

**THE RELATIONSHIP BETWEEN CAREER ASPIRATIONS, ATTITUDE
TOWARDS GENDER SPECIFIC ROLES AND ACADEMIC
PERFORMANCE AMONG SECONDARY SCHOOL STUDENTS IN
BUNGOMA SOUTH SUB - COUNTY, KENYA**

**BY
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**A Thesis Submitted to the School of Education, Department of Educational
Psychology in Partial Fulfilment of the Requirements for the Award of Degree of
Masters in Educational Psychology**

Moi University

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DECLARATION

Declaration of Candidate

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DEDICATION

This work is dedicated to my parents for their continuous and tireless effort in educating and inspiring me.

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First and foremost, praise and thanks to God, the Almighty for His Mercy and Blessings through my research work. He has granted me peace, resources and health amidst trials and obstacles.

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ABSTRACT

Career aspirations, attitude towards gender specific roles and academic performance are of ultimate importance to the learning process. When students know more about available career opportunities, they will be able to focus more on their academic performance. Despite numerous changes in policy and legislation, issues of gender equity in Kenyan Education system and labour market remain a concern of the Kenyan public. It is against this background that the current study focuses on the relationship between career aspirations, attitude toward gender specific roles and academic performance among Form three students in Bungoma South sub- County. The objectives of this study were to: determine gender differences in career aspirations among secondary school students in Bungoma south sub-County; investigate the relationship between secondary school students' career aspirations and their academic performance; establish the relationship between secondary school students' career aspirations and their attitude towards gender specific roles; examine the relationship between gender role attitudes and academic performance of male and female high school students and lastly to assess secondary school students' perceived barriers to their career aspirations and academic performance by gender. The study was guided by social cognitive career theory by Lent, Brown & Hackett and the research approach was quantitative. The design was *expost facto*. The target population was 3 762; 2 216 were male and 1 546 were female form three students of the year 2014 from selected public secondary schools in Bungoma South Sub-County. The sample size was 420 participants from 27 public secondary schools. Both stratified and random sampling techniques were used to select the sample for study. Analysis of data was done using the Statistical Package for Social Sciences (IBM SPSS statistics 20.0,2014 version) to obtain descriptive and correlation statistics of the responses. A pilot study was carried out in two schools to determine the reliability of the instruments. The two sets of the scores of the responses from the questionnaire were used to calculate Pearson moment correlation coefficient (r). The reliability coefficient r was found to be $r = 0.78$. Since a correlation coefficient whose magnitude is between 0.7 and 0.9 indicate variables which are considered highly correlated, the instrument was therefore considered to be reliable. Chi square results indicated that there was a significant gender differences in students' career aspirations with $X^2 (3) = 12.808$, $P < 0.05$. The results from spearman ρ correlation coefficient indicated a weak positive relationship between career aspirations and academic performance ($\rho (418) = 0.265$, $p < .01$). Based on the findings, it was recommended that career mentorship programs should be integrated in the secondary school curriculum to enable students acquire necessary information about the nature of jobs and to develop interest in their aspired careers at an early stage. This might inform students' subject selection, enhance their academic performance and increase chances of attaining their aspired careers.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

This chapter covers among other items, the introduction, background of the problem investigated on high school students' career aspirations, academic performance and their attitude towards gender specific roles. The chapter also highlights the statement of the problem, objectives of the study, purpose, limitations and delimitations of the study. Lastly, operational definitions of key terms in the study have been highlighted.

Career aspirations are of great significance among secondary school students since they have a great influence on their study patterns and behaviour. A student with a clear career plan is a motivated student whose probability of achieving high academic outcomes is eminent. Career aspiration in this study is therefore conceptualized as an intrinsic energy that propels learners to set goals for their future and actively engage in learning activities that will direct them in achieving their goals. Mwaura (2020) sees career aspirations as having both motivational component of the present and the future ambitions hence warrant studying.

According to Khattab (2015), career aspirations are an individual's expressed desire to have an occupation or line of work that they deem to be ideal for themselves. In Khattab's view, basing on the competitiveness degree and the pace of progress in the work environment, it is fundamental that secondary school learners become as ready as conceivable to upgrade their academic abilities of coming out on top. Along these lines, the improvement of career desires is significant since it can assist learners to explain their career objectives; in this manner make learning more significant in high schools (Wang & Staver, 2001).

Recent studies showed that students who are academically motivated hold higher career aspirations, achieve higher grades, hardly engage in exam malpractices, procrastinate less and show low academic burn out (Koestner, 2015; Thorpe & Netteelbeck, 2014). These studies agree with Hafsyah's (2015) study which revealed that career aspirations were higher for upper division honors students as compared to lower division honors students. However, some studies conducted by Almon and Matsidiso, (2012), Mettoh and Kisilu, (2016), Igere, (2017), Mwaura, (2020) found no solid evidence that rising aspirations can lead to higher school accomplishment. These studies indicate that some students tend to hold high aspirations beyond their academic performance. It is therefore evident that while some studies have established a reciprocal relationship between career aspirations and academic performance; others have not been able to do so. This mixed finding necessitates further investigations.

Student's career aspirations in a school set up may be influenced by the attitudes that they hold on gender specific roles. According to Sarca (2013), a gender role is defined as individuals' perception of their identity as women or men and their exhibition of character that is compliant with their gender. In the 21st century it is expected that high school students develop egalitarian attitude towards gender specific roles. This research examines the connection there is between students' attitude towards gender specific roles, career aspirations and academic performance. Several studies have looked into attitudes towards gender specific roles and come up varied conclusions. For instance a study conducted by Nadeem & Khalid, (2018) about the relationship of gender role attitudes with career aspirations and career choices among young adults revealed that women are more likely to aspire for male-dominated careers owing to their higher social standing in today's society.

Globally there is a paradigm shift in gender roles particularly among female than male since they are more egalitarian in the face of waves of gender equity movements that have swept most of the developed nations (Nadeem & Khalid, 2018). According to Rudman and Phelan (2010), men are left behind due to the stigma attached to male who show an inclination towards female-dominated occupations than there is attached to female who show interest in male-dominated occupations. According to Yates, (2014) factors such as urbanization, modernization, technological advances, media and subsequent exposure to other cultures are responsible for this drastic shift in female gender roles. In Nadeem & Khalid (2018) view, conservative gender role attitudes for a long time have been a norm among majority of male who have been against female emancipation and in support of marginalization of women. However, liberal gender role attitudes are on the rise that support female emancipation and encourage liberalization of women in all sectors of life (Zalt, 2021).

Although the interest in studying the social and gender roles is evident in literature, there are gaps in the theoretical understanding of gender roles in association with career aspirations. It is therefore imperative to have a look at the changing social roles and status from the vantage point of career aspirations and career choices of high school students. These two aspects are credited as the driving force behind the emancipation and liberalization of women in today's society. It is against this foundation that this study investigates the connection between aspirations in career, mentality towards sexual orientation explicit jobs and performance in academics among high school learners in Bungoma South sub - County, Kenya. It is hoped that the findings of this study will add knowledge to the existing literature on career aspiration in relation to gender role attitudes and academic performance among secondary students.

1.1 Background to the Study

Career aspirations of high school students are an important determinant of educational choices which are regarded as short term and career choices which are regarded as long term (Mau & Biko, 2000; Schoon & Persons, 2002 and Creed & Patton, 2007). According to Hirschi, (2010) the substance of who the learner is spins around how the learner needs to manage their life, yet profession direction actually stays an extremely frail part at all levels of the framework of education (Rukwaro, 2011). According to Rukwaro (2011), career programmes in most secondary schools are attempted in a random way since educators distinguished for this reason have not been prepared adequately hence they lack professional competence in career guidance and counselling.

A number of factors do influence students' career aspirations. These include among others academic performance, parental influence, and social economic status and gender (Goffredson, 2005). Concerning gender, Omotere (2011), contends that conventional roles of gender have had a critical influence in deciding people's aspirations in careers. Thus, youths do wipe out professional decisions dependent on sexual orientation and esteem levels (Goffredson, 2005). According to Rukwaro (2012), many women continue to be overrepresented in careers that offer low pay, limited benefits and few opportunities for upward mobility. The reason for this disparity is still inconclusive.

Goffredson (1981) theory of career choice discusses the reason for male and female selecting distinct career paths for themselves, noting that while growing up, children learn through interaction with the societal perceptions on appropriate gendered career

paths. This inclination to sex roles in relation to appropriate careers develops between the ages of 6 and 8.

As youngsters grow older and gain exposure to the social norms as well as their own unique self, they focus their aspirations to those careers that match their gender roles.

A recent study conducted by Nadeem and Khalid 2018 about the relationship between gender role attitudes and career aspirations among young Pakistan adults revealed that there exists a strong relationship between gender attitudes and career aspirations. Individuals who hold liberal gender role attitudes were associated with a wider range of career aspirations while those with conservative gender role attitudes were associated with a narrow range in their career aspirations. Lomazzi & Sedding, (2020) argue that individuals with liberal gender role attitudes tend to aspire for higher career opportunities and set higher goals for themselves. Based on the empirical findings the attitudes of women are more modern concerning gender roles than men's are. Girls were more interested in significantly greater number of careers and show greater role flexibility in their career aspirations than their male counterparts. Boys aspired to careers that require higher qualifications and prestige level than girls.

