in the miraa business, and chew the drugs outside the school. Some boys chew miraa until late at night, and have very little time for sleep. Lack of adequate sleep adversely affects concentration in class, and impact negatively on study ethics. Miraa, like any other drug, affects learning negatively. This is because some students spend so much time in groups chewing miraa, thus, compromising academic performance. Moreover, despite controversial debate of whether miraa is a drug or not, participants argued that chewing miraa has various health implications. For instance, due to the indisputable fact that miraa is a stimulant, those who chew miraa are more likely to engage in reckless and high-risk sexual activities that increase risk of contracting Human immunodeficiency virus infection / acquired immunodeficiency syndrome (HIV/AIDS).

This study established miraa has a negative influence on boys’ academic achievement and that the same has a spiral effect on girls’ schooling as well. This is because when boys drop out of school, they lure girls who eventually follow suit. Miraa is, therefore, not only addictive and a health risk, but also has adverse effects on students’ behaviour and academic performance. Previous studies that revealed similar results include the work of Ngesu, et al (2008) that highlighted alcohol, tobacco, cannabis and khat/miraa were among the most-commonly abused substances amongst Kenyan secondary school students. Another related study done in Kisumu revealed that a large number of students across all age groups
have been exposed to alcohol, tobacco, miraa (khat), glue sniffing, bhang (marijuana) and, even hard drugs such as heroin and cocaine. Male students had a higher exposure to abusing miraa and inhalants (Otieno and Ofulla, 2009). This study proposed various interventions for addressing the drug abuse menace in schools. For instance, guidance and counselling services ought to be strengthened in all schools in Meru County. It is imperative that highly trained guidance and counselling personnel should be put in place to guide students on the effects of drug abuse. Varieties of leisure activities and recreational activities should also be strengthened in learning institutions so that students can avoid boredom and idleness.

In addition to the negative influence of miraa trading on academic performance, the study also established other various forms of petty businesses that boys were involved in. These include boda boda (motor cycle) business and matatu (public transport) touting. The researcher in particular probed the role of the motorcycle activities on academic achievement. It was noted that the bulk of boda boda riders employed to pick up and drop off passengers at various destinations are school boys. Participants indicated that some of those involved have no formal training, and thus do not comprehend road safety requirements. Consequently, in addition to interfering with schooling, the business exposes boys to the danger of traffic-related accidents. Despite the young riders’ incompetence, business owners prefer using inexperienced boys because they pay them cheaply. Respondents indicated that while some boys engage in petty business to earn money for leisure, others are forced into it by circumstances such as the need to supplement family income. Regardless of the reason for their involvement, petty businesses were associated with boys’ under-achievement in Meru area.
Despite having more impact on boys, participants brought in the gender dimension of the boda boda activities by highlighting how girls too are affected. One angle of it is the role played by some boda boda riders where they offer free rides to school girls, who pay in-kind. The other side is where school boys use money earned to buy gifts for girls, in exchange for sex. Either way, the in-kind payments, often in form of sexual favors, contribute to poor performance, pregnancies and ultimately early school withdrawal for girls.

4.6 Support Mechanisms

The fourth research question sought to explore mechanism for supporting boys’ and girls’ unique gender needs. This question was stated as: what support mechanisms should schools adopt to address the influence of gender constructions on academic achievement in secondary schools? In order to respond this question, the study analyzed strategies already in place as well as what ought to be institutionalized to support girls and boys in secondary schools.

4.6.1 Guidance and Counselling

Various policies and programs geared towards providing support to learners have been institutes in the Kenyan education system. One of the widely adopted programs that provide psychosocial support to learners in school includes guidance and counseling. This study sought to establish the status of such programs in relations to how they benefit boys and girls, as well as the role they play in enhancing academic achievement. To achieve this,
respondents were asked to indicate whether or not guidance and counseling programs existed in their schools. Results obtained are presented in figure 4.13

![Pie chart showing guidance and counselling in schools]

Figure 4.13: Guidance and Counselling in Schools

*Source: Field Data*

Majority of respondents (92.8%) indicated that guidance and counselling programmes are established in their schools as demonstrated in Figure 4.13. According to study participants, the various guidance and counselling programs established in most schools include: psychological support, academic and career guidance, reproductive health education programs and life skills training. Benefits attributed to these programs include help students improve academic achievement, personal and social development, and career planning. Discussions with study participants, however, established that not all teachers handling this docket are trained professionals. Besides, some schools have male teachers’ in charge of guidance and counselling in girls’ schools and vice versa. This makes it difficult for shy students to approach teachers of the opposite sex when they seek guidance on matters that are intimate in nature. However, while the program is rather rudimentary in
some schools, others have exemplary systems and structures that need to be replicated. Such schools organize counselling with trained professional while others contract such experts. This is done through organizing seminars and workshops, and inviting career experts and motivational speakers to give motivation and inspiration to students. A few other schools indicated that they invite relationship experts to help students cope with challenges they face as teenagers.

Despite the overwhelming presence of guidance and counselling in secondary schools in Meru, respondents indicated that more needs to be done to address cases of indiscipline in the area. Respondents felt this way because some schools (day schools in particular), were experiencing declining discipline standards that need to be checked to ensure the situation does not cripple learning. This study suggests the need for effective guidance and counseling programs that are proactive in nature as opposed to reactive approaches to ensure challenges are handles beforehand. Such programs should be designed with the aim of assisting individuals to develop the ability to understand themselves, to solve their own problems, and to make appropriate adjustments to their environment (Lunenburg, 2010).

Participants also highlighted the absence of programs that target emotional and psychological wellness of specifically boys. This was a as result linked to the declining academic achievement for boys in Meru. Participants suggested the need to institute multifaceted programs that target boys, including and not limited to interventional measures to address boys’ immediate needs, as well as help them respect and care for themselves and their female counterparts. Such support mechanism should be aimed at ensuring boys have
systematic way of identifying a reliable person that they can confide in and to whom they can express emotions to avoid the devastating effect of suppressed emotions.

A study by Kelly (2001) done in Florida, USA, observed that counselling and guidance programs help prepare students to meet the challenges of the future. They noted that such programs have gone through an evolution over the past decade. For instance, traditional approaches to guidance are often described as process-oriented, driven by crises, and only serve special populations. The new approach should however be focused on addressing problems through prevention and early interventions. According to findings of this study, guidance and counseling programs, coupled with strengthening life-skills training in Kenyan schools is imperative in order to effectively address challenges that jeopardize academic achievement in secondary schools. Currently under the Kenyan education system, life-skills education is a non-examinable subject taught with the aim of equipping learners with requisite non-academic skills. There is need to revamp life skills education in schools to positively influence students’ behaviour and academic performance.

4.6.2 Gender Empowerment Programs

This study established that some schools in Meru County have established various complementary programs to empower and broaden learners’ horizons. These include rewarding academic and talent-based performance. The aim is to motivate high achievers to maintain high standards of learning, as well as encourage others to work harder and perform better. Inspirational programs, which include, organizing exposure trips, exchange visits and academic or educational tours are organized in some schools. There was consensus from participants that schools endeavor to provide learners with reproductive health information
as a proactive measure for avoiding challenges that happen due to limited or distorted information among young people. It was noted that some schools ensure safe spaces by organize separate forums for boys and girls to discuss various sensitive topics, for instance those related to sexual maturation. In addition, respondents suggested the need to intensify advocacy to encourage girls to stay in school. Some suggested that girls be provided with sanitary napkins and information on how to manage puberty. In this regard, the government ought to replicate and scale up innovative girl-friendly programs such as the United Nations Children's Fund’s (UNICEF) gender-sensitive sanitary program to benefit all girls’ public secondary schools in Kenya. The program entails providing low cost sanitary napkins to girls in school, while the infrastructure component of the program entails establishing separate toilets and bathroom with lockable doors to enhance privacy for girls in schools.

Effective empowerment programs should also be tailored to address contemporary issues, such as the dangers of drug abuse in schools. The Kenya Ministry of Education (MoE) ought to institute programs to equip boys with skills to enable them navigate through adolescence. In addition, it is necessary to organize sensitization programs targeted at the boys to teach them moral responsibility in society. Programs to empower the boy child could focus on mentorship and role modelling. Schools should invite resource speakers to discuss relevant “male-centred” topics with boys in an environment where they feel safe.

4.6.3 Single-Gender Boarding Facilities

Despite the benefits of mixed day secondary schools in increasing access to secondary education, respondents faulted this system, citing failure to provide space for evening studies. Day schools were introduced for purposes of increasing access to secondary
education. The idea was to introduce affordable secondary school models to ensure children do not miss secondary education due to prohibitive fees charged in some well-established boarding schools. Despite these benefits, education standards offered in some day schools is wanting. In view of these challenges, respondents suggested that, to improve academic performance, there is a need to establish more low cost boarding facilities.

While some participants were opposed to the idea of mixed boarding school system due to “coupling” problems, some lauded the idea. For this group, mixed schools were said to provide a forum for blending masculine and feminine traits. In a mixed gender setting, boys and girls are able to balance their gender constructions in a way that produces subtle feminine and masculine characteristics. Boys and girls are more organized, cleaner and neatly dressed because they desire to look presentable to and gain approval from the opposite sex. Girls and boys, too, work collaboratively to support each other in handling subjects with which they both struggle. In this regard, a blend of both feminine and masculine touch provided by each gender becomes an important factor for moulding behaviour and academic performance.

Observations made during field work indicated that traditionally, most boarding schools have better facilities and better qualified teachers, than the day ones. Students at boarding school also benefit from stricter school rules and regulations, because they thrive within the confines of the school system, hence spend more time on studies. Study participants argued that residential school approach provided an environment that ensures students are immersed in an environment where learning is central to all activities. Students from boarding are also better exposed to academic rigor and, therefore, perform better. Subsequently, they are more likely to transits to higher learning institutions in these models.
of schooling. In addition, boarding schools have a unique setting that promotes common
grouping and co-existence with other students, teachers and support staff. Boarders also
learn how to be responsible and are conditioned for future success because they are
couraged to achieve their full potential. It is thus evident that boarding schools bestow on
students independence that they would not have achieved as day scholars.

Study participants who were in favour of single sex boarding facilities suggested the
need to particularly establish girls’ boarding facilities to alleviate workload occasioned by
domestic chores. Respondents argued that schools with established boarding facilities have
better completion rate of girls. Stromquist (2007) claims that single-sex schools provide
stronger academic grounding and environments free from social distractions for both boys
and girls, than do co-educational school settings. Single-sex schools allow the freedom of
multiple masculinities thus can help boys to embrace the diversity of male roles. Similarly,
single-sex schools have also been advocated in efforts to increase the academic performance
of girls and to achieve more assertive personalities, confidence as well as encourage them to
follow math and science courses.

Despite the benefits associated with single sex schools, some studies established that
single-sex settings promote stereotypical attitudes toward the other sex. Studies that
generated such contrasting views include a report on the Jamaican experience on boys’
underachievement that suggests that simply being a single-sex school at the outset did not
automatically make boys less alienated and better performers (Jha and Kelleher, 2006).
Similarly, participants in this study suggested that mixed boarding facilities have less
influence on boys’ academic achievement than they do for girls. It was therefore suggested
that where possible priority should be given to establishing girls’ only boarding facilities, while gradually mobilizing resources to cater for boys’ needs.

4.6.4 Remedial Programs

This study established that schools employed various measures to enhance performance. These include random exams, weekly lunch-hour exams, weekend teaching for day schools, evening teaching and holiday tuition. It was however noted that some of these measure contravene existing government directives to a certain extent. For instance, despite the intended purpose of remedial teaching to enable slow learners catch up with the rest, the noble idea has been extensively abused and turned it into a money-minting venture. To curb this trend, the Kenya Ministry of Education gave a directive against holiday tuitions, weekend tuitions, afterhours tuition in 2008. A similar policy that ban extra tuition are provided by the Teachers Service Commission’s (TSC) Code of Conduct and Ethics, published as legal notice 137 of 2003. In addition, the Basic Education Act, 2013, banned holiday tuition and outlined stern penalties against anybody who contravenes these provisions. These consequences include, a requirement to pay a fine not exceeding Sh100,000 upon conviction or a one-year imprisonment or both (The Star, Wednesday April 17th, 2013: 21).

This study suggested that in order to address learning deficits experienced in some schools, there is need to for the government to provide clear guidelines on remedial programs. Effective measures should be instituted to enforce these guidelines to ensure remedial programs are done for the intended purpose. Such programs should be designed to bring slow students who take more time to comprehend concepts, up to the level of
achievement realized by their peers. Effective remedial teaching programmes should therefore leaners that need pedagogical or didactic assistance. This is pertinent particularly for day schools that admit students with low marks, coupled with the fact that such schools are poorly equipped in terms of physical and human resources. According to this study findings, based on the high number of day schools in Meru County, remedial programs are imperative bring slow learners up to speed and enable them acquire skills to compete on a level playing ground with their counterparts in well-established schools.