Apart from gender, students' academic performance influences their career choices (Migunde, Agak & Odiwour, 2011). Good academic performance is therefore important for the successful career development of young people in this fast-changing and challenging twenty-first century (Redd, Cochran, Hair & Moore, 2002). As such, it is crucial for students to seriously uphold the part played by performance in academics in enhancing or restraining their future opportunities in careers (Redd et al, 2002). Despite this, research has revealed that disconnect amidst aspirations in career and achievement in academics exists. For example, studies done by Gorard, See, and

Davies, (2012); Goodman, Gregg, and Washbrook, (2011) and Rose & Baird, (2013) found out that evidence that interface raising desires with further developing school accomplishment is extremely thin or profoundly sketchy.

To Gorard, et. al, (2012), having aspirations in career that are very high without having the option to accomplish them would contrarily impact learners by causing dissatisfactions, disappointments and withdrawal socially. This results to skewed goals or goal accomplishment paradox yet to be completely exposed and investigated by research (Rose & Baird, 2013).

According to Obura and Ajowi (2012), the Kenyan framework of education is oriented on exams, as in Kenya Certificate of Secondary Education (K.C.S.E) assessment scores in a huge part decide the future profession yearning of learners. Moreover, the current educational plan doesn't give adaptable schooling pathways to recognizing and supporting the abilities and interests of students adequately early to set them up for the universe of work, progression in career and feasible turn of events (Kenya Institute of Curriculum Development (KICD), 2017). This has prompted a circumstance where there is savage rivalry in learning rather than an attention on the securing of essential information and abilities. To, KICD (2017), the educational program makes little arrangement for the acknowledgment of the student's latent capacity, gifts and abilities because of a pointless spotlight on examining. Moreover, Kisilu, Kimani and Kombo (2012) observe that lack of emphasis on acquisition of requisite knowledge and skills has made students go through their four years of high school without making a clear career choice. The learner may face the problem of making career choices because; they are ignorant about their career prospects (Skorikov, 2007).

With regard to review of literature, various investigations have been done to find out the connection between aspirations in career and academic performance (Bakar & Mohamed, 2004; Creed, Conlon & Gembeck, 2007; Kangoro, 2000; Linderman, 2010; Loko, 2005; Mutweleli, 2009; Patton & Creed 2007; Rojewski, 2005; and Rukwaro, 2012 Wanyonyi, 2003;).

Although, doubts do exist about the connection between career aspirations and academic performance, the proof for this relationship is yet begging to be proven wrong or uncertain. The current examination in this manner stretches out the observational proof identified with aspirations in career by testing the relationship between career aspirations, attitude in relation to roles that are gender specific and academic performance among Form Three secondary school learners in the Sub-County of Bungoma South.

1.2 Statement of the Problem

In Kenya, the Ministry of Education is dedicated to helping students realize their prospective careers through the secondary school curriculum. However, upon completion of their secondary school final exams, many students find themselves taking up careers different from what they aspired to pursue when in high school (Edwards & Quinter, 2011). According Mwaura (2020), academic performance is one of the major goals of education that is strongly associated with students' positive outcomes in fulfilling a productive future life. However, in the recent past, there has been a decline in the performance of KCSE examinations. For example, KCSE analysis done by the Bungoma South sub - County Education office (2015) revealed a drop in grade C+ in in the Sub - County between the year 2013 and 2015. The analysis revealed that in 2015, out of 3856 candidates, those who attained university

entry grade (C+ and above), were only 742(19.24%), and a majority of the candidates (1251- 32.44%) attained grade D+ and below. This low academic performance in Bungoma County has far reaching impact on students especially in the missing of more rewarding career opportunities. This partly explains the inadequate manpower in the county more so in competitive careers such as medicine. Additionally the enrolment of girls in STEM (Science, Technology, Engineering and Mathematics) related subjects have been very low.

For instance, out of 11374 students who sat for KCSE in the year 2014 from the larger Bungoma County, the number of female students who sat for the all the three sciences(Physics, Biology and Chemistry) in Bungoma County was 1167(10.3%) while that of male was 3053(26.84%). Additionally, girls perform poorly in Physics and Mathematics as compared to boys. This statistics reveal an existing gender gap in STEM subjects in Bungoma County

According to Kharouf & Daouds' (2019), study on Gender Role Attitude among Higher Education Students in Jordan, there is existing gender disparity in the traditional STEM fields where by sciences are still seen as masculine and arts and languages as feminine. In Kharouf & Daouds' (2019) view, this sex-stereotyped perception of subjects is associated with sex stereotyped attitudes towards occupation and gender roles. Students whose attitudes towards gender roles is stereotyped see themselves conforming to traditional notion of masculinity and femininity and are more likely to choose 'sex-appropriate subjects' (Kharouf & Daoud ,2019).

1.3 Purpose of the Study

The purpose of this quantitative study was to evaluate the relationship between career aspirations, attitude towards gender specific roles and academic performance among Form Three students in Bungoma South Sub County, Kenya.

1.4 Objectives of the study

The specific objectives of this study were to:

1. Determine gender differences in career aspirations among secondary school students in Bungoma County.
2. Investigate the relationship between secondary school students' career aspirations and their academic performance.
3. Establish the relationship between secondary school students' career aspirations and their attitude towards gender specific roles.
4. Examine the relationship between gender role attitudes and academic performance of male and female high school students.
5. Assess secondary school students' perceived barrier to their career aspirations and academic performance by gender.

1.5 Hypotheses

Ho₁. There is no significant gender difference among secondary school students' career aspirations.

Ho₂. There is no significant relationship between students' career aspirations and their academic performance.

Ho₃. There is no significant relationship between students' career aspirations and their attitude towards gender specific roles.

H₀₄. There is no significant relationship between students' attitude towards gender specific roles and their academic performance.

H₀₅. There is no significant gender difference in perceived barriers to students' career aspirations and their attitudes towards gender specific roles.

1.6 Assumptions of the Study

This study had several assumptions. First, it was assumed that all the Form three students selected their subjects basing on their career aspirations. Second, it was assumed that all learners studying in the Sub-County encounter the same curricula since academic performance was measured using a county joint end year exam. Third and last it was assumed that students with high academic performance were highly inspired and would opt for more demanding careers compared to those with low performance academically.

1.7 Significance of the Study

This investigation is significant in several ways. First, findings will benefit the society, considering how students' realistic career aspirations plays a vital role in improving their academic performance. The high number of secondary school leavers who are locked out of their aspired careers justifies the need for a more effective life changing approach in career guidance in our secondary schools. School administrators will be guided on what should be emphasized by career teachers in order assist the learner in achieving their aspired careers. In addition, the schools that will apply the recommended approach derived from the results of the study will realize an improvement in students' academic performance.

Moreover, the youths are leaders of change in any society, so it is necessary to study their attitude towards gender roles within the various schools since they affect their

social upbringing. Knowing the young peoples' attitude towards gender specific roles whether traditional, non-traditional or gender balanced will give an insight on the role of secondary schools in bridging gender gaps especially in science subjects and in the long run achieve gender equality. For the researchers, additional knowledge in education process that many researchers have not adequately addressed will be contributed upon.

1.8 Justification of the Study

The rationale of carrying out the current study was born from the researchers' personal experience as a careers teacher. While counselling Form Four students on career choices, many appeared to be in dilemma as to which career to pursue in future. This was attributed to career exploration and career information gaps among secondary students that had not been adequately researched. Moreover, the inconclusive and controversial findings in some of the related studies prompted this research.

For instance, many Scholars including Loko (2005), Linderman, (2010), Mutweleli, (2009) Patton and Creed (2007), carried out studies related to career aspirations and academic achievement. Some of these studies like that of Linderman (2010) about career aspirations and academic performance of 8th grade students agree that students' academic performance do influence their career aspirations. Other studies including Creed, Conlnon and Zimmer-Gembeck (2007) contradict this finding when they observe that students' academic achievement was not identified with their profession goals. Despite what is generally expected, greater part of the learners studied looked forward to high status professions paying little heed to test accomplishment (Patton & Creed 2007).

Furthermore, the low enrolment of girls in STEM subject during their subject selection at Form Three level calls for an inquiry. According to Ramani (2014), in most African Countries girls are still restricted to studying what is perceived to be ‘soft option subjects’ which is short of scientific and technical skills. The aftermath of this is that professions such as engineering and medicine are stubbornly male dominated (Kharouf & Daoud, 2019). This represents crucial insight into examining the impacts of attitude towards gender specific roles on the existing gender gaps in science subjects among secondary school students. While many studies have been conducted on students’ career aspirations, this topic is far from being exhausted as a research area. From the academic perspective, this helps to fill the knowledge gap in comprehending how academic performance and gender role attitudes are connected to aspirations in careers. This study is also relevant to educational managers and planners, including high school teachers who should have insight into students’ career aspiration and academic performance from both the reviewed studies and the empirical findings of this research.

1.9 Limitations of the Study

The researcher appreciates several limitations in this study:

Filling in the questionnaire as a means of data collection was likely to make students develop anxiety that is mostly associated with examination. This was likely to compromise the sincerity and accuracy of responses. However, respondents were advised to relax and to be free to give the responses from their own personal experiences. Moreover, the secrecy of their responses was guaranteed since they were not required to reveal their identity. The respondents were assured that their responses would be kept secure and that only the aggregate findings to be reported.

The researcher expected some resistance from career teachers due to fear of revealing their identity and level of competence with regards to implementation of career guidance programmes in schools. To overcome this, the researcher established rapport with career teachers and assured them on the confidentiality of the data provided.

A few selected schools and a small number of students and teachers in those schools were used to make generalization to Bungoma county schools with similar characteristics. This result may not be a true reflection in secondary school in whole country or globally. However, the findings reflect the need to expand the area of study in order to obtain conclusive results for generalisation.

1.10 Delimitation of the Study

The study confines itself to Form Three students in public secondary schools in Bungoma South Sub-County. The study focuses on the Form Three students since in Kenya, at or just before the entry to this class the students are supposed to select their subjects. At this level, the students select seven to eight subjects out of eleven to twelve studied at Form One and Two.

It is expected that at this stage, subject selection is primarily based on students' career aspirations. Subjects such as Mathematics, English and Kiswahili are compulsory. The students either select all the three sciences (Biology, Chemistry and Physics) or a minimum of two of the sciences. The other two to three subjects are selected from the humanities (Geography, History and Religious studies) and from a group of applied subjects (Foreign languages, Home science, Agriculture, Music, among others).

The research design was mainly *expos facto* since the study aimed at establishing the relationships between variables. Moreover, there was no manipulation of variables as

the phenomena under investigation (students' career aspirations and their attitudes towards gender specific roles) already existed. According to Creswell (2009), ex post facto design looks at prior variables present in the participants. The methodology used was quantitative where both descriptive and inferential statistics were used to analyse the relationship between variables. Quantitative research is best suited for analysing relationships between variables so as to come up with objective data. According to Bhandari (2021) this method makes it possible to process data quickly, even with large sample size using statistical analysis software. The results of this study were generalised to all the students and teachers in Bungoma County schools with similar characteristics.

1.11 Scope of the study

This study mainly looked at the relationship between career aspirations, attitude towards gender specific roles and academic performance among Form three secondary school students from public schools in Bungoma South sub-county in Kenya. Findings of the study were generalised to all Form three students in schools in Bungoma County with characteristics similar to those of schools researched.

1.12 Theoretical Framework

This theory was developed by Robert W. Lent, Steven D. Brown, and Gail Hackett in 1994 and it is anchored on Albert Bandura's general social cognitive theory. Social cognitive career theory (SCCT) explains three interrelated aspects of career development: (A) How basic academic and career *interests* develop, (B) How educational and career *choices* are made, and (C) How academic and career *success* is obtained. The three aspects of career development are built on three main tenets: Self-efficacy beliefs, Outcome expectations, and Goals attainment.

Self-efficacy refers to an individual's personal beliefs about his or her capabilities to perform particular behaviors or courses of action (Lent & Hackett, 1994). Related to students' career aspirations, some learners may feel very confident in being able to accomplish academic tasks for successful entry into, and performance in scientific fields, but feel much less confident about their abilities in social or enterprising fields, such as sales. SCCT therefore assumes that individuals are most likely to be interested in, choose to pursue, and perform better at activities at which they have strong self-efficacy beliefs, as long as they also have necessary skills and environmental supports to pursue these activities

According to Lent & Hackett, (1994) four main factors do impart on students' Self-efficacy beliefs. This include; Personal performance accomplishments, Vicarious experiences (e.g., observing similar others), Social persuasion, and Physiological and emotional states. These four aspects directly influences students' academic performance in the sense that personal accomplishments (successes and failures with specific tasks) are assumed to offer a particularly compelling source of efficacy information. However, the nature of the social models (vicarious experiences) and reinforcing messages (social persuasion) to which one is exposed, and the types of physiological states one experiences while engaged in particular tasks (for example, low levels of anxiety), can all affect one's self-efficacy regarding different performance domains.

Outcome expectations refer to beliefs about the consequences or outcomes of performing particular behaviors that is 'what will happen if I do this' (Lent & Hackett, 1994?). The choices that people make about the activities in which they will engage, and their effort and persistence at these activities, entail consideration of

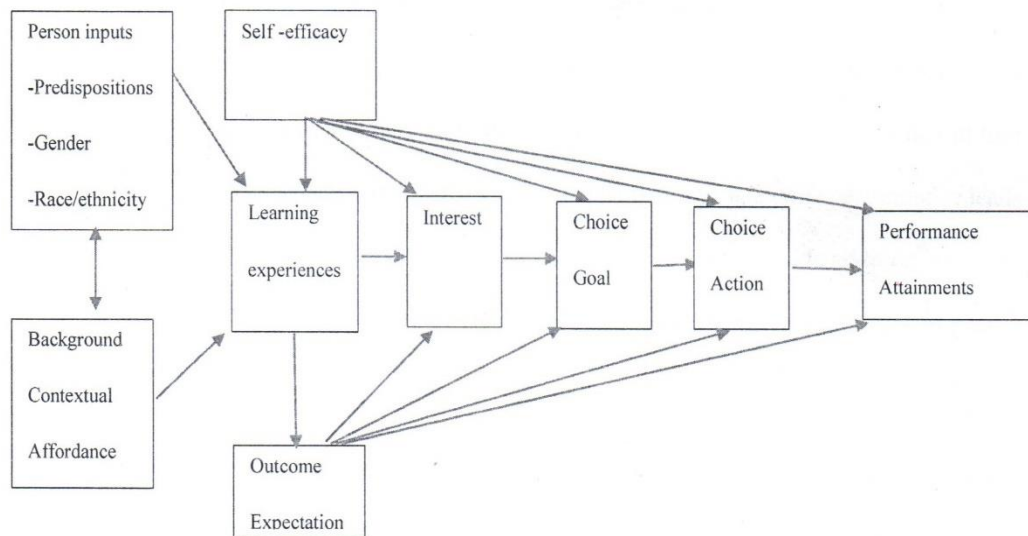
outcome as well as self-efficacy beliefs. For example, students are more likely to choose to engage in learning activities to the extent they envision their involvement as leading to valuable or positive academic outcomes.

Personal goals may be defined as one's intentions to engage in a particular activity (for example, to pursue a given academic major) or to attain a certain level of performance (for example, to receive an A in a particular course or subject). By setting goals, students organize and guide their own behavior and sustain it in the absence of more immediate positive feedback and despite inevitable setbacks (Lent & Hackett, 1994). Social cognitive theory posits that goals are importantly tied to both self-efficacy and outcome expectations. Individuals tend to set goals that are consistent with their views of their personal capabilities and of the outcomes they expect to attain from pursuing a particular course of action. Success or failure in reaching personal goals, in turn, becomes important information that helps to alter or confirm self-efficacy beliefs and outcome expectations. According to Bandura, an optimum level of self-efficacy beliefs that modestly exceed current capabilities is likely to lead people to set challenging but attainable performance goals. In this case such individuals will engage in activities that stretch their skills and further strengthen their self-efficacy and positive outcome expectations. Students with such optimum levels of self-efficacy beliefs set realistic goals that easily mesh with their career aspirations.

On the other hand people whose self-efficacy drastically overshoots their current academic skills are likely to set unrealistically high performance goals and to take on job tasks that are beyond their current grasp, which may occasion failure and discouragement.

Students are most likely to develop interest in activities at which they both feel efficacious and from which they expect positive academic outcomes. As the students develop interest in certain learning activities, they also develop goals for sustaining or increasing their involvement in it. Further activity involvement leads to subsequent mastery or failure experiences which, in turn, help to revise self-efficacy, outcome expectations, and, ultimately, interests within an ongoing feedback loop.

In summary learners are likely to form enduring interest in their learning activities when they view themselves as competent at performing well academically and when they expect to produce valued outcomes. Conversely, interests are unlikely to develop in students' learning activities when they doubt their competence and expect negative outcomes. Further, SCCT posits certain career aspirations may blossom in areas for which students have talent, their environments exposes them to the types of direct, vicarious, and persuasive experiences that can give rise to robust efficacy beliefs and positive outcome expectations. On the other hand interests are impeded from developing when individuals do not have the opportunity to form strong self-efficacy and positive outcomes, regardless of their level of objective talents.



Adapted from Lent, Brown and Hackett (2000).

Figure 1.1: Model of social cognitive influence on career choice behaviour

1.13 Conceptual frame work

Using the background information and backed by the evidence in the literature review, a conceptual frame work has been developed to illustrate the relationship between career aspirations, attitude towards gender specific roles and academic performance. Figure 1.2 represents a visual representation of how this three variables correlate.