4.7 The Influence of Gender Construction on Academic Achievement

The fifth research question attempted to determine the extent to which gender constructions influence academic achievement. This study defined academic achievement to include school completion and performance in KCSE. In order to track school completion trend in Meru County, this study analyzed progression for two groups of students from the time they were enrolled in Form one up to when they completed Form four. The idea was to track class repetition and drop-out rates for male and female students as they progress from one class level to the next. School enrolment data for the period 2008-2012 was used to analyze school completion. The second indicator that measured academic achievement, namely, academic performance was measured using means scores for KCSE results. Data on KCSE performance for the period 2008 – 2011 was collected from each school using a document analysis schedule. Similarly, this section analyzed the influence of gender stereotyping on subject preference and performance in these subjects by gender, as well how such gendered attitudes towards certain subjects influence career aspirations.
4.7.1 Gender Dimensions in Class Progression and Completion

The researcher collected information on enrolment trends and KCSE mean scores using a document analysis schedule. Data presented in table 4.20 indicate results obtained from analyzing enrollment trends for two groups. The first group comprised those who had entered Form one in 2008 and completed form 4 in 2011, while the second group encompassed those that started form one in 2009 and finished in 2012. The aim was to track progression patterns of male and female students from the time they enter secondary school to completion.

Table 4.20: Analysis of Enrolment Trends by Gender (2008-2012)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gender</th>
<th>Population(x)</th>
<th>Dₓ</th>
<th>Year</th>
<th>Gender</th>
<th>Population(x)</th>
<th>Dₓ</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Boys</td>
<td>2354</td>
<td>0</td>
<td>2009</td>
<td>Boys</td>
<td>2503</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>2237</td>
<td>0</td>
<td></td>
<td>Girls</td>
<td>2284</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>Boys</td>
<td>2465</td>
<td>111</td>
<td>2010</td>
<td>Boys</td>
<td>2699</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>2387</td>
<td>150</td>
<td></td>
<td>Girls</td>
<td>2314</td>
<td>30</td>
</tr>
<tr>
<td>2010</td>
<td>Boys</td>
<td>2544</td>
<td>79</td>
<td>2011</td>
<td>Boys</td>
<td>2639</td>
<td>-60</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>2402</td>
<td>15</td>
<td></td>
<td>Girls</td>
<td>2379</td>
<td>65</td>
</tr>
<tr>
<td>2011</td>
<td>Boys</td>
<td>2491</td>
<td>-53</td>
<td>2012</td>
<td>Boys</td>
<td>2233</td>
<td>-406</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>2266</td>
<td>-136</td>
<td></td>
<td>Girls</td>
<td>2413</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Field Data

Population(x) is the population of the students in a particular year, while Dₓ is the difference between numbers of students in a current year minus those enrolled in previous
year. The negative Dx value shows the probability that a student will drop school or transfer to another county in a certain class level. Conversely, the positive Dx value indicate the probability that a student from another county will join a school in Meru at a certain level (x). Results indicated in table 4.20 illustrate that for the 2008-2011 group, there was an injection of students of both genders in the first three years of schooling. This was followed by a decline in the year 2010 when they we in form three. During this period, more girls than boys did not transit to form four, hence may not have competed their secondary education. This is illustrated by -53 and -136 for boys and girls respectively.

As illustrated in the same table 4.20, the trend reversed in favor of girls for the 2009-2012 group. While it is indicated that 2,503 boys enrolled in Form one, only 2,233 completed in 2012. Similar to the 2008-2011 group, the worst hit level was form three that indicate 406 boys failed to progress to Form four in 2012. Assuming that students who do not progress to the next class dropped out, then we can conclude that the rate at which boys prematurely leave school is higher than that of girls. Similarly, data from the two groups shows there is high probability of a boy leaving school at Form three compared to other class levels. Based on class progression trends, the researcher suggests that secondary schooling for boys in Meru County is declining and may therefore negate gender parity gains achieved over the years. The downward trend in the participation of boys in schools was further depicted by figure 4.14
Figure 4.14: School Attendance Trends by Gender (2009-2012)

Figure 4.14 illustrates the averages number of students enrolled in the 85 sampled schools in each class for the period 2009 – 2012. While it is clear both boys and girls experienced irregular participation trends from the time they joined Form One to the time they completed Form Four, progression of boys was lower than that of girls. For instance while only two girls failed to reach Form four from the group that joined Form one in 2009, eight boys dropped within the same period. Form three was the level that both gender experienced a drop in participation. However, while the same number of girls progressed form Form three to Four, six boys failed to transit from Form three to Four. This declining trend raises fundamental qualitative questions as to why boys’ attendance is dropping when, historically, data has shown higher enrolment rates for boys. Enhancing participation and completion of boys in school require attention to ensure gender equality gains are not reversed.
4.7.2 Class Repetition by Gender

Participants flagged class repetition as one of the key factor that influences school completion for both boys and girls. To establish the gender most affected by school repetition, the researcher asked respondents to suggest the gender they considered more likely to repeat class. Results are illustrated in figure 4.15

![Figure 4.15: Probability of Repeating Class by gender](image)

**Figure 4.15: Probability of Repeating Class by gender**

Majority of respondents (62 %) indicated that the probability of boys repeating class is higher than that of girls. Focus group discussions elaborated on this by indicating that boys are more likely to repeat class to improve on their grades. It was also reported that boys repeat due to pressure from their parents. Participants argued that, some parents are reluctant to have their daughters repeat classes because girls mature faster, so keeping them longer in school may be counter-productive. Findings further revealed that boys are recipients of pressure to excel from various angles. The pressure may emanate from parents, teachers or the general social expectations. A key factor that compels boys to excel is based on the
perception that a male child is socialized to view himself as a future breadwinner, a providers and future head of his family. Subsequently, performing well in school is therefore seen as a gateway to stable employment in the future to enable the male child provide for his wife and other dependents. However, participants noted that while repetition was likely to improve one’s grade, the possibility of realizing reverse results was not ruled out. Some repeaters score poorer grades leading to frustrations. Persistent poor grades especially by repeaters have a higher probability of leading to early school withdrawal. Following are views provided by a teacher during the interviews that support this position,

“….boys face pressure to perform from all angles ….everyone expects them to excel simply because they are boys… the bar is always higher…this pressure also contributes to their hatred for school…” (Male teacher respondent, Buuri)

The frustration of not being able to meet these expectations creates stress and may lead to deviant behaviour. Boys, as a consequence, vent their frustrations in various ways such as through indiscipline. Therefore, while the pressure to excel may inspire commitment to school, leading to positive results, the same is likely to lead to resentment. The repercussions could be school dropout and poor performance.
4.7.3 Performance Rating by Gender

The study noted that while class progression and school completion was steadier for girls compared to that of boys, the reverse is true in the case of performance. Secondary data collected from schools was analyzed and results indicated that overall boys perform better than girls in KCSE. To substantiate these results, respondents were asked to suggest who among boys and girl is likely to perform better in KCSE. In addition, focus groups discussed provided their insights regarding possible factors that explain these trends.

![Figure 4.16: Performance Rating by Gender](image)

According to results presented in Figure 4.16, a majority of the respondents (62.6%) indicated that boys are more likely to perform better than girls. The question that begs is why girls consistently perform poorer than boys despite longstanding government and development partners’ efforts to enhance female education? The study argued that perhaps efforts to promote female education have been focused on increasing enrolment. Hence, limited attention was accorded to performance. These findings suggest the need to focus
attention to gender balanced strategies for enhancing girls’ academic performance, while guarding against polarized interventions that sideline the male child.

The study was similarly keen to establish overall performance trend for boys and girls in Meru County. KCSE results for the period 2008-2011 was provided by schools using a document analysis schedules. The aim was to analyze performance trends for the given period of time to gain deeper insight on how gender constructions interact with schooling experiences to influence academic performance in Meru County. Figure 4.17 illustrated results that were obtained

![Figure 4.17: KCSE Overall Performance trends (2008 – 2011)](image)

Figure 4.17: KCSE Overall Performance trends (2008 – 2011)

Figure 4.18 illustrates that overall KCSE performance in schools in Meru has been on an upwards trend. The study was however keen to establish gender differences in performance for the same period. As depicted in Figure 4.18, boys have consistently outperformed girls for the period 2008 – 2011. However, while girls’ performance trend has been consistently moving upwards, boys’ performance experienced a drop in 2010.
Improvement in the performance of girls can be explained partially by intensified interventions targeting girl-child education.

![Figure 4.18: Performance Trends (2008 – 2011) by Gender](image)

The researcher used data obtained from all district educations officers to analyze other facets of disparities in performance. To explore this trend the researcher used 2011 KCSE mean scores for all sampled schools. Results were used to classified schools into three distinct categories, namely; excellent performers, good performers and poor performers. Schools that attained a mean score of 8.10 and above were classified as “excellent performers”; schools that managed a mean score of between 4.10 and 8.00 were classified as “good performers”, while schools that recorded a mean score of 4.00 and below were categorized as “poor performers.
Results obtained confirmed that while an overall upwards trend in performance was realized in Meru county, gender and regional disparities were evident. As exhibited in figure 4.19, only two boys’ schools obtained the cut-off mark for the ‘excellent’ category. These schools were Bureiruri Boys in Igembe South and Ontulili Boys in Buuri district. Conversely, no girls’ schools managed to attain more than 8.100 mean score. The same results also illustrate regional disparities in performance. These trends suggest that perhaps socio-cultural and economic progress of a certain region influence academic performance to a certain extent. Along these lines, Ontulili and Burieruri boys are both relatively modest schools located in rural parts of Buuri and Igembe South respectively. The two schools outperformed most school including more established ones located within the urban, well-endowed regions of Meru County. One may argue that Igembe South and Buuri may have produced the best performing schools because they are economically endowed with cash
crops such as Miraa and wheat farming respectively. Mwiria (2013) linked socio-economic factors with academic excellence by indicating that where community members are economically stable, they are able to finance education programs geared towards academic excellence. Nonetheless, this study did not have adequate data to conclusively associate excellence performance in public secondary schools with socio-economic endowment. This is because only two schools in two constituencies managed to attain “excellent” grades; hence using such a small number was likely to provide inaccurate conclusions. Moreover, findings are based on KCSE results for only one year.

This study noted that while Igembe is the most economically stable areas in Meru, some studies associated the Miraa with low academic achievement for boys in Igembe (Muthaa and Bururia, 2011). Results presented in figure 4.19 illustrate that, Igembe North and Igembe South recorded the lowest number of schools (6.45% each) that were categorized as “poor”. The study observed that most schools in Igembe have miraa grown within the school gardens to generate supplementary income for the school. One of these schools includes Bureiruri Boys – the same institution that ironically managed to score “excellent” graded in KCSE results. This study noted that the school management had put in place strict rules and regulation that prohibited chewing of miraa within the school compound. One may therefore conclude that, other factors beyond miraa and economic related activities may not adequately explain underachievement in Meru. Hence, the impetus for analyzing the contribution of gender constructions on academic performance becomes pertinent.

Despite recording excellent performance, Buuri was ironically among the districts with highest number of schools (19.35%) that fell within the “poor” category. Igembe South
however was among the areas with lowest number of schools (6.45%) that were classified as “poor”. Views provided by focus group discussions suggested that since Buuri is a wheat farming areas, involvement of students in the wheat estates may explain the poor performance trends. Other underlying factors that hinder performance were also not ruled out. Performance could also be influenced by school management, stakeholders’ involvement, parental and student attitudes toward learning. While analyzing factors behind these trends is imperative, nevertheless, the two schools demonstrate that good results are attainable anywhere, and is not necessarily dependent on the socio-economic statuses of students. Accordingly, the two schools could serve as morale-boosters for learners in less endowed learning institutions.

Tigania West was another constituency indicating a high number of schools (12.9%) classified under the “poor” category (figure 4.19). Tigania West border Isiolo County and is thus predominately arid and semi-arid lands (ASAL). Consequently, the area experience frequent food deficits that may explain the low academic achievement in the area. Poor performance can also be contributed by political interference that leads to demoralization of education personnel, especially if their job security is threatened. In addition, teacher inadequacy impact negatively on academic achievement in various ways. Findings revealed that some teachers prefer working in marginalized areas to earn hardship allowance. This leads to uneven distribution of teachers, which contribute to poor performance.