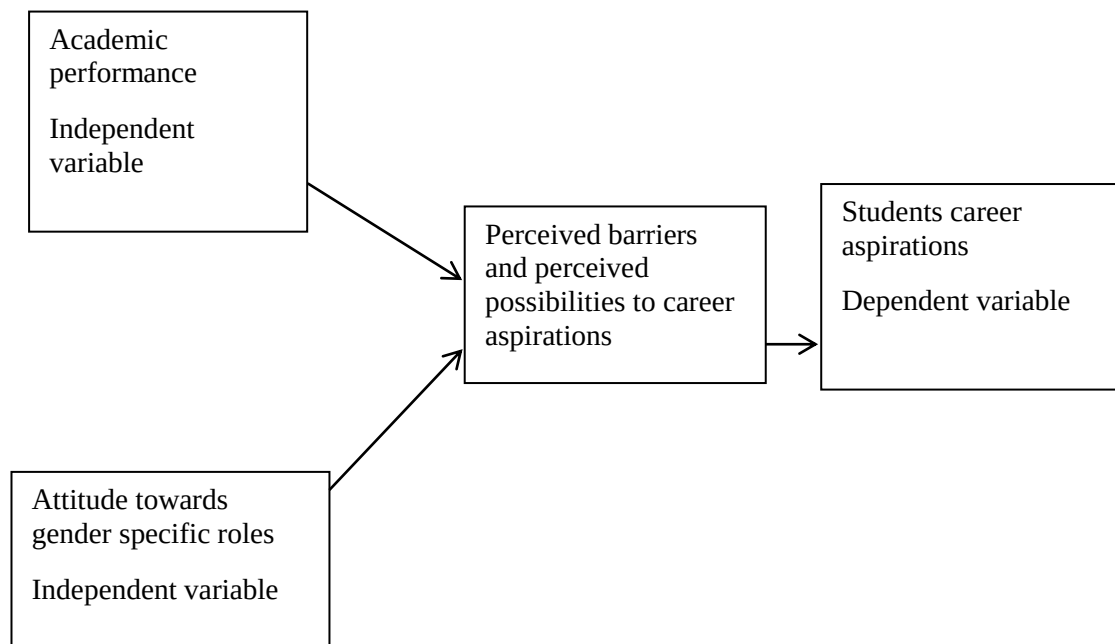


Figure 1.2: The career aspirations and academic performance (caap) model

In the researchers' view, career aspiration is the dependent variable while both attitude towards gender specific roles and academic performance are independent variables. This investigation conceptualized that students' aspirations in careers are influenced by academic performance and their attitude towards gender specific roles.

Assuming other factors remain constant; a student with a high academic performance should aspire to pursue high status careers or rather prestigious careers. Additionally, young people's attitude towards gender specific roles whether traditional, non-traditional or gender balanced also determines their career aspirations. The mediating variable to students career aspirations are seen as either their perceived abilities or perceived barriers. This two variables somewhat clarify the gap between learners' capacities and their accomplishments, or rather clarify the restraints of learner's profession yearnings. Barriers are huge elements in the process of career development, and the beginning of such hindrances much of the time starts at an early

This conceptual framework is grounded on research findings of Bajema, Miller and Williams (2002) who established that students' aspirations have profound impact on their learning because the desire to accomplish certain career and educational goals stimulates their motivation to work for appropriate achievement in their studies. Academic performance as an independent variable gives an elaborate picture of how school performance can be directed towards enlightening students on career choice and proper attitude formation.

1.14 Operational definition of terms

Academic Performance -This is defined as the mean mark scored by a student in Examinations done at the end of term. In this study it was used to connote the mean Mark score that determines eligibility of a student to pursue a certain career.

Attitude towards gender specific roles- the way an individual perceives societal roles as being feminine, masculine or both. In this study it was used to imply perceptions held by students about certain careers being suitable for a specific gender.

Career aspiration- It refers to a student's preference for particular occupations as they go through the high school studies.

Learning experiences – The meaning derived by students from class room lessons that can enable them perceive linkages between activities in school and real life.

Perceived barriers to career aspirations- Condition or events which an individual views as a hindrance to his or her future career prospects.

Positive attitude towards gender specific roles- the way an individual perceives occupations without the influence of society's gender roles.

Positive reading habits- refers to reading habits that has a practical approach to class work and they are characterised by proper planning, having achievable targets.

Prestigious careers- A category of careers that are generally considered by the society as most competitive and offers higher returns.

Realistic occupation- Occupation one wishes to have if there were no, give perceived or real limitations.

CHAPTER TWO

REVIEW OF RELATED LITRATURE

2.0 Introduction

This chapter presents a review of literature relevant to this study. The review creates an understanding of the relationship between career aspirations, attitude toward gender specific roles and academic performance. First, the review looks at career aspirations and gender, academic performance and attitude towards gender specific roles. In addition, the review looks at the effect of learning experiences on students' career aspirations. Lastly, it discusses students' perceived hindrances to their aspirations career wise and hindrances to their academic performance.

2.1 Gender and Career Aspiration

Aspirations can be defined as a learner's capacity to recognize and define objectives for the future, while being roused in the present to run after those objectives (Savickas, 2011). According to Sorgo & Virtic (2022), students' career aspirations is a process of gathering, analyzing and evaluating information about a variety of possible career paths to find a meaningful vocation or occupation. In the view of Savickas, a person who has high aspirations is one who can distinguish and define objectives for the future while being propelled in the present to advance in the direction of those objectives. If better career aspirations are streamlined at school, level, it will better academic performance that will in turn increase the likelihood of achieving the same (Mwaura, 2020). Recent studies show that students who are academically motivated set high goals and achieve higher grades (Sorgo & Virtic (2022).

Investigations have recommended that both male and female lean towards occupations that are traditional or non-traditional (Patton, et al. 2007). As per Shelley (2001), social convictions on gender may limit people's view of their capability at different career-relevant undertakings. Chimbi (2016), declares that social conviction influences people to the degree that they follow up on gender-differentiated discernments when settling on profession choices. Social convictions about sexual orientation accordingly divert people in considerably unique profession bearings. Notwithstanding, some research has demonstrated that female young people do aspire to non – traditional, male dominated occupations (Patton & Creed, 2007). For example, a recent study conducted by Nadeem and Khalid (2018) about the relationship of gender role attitudes with career aspirations among young adults in Pakistan revealed that women are more likely to choose male-oriented careers such as Engineering. Contrary, the study found out male are less likely to choose female-dominated jobs because of the stigma attached to males being interested in such occupations. Female who aspires to non-traditional career choices had higher career aspirations than those who aspire to traditional career choices. According to Thabane, Jinhui and Goldsmith (2010), talented or smart females both at work and school environments underestimate their abilities to adjust to the female generalization. As such women may act in a predetermined way that may seem to be assessed by men in a better way. Notwithstanding the way that ladies have made broad advances to customarily male dominated careers like Law, Engineering, and Medicine. Monfries and Scevak (2001) declare that there is a controversy with respect to the real infiltration of ladies into customary male overwhelmed occupations. According to Monfries and Scevak (2001), it appears to be that most women prefer positions in

service and domestic industry, and this is generally connected with their sexual orientation.

Moreover, females generally assemble in specific occupations, like clerks, where there is less investment in education with additional time away from the work (Blau et al., 2006). This example is for all intents and purposes duplicated in the educational system, where despite explicit intercessions to urge females to partake in conventional "male" subjects like science, physical science, and mathematics, apparently their determination of subjects and arranged profession ways are still stereotypically female. What's going on at school then, at that point is simply reflecting what happens in the society (Monfries and Scevak, 2001).

Skorikov (2007) argues that people are outfitted towards various careers since they esteem various parts of work. For quite a long-time gender role traditionally play a significant impact in the profession goals (Migunde et al., 2012). Almisky et al. (2009) contend that specific career types are liked by men, for example, the realistic professions and others, for example, the social professions are liked by females. This distinction in career decisions could be because of the socialization in societies where certain professions are not appropriate for specific sexual orientation (Migunde et al., 2011).

The topic of how gender contrasts emerge is a focal subject in psychology (Blakemore et al., 2009). Specialists concur that both nature and nurture act together in influencing an individual's attitudes towards gender specific roles (Hilliard & Liben, 2010). According to Martin and Fabes, (2001), the experiences accorded to girls and boys inside schools are known to influence gender separation pathways. This is done when schools give differential expertise, practices, and support, and by that

drives kids to effectively mingle themselves along sexual orientation separated pathways. Schools in this manner are significant in settings of gender socialization, to some degree since youngsters invest a lot of energy engaging with peers in such settings (Leaper & Bigler, 2011).

According to Bigler and Liben (2006), schools can amplify or reduce sexual orientation contrasts by giving conditions that advance within gender likeness and between-gender contrasts. Instructors and colleagues shape youngsters' gender perspectives (Hilliard & Liben, 2010).

Sadly, instructors get moderately little preparation in perceiving and battling gender stereotypes, generalizations, and biases (Heilman, 2012). As an outcome, educators frequently model, expect, build up, and establish the framework for gender differentiation among their students (Bigler & Liben, 2006). Consequently, most schools make and keep up with as opposed to check conventional sexual orientation generalizations, predispositions, and contrasts (Hilliard & Liben, 2010). Schools consequently give a setting as opposed to forestall the socialization of little youngsters' mentalities towards open attitudes in gender roles Page & Jha, (2009).

From the previous research, it is very well may be set up that gender stereotypes impact career decision. Along these lines, this study centers on the connection between gender roles and aspirations in career and brings to the front the requirement for instructors to be sufficiently prepared on guidance in careers. This will assist with eliminating profession predisposition dependent on gender among learners.

2.2 Career aspirations and academic performance

Career aspirations are of great significance since they permit teens to assess how much different decisions help or prevent their odds of achieving wanted objectives (Migunde et al., 2011). Reynolds and Pemberton (2001) define career aspirations as abstract statement or values and beliefs regarding an individual's future. According to Rojewski (2005), occupational aspirations are decisions that give significant inspirational energy to career related conduct and future instructive and career achievement.

On the other hand, academic performance can be characterized in an assortment of ways. Some studies include grade point average; others measure math, reading and science proficiency; and still others use standardized test scores like national examinations (Alm & Islam, 2022). In this study, academic performance was used to connote the mean mark score that determines eligibility of a student to pursue a certain career.

Research on students' career aspirations showed that career aspirations and academic achievement are highly positively correlated. Career aspirations have been correlated to academic performance since no less than 1923 in Feingold's research on the relationship between career aspirations and academic performance (Linderman, 2010). In this research, standardized tests were administered to 1200 secondary school freshmen (Linderman, 2010). The intelligence of 1200 secondary school freshmen was tested and contrasted with their career aspirations. It was accounted for that 46% of the learners aspired to professions that were consistent with their grade, while 47% settled on decisions that were considered past their mental ability. As per Linderman (2010), just 7% of the learners appeared to underestimate their intelligence by picking

on careers that was thought about fundamentally underneath their tested potential. From this information, one could infer that since 50% of the learners misjudged their own capacity (as indicated by their test scores) while picking a profession, this investigation did not track down a critical connection between aspirations in career and academic performance.

Likewise, Linderman (2010) posited that the academic capacity of British adolescents (as dictated by accomplishment on an IQ test) was on a small scale identified with their career goals including the scope of profession decisions that they considered.

Additionally, Mau (2003) asserted that academic achievement that is high was a typical factor among eighth grade engineering and science learners in their career goals. Then again, an investigation done in Australia by Creed et al. (2007) discovered that the seventh-grade learners' academic abilities as pegged on accomplishment on state standardized testing, was not identified with the career aspirations. The greater part of the learners investigated sought to high status careers paying little mind to test accomplishment (Creed et al., 2007).

Bakar and Mohamed (2004) found a similar situation in Malaysia. They completed an examination in Malaysia on the relationship between academic performance and career aspiration among learners in technical secondary schools. In this study, Bakar and Mohamed found that even though students enrolled in technical schools, they had different career aspirations, not necessarily linked to technical careers. In their study, Bakar and Mohamed (2004) suggested that a student's career aspirations ought to be aligned early with what they will eventually settle on before enrolment in schools that are technical. In Kenya, a study was conducted by Mwaura (2020), on the relationship between career aspirations and academic performance of students in public secondary

schools in Nairobi County. In this study it was established that there is a positive relationship between students' career aspirations and their academic performance. This study recommended that all stakeholders in education should work together in enhancing schools and homes environment for fostering and development of career aspirations.

Archer et al., (2007) noted eight typologies of students in relation to students' career aspirations and their academic achievement. One of the typologies as indicated by Archer et al. (2007) is the confident. These are people who represent a total consistency in career aspirations and their academic performance. In other words, their career aspirations match with their academic performance. The next typology is the students who are deceived. This comprises of learners who have high career aspirations and truly accept they will accomplish their goals, yet as a rule end up with low academic performance. Thirdly, contestants are a classification of learners with high career aspirations but with low expectations however wind up acquiring high academic performance. These learners are probably going to be brought up in families that esteem education however are confronted with harsh financial conditions either due to material assets or in encountering climate that is competitive. Fourthly is the disengaged typology which incorporates learners with low goals, low assumptions, and low academic accomplishment. These learners will in general be withdrawn from education. This class of learners is engaged with different exercises other than educational (Acher et al., 2007).

Fifthly is the expectant typology which includes learners who have both high career desires and expectations but with low academic performance. These learners may have been getting wrong signals on their real capacity by going to bad quality schools

where academic capacity is below the average. Next is the fortuitous classification of learners who have prevailed with regards to getting high academic performance notwithstanding their low expectations and low career aspirations. This gathering of learners firmly challenges the connection between expectations, career aspirations and academic performance. These learners may have been focused on by programs that are special in nature or institutions intended for underachievers from families that are unprivileged (Archer et al., 2007). The seventh typology is the conformist and alludes to learners with high goals, low expectations, and low accomplishment. These learners' financial position may lead them to bring down their expectations accordingly and ineffectively perform at school. The last typology is the insecure one which comprises of learners with aspirations far taken out from their expectations or accomplishments. Learners in this classification may be uncertain yet about their educational arrangements or do not have any desire to concede to such plans (Archer et al., 2007).

The presence of gaps in academic performance among some students proposes that rising aspirations might not be adequate to foster high academic results. Aspirations are not static yet adjust and change in the light of new encounters, decisions, and data (Strand, 2007). As per Gutman and Akerman (2008), students career aspirations change all through adolescence and beyond and they are formed by attributes of youngsters and their families, companions, neighborhood and school and the more extensive powers of their peers (Gutman & Akerman, 2008). According to (Gutman & Akerman, 2008) having a high career aspiration is a significant way in accomplishing great education results. These intricacies show that an all-encompassing way to deal with supporting students' career aspirations that assists in matching with their academic achievement (Gutman & Akerman, 2008). Edwards and

Quinter (2011) additionally underscored the requirement for educators to urge learners to have sensible career goals and to assist them with making practical career choices.

In Kenya, most learners undergo four years in secondary school without an obvious choice on what they need to be on finishing school (Rukwaro, 2007; Loko, 2005). Consistently, Form Three students attempt to select their subjects presumably based on their career aspirations. Nonetheless, most learners upon completion of their secondary school take up on careers that differ from the ones they picked while in high school (Edwards & Quinter, 2011). According to Nyugen & Blomerg (2014) study on students' career aspirations among Australian youths, it was established that when better career aspirations are formed at school level, there are better possibilities of succeeding in academic performance. As per Matanda, (2014), most Form Fours have consistently been restless with regards to their course decisions since they lack necessary academic qualifications. To help improve on students' academic performance an attempt should be made to align it with their career aspirations. However, several studies found no solid relationship between students' career aspirations and academic performance (Patton and Creed (2007); St Claire and Benjamin 2011) this is because some students hold higher aspirations that are beyond their academic achievement. A study conducted by Igere (2017) on Career choice and its influence academic performance in university of Benin in Nigeria, revealed that majority of students' academic performance was average because they did not secure a chance to study their aspired career.

From these studies, it is clear there is no huge connection between achievements academically and aspirations in career. Rather, several factors including individuals'

personalities, availability of resources and the environment interplay to determine someone's career choice. This study sought to expound on the need to accord students career advice and exposure early enough in their studies. This will allow for informed decision making with regards to career choice.

2.3 Attitude towards Gender Specific Roles

As per Hoang and Yeoh (2011), attitude towards sexual orientation jobs is multidimensional, meaning in any social setting the roles can be in either private or public dimension. The former alludes to ladies' inclusion in roles that are domestics, for example, housework (purchasing food or cooking) and really focusing on children and older people. Male private dimension is more of the provider (Hoang & Yeoh, 2011). Conversely, with ladies, the provider job is the main one for building a man's own personality (Forett et al., 2010). Then again, the public domain as per Shutz, et al. (2010) identifies with women commitment in non- For as far back as a decade in the 21st century, a considerable lot of the boundaries to career decision among ladies have been diminished (US department of work, 2010). Specifically, there is more prominent acknowledgment of ladies seeking after male-overwhelmed professions and more noteworthy decision in childcare alternatives (Mendez & Crawford, 2002). Despite these additions, proof shows that men who are young taking up professions in mathematics and science proceed to significantly outnumber young ladies. Remarkably, essentially all lucrative renown professions keep on being male dominated. Many have theorized that the underrepresentation of ladies in lucrative status careers is identified with the continued sex generalizing of careers (Mendez & Crawford, 2002).