In Meru County, over 70 % of public secondary schools are day schools. Field research established that day schools are generally characterized by poor facilities and inadequacy of teachers. To fill the human resource gap, most day schools employ untrained teachers that are supported by the Board of Governors (BoG). Day schools were also
reported to have high cases of indiscipline. This suggested ineffective school leadership. As a result, performance in day schools is generally dismal and affects the aggregate mean score of the whole county. It was therefore concluded that effective school management was a key ingredient for academic performance. Participants viewed indicators of effective school management to include the level of programs a school had instituted to enhance academic performance. Other factors are the school management’s ability to galvanize local communities to support students inculcate discipline and a culture of academic excellence.

4.7.4 Gender Stereotyping and Subject Preference

Findings revealed that boys’ overall academic performance is comparatively better than that of girls’ in Meru County. Various reasons were advanced by study participants to explain this trend. Some argued that the general social perception that attribute academic superiority with the male child, make some girls internalize that they are academically weaker than boys. Consequently, the female child lack the motivation to go beyond mediocre graded. In explaining this trend, interviews held with various participants indicated that gender stereotypes and socialization process have a role to play in inspiring or inhibiting academic performance of the male and female child.

“….Generally, girls are socialized to believe that boys are better in everything…..because Math’s and Sciences are considered hard subjects, they are thus associated with masculinity. On the other hand, subjects such as languages and humanities are considered soft, hence feminine. Unfortunately girls internalize these notions…so they dislike subjects considered to be a male domain (Principal, participant 6, Tigania East)
This quote reveals the common belief that boys perform better academically than their female counterparts. Such gendered perceptions were said to alienate girls from sciences, mathematics and other technical subjects – that are often perceived as “masculine” subjects. Such believes and attitudes have also been associated with existing ambivalence towards investment in female education. For instance, Chege and Sifuna (2006) indicate that some parents believe that boys are more intelligent, that they perform better in school and that they are a better educational investment than girls. Moreover, some parents worry about wasting money on the education of girls who are likely to get pregnant or married before completing school. As a result, where parents are confronted with limited income, they choose to invest on their sons’ education at the expense of their daughters’. It was also noted that gendered attitudes towards some subjects also dictate performance in the same.

Figure 4.20: Most Favorite Science Subject by Gender
Findings revealed that while more boys indicated Mathematics (56.86%) and Physics (81.58%) are their favourite subjects, fewer girls 43.14% and 18.42% picked Mathematics and Physics respectively as their favorite subject (Figure 4.20). This study concluded that girls are generally discouraged from taking science, mathematics, and technical fields due to gender stereotypes associated with these subjects. This has resulted in very few African girls being interested in scientific fields, yet the potential of science for spearheading economic development and improving social standards of living is well-documented (FAWE, 2003).

Low preference of Science and Mathematics by girls could also be associated with negative attitudes rooted in societal perceptions of women’s role in society, which are transmitted to girls through the educational system (Chege and Sifuna, 2006).

The study however noted that more girls than boys picked Biology (62.2%) and Chemistry (62.22%) as their favourite subject (Figure 4.20). While girls’ interest in the sciences was encouraging, analysis of students’ career preferences indicated that boys still dominate career prospects that were considered prestigious. Girls’ interest in sciences was attributed to various girl-child programs aimed at improving female participation and performance in sciences, mathematics and technical subjects. Organizations that support such programs include the Forum for African Women Educationist (FAWE) which spearheads girls’ education at policy and program levels. The FAWE approach entails inspiring girls to pursue science subjects by presenting them with female professional role model such as doctors, pharmacists, mathematicians and others who have excelled in disciplines commonly perceived as a male domain.

This study recommended that in order to achieve gender parity across all the subjects, there is need to scale up models that have worked such as the Forum for African
Women Educationalists (FAWE) role modeling by female scientists. There is also need to expand FAWE’s Science, Mathematics and Technology (SMT) models which are gender-responsive that targeting girls. This model includes science camps, girls’ clubs, training of teachers in gender awareness and active pedagogical methods, sensitization of parents on the benefits of learning sciences for girls (FAWE, 2003). However, for purposes of achieving gender balanced results, this study, recommended that similar initiative should be developed by the government, and relevant stakeholders to inspire boys in subjects with which they struggle.

While girls perceived Sciences, Mathematics and Technical subjects strenuous, participants noted that boys struggle with certain subjects that are labeled “feminine”. Polarizing subjects along gender lines was evident from various aspects. For instance, field data revealed that no boys’ school offers Home Science in Meru County. Moreover, in mixed schools where Home Science was offered, boys shy away from this subject because they consider it “feminine”. The gender differences in subject preference imply that even if boys were interested in Home Science, perhaps because they aspire to pursue chefs as future career, they are likely to feel as intruders or misfits in a “feminine” classroom. In cases where boys were brave enough to join “Feminine” classes, they were likely to experience gender identity threats because it is oriented towards femininity.

Respondents were asked to indicate their favorite art-based subject. Six subjects were selected to illustrate respondents’ views regarding subject preference along gender lines. It is important to note that results presented are not based on examination results but on respondents’ opinion regarding subjects they considered as their most favorite.
Results presented in figure 4.21 show respondents views regarding subject they like best. We can conclude from these results that while girls have an edge over boys in languages and humanities, a rather unique trend was revealed that indicated that more boys (64.44%) than the girls (35.56%) consider History as their best subject. The other observation made was that, despite more girls than boys indicating most of the selected subjects were their favorite subjects, overall, boys continue to outperform girls in KCSE examination. Overall, these trends revealed the traditional gender-based stereotypes and inequities that exist in subject preference and performance. The concern was that these attitudes and perceptions may limit the academic and social development of both females and males. Previous studies that gives credence to these findings include the work of FAWE that revealed that for girls, subject bias remains especially prevalent in science, technology,
engineering, and mathematics (abbreviated as STEM subjects), because historically they have been dominated by male students (FAWE, 2003).

This research attempted to establish the link between subject preference and career aspirations. This was an open ended question that allowed respondents the freedom to indicate any career of their choice. Accordingly the study generated a long list of career from the mutually exclusive list that was provided by male and female respondents. The researcher selected a few careers from the list provided by all respondents. The main criterion used to select the three careers was based on those that respondents had overwhelmingly picked. Results are illustrated in figure 4.22

![Figure 4.22: Career Aspirations by Gender](image)

Boys’ preference for Physics as their most favorite subject was associated with their aspiration for Engineering (25%) as a future career. Likewise, Biology and Chemistry had
more girls indicating the two subjects as their most favorite. Consequently, more girls indicated they would like to be medical officers (37%) when they complete school. The term medical officers represent a combination of related careers that respondents provided. These were careers that fell within the medical field such as; doctors, nurses, laboratory assistants, pharmacist and midwives.

While more boys indicated History as their best subject, there were a larger number of girls (12%) who indicated that law was their favourite career path. This trend was unique because more boys than girls indicated History was their most favourite subject. History is linked to career in law to a certain extent, because a firm historical base may enable one to grasp the legal system easily. The assumption is that knowledge in History could be a solid preparation for a career in law. Chege and Sifuna (2006) argued that the institutionalized gendering of occupations continued to negatively affect the education and employment of women both in government and the private sector to the present times. This study recommended the need for interventions to promote the interest of both genders in specific subject and career paths that they have historically lagged behind in.

4.7.5 Extent to Which Gender Constructions Influence Academic Performance

Besides analyzing completion patterns of students by gender, the fifth research question also sought to establish the extent to which gender constructions influence academic performance. To effectively respond to question five, the researcher carried out a correlation analysis to determine the significance of the relationship between gender constructions and academic performance. The next step entailed computing the coefficient of determination to determine the extent to which gender construction influence academic performance.
Thereafter, the researcher sought to find out if the correlation was significant or a chance effect by carrying out a t-test. Results obtained were used to test the null and alternative hypothesis.

Inferential analysis procedure was used to determine whether there was a relationship between gender constructions and academic performance. Two variables were used to carry out this analysis, namely, the gender construction score and the KCSE mean score. Since gender constructions variable was qualitative in nature, the researcher transformed it into a quantitative one by computing a gender construction score. The purpose of making the two variables numeric in nature was to allow the use of Pearson Correlation coefficient (r) to determine the significance of the relationship.

Reliability and validity of the gender construction scale was carried out to ensure results obtained were credible. Specifically, reliability measure was mainly concerned with establishing the extent to which results were consistent over time and an accurate representation of the total population under study. It is therefore concerned with if the results of this study can be reproduced under a similar methodology. Reliability is, therefore, mainly concerned with accuracy, consistency, stability and repeatability of variable and data measurements in presenting the true score of the subject being assessed (Neuman, 2006).

This study measured reliability of the 44 items using the split-half method. The process involved obtaining results of two sets of scores taken from the student questionnaire where one half represented items that measured masculinity, while the other half consisted of items that measured femininity. The researcher then correlated scores of the two sets, that is, the femininity and masculinity scores. The Statistical Package for Social Sciences (SPSS) data analysis program was used to compute the correlation coefficient (see appendix 9). The
Spearman-Brown prophecy formula used in the split-half method and the reliability coefficient attained was 0.725, hence, the gender construction scale was largely reliable.

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie and Mouton, 2007). It is the degree to which a test measures what it purports to measure or the accuracy and meaningfulness of inferences, which are based on the research results (Orodho, 2009). Literature reviewed revealed that being male and female was perceived in polarized ways that defined femininity and masculinity in opposition to each other. Gilbert and Gilbert, (1998), argued that gender identity definitions mirrored typical binary conceptions of femininity and masculinity in which the key attributes were largely identified by their oppositional characteristics and behaviour. Chege and Sifuna (2006) perspectives were that the process of defining roles along gender lines gives rise to a social dichotomy that stresses gender differences. The arising polarization leads to the politicization of gender relations and the creation of artificially-rigid dissimilarities between female and males (Chege and Sifuna, 2006). Accordingly, in order to conform to the socially-constructed gender labels, individuals are compelled to feel obliged to fit into a pre-determined stereotypical model of masculinity and femininity. This dichotomy serves to label the non-conforming males and females as deviant, causing them to feel or be ostracized. Gilbert and Gilbert (1998) however noted that despite the traditional dichotomous models of constructing gender, feminine and masculine traits lie on a continuum because certain situations may require an individual to adopt characteristic of the opposite gender, hence placing them in a neutral position. The Neutral or “genderless” position is what may be referred to as androgynous that allows individuals
to express both masculine and feminine traits that they adapt for various situations (Marrs and Brammer, 2012).

Based on foregoing argument, reverse values were allocated to the likert scale when computing masculinity and femininity. Masculinity was computed using the scale of 5 for strongly agreed, 4 for agreed, 3 for not sure, 2 for disagreed and 1 for strongly disagree. Conversely, femininity was computed by reversing the 5 scale-likert values, where strongly agreed represented value 1, 2 for agreed, 3 for not sure, 4 for disagreed and 5 for strongly disagree. This criterion was used based on the responses that depicted a dichotomous model that characterized masculinity as essentially superior to what is feminine, while femininity was generally depicted synonymous with weakness, vulnerability, submission and subordination.

It is important to note that “not sure” was given a scale of 3 because despite the traditional dichotomous models of constructing feminine and masculine as two distinct traits, the two lie on a continuum. In certain circumstances some individuals may adopt characteristic of the opposite gender, hence placing them in a neutral position. A position like this is what may be referred to as androgynous that allows individuals to express both masculine and feminine traits that they adapt for various situations (Marrs and Brammer, 2012).

The researcher selected questions from the students’ questionnaire that were used to compute the femininity and masculinity score. The structured students’ questionnaire contained predominately closed-ended five-point likert-type questions. Most items were intended to describe social perceptions regarding attitudes, behaviour and roles considered appropriate for males and females. The researcher selected 44 items that were used to
measure gender constructions. Masculinity score was computed using individual students responses from the 44 items that described socially perceived attributes considered appropriate for boys. For instance the item extracted from the student’s questionnaire that asked respondents to indicate the extent to which they agreed or disagreed with the statement “boys are risk takers” was considered to be measuring masculinity. On the other hand, femininity score was computed using responses from the 44 items that described social attributed perceived appropriate for being a girl. For example, question items that asked respondents to indicate the extent to which they agreed or disagreed with the perception that “girls are shy and timid” was considered to be measuring femininity. Out of the 44 items, 22 were used to estimate masculinity score, while the other half determined the femininity score.

Responses to the selected questions measuring masculinity and femininity for each respondent were computed to determine gender construction identity for each respondent. In deciding the gender construction inclination for each respondent, the highest score for masculine and feminine responses for each of the 460 respondents was selected. Where a respondent scored highest in femininity, he or she was considered to have feminine gender tendencies. Similarly, where a respondent scored high in the masculine score, he or she was considered to have masculine gender tendencies.