In current and post-modern day cultures, ladies and men will in general expect comparable jobs in regard to employment that is paid and housework division (Sjoberg, 2010). Thusly, attitudes that are unfavorable towards customary roles of gender allocate the homemaker job to ladies and the provider job to men, while attitudes that are positive towards non-conventional roles of gender allot comparative errands to the two sexes in what concerns sharing of housework and work participation in the market (Shutz et al., 2010). Probably the greatest determinant of progress related with customary gender roles is the expanding investment of ladies in the labor market. Although career yearnings in women have expanded, they have not yet thought twice about their arrangements of becoming moms. As indicated by Sjoberg (2010), ladies are regularly stood up to with the issue of picking either seeking after a career that is professional or turning into a mother.

As per Correll (2001), social convictions about gender are contended to predisposition people's impression of their ability at different profession related undertakings. Therefore, people follow up on gender differentiated discernments when settling on choices of career. In Correll's view, social convictions about sexual orientation divert people in considerably unique career bearings.

Bolzendahl and Myers (2004) attest that gender generalizations influence men and females however seem, by all accounts, to be a bigger obstruction for females than for men. Accordingly, a disparity exists between the quantity of females in professions of high eminence, pay and authority and the quantity of men standing firm on comparative situations (Sjoberg, 2010). According to Bolzendahl and Myers (2004), people share libertarian perspectives when they can profit from gender equality and those living in couples, where the female accomplice is dynamic on the labor market,

should communicate more populist gender attitudes because of the extra monetary advantages (Breen & Cook, 2005).

According Obura and Ajowi (2012), research in developed world uncover that under-portrayal of females in specific subjects and training programs. For instance, studies have uncovered that fewer than 20% of females in Canada and United States are scientists or engineers (Migunde , Quinter, Othuon, Lucas & Catherine, 2015)). The data additionally uncovered that, ladies in the U.S established distinctly around 20% of engineering majors and were holding just 9% of engineering positions. Indeed, even in medicine related vocations where ladies contained 77.1% of those utilized in these fields, a large portion of the ladies were nurses; 97% of all nurses were females as stood out from 35% physicians who were female and 20% female dental specialists (Ajowi & Obura (2012).

Various investigations did in African nations have given information that delineates the gross under portrayal of females in science subjects and professions (Rukwaro, 2012). As indicated by Migude et al.,(2015), a gathering coordinated by the Federation of African Women Educationists (FAWE), recognized that in numerous African states, young ladies are limited to considering what is seen to be "soft alternative" subjects. This has restricted their admittance to logical and specialized disciplines in organizations of higher learning.

An investigation that spotlights on gender, learners' goals and academic achievement was done in Zimbabwe by Mapfumo et al., (2002) among 60 boys and 60 young ladies. The investigation was about profession insight and dreams of young men and young ladies in secondary schools. The investigation uncovered a solid connection between the attitude of male and female with regards to gender explicit jobs. The

most habitually perceived occupations for male as detailed in the examination were engineer, tradesmen and security specialist while females were caterers and secretaries. It tends to be reasoned that attitude towards gender roles has a significant impact at lower levels of schooling when contrasted with more elevated levels where lady academicians are moved into what is seen as customary male career fields (Ramani, 2004).

Mendez and Crawford (2016) did an investigation on gender-role stereotyping and profession aspirations among gifted early juvenile young men and young ladies. Their examination uncovered that gifted young men aspire to professions that are higher in education requirement and prestige than their female partners. According to Sjoberg, (2010), young men limit their desires to those professions that are male ruled and high in esteem while young ladies communicated interest in a more extensive scope of vocations that incorporate both male and female ruled choices. Young ladies in this way showed more noteworthy gender-role adaptability in their vocations than their male partners (Mendez & Crawford, 2016). Savickas, (2012) asserts that females who see themselves as having more significant levels manly character attributes and are higher in accomplishment inspiration are probable than the individuals who consider themselves to be low on these qualities to keep male-ruled occupation inside their pool of future vocation alternatives. According to Tinklin, Croxford, Ducklin & Frame (2005) young men who consider themselves to be having expressive qualities (for example graciousness, understanding) are more uncertain than young men with less articulation attributes to have precluded occupation essentially on the grounds that they are non-customary for their gender. In Mendez and Crawford (2002), view acknowledgment in research about the issues related with the restricted advancement of expressive characteristics among boys is simply starting to arise. Research done

recently endearing into the distinctions in aspiration career wise among young ladies and young men is somewhat restricted. Those that exist propose a solid adherence to gender role generalizations in career desires. Examining and comprehending attitudes towards gender roles is significant since it has interconnection with a few other social issues such as political support and division of work (Inglehart et al., 2002).

Concerning secondary school learners' profession, Correl (2001) notes that attitudes towards gender specific roles contrasts in the choice of exercises that oblige career decisions regularly happens. He also opines that sexual orientation contrasts in the determination of exercises applicable to professions in fields, for example, engineering arises as right on time as in secondary school. In Kenya, although sexual orientation inconsistencies in learners' enrolment exist at all degrees of advanced education, they are especially wide at more significant level particularly in sciences, with exceptional reference to mathematics and specialized disciplines. It was additionally noticed that lady academicians are moved in what is seen as customary female sociology and schooling disciplines (Ramani, 2004).

Wanyonyi (2003) led an investigation about the connection between profession desires, attitudes towards sexual orientation explicit roles and achievement academically among 262 juvenile learners in Mombasa, Kenya. In this examination, it was established that there were critical sex contrasts in profession goals and academic achievement while in perspectives towards gender explicit jobs there were no significant contrasts. The investigation uncovered that more female than male dismissed the possibility that there were explicit positions for the people.

A higher level of the learners' populace (70.2%) was for the thought that there were no particular positions for people when contrasted with 29.8% who said that there were.

Albeit various investigations have been published on attitude towards gender explicit roles with focus on how this mentality impacts on profession aspirations stays high making need for more extensive examination. Thusly, this investigation will zero in on the connection between attitude towards gender specific jobs and profession aspirations for Form three learners in Bungoma south sub-county.

2.4 Perceived barriers to career aspirations

Career obstructions are occasions inside the individual or his/her current circumstance that make profession headway troublesome (Brown & Barbosa, 2001) and encroach on the decision-making cycle of any profession. An obstruction is any impediment that forestalls positive headway or any occasion or condition that makes profession headway troublesome (Brown & Barbosa, 2001). Likewise, Brown and Barbosa (2001) demand that obstructions somewhat clarify the gap between learners' capacities and their accomplishments, or these boundaries could clarify the restraints of learner's profession yearnings. Barriers are huge elements in the process of career development, and the beginning of such hindrances much of the time starts at an early phase (Rojewiski, 2005). Obstructions are evident all through education and work and they become more perplexing after some time (Brown & Barbosa 2001). They can be real or genuine, or they can be envisioned or seen boundaries thought by the individual to be compelling (Rojewiski, 2005). Lent et al., (2000) expressed that, individuals are more averse to make an interpretation of their profession interests into

objectives, and their objectives into activities, when they see their endeavors to be hindered by inconceivable obstructions or deficient supportive networks.

Gottfredson (2002) portrayed profession obstructions as the essential justification people undermining their vocation objectives; that is, moderation of yearnings to assumptions.

Gottfredson, (2005) hypothesizes that career goals create from unrealistic perspectives of the future to developed assessments considered with regards to capacities, interests, qualities, and openings. Aspirations in occupation can be either be practical or idealized (Gottfredson, 2005). Idealized yearnings are occupations one might want to have in case there were no constraints on a promising circumstance or capacity while choosing a profession (Gottfredson, 2002). Aspirations that are realistic or assumptions, then again, are the occupations one hopes to have, given apparent or genuine impediments (Rojewski, 2005). In Gottfredson's phrasing, errors in aspirations and assumptions result from compromise and circumscription of what one might want to do occupationally and what one is restricted to accomplishing.

Academic performance that is poor is one of the hindrances to learner's career goals. As per Creed et al. (2007) learners with averages that are below bound to refer to poor performance academically as a critical obstruction to promoting their schooling past secondary school. Greater part of learners with lower academic performance feels that it is a critical impediment to college education (Rojewski 2005). As per Creed et al., (2007), learners' scores will in general fall through their high school life. Before the finish of secondary school, when important choices should be made about enhancing their schooling, learners are more averse to esteem what they are being instructed or accept that they will have a positive work in future. Nonetheless, Lent et al., (2002)

contend that the connection between profession obstructions and versatile vocation working is a perplexing one. This is on the grounds that while profession boundaries may limit vocation choice for a few, they may likewise persuade others to accomplish even more exceptionally.

Apart from academic achievement that is low, one more hindrance to learner's vocations is absence of data on accessible profession openings (Gutman & Akerman (2008). It is contended that the information on learners' goals assume a significant part in the schooling arranging measures. Thusly, learner's information about the profession they seek to is vital for their prosperity (Gutman & Akerman, 2008).

Bakar and Mohamed (2004) contend that the decision of profession should be founded on exact and sufficient data about educational freedoms just as about the learners' capacities. Choices regarding occupation are made when one thinks about various occupations or potentially majors. As per Gutman and Akerman (2008), there ought to be some coinciding between interest, capacities, accomplishment, and the educational planning needed for explicit occupations. Student preparation to settle on wise career decisions is a formative interaction expecting advisors to have state-of-the-art data and information about education and career opportunities accessible now and later (Mutweleli, 2009). Wahl and Blackhurst (2000) accept that career desires are of the worry to school advisors at all levels. This study looks at perceived barriers to students' career aspirations because when career teachers are aware of these barriers, they can prepare their students overcome them.

2.5 Perceived Barriers to Academic Performance

Different researchers have contemplated and underscored that academic achievement impacts on aspirations in career (Nasir, 2005; Kangoro, 2000; Kisulu, et al., 2012).

Everett (2016) in his investigation on boundaries that repress learners' accomplishment discovered that absence of individual education objectives, absence of parental help, stress of stepping through examinations particularly in high failure rated subjects, for example, Mathematics and sciences and absence of openness to various learning conditions are the main hindrances to learners' academic accomplishment. He recommended that inspiring learners offers freedoms to make a positive culture of achievement.

In addition, Kisilu, et al. (2012) notes that the educational framework in Kenya is overwhelmed by assessments-oriented instructions, where passing assessment is the lone benchmark for achievement, since there is no interior arrangement of observing learning accomplishment at different degrees of schooling cycle. Low academic achievement keeps on influencing most learners in high schools in Kenya (Nasir, 2005). As Oduor (2017) notes, a Kenyan secondary school learner is probably going to perform inadequately in academics on the off chance that the individual does not have full order of English language. Oduor (2017) refers to the report created by the Ministry of Education that dissected KCSE assessment achievement for a very long time.

This Education ministry report follows learners' abuse of shoptalk language which contorts their comprehension of the language used for instruction. The report shows that performance is influenced by deficient English language abilities among learners, yet it is used as a language of conveyance of curriculum. The report likewise tracks down that a few learners failed assessments since they didn't oversee time adequately. One more hindrance to learners' academic work as referred to in the Ministry of Education report is indiscipline. The types of indiscipline show through behavior that

is deviant, for example, strikes which results to sending away learners. Moreover, the report refers to negative pressure from peers which cause learners to deceive one another. More examples of indiscipline featured in the report include non-attendance of school and skipping classes/exercises.

Oduor's (2017) research further cites school environment as one of the causes of exam failure among students. Under this, three reasons are referred to which lead to low academic achievement among secondary students.

First, laborers working together with learners to pirate in the school disallowed things like cell phones, liquor, and drugs among others. Second, some schools are in unfriendly environment such as in noisy slums which deters students' concentration in their studies. Lastly, students' own personality traits have also been cited as a barrier to their academic performance. This leads to dismal performance in exams and contributes to 10 percent of the major reasons why students fail their examinations.

According to Oduor (2016), most students fail to recognise that they are the focal point of the process of learning and teaching. It has been reported that such students do not appreciate the importance of self-direction. For Coates and Seifert (2011), a few learners do not have the drive to define objectives since they are debilitated by their past performance that is poor. Coates and Seifert (2011) accept that when the human cerebrum keeps on encountering disappointment, it creates a disruption in inspiration to accomplish. A few learners experience a feeling of rout before the test and thus, all advancement made over time at times blurs when they are needed to perform (William, 2011). As per Oduor (2016), a few learners need career paths that are definite thus neglect to focus on their schooling. It has additionally been accounted for those different learners are confronted with uncertainty that leads to

helpless selection of subjects because of impact of peers (William, 2011). General negative disposition towards learning and early marriage while still in school have likewise been referred to in the report as reasons for terrible performance in tests.

Notwithstanding the four components – indiscipline, error of test questions, school climate and learners' characteristics, the report distinguishes educator – related elements that cause performance that is poor. As per Everett (2016), instructors who give high rating on work that is mediocre do not give academic incitement that advance more noteworthy accomplishment. Such teachers as indicated by Rowan et al. (2010) set extremely low assumptions for their learners by awarding grades that are higher on tasks that would have procured lower grades somewhere else. Furthermore, educators with post graduate education feel lost thus participate in part time teaching in different colleges and lack obligation to students (Oduor, 2017).

Oduor 2017 further refers to the role that is played by guardians as an obstruction to learners' achievement academically. The report states that guardians are relied upon to advance their youngsters' academic accomplishment, yet some don't effectively take part towards this acknowledgment. They do as such by failing to give necessities like food, apparel and safe housing consequently influencing their kids' mental turn of events. Guardians from higher financial foundations report higher assumptions in careers for their kids than guardians from more burdened foundations (Eccles, 2006; Schoon & Parsons, 2002). Parental assumptions may likewise be higher for youths who do well in school, yet lower for the individuals with poor performance in school (Mau & Bikos, 2000; Ashby & Schoon, 2010). As per William (2011), learners at the top and lower part of accomplishment gap could accomplish academically if comparable first-class learning openings are given.

To this end, it can be deduced that perceived barriers to academic performance and career aspirations assume a significant part in deciding a learner's definitive vocation decision. Nonetheless, it can be noted that perceived barriers vary from one individual to another, since while they may restrict some students to achieving their career aspirations, they act to motivate others. Moreover, these barriers take various categories including individual barriers such as students' indiscipline, cultural such as early forced marriages, and environmental including parental influence, school surroundings, and teachers. This study gives a holistic view of all these categories of barriers, with reference to Form three learners in Bungoma South Sub County.

2.6 The Career Aspirations and Students' Learning Experiences

Various investigations have shown that when educators are steadier and more mindful, learners will in general have more elevated levels of accomplishment (Brown et al., 2004; Klem and Connell, 2004) and inspiration (Klem & Connell 2004). Ardles et al. (2015) in their examination about the impacts of classroom exercises on learners' profession desires towards innovation searched for class exercises that would affect learners' vocation yearnings. The examination depicts class exercises according to the point of view of the learners and the recurrence at which exercises happen. Communications among educators and learners was the primary activity. At the point when this classroom activity happening as per Ardles et al., (2015), learners could clarify their thoughts, partake in discussions or conversations, and offer their viewpoints. From that point onward, hands-on exercises were incorporated. Here, learners were explicitly asked for information about the recurrence with which they could do practical experiments. The third classroom engagement was examinations which involved learners being permitted to plan and pick their own trials and testing those thoughts. The last action examined the

recurrence with which teachers clarified issues and the importance of innovation in day-to-day existence. The recurrence with which these diverse classroom exercises happened affected learners' attitude towards academics (Ardles et al., 2015).

One of the significant difficulties of current classrooms is to give learning chances to each learner so that the classroom demand settings satisfactorily match the necessities of individual learners (Everett, 2016). In by far most of school circumstances, educators need to manage heterogeneous classes as far as learners' intellectual abilities and prior information are concerned (Kannich et al., 2019). During lessons in which utilization of individualized instruction and learner-explicit lesson plans is limited, a few learners will unavoidably feel over challenged while others will feel under challenged (Kannich et al., 2019). Results of not exactly ideal challenge might impact a scope of significant educational results more so in learners' profession desires (Kannich et al., 2019).

Kannich et al, (2019) in their investigation on being over or under tested in class and its impact on learners' profession yearnings discovered that a somewhat high extent of learners noted sensations of non-satisfactory challenge in their class encounters. Further, the investigation found out that under-tested learners experienced diminished goals to settle on vocation decisions in corresponding spaces. The examination likewise revealed that over-tested learners encountered an adverse consequence on academic self-concept. As per Kannich et al. (2019) lower self-concept academically, thusly, was related with diminished profession desires. Aschbacher et al. (2014) see that once a learner starts to get low grades or battles to accomplish class work, she might believe that she "simply doesn't have what is required" and starts to lose confidence and bring down her science vocation yearnings, when she is really fit for

succeeding. Aschbacher et al., (2014) in their investigation about in Southern California metropolitan and rural government funded school learners discovered that 66% of the learners didn't see a solid individual worth or utility in science learning. They associate these outcomes to learners' science educational plans at the period of the investigation didn't address profession objectives. Learners figure out how significant big thoughts are pertinent to their lives, yet they don't underscore emotional objectives like interest, inspiration, tirelessness, and profession mindfulness even though they recognize their significance (Aschbacher, et al., 2014). After examination of meetings with a subset of the overviewed learners, Aschbach et al. (2013) noticed that a significant number of them considered science to be an approach to influence the planet or improve on the existences of others, yet they had little consciousness of the wide assortment of science vocations and fitting pathways to them.

Ardies, Maeyers and Gijbels (2015) posit that classroom experiences should provide for activities that are described by a lot of independent self-coordinated learning, joint effort with colleagues, exercises that are dynamic, and are reached out past the extent of a solitary lesson. To enhance students' interest for example to aspire to science related careers. Ardies et al. (2015) suggest that teachers ought not to zero in a lot on the uses of innovation and talk about its pertinence, yet let learners accomplish something in class. Information on viable class exercises, according to the point of view of fostering learners' inspirational perspectives towards innovation, is significant to directing instructive practice towards learner stimulation in innovation and vocation yearnings (Ardies et al., 2015).