The procedure used to compute the range of masculinity and femininity involved taking the highest score for masculinity and subtracting the lowest score. The masculinity score ranged from 81-191, while the Femininity one ranged from 114 - 178. Apparently, some scores overlapped between feminine and masculine gender divide. This was attributed to the situation similar to what Gilbert and Gilbert (1998) sought to explain. Those despite the
traditional dichotomous models of constructing femininity and masculinity, gender identity traits lie on a continuum. Hence, scores the masculinity and femininity scores indicated extremes that were quite distinct, a few overlapped. The intersection was attributed to a continuous sequence because some respondents may have considered femininity and masculinity as adjacent gender constructions have no marked different from each other. The continuum is thus inevitable because certain situations may require an individual to adopt characteristic of the opposite gender.

According to Chege and Sifuna (2006), post-structuralism theory rejects such polarization of the feminine and the masculine divide. In particular the theory argues that, the assumed gender boundaries are so blurred that their distinguishing function is no longer meaningful in modern day thinking whereby an individual’s potential is best achieved by allowing people to transverse gender boundaries. The authors further argue that the theory fundamentally recognizes the fluidity of social constructions and social relations, thus challenging the possibility of social permanence in the allocation of social constructions such as femininity and masculinity. This theory exposes the reality of women and men as subjects and agents in the social constriction of gender who are capable of embracing or rejecting their positions in society.

The difference between the lowest and highest score was 113 and 64 for masculinity and Feminity respectively. The difference between the ranges was further divided into two to determine the two distinct categories of masculinity and femininity. Accordingly, within masculinity, some students were classified as those with regular masculine tendencies, while the second group belonged to hegemonic masculinity. Likewise, femininity was classified into regular femininity and emphasized femininity. Guided by this procedure, all masculine
values between 81 and 137.5 (81+56.5) were categorized as regular masculine, while values between 138 and 191 as hegemonic masculinity. Similarly, all femininity values between 114 and 146 (114+32) were categorized as feminine, while values between 147 and 178 were grouped under the emphasized femininity category. Respondents who obtained the same score for masculinity and femininity were classified as neutral. Table 4.21 illustrates results of the gender classifications for the 460 respondents.

Table 4.21: Classifications of Respondents’ Gender Constructions

<table>
<thead>
<tr>
<th>Gender constructions categories</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hegemonic Masculinity</td>
<td>274</td>
<td>59.6</td>
</tr>
<tr>
<td>Masculine</td>
<td>47</td>
<td>10.2</td>
</tr>
<tr>
<td>Neutral</td>
<td>7</td>
<td>1.5</td>
</tr>
<tr>
<td>Feminine</td>
<td>78</td>
<td>17.0</td>
</tr>
<tr>
<td>Emphasized Femininity</td>
<td>54</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td>460</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data

Table 4.21 indicates that out of the 460 respondents selected to compute the gender construction score, 10% of the respondents were categorized as masculine. Among this group, majority of them constituting 59.6% were classified as hegemonic masculinity. Similarly, 17% of the respondents fell under the feminine group, while 11.7% of the respondents were classified as emphasized femininity. The 460 were respondents from 77 out of the 85 schools that provided KCSE mean scores. As indicated in Table 4.21, seven
respondents that represented 1.5% of the respondents had attained equal scores for masculine and feminine responses. They were therefore classified as androgyny or neutral-gender, or genderless individuals.

To determine the academic performance value, 2011 KCSE mean score for each school were used as proxy to represent respondents’ grade. The assumption made was that since the current and recent former students are from the same cultural setting, they are likely to have had similar perceptions regarding masculinity and femininity (gender constructions). This was based on the assumption that culture is gradual and takes a while to change. Thus, the presumption that KCSE grades are less likely to change significantly within a short period of time.

The next step was to normalize the gender construction value and the KCSE mean score by computing a z-score using the formula,

\[ Z = \frac{X - \mu}{\delta} \]

Where,

X is the observed value
\( \mu \) is the mean
\( \delta \) is the standard deviation

The z-score for the dependent variable (y) were the 2011 KCSE mean score, while the z-score for the independent variable (x) were the gender construction score. Thereafter, a correlation analysis was run using SPSS to compute the Pearson correlation coefficient using the formula,
The correlation coefficient, $r$, represents the relationship between the z-scores of the gender construction (x) and performance (y) variables. Results obtained are presented in table 4.22.

**Table 4.22: Correlation Analysis: Performance and Gender Constructions**

<table>
<thead>
<tr>
<th>Performance (Y)</th>
<th>Gender Constructions (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (Y)</td>
<td>Pearson Correlation(r)</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Gender Constructions (x)</td>
<td>Pearson Correlation(r)</td>
</tr>
<tr>
<td></td>
<td>n</td>
</tr>
</tbody>
</table>

*Source: Field Data*

The value of coefficient indicated in table 4.22 shows there is a negative relationship between gender construction(x) and performance(y). This implied that for every unit increase in gender construction, performance of students’ decrease by 0.103. Thus, the more students were inclined towards behaviour and attitudes considered appropriate to conform to masculinity or femininity, the poorer their grades.

The study then attempted to determine the extent to which gender construction influence academic performance by computing the coefficient of determination ($r^2$). The extent to which gender construction influences academic performance is equal to the Square of Pearson correlation coefficient, that is, $r$ squared ($r^2$) = (-0.103)$^2$ = 0.010609.

Results obtained indicate that gender construction affects performance of student by 1.1% in public secondary schools in Meru County. Thus, whereas behaviour and attitudes of
being masculine or feminine may have an influence student’s performance, there are other factors that explain performance of male and female students in KCSE.

In order to determine if the correlation was significant or a chance effect, the researcher computed a t-test for the significance of a correlation. The researcher made use of the analysis plan (formula) shown below:

\[
t = \frac{r \sqrt{(n-2)}}{\sqrt{1-r^2}}
\]

Where,

\[r\] : Calculate Pearson’s correlation coefficient

\[n-2\] : Degrees of freedom

This analysis plan was used to test the null hypothesis at alpha \((\alpha) = 0.05\) and \(n-2\) degrees of freedom. The null hypothesis stated: The relationship between gender construction and academic performance is not significant \((H_0: r = 0)\).

The details calculations are provided in annex 10. Computed \(t = -2.222\), while tabulated \(t\) (critical value) at alpha = .05 and 458 degrees of freedom was \(t = 1.96\). Results obtained indicate that the absolute value of the computed \(t\) is greater than the tabulated \(t\), hence, the null hypothesis was rejected in favor of the alternative hypothesis. This means there is a relationship between gender construction and performance.

To interpret these findings, the study noted that since \(r\) is negative, we can deduce from the findings that gender construction has a negative influence on performance for male and female students in public secondary schools in Meru County. In the case of masculinity and boys academic performance, the study concluded that, as boys strive to conform to socially accepted behaviour and attitudes considered appropriate for being male, limited attention is
accorded to performance. For instance, boys may be socialized to suppress their emotion as a sign of strength and courage. Being too masculine or conforming to hegemonic masculinity, may have detrimental consequences on their psychological health, and ultimately negatively influence their performance. Likewise, girls may be socialized to be submissive and passive in a manner that may position them to vulnerability or lose the drive to be competitive and aggressive. Subsequently, being too feminine or compliance to emphasized femininity may compromise academic performance.

4.8 Conclusion

The chapter analyzed masculinity in tandem with femininity to explore the influence of gender constructions on academic achievement. Findings of this study revealed that although boys and girls are uniquely dissimilar, gender constructions identities are shared indiscriminate of their biological constructions. Findings also established that femininity and masculinity are constructed in very polarized ways. Responses revealed a pattern suggested feminine and masculine were defined in opposition to each other. These binary and oppositional definitions of what society consider feminine and masculine, influence attitudes, behaviour and socialization process of boys and girls.

The study revealed a relationship between gender constructions and academic performance. A negative coefficient was obtained that indicated an inverse relationship between gender construction and performance. This was interpreted to mean that when the gender construction variable changes, performance moves in the opposite direction. In this regard, the more boys misconstrued masculinity to mean undermining school authority, the more indisciplined they were. Hence the less chances they had to performing well in school.
Similarly, the more submissive girls were as a way of conforming with femininity, the higher chances they were exposed to sexual exploitation that lead to pregnancy and early school withdrawal. In the final analysis, their chance of performing well in school is reduced. The study further observed that although the relationship between gender constructions and academic performance was not very strong, it was nonetheless significant enough to reject the null hypothesis that stated; there is no significant relationship between gender constructions and academic performance. It was therefore concluded that masculinity and femininity influence academic achievement to a certain extent.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents summary of the findings of the study, its conclusions and contributions to knowledge, as well as its limitations. The chapter concludes by highlighting policy and practice recommendations that the Kenya government and other players in the education sector could use to address the explicit challenges studied here.

5.1 Summary of Findings and Conclusions

This study set out to explore the influence of gender constructions on boys’ and girls’ academic achievement in public secondary schools, an examination which was broken down into five key areas: an establishment of students’ perceptions towards feminine and masculine gender constructions; a determination of how the socialization process entwines with schooling experiences to influence academic achievement for male and female students in secondary schools; an exploration of the unique challenges boys and girls face in school for being male or female; an inquiry of the support mechanisms required to enhance academic achievement for male and female students in secondary schools; and, lastly, an attempt at establishing the extent to which masculine and feminine gender constructions influence academic achievement.

To answer these questions a triangulation of qualitative and quantitative methodologies were employed. A descriptive survey of 500 randomly sampled male and female students in 85 schools was conducted. Primary data was collected using a structured student’s questionnaire that contained predominantly closed-ended, five-point Likert-type
questions. To complement students’ views, additional data was gathered from 120 more students from an additional 10 schools using focus group discussions. This information was further supplemented from views of principals from the 85 schools, 171 teachers within the sampled schools, 92 parents and 8 education officers using interview schedules. Various secondary data was collected from the same schools. These included enrolment data for a period 2008 – 2012; and KCSE examination mean scores for the period 2008 - 2011. The 2012 KCSE results were not out yet by the time data for this study was collected.

Data was analysed on the bases of descriptive and inferential statistics. Specifically, descriptive analysis that involved frequency counts and percentage proportions were used to assess data characteristics. Inferential analysis involved undertaking correlation analyses to establish the relationship between variables and to answer the research questions. The key findings, as they relate to study research questions, were as enumerated herein. The first question, which sought to establish existing perceptions on feminine and masculine gender constructions, had various variables namely: social perceptions, characteristics, attitudes and behaviour attributed to masculinity and femininity. These variables were grounded on theoretical and empirical literature to explore gender constructions. Findings revealed that certain gendered stereotypical attributes negatively influence academic achievement for both boys and girls. It can thus be concluded that gender constructions, if not properly defined, influence behaviour, attitude and schooling experiences for male and female students in diverse ways. It can further be concluded that several other factors come into play to interface with gender perceptions, leading to a cumulative impact on academic performance in the Kenyan context.
Responses demonstrated that although boys and girls ascribe to different characteristics of what they believe to be masculine or feminine constructions, some common trends were realized. The differences demonstrate that masculine and feminine gender constructions are concepts interpreted differently by each individual. The commonest attributes associated with masculinity were emotional deficiency, strength, aggression, courage, superiority complex, chauvinism and risk-taking. On the other hand, the general characteristics linked with femininity include shyness, naivety, softness, compassion and beauty consciousness.

These perceptions stifle academic achievement in diverse ways. For instance, boys suppress their emotion for fear of being labelled feminine. The adverse effect is that the repressed emotions lead to stress and psychological ill-health that negatively affects academic achievement. Similarly, although feminine traits were attributed to good behaviour, there is always the likelihood that some attributes such as timidity and submissiveness may put girls in vulnerable positions that could compromise their academic achievement. Masculinity and femininity are, therefore, complex concepts that are influenced by various factors. This study suggested, as remedial action, the establishment of targeted programs that will enable boys and girls to overcome perceived internal gender impediments that hinder academic achievement.

The second research question sought to determine how the socialization process entwines with schooling experiences to influence academic achievement for male and female students in secondary schools. This question explored six variables, namely; socialization at home; interaction in the school context; peers; mass media and technology; socio-cultural beliefs and practices; and role models. Results indicated that role models play
a pivotal role in the upbringing and socialization of boys and girls. They are a source of inspiration that provide a sense of direction in terms of what subjects and careers to aspire for. The mass media and technology was shown to have significant effect on academic performance. Boys, particularly, spend too much time watching TV and videos at home and mostly in local shopping centers. The implications are that so much time is spent on entertainment that would otherwise have been spent on academic activities. Mass media and technology influence learners’ thoughts by way of skewed advertisements and programs which promote and glorify immorality. As a result, mass media was considered to have negative influence on academic achievement.

This study concluded that feminine and masculine gender identities are constructed through socialization and interaction processes, as well as through imitation of behaviour and attitudes of others. However, just like any other socially-constructed concept, feminine and masculine gender constructions are not static, but are subject to change through sensitization and advocacy programmes. In addition, socialization through interaction with the global community and through exposure to modernization and technological advancement, play a role in changing social perceptions and attitudes.

The third research question was meant to determine challenges that male and female students face in school in the course of acquiring gendered identities. The study was keen to document factors that influence schooling experience and those that impact negatively on school completion and performance. From the research carried out, boys and girls reported socio-cultural factors, economic activities, sexual maturation, challenges in the school context and lack of facilities as some of the main challenges they face in school. For instance, overstretched facilities in schools have a negative effect on academic performance.
Schools without essential facilities, such as laboratories and libraries, depend on makeshift facilities, which may not be effective for instruction. While other make effort to mitigate the effect of this challenge through sharing such facilities with well-endowed schools during the final examination, practical subjects end up being relegated to theoretical approach, the net effect of which is poor performance.

There were also reported cases of indiscipline, especially in mixed day secondary schools, which form the bulk of public secondary schools in Meru County. Student respondents also cited inadequacy of teachers as a key challenge – the implication here is that teachers are not able to provide individual attention to gender-segregated subjects, or help students discard the stereotypes around these subjects.

Results of this study demonstrate that gender constructions affect academic achievement in various ways. These constructions are moulded around factors such as behaviour and attitude, school attendance and retention, interaction at school, schooling experiences and academic performance. An analysis of challenges facing boys and girls in school demonstrated that gender constructions influence boys’ and girls’ education in different ways. Likewise, gender constructions are experienced in dissimilar ways depending on students’ socialization processes. The various attributes associated with each gender present limitations on how boys and girls are handled in school.

The fourth research question sought to determine the support mechanisms required to support the unique gender needs of boys and girls. Some suggested programs and interventions include guidance and counselling, remedial teaching, parental support and gender empowerment programmes. The findings of this study reveal that there are limited programs and interventions that focus on boys’ education vis-à-vis the popularized focus on
girls’ education. This skewed attention on the girl-child has side-lined the boy-child in education as well as in the overall social arena. This study argues that national and global level gender equality targets will not be achieved if both boys’ and girls’ need are not effectively addressed. To achieve gender balance academic achievement, gender needs for boys should be addressed purposefully, and in the context of gender equality in education. Achieving gender equality would, therefore, require investing in the education of both girls and boys while maintaining a gender-balanced approach. To achieve this effectively, programs targeting girls should be implemented concurrently with interventions that address masculinity in a pivotal way to ensure boys develop holistically and perform well in school.

The fifth research concern sought to establish the extent to which gender constructions influence academic performance. This study revealed that the rate at which boys prematurely leave school is higher than that of girls. In addition, analysis of enrolment trends for groups of students who entered and completed school within the period, 2008-2011 and 2009–2012 revealed that there is high probability of a boy leaving school at form three compared to other class levels. Indeed boys who failed to progress to form four increased from 53 for the 2008 – 2011 group, to 406 for the 2009-2012 group. This research recommends further studies to investigate the low progression of boys from Form three to Four. Alongside this recommendation, is the need for further studies to track boy’s attendance in subsequent years.

Findings of this study indicated that girls indicated they prefer and perform well in all subjects except Mathematics (56.86% boys and 43.14% girls) and Physics (81.58% boys and 18.42% girls). Ironically, overall boys continue to outperform girls in KCSE. Moreover, this study revealed a unique trend where more boys than girls indicated that History (64.44%
boys and 35.56 girls) is not only their most favorite subject but one that they perform better. There is need for further studies to investigation this trend.

The study concluded that girls and boys face multi-faceted and complex challenges that are unique to their gender construct. These challenges hinder academic achievement. Further, while attendance for girls is better compared to that of boys, boys’ progression to last level of secondary education is lower. Moreover, gender disparities in the KCSE mean score do exist, with boys continuously out-performing girls. This indicated that problems of academic under-achievements face both boys and girls albeit differently. In conclusion, findings of the study revealed that gender constructions influence academic achievement of both boys and girls in diverse ways.

5.2 Contribution of the Study to Knowledge

The findings of this study offer substantial contributions to the existing knowledge pool of research on gender in education. First, while recognizing that socio-cultural and economic factors are important in understanding gender inequalities in academic performance, there have been limited studies in examined the role played by gender constructions in influencing academic achievement. This study posits that, for male and female students to perform better, there is a need for institution and programs that help students construct masculinity and femininity in a manner that supports academic excellence.

While most gender studies in Kenya analyze girls’ education in the context of social-cultural and economic factors, limited studies examine the role femininity on academic achievement. This study results indicated that 87.2% of respondents agreed that girls are
remarkably conscious about their physical appearance. Participants implied that some girls are unable to balance being feminine and excelling in academics, leading to poor academic achievement. This study recommended policies and programs aimed at expanding interventions such as empowerment programs that equip girls with skills to enable them balance feminine traits with positive masculine ones, in a manner that does not subjugate the innate female nature. The ultimate goal is to ensure girls balance femininity and academic achievement.

Researchers in gender in education have often questioned the one-sided focus on girls’ education at the expense of boys’ gender needs. Several calls have been put across in media and other forums for researchers and development agencies to shift attention to boys and men. In answering the call, this study employed a balanced gender approach in exploring the influence of femininity and masculinity on boys’ and girls’ schooling and academic performance.

Findings revealed that societal pressure to uphold stereotyped notion of masculinity implies the male child often suppress their emotion. Likewise because boys are perceived as strong and future providers, they face pressure to perform well in school from various fronts. The repercussion of the unwarranted pressure placed on boys is that some begin to resent school. Consequently, boys suffer psychologically due to such gender stereotyping. In the absence of emotional and psychological wellness, academic performance is significantly affected. This study contributes knowledge to the area of masculinities and academic achievement for boys. Currently studies on boys and masculinizes in the Kenyan context are limited. The study recommends the need to establish measures to address boys’ gender needs in order to enhance academic achievement in secondary schools.
Limited studies have analyzed the role of gender socialization for boys in the context of academic achievement. This study revealed that majority of respondents (72.6%) generally agreed that the inheritance mentality affects boys’ retention in school and academic performance. It was further argued that some boys are disoriented by the anticipated inheritance of miraa crop. Participants argued that once boys consider inheritance as an assured right, they foresee an economically secure future; hence accord limited attention to academic achievement.

Participants indicated that a key challenge facing boys is that they are neglected. Teachers who participated in the study echoed similar views, where a large proportion (43%) of teachers who participated in the study indicated that boys’ neglect is a key contributor to underachievement. When boys reach puberty stage, especially after they undergo circumcision, the society in general and parents in particular disconnect and have limited contact with their sons. In the absence of parental guidance and supervision, boys take advantage of such lee ways to engage in deviance. The ungoverned freedom distracts boys leading to underachievement.

Contrary to previous studies that revealed parents prefer investing in their sons considering it a more profitable investment, this study established a different trend where participants indicated that investing in female education is more profitable because daughters always remember home even after they are married. Participants argued that most daughter never desert their parents; they are always available to provide moral and financial support whenever needed. Based on these perceptions, the boy-child some parents accord boys secondary treatment that often translates to neglect.
Available literature has tended to associate miraa with low academic achievement for boys in Igembe (Muthaa and Bururia, 2011). Results obtained from this study illustrate that, one of the best performing schools nationally, namely Burieruri boys, is located in Igembe South. Besides, analysis of 2011 KCSE results indicated that Igembe North and Igembe South recorded the lowest number of schools (6.45% each) that recorded mean scores of 4.00 and below. This is despite most of these schools having miraa farming within the school gardens for purposes of generating supplementary income for school activities. This study concluded that, other factors beyond miraa and economic related activities explain underachievement in Meru. Hence, the impetus for analyzing the contribution of gender constructions on academic performance was pertinent.

Results obtained after analyzing class progression for two groups of students from the time they entered form one to the time they completed, revealed that Form three was the level with the highest wastage for boys. Findings indicated that more boys than girls failed to transit to Form four. Some reasons advanced include that boys repeated Form three class to adequately prepare for Form four - the examination class, while others suggested that Form three was the level that masculinity was heightened to a level that pulled boys out of school prematurely. There is need for targeted interventions to enhance progression of students from Form three to four.

Findings revealed that contrary to popular views presented in most studies, that girls have a negative attitude towards Sciences, more girls than boys picked Biology (62.2%) and Chemistry (62.22%) as their favourite subject. Likewise more boys (64.44%) than girls (35.56%) considered History as their best subject. Moreover, while some boys aspire for some careers traditionally considered a female domain, no boys’ school in Meru offered
Home Science as an examinable subject. Indeed even in mixed schools where Home Science was offered, boys shy away from this subject because they consider it “feminine”. The gender differences in subject preference imply that even if boys were interested in Home Science, perhaps because they aspire to pursue chefs as future career, they are likely to feel as intruders or misfits in a “feminine” classroom. In cases where boys were brave enough to join “Feminine” classes, they were likely to experience gender identity threats because it is oriented towards femininity. This study recommended measured for addressing gender stereotypes in subject preferences, to ensure male and female students are not denied opportunity to pursue their career of choice.

This study delves into the influence of mixed day schools in the academic achievement of boys and girls. There is a need for further analysis of this phenomenon with a view to developing knowledge on how these institutions can be used to not only increase access to secondary education but also increase academic performance. Gender constructions are central in influencing academic performance for boys and girls in secondary schools. This study has therefore demonstrated that masculinity and femininity are factors pertinent to discipline and performance in schools. Empirical studies replicating these propositions in the Kenyan context are scanty.

5.3 Study Limitations

This research was designed as a descriptive survey that focused on Meru County. It may therefore raise the question of whether findings from one county can be replicated to the wider nation. However, results generated from data collected in Meru County can be used as evidence for replicating similar studies across other counties in Kenya and beyond.
Thus, despite the limited geographical scope, findings presented here can help in understanding the influence of gender constructions on academic achievement of male and female students in secondary schools in Kenya.

The other limitation was that some concepts used may have been complex and technical for students, for instance gender constructions, femininity and masculinity. To address this gap, an introductory discussion will be held with the participants to clarify key terms. The researcher will also adopt simple straightforward questions to match the knowledge level of students.

In addition, although every effort was made to cover crucial aspects associated with the research problem, it was not possible to cover each and every aspect of how gender identities are constructed, negotiated and experienced by male and female students to influence academic achievement. However, the selected aspects that were explored adequately shed some light on the role of gender constructions on education. The researcher triangulated various techniques to ensure adequate and in-depth data was generated.

The other limitation was associated with non-responsiveness, which may have affected the accuracy of the results. For instance, despite assurances of confidentiality, school principals were apprehensive about disclosing some information, especially on how they deal with behavioral cases for boys and girls. This was perhaps because they were cautious not to reveal some activities breached government directives and policies. These included willingness to provide information regarding claims of corporal punishment. In addition, it was difficult to confirm the position of schools regarding remedial programs as a measure for improving academic performance for slow learners. The reason was that schools feared to be accused of practicing extra tuition that was banned. Consequently, some
instances that required information to be extracted from official school records was provided subjectively by word of mouth, hence availing information that was often not officially documented anywhere. However, reassuring the respondents of discretion and that the study was meant for academic advancement helped create much-needed rapport. The researcher was, therefore, able to get reliable information as much as possible.

Despite making prior elaborate appointment with principals of selected schools, there were instances when the researcher was unable to access respondents. To overcome this limitation, the researcher replaced the school with others that had similar characteristics. In this regard, a replacement was picked from the same school category, located within the same constituency and within the same student population range. Likewise, where a sampled respondent was unavailable, he or she was replaced with another one that was systematically selected.

In a few other instances, despite being situated in accessible locales, it was challenging to access some schools due to what appeared to be ‘research fatigue’. This was especially common in some well-established schools (mainly the national schools) that may have been overwhelmed by visitors because they are located within urban towns, hence easily accessible. In this regard, some principals in these schools were discontented by a few previous researchers who had visited their schools and never shared findings. Despite these limitations, the researcher is confident that the quality of data collected was reliable and sufficient enough to provide credible analysis in responding to the research questions. Measured taken to guard against possible bias, was adopting the use of triangulation method.

Another major limitation was that although the study measured academic performance using KCSE results, sampled students did not have their own KCSE results.
The 2011 KCSE mean score was thus used as proxy to represent respondents’ grade. The assumption made was that since the current and recent former students are from the same cultural setting, they were more likely to attain similar KCSE grades.

Data collected was highly qualitative in nature. Moreover, masculine and feminine gender constructions were qualitative variable hence posed challenges in subjecting it to detailed inferential analysis. However, the researcher computed gender constructions score using selected question items that required respondents to describe perceptions, attitudes and behaviours associated with being male and female. To ensure results were accurate and dependable, the researcher measured reliability and validity of the items that were used to measure gender construction scores.

5.4 Recommendations

Based on the findings, the researcher made the following tripartite recommendations. The three-prong recommendations focused on policy, practice and theoretical recommendations focusing on suggestions for further research. Proposed measure for enhancing academic achievement for boys and girls included quick wins interventions that are achievable on short-terms basis, as well as long-term multi-faceted interventions that can be achieved over-time. Although these recommendations were based on the Meru case study, a spiral effect of these recommendations was anticipated once they are adopted by the government. Thus proposed interventions will not only benefit Meru County, but expected to permeate the entire Kenyan education system.
5.4.1 Policy and Practice Recommendations

Findings of this study are very pertinent to educational administrators and planners. The Ministry of education should spearhead gender-balanced programs and interventions that respond to boys’ and girls’ educational needs. In order to address the negative influence of masculinity and femininity on education, this study recommended that, life skills program should be expanded in schools, and effective gender-sensitive guidance and counselling programmes instituted in schools. To ensure gender sensitivity and privacy in handling sensitive matters, male professional counsellors who resonate with the needs of boys should be responsible for boys’ psychological needs. Likewise, girls’ cases should be handled by professional female counsellors. To further enhance interventions that strive to improve behaviour and discipline, schools should seek external professionals to augment existing efforts in schools. The study further revealed that boys suffer psychologically due to suppressed emotions. Yet most schools lack appropriate programs to cater for boys’ emotional and psychological wellness. Consequently, boys’ academic performance is significantly affected. This study recommended that the government should put in place measures to address boys’ emotional needs.

Findings revealed that the main challenge facing girls is that they strive to be both feminine and perform well in school. These contradictory demands that confront the female child are what were attributed to poor academic performance. This study recommended policies and programs aimed at expanding interventions such as empowerment programs that equip girls with skills to enable them balance feminine traits with positive masculine ones, in a manner that does not subjugate the innate female nature.
To ensure gender balanced interventions, the study recommended that gender empowerment and community awareness programs should be organized for male and female students. These interventions should also target various stakeholders to ensure the success of concerted efforts in addressing gender issues in education. Moreover, gender targeted initiatives should aim at illuminating the unique gender needs of boys and girls in order to enhance academic performance equitably for both gender. The Ministry of Education (MoE) ought to institute programs to equip boys with skills to enable them navigate through adolescence. In addition, it is necessary to organize sensitization programs targeted at the boys to teach them moral responsibility in society. Programs to empower the boy child could focus on mentorship and role modelling. Schools should invite resource speakers to discuss relevant “male-centred” topics with boys in an environment where they feel safe.

The Ministry of Education should initiate a training programs aimed at deeper understanding of gender dynamics in education pertaining to masculinity and femininity in schools. This can be done collaboratively with institutions of higher learning and research bodies. The County Director of Education ought to organize comprehensive in-service courses to cover emerging issues and challenges that face boys and girls in school. Similar programs to address emerging and contemporary issues that confront young people such as drug abuse, mass media and technology also ought to be instituted. Such programmes would equip boys and girls with attitudes, knowledge and skills essential for academic achievement, and holistic development.

Study participants further argued that day secondary schools presented various challenges including poor facilities, long distances to school and limited time for private studies. The study revealed that residential school approach provided an environment that
ensures students are immersed in an environment where learning is central to all activities. Students from boarding are also better exposed to academic rigor and, therefore, perform better. Subsequently, they are more likely to transits to higher learning institutions in these models of schooling. In addition, boarding schools have a unique setting that promotes common experience and co-existence with other students, teachers and support staff. Boarders also learn how to be responsible and are conditioned for future success because they are encouraged to achieve their full potential. It is thus evident that boarding schools bestow on students independence that they would not have achieved as day scholars. Based on the aforementioned benefits, this study recommended government support in establishing boarding facilities within the established day schools.

The Ministry of Education should re-evaluate the role of mixed schools in relation to academic performance, such that the challenges students face in mixed school can be evaluated to address the coupling allegations and issues widely mentioned by respondents. It is imperative that interventions to expand secondary education should not only be concerned with increasing enrolment but also improving quality of education.

Day school constitutes the largest number of schools in Meru County. A common feature of these schools is that they admit students with low marks. Such students require specialized attention to be able to compete on a level playing ground with their counterparts in well-established schools. This study recommended remedial programs to bring slow learners up to speed and enable them acquire skills to perform well in KCSE examination. Bearing in mind that extra tuition has been widely abused, hence prohibited; this study suggested the need to for the government to provide clear guidelines and put measures to
enforce the same, to ensure professional remedial programs are implemented to achieve the intended results.

This study revealed wide gender disparities in subject preference and performance in the same. Data generated from respondents indicated that girls are generally discouraged from taking science, mathematics, and technical fields. This has resulted in very few African girls being interested in scientific fields, yet the potential of science for spearheading economic development and improving social standards of living is well-documented (FAWE, 2003). To bridge gender disparities in subject choices and performance in the same, this study recommended the need to scale up models that have worked such as role modeling by female scientists and Science, Mathematics and Technology (SMT) models, spearheaded by the Forum for African Women Educationalists (FAWE). However, for purposes of achieving gender balanced results, this study, recommended that similar initiative should be developed by the government, and relevant stakeholders to inspire boys in subjects such as languages and humanities that most boys struggle with.

Findings revealed an emerging trend of boys’ disadvantaged position in education. For instance, boys’ drop out from school is higher than that of their female counterpart. From three class was the most common grade that experience high wastage rate. The study established the major factors that lead to boys’ dropout based on their masculine gender construction include: lack of male role models to emulate, petty trade like involvement in miraa trade and boda boda businesses, socialization process through tradition methods of initiation process that they have to undergo, hunger in school, general neglect of the boy-child by parents and other key stakeholders, drug and substance abuses, and lack of appropriate psychological support programs designs to effectively address masculinity.
Based on this trend, this study recommends targeted legal and policy frameworks to address the needs of boys in school. Specifically, the government should institute affirmative action for the boy-child. In addition, there is need for community mobilization and sensitization programmes that support the gender needs of the boy-child. Further, involvement of boys in petty trade like miraa picking, packaging and trade needs to be eradicated using effective policy and legal provision. Moreover, parents should be encouraged to embrace modern methods of initiating boys into adulthood through church-based programs that mold young boys into responsible adults.

Various approaches and strategies were suggested to ensure these recommended are implemented. The researcher will ensure to discuss the same with school principals, PTAs and BOGs to ensure recommendations are implemented. Further is the use of workshops and conferences in education to share study findings. Findings will also be shared with strategic partners, networks and coalitions such as the Girls Child Network (GCN), Elimu Yetu Coalition (EYC) and Women Education Researchers of Kenya (WERK). Ultimately, this study will also be published in local and international peer review journals. In addition, the researcher will develop policy papers as well presentation papers that can be used to seek buy-in from the devolved county government.

5.5 Suggestions for Further Research

The aim of this study was to explore the influence of gender constructions on academic performance in Meru County. The findings of this study unveil several grey areas which call for further research. It is important that similar studies are undertaken to unearth the influence of masculinity and femininity on schooling in other communities in Kenya.
This will help capture the dynamics of gender constructions and academic performance as they exist in other socio-cultural contexts. In addition, additional research that compares gender constructions and academic performance in other countries needs to be done to confirm whether the results obtained in this study can be replicated in other African countries, and globally, as well as create a more holistic picture on the effect of gendered constructions on academic performance.

The research established that out of the 85 sampled schools, 62 were Mixed Day Schools. Respondents consistently indicated that a major cause of discipline problems in such schools was “coupling” between boys and girls. This concept was also used to explain conflicts, and cases of bad blood and immorality among students. Besides, coupling affects concentration in class and academic performance, which makes it necessary to carry out further investigation on other gender dynamics in mixed day schools, and how these manifest in academic performance.

This study revealed that the rate at which boys prematurely leave school is higher than that of girls. In addition, analysis of enrolment trends for groups of students who entered and completed school within the period, 2008-2011 and 2009–2012 revealed that there is high probability of a boy leaving school at form three compared to other class levels. Indeed boys who failed to progress to form four increased from 53 tracked from the 2008 – 2011 group, to 406 who missed to progress to form four during for the 2009-2012 group. This research recommends further studies to investigate the low progression of boys from Form three to Four. Alongside this recommendation, is the need for further studies to track boy’s attendance in subsequent years. Overall, the study revealed a compelling need for future studies to investigate the situation of the boy-child in education.
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International Labour organization (ILO): retrieved from


http://orvillejenkins.com/profiles/meru.html on September 6th 2012, 1.37pm


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My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Please do not indicate your name on this paper. A unique identification number will be allocated for each respondent to enhance confidentiality. Thank you.

**Instructions:** Please place a tick (✔) in the bracket for your appropriate response. Where an explanation is required, please use the spaces provided

**Part 1: Background Information**

1. Please indicate your gender:
   - 1. Male
   - 2. Female

2. Kindly indicate your age:
   - 1. 13 years and Below
   - 2. 14 – 18 year
   - 3. 19 year and above

3. Class level:
   - 1. Form 1
   - 2. Form 2
   - 3. Form 3
   - 4. Form 4

4. Whom do you live with?
   - 1. Both parents
   - 2. Mother
   - 3. Father
   - 4. Guardian

5. Please tick (✔) to indicate your parents’/guardian occupation:

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th>Father</th>
<th>Guardian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other occupations (please specify):
Part II: Social Perception towards Males and Females

**NB:** Social perceptions are defined as how society views boys or girls. Gender is being male and female. While, masculinity and femininity are behaviours and characteristics considered appropriate for males and females by a given society. Masculinity and femininity are therefore referred to as gender constructions.

6. How would you describe yourself?

- □ 1. Masculine
- □ 2. Feminine
- □ 3. Not sure

**Instructions:** Please tick or circle one response only for each item

7. Please tick (✔) to indicate the extent to which you agree or disagree with the following male and female characteristics generally attributed to being male or female

<table>
<thead>
<tr>
<th>Common meanings attached to being boys or girls</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys are more emotional and affectionate than girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls are more shy and timid compared to boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys are more competitive and aggressive in relation to girls</td>
<td></td>
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<tr>
<td>Boys are stronger than girls</td>
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<td></td>
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<tr>
<td>Girls are dependent and boys are independent</td>
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<td></td>
<td></td>
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<tr>
<td>Girls are soft-spoken while boys are assertive</td>
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<tr>
<td>Boys are more risk takers than girls</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls are more compassionate and caring than boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7b. In your views, what are considered appropriate male and female characteristics in Meru?

8. Please tick (✓) to indicate the extent to which you agree or disagree with the following perceptions:

<table>
<thead>
<tr>
<th>Attitudes/Perceptions</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beautiful girls will be married by rich men</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys break rules because they are boys</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys are brave and courageous</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Girls are beauty conscious</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Girls are not aggressive and competitive</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>School is for weak boys</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
</tbody>
</table>

9. Please tick (✓) to indicate the extent to which you agree or disagree with the following items:

<table>
<thead>
<tr>
<th>Male and Female Behaviour</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys smoke and chew miraa</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Relationships affect girls more than girls</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys like fighting and bullying</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys engage in petty business (<em>miraa, matatu</em> and <em>boda boda</em>)</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Girls spend too much time on their hair and beauty</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys break rules more than girls</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Boys engage in petty crimes (e.g. stealing)</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
<tr>
<td>Girls use their beauty to harass boys</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
<td>🗙️</td>
</tr>
</tbody>
</table>

**Part III: Socialization Process and Gender Construction**

NB: Socialization is a process whereby individuals learn roles, values and social skills that society consider appropriate to males and females. This part will explore socialization resulting from interaction at home, at school, by peers, mass media, role models and other agents of socialization.
10. Please tick (✔️) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Boys and Girls Roles</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls’ roles are domestic in nature</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Miraa farming and trade is a role for boys</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Washing and cleaning is for boys</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Herding is for girls</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Fetching water and firewood is for boys</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Parents prefer girls than boys participate in family business</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>

11. Please tick (✔️) to indicate the extent to which you agree or disagree with the following perceptions

<table>
<thead>
<tr>
<th>Influence of Gender Roles</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different roles at school and home are allocated for boys and girls</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Girls’ spend a lot of time on domestic chores</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Roles at home influence subject choice</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Men role are to head a family</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Roles at home influence future career choice</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Roles at home have no influence on learning for boys</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Roles at home have no influence on learning for Girls</td>
<td>❑</td>
<td></td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>
12. In your Vies, between boys and girls, who is likely to miss secondary education

1. Boys
2. Girls

13. Please tick (☑) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Factors hindering schooling</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception that boys do not need education, they will inherit (land, miraa and other cash crops)</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Perception that girls do not need education, they will get married to rich men</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Early marriage for girls</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Circumcision for boys</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Lack of school fees</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Peer Pressure</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Miraa farming and trade</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Lack of sanitary pads for girls</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Truancy (refusing to attend school)</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>Indiscipline</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

**NB:** A role model is a person whom you admire, one who has achieved and inspires you.

14. Do you have a role model?

1. Yes
2. No
15. Please tick (✔) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Influence of Role Model</th>
<th>5 Strong influence</th>
<th>4 Moderate influence</th>
<th>3 Not Sure</th>
<th>2 Minimal Influence</th>
<th>1 No Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Footballer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beauty models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movie star</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Businessman(woman)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Politician</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musician</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military (Army, Police, forces)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church leader</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. (b). Other role models (please specify):

16. How has your role model influenced your academic performance?

<table>
<thead>
<tr>
<th>Influence</th>
<th>Please tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspired me to work hard</td>
<td>✔</td>
</tr>
<tr>
<td>Made me dislike school</td>
<td>✔</td>
</tr>
<tr>
<td>Others (specify in the space below)</td>
<td></td>
</tr>
</tbody>
</table>

Other influence:

17. Are you a member of Christian union or any other religious association in your school?

[-] 1. Yes  [ ] 2. No
18. Please tick (✓) to indicate the extent to which you agree or disagree with the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious male and female students are obedient</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Religious male and female students do well in school</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Religion activities in school have a strong influence on male and female students character</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

19. Please tick to indicate the influence of mass media (e.g. Radio, TV, magazines):

<table>
<thead>
<tr>
<th>Influence of mass media</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourages indiscipline in schools</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Influences performance negatively</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Enhances crime and violence</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Could lead to sexual abuse</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>May encourage risky sexual behaviour</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

20. In your opinion between boys and girls who is most influenced by technology? (e.g. mobile phones, internet)

- ☐ 1. Boys
- ☐ 2. Girls

21. Please tick to indicate the influence of technology on academic performance

<table>
<thead>
<tr>
<th>Influence of Technology on performance</th>
<th>5 Strong influence</th>
<th>4 Moderate influence</th>
<th>3 Not Sure</th>
<th>2 Minimal influence</th>
<th>1 No Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phones (e.g. texting, calling)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Watching TV</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Social media (e.g. Facebook)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Accessing internet</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Listening to Radio</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Watching Video</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Electronics e.g. PlayStation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
22. In your opinion does the school environment (e.g. location, facilities) influence boys and girls learning?

☑ 1. Yes ☐ 2. No

b). Please explain:
________________________________________________________________________

23. Do teachers relate to boys and girls the same?

☑ 1. Yes ☐ 2. No

b). Please explain:
________________________________________________________________________

24. Are similar roles allocated for boys and girls in school?

☑ 1. Yes ☐ 2. No

b). Please explain your response
________________________________________________________________________

25. Do boys and girls participate in similar co-curricular activities (sports, clubs) in school?

☑ 1. Yes ☐ 2. No

b). Please explain
________________________________________________________________________

26. Please tick (☑) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Teachers relationship with students by gender</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers treat girls more delicately than boys</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>Teachers may influence liking or disliking certain subjects</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>Teachers encourage tough sports (e.g. rugby, football) to boys and soft ones to girls</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>Teachers attitude influence performance of students</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
27. Please tick (✔) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Role of Peer</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peers take up a lot of time for study</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Peers encourage risky behaviour</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Peers influence discipline in school</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Peers negatively influence academic performance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Part IV: Gender and Academic achievement**


NB: Academic achievement means successfully completing the last level of secondary school as well as a student’s performance in KSCE examinations.

28. In your opinion, between boys and girls who is more likely not to join Form one (secondary education)?

☐ 1. Boys  ☐ 2. Girls

Please explain: ____________________________________________________________

29. In your opinion, between boys and girls who is more likely to attend school regularly?

☐ 1. Boys  ☐ 2. Girls

Please explain: ____________________________________________________________

30. Please indicate who between boys and girls is more likely to drop out of secondary school before completion?

☐ 1. Boys  ☐ 2. Girls

Please explain: ____________________________________________________________

31. In your views between boys and girls who is likely to repeat classes in secondary schools?

☐ 1. Boys  ☐ 2. Girls

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32. In your views, between boys and girls who is more likely to perform better in KCSE national examination?

☐ 1. Boys ☐ 2. Girls

Please explain:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

33. What subject do you perform best?
________________________________________________________________________

34. What subject do you perform lowest?
________________________________________________________________________

35. Who influenced your attitude towards liking certain subject?
________________________________________________________________________

36. Who has the greatest influence on boys and girls negative attitude towards certain subjects?

☐ 1. Parents/Guardians ☐ 3. Peers
☐ 2. Teachers ☐ 4. Role model
☐ 5. Others _______
37. Please tick (✔) to indicate the extent to which you agree or disagree with the following items

<table>
<thead>
<tr>
<th>Gender and Performance</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and sciences are hard</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Languages and humanities are easy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Boys are more likely to select Mathematics and sciences</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Girls are more likely to select Languages and humanities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Boys perform better in difficult subjects</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Girls perform better in soft subjects</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

38. What would you like to be after completing your education? ____________

39. Who influence your career choice? ____________

40. Please tick (✔) to indicate the extent to which the following influence boys and girls career aspiration

<table>
<thead>
<tr>
<th>Gender and Career choice</th>
<th>5 Strongly Agree</th>
<th>4 Agree</th>
<th>3 Not Sure</th>
<th>2 Disagree</th>
<th>1 Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys are very attracted to careers in the forces (Army, Military, Police)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Secretarial duties are suitable for male</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Nursing career is for girls</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Pilot is a career for men</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Politics is a career suitable for men</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Girls are capable of becoming Engineers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Leadership and decision making is a man’s job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Salon and catering jobs are suitable for women</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
41. Please explain how these career perceptions influence boys and girls academic performance:

__________________________________________________________________________

42. Please tick (✔️) to agree or disagree if the following have any influence on academic performance:

<table>
<thead>
<tr>
<th>Items</th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
<tbody>
<tr>
<td>School facilities (classroom, labs, library etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers (adequacy and qualification)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers’ support (guidance and motivation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School type and location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School management and leadership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part V: Challenges facing boys and girls in school and Support Mechanism

43. What challenges do boys face in school for being boys?

__________________________________________________________________________

__________________________________________________________________________

44. What challenges do girls face in school for being girls?

__________________________________________________________________________

__________________________________________________________________________

45. In your opinion, between boys and girls who face more challenges while in school?

☐ 1. Boys  ☐ 2. Girls

Please explain:__________________________________________________________________________

__________________________________________________________________________

46. Are there mechanisms to support boys ‘and girls ’gender needs in your school?

☐ 1. Yes  ☐ 2. No

If no, please skip question 47 and go to Q. 48
47. Please tick (✔) to indicate type of support provided to boys and girls in your schools?

<table>
<thead>
<tr>
<th>Type of Support</th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance and counseling (psychological support)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation and Mentorship (Inspiration/empowerment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial support (Bursary/scholarship)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material support (provision of sanitary pads for girls)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic guidance &amp; counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punishment as a corrective measures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b). Others support:
________________________________________________________________________
________________________________________________________________________

48. Please suggest additional support for gender needs of boys and girls in school?
________________________________________________________________________
________________________________________________________________________

49. In your views is the girl-child favoured more than the boys-child?

1. Yes                  2. No

Please explain:
________________________________________________________________________

50. Please suggest how various stakeholders can support the education of boys and girls in school:

a). Parents:
________________________________________________________________________
________________________________________________________________________

b). Teachers:
________________________________________________________________________
________________________________________________________________________

C). School management:
________________________________________________________________________
________________________________________________________________________

Thank you
Appendix 2: Students’ Focus Group Discussion Guide

My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Thank you.

1. What characteristics are generally attributed to male and female students in Meru? (probe for roles, behaviour and attitudes considered appropriate for boys and girls in Meru)

2. In your opinion, how does being male or female influence behaviour and academic performance in secondary schools in Meru? (Probe for factors for boys and girls separately)

3. In your views, what factors hinder boys’ and girls’ schooling in Meru? (Probe for socio-cultural and economic factors)

4. What challenges hinder boys and girls academic performance in secondary schools in Meru?

5. What support mechanisms are in your school for supporting the gender needs of male and female students in your school?

6. Please provide your recommendation on how various stakeholders can support the education of male and female students in Meru. (Probe for role of various players e.g. parents, teachers, school management).

Thank you
Appendix 3: Semi-Structured Interview Guide for Principals

Serial number: __________________________

My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Please do not indicate your name on this paper. A unique identification number will be allocated for each respondent to enhance confidentiality. Thank you.

**Instructions:** For single-sex school - please provide responses based on school type; for co-educational school - please also provide responses for male and female students separately

1. Respondent’s gender; ☐ 1. Male ☐ 2. Female

2. In your views, what factors hinder secondary schooling for male and/or female students in your school? *(probe for factors related to girls and boys separately)*

3. What challenges hinder male and/or female students’ academic performance in secondary schools in Meru *(probe for factors related to girls and boys separately)*

4. What gender sensitive programs are initiated by your school to support boys’ and/or girls’ gender needs? *(probe for factors related to girls and boys separately)*

5. In your opinion, how does the school culture and environment influence behaviour and academic performance for the male and/or female students in your school? *(probe for factors related to girls and boys separately)*

6. What are your views regarding the gender –responsiveness of the school curriculum?

7. Please provide your recommendation on how the school management can address the gender needs and academic achievement of male and/or female students *(probe for factors related to girls and boys separately)*

Thank you
Appendix 4: Semi-Structured Interview Guide for Teachers

Serial number: ________________

My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Please do not indicate your name on this paper. A unique identification number will be allocated for each respondent to enhance confidentiality. Thank you.

Instructions: This tool targets responses from teachers in-charge of discipline, Guidance & Counseling, academics/curriculum and Class Teachers

1. Respondent’s gender;
   - 1. Male
   - 2. Female

2. Designation:
   - 1. Deputy Principal
   - 2. Discipline
   - 3. Guidance & Counselling
   - 4. Academics
   - 5. Class Teacher
   - 6. Others__________

Instructions: Please provide your suggestions separately for male and female students

3. What characteristics are attributed to male and female students in secondary schools?
   ________________________________________________________________
   ________________________________________________________________

4. Who among boys and girls face low academic achievement in Meru County?
   - 1. Boys
   - 2. Girls
   b). please explain______________________________________________________________
   ________________________________________________________________

5. In your opinion, how does being a male or female influence discipline in secondary schools?
   ________________________________________________________________
   ________________________________________________________________

297
6. In your views, what are the socio-cultural and economic factors that hinder secondary schooling for male and female students in Meru County? (*probe for factors related to girls and boys separately*)

7. What challenges hinder male and/or female students’ academic performance in secondary schools in Meru (*probe for factors related to girls and boys separately*)

8. What programs and mechanisms are initiated by your school in order to support the male and female students’ gender needs? (*probe for factors related to girls and boys separately*)

9. Please explain how the school culture and environment affect male and female behaviour and academic performance (*probe for factors related to girls and boys separately*)

10. What is your views regarding the gender –responsiveness of the school curriculum?

11. Please provide your recommendation on how teachers can address the gender needs and academic achievement of male and female students (*probe for factors related to girls and boys separately*)

Thank you
Appendix 5: Semi-Structured Interview Guide for Parents

My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Please do not indicate your name on this paper. A unique identification number will be allocated for each respondent to enhance confidentiality. Thank you.

1. Respondent’s gender: 
   [ ] 1. Male 
   [ ] 2. Female

2. Marital status:
   [ ] 1. Married
   [ ] 2. Single
   [ ] 3. Divorced
   [ ] 4. Widow
   [ ] 5. Widower
   [ ] 6. Others ______

Instructions: Please provide your suggestions separately for male and female students

3. What characteristics do parents generally attributed to male and female children at home?

__________________________________________________________________________

4. What are the main factors that hinder schooling for male and female children in Meru? (Probe for social-cultural and economic factors for boys and girls separately)

__________________________________________________________________________

5. Who among boys and girls is more likely to drop out of school in Meru?

   [ ] 1. Boys
   [ ] 2. Girls
   b). Please explain ____________________________

__________________________________________________________________________

6. Please describe how the Meru socialization processes and schooling environment affect male and female children’s attitudes and behaviour (probe for factors related to girls and boys separately)

__________________________________________________________________________

7. Please provide your recommendation on how parents can support the gender needs and academic achievement for male and female children (probe for factors related to girls and boys separately)

__________________________________________________________________________

Thank you
Appendix 6: Semi-Structured Interview Guide for Education Officer

Serial number: ____________

My Name is Susan Lyria Karuti, a PhD student at the Catholic University of Eastern Africa. I am undertaking a research to explore the influence of gender constructions on academic achievement for boys and girls in public secondary schools. Your views will help understand the experiences, challenges and support mechanisms for boys and girls in secondary schools. This is to also assure you that the information you provide will only be used for academic purposes and will be treated with utmost confidentiality. Please do not indicate your name on this paper. A unique identification number will be allocated for each respondent to enhance confidentiality. Thank you.

1. Respondent’s gender:  
  ☐ 1. Male  
  ☐ 2. Female

**Instructions:** This tool targets responses from education officers at the District level.

2. Designation:  
   ☐ 1. DEO  
   ☐ 2. DQASO  
   ☐ 3. DXO  
   ☐ 3. Others

3. In your views, what factors hinder secondary school attendance and completion for male and female in your district? *(Probe for socio-cultural and economic factors)*

__________________________________________________________________________
__________________________________________________________________________

4. What challenges hinder male and/or female students’ academic performance in secondary schools in Meru *(probe for factors related to girls and boys separately)*

__________________________________________________________________________
__________________________________________________________________________

5. What gender sensitive programs are initiated by your schools in your district to support

6. In your opinion, how does the school culture and environment influence behaviour and academic performance for the male and female students?

__________________________________________________________________________

7. What are your views regarding the gender –responsiveness of the school curriculum?

__________________________________________________________________________

8. Please provide your recommendation on how the district education office can address the gender policy and practice gaps to effectively support the needs of male and female students in school

__________________________________________________________________________

Thank you
Appendix 7: Document Analysis Guide

1. School Type_________________________________________________

2. School Motto____________________________________________________


<table>
<thead>
<tr>
<th>Year</th>
<th>Form 1</th>
<th>Form 2</th>
<th>Form 3</th>
<th>Form 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
</tbody>
</table>

4. Please record common indiscipline cases for boys and girls in your school

<table>
<thead>
<tr>
<th>Discipline cases by gender for:</th>
<th>Action taken (punishment/corrective measures) for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

5. Please provide KCSE Mean Score by Gender for the Period 2008 – 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>KCSE Mean Score by Gender:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Score for Boys</td>
</tr>
<tr>
<td>Year</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td></td>
</tr>
</tbody>
</table>

Thank you
Appendix 8: Observation Guide

Serial number: __________________________

1. School population:
   - 1. High
   - 2. Moderate
   - 3. Low

2. How is the school atmosphere?
   - 1. Very Quiet
   - 2. Quiet
   - 3. Very Noisy
   - 4. Noisy

3. How would you describe the school?  
   - 1. Organized
   - 2. Disorganized

4. Condition of school facilities:
   - 1. Very good
   - 2. Good
   - 3. Fair
   - 4. Poor

5. Is the school fenced?  
   - 1. Yes
   - 2. No

6. Availability of playing ground? (if no skip to Q.8)  
   - 1. Yes
   - 2. No

7. Condition of sports field:
   - 1. Very good
   - 2. Good
   - 3. Fair
   - 4. Poor

8. Availability of electricity?  
   - 1. Yes
   - 2. No

9. Computer/Information and Communication Technology (ICT) facilities for students in the school?  
   - 1. Yes
   - 2. No

10. Water facilities in the school?  
    - 1. Yes
    - 2. No

11. Is there a dining hall?  
    - 1. Yes
    - 2. No

12. Is there a laboratory? (if no skip to Q.14)  
    - 1. Yes
    - 2. No

13. Is the Laboratory Equipped?  
    - 1. Yes
    - 2. No

14. Is there an operational school canteen?  
    - 1. Yes
    - 2. No

15. Availability of sanitary facilities? (if No skip to Q.17)  
    - 1. Yes
    - 2. No

16. Separate sanitary facilities (toilets/latrines) for boys and girls?  
    - 1. Yes
    - 2. No

17. Comments: __________________________________________________________
### Appendix 9: Reliability Statistics for Student’s Instrument

<table>
<thead>
<tr>
<th></th>
<th>Total N of Items</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Between Forms</td>
<td></td>
<td>.592</td>
</tr>
<tr>
<td>Equal Length</td>
<td></td>
<td>.743</td>
</tr>
<tr>
<td>Unequal Length</td>
<td></td>
<td>.743</td>
</tr>
<tr>
<td>Spearman-Brown Coefficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guttman Split-Half Coefficient</td>
<td></td>
<td>.733</td>
</tr>
</tbody>
</table>


### Appendix 10: Reliability Results of the Gender Construction Score

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Between Forms</td>
<td>0.568</td>
</tr>
<tr>
<td>Spearman-Brown Coefficient</td>
<td></td>
</tr>
<tr>
<td>Equal Length</td>
<td>0.725</td>
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<tr>
<td>Unequal Length</td>
<td>0.725</td>
</tr>
<tr>
<td>Guttman Split-Half Coefficient</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 11: Calculations for Determining the Significance of a Correlation

In order to determine if the correlation was significant or a chance effect, the researcher made use of the analysis plan (formula) shown below:

\[ t = \frac{r \sqrt{(n - 2)}}{\sqrt{1 - r^2}} \]

Where,

\[ r \] : Calculated Pearson’s correlation coefficient

\[ n - 2 \] : Degrees of freedom

\[ t = \frac{-0.103 \sqrt{(460 - 2)}}{\sqrt{1 - (-0.103^2)}} \]

\[ t = \frac{-2.2043}{\sqrt{1 - 0.010609}} \]

\[ t = \frac{-2.2043}{\sqrt{0.989391}} \]

\[ t = \frac{-2.2043}{0.992} \]

\[ t = -2.222 \]
### Appendix 12: List of Schools Visited

<table>
<thead>
<tr>
<th>District</th>
<th>School Name</th>
<th>Category</th>
<th>Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Imenti</td>
<td></td>
<td></td>
<td>Boys</td>
</tr>
<tr>
<td></td>
<td>1. Kawampungu Mixed Day</td>
<td>Mixed Day</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>2. Miruririi Boy’s</td>
<td>Boy’s Boarding</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>4. Kinoro Mixed Day</td>
<td>Mixed Day</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>5. Gikunune Girls</td>
<td>Girls Boarding</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>7. Upper Mikumbune</td>
<td>Mixed Day</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>8. Gankondi Mixed Day</td>
<td>Mixed Day</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>10. Gaatia Mixed Day</td>
<td>Mixed Day</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>11. Kathigu Mixed Day</td>
<td>Mixed Day</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>12. Koothine Mixed Day</td>
<td>Mixed Day</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>13. Kithuguri Mixed Day</td>
<td>Mixed Day</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>14. Kionyo Mixed Day</td>
<td>Mixed Day</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>15. Kiangua Mixed Day</td>
<td>Mixed Day</td>
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</tr>
<tr>
<td>Buuri</td>
<td>16. Kisima Secondary school</td>
<td>Mixed Boarding</td>
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<tr>
<td></td>
<td>17. Gundua Mixed Day</td>
<td>Mixed Day</td>
<td>147</td>
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<tr>
<td></td>
<td>18. Mburungiti Mixed Day</td>
<td>Mixed Day</td>
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<tr>
<td></td>
<td>19. Ontulili Boy’s</td>
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<tr>
<td></td>
<td>20. Naari Girl’s</td>
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<tr>
<td></td>
<td>21. Kibirichia Boy’s</td>
<td>Boy’s Boarding</td>
<td>570</td>
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<tr>
<td></td>
<td>22. Kibirichia Girl’s</td>
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<td>-</td>
</tr>
<tr>
<td></td>
<td>24. Kiirua Boy’s</td>
<td>Boy’s Boarding</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>25. Mitoone Mixed Day</td>
<td>Mixed Day</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>26. Ruiru Girl’s Sec</td>
<td>Girl’s Boarding</td>
<td>-</td>
</tr>
<tr>
<td>Imenti Central</td>
<td>School Name</td>
<td>Type</td>
<td>Boys</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------</td>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>27.</td>
<td>Kiria Mixed Day</td>
<td>Mixed Day</td>
<td>65</td>
</tr>
<tr>
<td>29.</td>
<td>Ntharene Mixed Day</td>
<td>Mixed Day</td>
<td>57</td>
</tr>
<tr>
<td>30.</td>
<td>Abothugucii Boy’s</td>
<td>Boy’s Boarding</td>
<td>402</td>
</tr>
<tr>
<td>32.</td>
<td>Kianthumbi Mixed Day</td>
<td>Mixed Day</td>
<td>77</td>
</tr>
<tr>
<td>33.</td>
<td>Kirigara Mixed Day</td>
<td>Mixed Day</td>
<td>49</td>
</tr>
<tr>
<td>34.</td>
<td>Kinjo Mixed Day</td>
<td>Mixed Day</td>
<td>57</td>
</tr>
<tr>
<td>35.</td>
<td>Holy Family Nkuene</td>
<td>Mixed Day</td>
<td>61</td>
</tr>
<tr>
<td>36.</td>
<td>Gatuatine Mixed Day</td>
<td>Mixed Day</td>
<td>69</td>
</tr>
<tr>
<td>Imenti North</td>
<td>37. Meru Muslim Mixed Day</td>
<td>Mixed Day</td>
<td>74</td>
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<tr>
<td>38.</td>
<td>Chungari Mixed Day</td>
<td>Mixed Day</td>
<td>95</td>
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<tr>
<td>40.</td>
<td>Gikumene Girl’s</td>
<td>Girl’s Boarding</td>
<td>-</td>
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<tr>
<td>41.</td>
<td>Ntakira Mixed Day</td>
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<td>51</td>
</tr>
<tr>
<td>42.</td>
<td>Nkabune Girl’s</td>
<td>Girl’s Boarding</td>
<td>-</td>
</tr>
<tr>
<td>43.</td>
<td>Mulanthankari Mixed Day</td>
<td>Mixed Day</td>
<td>76</td>
</tr>
<tr>
<td>44.</td>
<td>Kaaga Boy’s</td>
<td>Boy’s Boarding</td>
<td>716</td>
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<td>45.</td>
<td>Kirige Mixed Day</td>
<td>Mixed Day</td>
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</tr>
<tr>
<td>46.</td>
<td>Gachanka Mixed Day</td>
<td>Mixed Day</td>
<td>91</td>
</tr>
<tr>
<td>47.</td>
<td>Munithu Girl’s</td>
<td>Girl’s Boarding</td>
<td>-</td>
</tr>
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Source: Author’s Field work, 2013
Appendix 13: Letter of Authority

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Our Ref: NCST/RCD/14/012/1687

Date: 8th January, 2013

Susan Lyria Karuti
The Catholic University of
Eastern Africa
P.O.Box 62157-00200
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application dated 18th December, 2012 for authority to carry out research on “Gender construction and academic achievement in public secondary schools in Meru County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Meru County for a period ending 31st January, 2014.

You are advised to report to the District Commissioners and the District Education Officers, Meru County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR M.K. RUGUTT, PhD, HSC.
DEPUTY COUNCIL SECRETARY

Copy to:

The District Commissioners
The District Education Officers
Meru County.

“The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development.”
Appendix 14: CDE Letter of Authority

MINISTRY OF EDUCATION

Telegrams: “ELIMU” Meru
Telephone 06832372

County Education Office
P.O. Box 61
MERU

When Replying please quote:

RE: MRU/C/EDUC/11/1/12

17th January 2013

THE DISTRICT EDUCATION OFFICER

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RE: AUTHORITY TO CARRY OUT RESEARCH – SUSAN LYRIA KARUTI

The bearer of this letter has been granted authority to conduct research on “Gender constructions and academic achievement in public secondary schools in Meru County.

Kindly accord her the necessary assistance.

C. BURURIA
FOR: COUNTY DIRECTOR OF EDUCATION
MERU
### Appendix 15: Table for Determining Sample Size

**Table 1. Sample Size for ±3%, ±5%, ±7%, and ±10% Precision Levels where Confidence Level Is 95% and P=.5.**

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*a = Assumption of normal population is poor (Yamane, 1967). The entire population should be sampled.*

**Source:** Israel, 1992
Appendix 16: T-Distribution Table

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Map 1: Meru County, Kenya

Map 2: Meru County Constituencies

Source: Flickriver.com
Map 3: The 47 Counties of Kenya

Source: Flickriver.com