It is for the most part accepted that class learning experience has a ton of impact to learners' academic turn of events. In any case, relatively little is known whether learning encounters in class would have a lot of impact on a learner's professional desires. This brings up the issue with respect to whether class exercises impact perspectives towards profession yearnings. Information on compelling classroom exercises, according to the viewpoint of fostering learners' positive attitudes towards for example innovation, is significant to direct instructive practice towards learner stimulation of interest in innovation and career goals (Ardies et al., 2015). It is against this foundation that the current investigation examined the impacts of classroom encounters on learners' career desires.

2.7 Career Paradigm Shift

The universe of work and work necessities have changed radically somewhat in the recent years (Potgieter, 2012). Subsequently, youthful people face many difficulties while entering the work market (Yates, 2014). Some of them are jobless and others experience lessened professional stability or reformist evolving innovation (Potgieter, 2012). To create competition on the market, learners need to stay up with these changes, to build extent of abilities and to embrace employability (Potgieter, 2012). Yates (2014) noticed that vocations in the current work market are quickly changing and the chances and assumptions inside our working contemporary lives are from various perspectives very not quite the same as those of our grandparents and parents. As indicated by Kidd (2008), the work market has become changed lately and the speed of progress gives no indication of easing up. The intricacy of profession ways in the 21st century has prompted an ascent in the quantity of changes in normal working life, exhorting vocation experts to have a decent comprehension of the course of profession decision (Yates, 2014).

As per Tomlinson (2007), youngsters can at this point don't expect a life job. Unexpectedly, bosses anticipate that they should be more adaptable and practical in improvement and dealing with their own ways of being employed. They ought to likewise have profession meta-cognitive abilities that are significant for development career wise. Learners who have these abilities have more elevated levels of employability (Potgieter, 2012). These mental abilities contain capacities such as confidence, vocation direction mindfulness and feeling of direction (Potgieter, 2012). '

As per Ndemo (2017), a change in outlook is in progress in Kenya where new advancements are annihilating old methods in business and brilliant youthful business people are leading. For example, the interest in services online is expanding, including records digitalization to further develop information visibility (Ndemo (2017). This innovation insurgency in Kenya has ventured across Africa and into the edges of the world, drawing in worldwide acknowledgment for the country. The country is seeing a massive change in outlook that is engaging residents and reshaping their networks and ways of life, proclaiming another perspective about and understanding innovative chances and how to take advantage of them. The primary challenge is that these advancements have not been carried out nor reached in many areas of the country, thus there is as yet a high pace of youth joblessness (Ndemo, 2017).

For example, a review done by the corporate administrations discovered that 45% of employers in Kenya referenced those who apply for opportunities are of low quality (Menya, 2015). Further, 3/4 of the reactions in this review uncovered that in spite of the way that there were excesses of applicants, employers actually thought that it is hard to get the ideal ability (Menya, 2015). These discoveries show that there is need

to advise those looking for advanced education to seek after applicable courses that give the right preparation to the work market. The present place of employment openings in Kenya, as indicated by Achuka (2015) are in the field of information technology and Agriculture. These are a portion of the arising areas that those wishing to seek after advanced education ought to consider assuming they need to be ensured work once they graduate. Achuka (2015) further opines that presently these areas import the vast majority of their work power since numerous Kenyans need specialized aptitude. Achuka faults this to Kenya learning foundations for their persistent preparation in supply side courses that encourage white collar mindset than preparing sought after side courses that cultivates inventiveness. For instance, figures delivered by the Kenya Universities and College Placement Service in the loathe past uncovered that regardless of a drive by the government to extend specialized schools, just 27.7% of learners who sat for KCSE in the year 2015 applied to go along with them. This is as university first-year enrolment expanded by 18.4% around the same time.

As per Jarvis (2003), a well-rounded schooling framework should cultivate among learners' mastery abilities of management of careers which incorporate employability and individual administration abilities. Jarvis (2003) proposes the key abilities that an individual might require are adaptability, inventiveness, versatility, relational abilities and the capacity to oversee cash time and work. An interest in assisting learners with dominating these abilities gives a complex profit from speculation, and advantages both the individual and society (Jarvis, 2003). It is with this respect that Skorikov, (2007) sees profession readiness in youngsters as a significant antecedent for fruitful vocation advancement across the life expectancy and is firmly identified with puberty change and prosperity. Notwithstanding, majority youths in Kenya are not able to

achieve successful career development partly because of mismatch that exists between actual work experience and what graduates are taught in schools (Mabinda, 2014). Existing research have not adequately addressed as to what extent the skills acquired at secondary school level influences students' career aspirations. To help narrow this gap, this study will focus on establishing the relationship existing between secondary school academic performance and career aspirations for Form three students in Bungoma south sub county.

2.8 Summary

From the literature reviewed, the following has been explored: First, a study on the relationship between gender and career aspirations by Patton et al. (2007). This study concluded that both men and women are restricted in their career aspirations by gender.

Second, study on the relationship between academic achievement and career aspirations by Onayase and Onayese in Omotere (2012) conducted a similar study with the conclusion that students' career choices are determined by various factors that interplay, other than academic achievement. Third, with regards to a study on the relationship between career aspirations, attitude towards gender specific roles, and academic performance, Wanyonyi (2003) concluded that while there is a significant gender difference in career aspirations and academic performance, there is no significant gender difference in attitudes towards gender specific roles.

Fourth, a study carried out to assess perceived barriers to career aspirations by Brown & Barbosa (2001) indicated that barriers partially explain the gap between students' abilities and their career aspirations. Fifth, in relation to a study to determine barriers to academic performance, Oduor (2017) maintains that various categories including personal such as indiscipline, availability/lack of resources including financial

resources, and students' surrounding environment, such as parents and teachers hinder students' academic performance. Sixth, in a study to establish effects of classroom experience on students' interest and career aspirations, Ardles, Maeyers and Gojbels (2015) assert that classroom experiences should provide for activities that are characterized by a large amount of autonomous self-directed learning, collaboration with classmates, activities that are active and hands-on, and are extended beyond the scope of a single lesson. Seventh, focussing on career paradigm shift, Skorikov, (2007) views career preparation in students as an important precursor for successful career development across the life span and is closely related to students' adjustment and well-being.

However, these studies raise the following gaps: There is inadequate training of teachers with regards to recognizing and combating gender stereotypes and prejudice as pertains career aspirations among students (Bigler & Liben, 2006). Inadequate time is allocated in schools for students to be accorded career advice and exposure (Bakar & Mohamed, 2004). Students possess inadequate knowledge about careers hence misinformed career aspirations (Maweu 2005).

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.0 Introduction

This chapter discusses the methods and procedures the study adopted. A description of the study area, the research design used, the research themes, the population of the study, the sample size and procedure used in the selection of the subjects are discussed herein. In addition, the data collection instruments used are discussed whereby, development of these instruments, the scoring procedures, the instruments validity, reliability, and practicability are clearly spelt out. The chapter also discusses ethical considerations made by the study. Finally, there is a section on how the data collected will be presented and analysed.

3.1 Research Paradigm

The study adopted quantitative research method which reflects post positivist assumptions. Post positivist world view holds a deterministic approach in which causes probably determine the effects (Creswell, 2009). The study attempts to look at how academic performance and students' attitude towards gender specific roles influence their career aspirations. Post positivist philosophy holds the assumption that social reality is out there and has enough stability and patterning to be known.

In this study it was assumed that student held their career aspirations and had formed attitude towards gender specific roles. In quantitative studies, researchers advance the relationship among variables and pose this in terms of questions or hypothesis (Creswell, 2009). This study took the post positivist approach since it looked at the relationship between secondary school students' career aspirations, attitude towards

gender specific roles and academic performance. The study revolves around testing of the hypotheses using inferential statistics like chi-square.

According to Creswell (2009) post- positivists assumes that absolute truth can never be found hence the hypothesis stated is not proved but it is subjected to a test that leads to a conclusion of accepting it or rejecting it. Post-positivist is a scientific method of research which requires facts and emphasises on objectivity of the findings. In this research data on career aspirations, attitude towards gender specific roles and academic performance was converted to numerical, results statistically analysed, and the interpretation made based on the findings. According to Creswell (2009), post positivist research assumes that there is no universal solution to problems and that conclusion to any research work to change over time. In this approach truth is constructed through dialogue hence questionnaires were administered to students.

According to Kothari (2004), quantitative research method includes designs, techniques and measures that produce discrete numerical or quantifiable data. Quantitative method was applied in the current study to produce objective data that clearly is communicated through statistics and numbers. For the purpose of this research, numerical data on career aspirations, attitude towards gender specific roles and academic performance was collected and subjected to statistical analysis to test the causal relationship between these variables. The results obtained were then generalized to the wider population of secondary school students in Kenya. According to Frankel and Wallen (2002) in this approach, both descriptive (means, percentages, frequencies) and inferential `statistics such as T-test, Chi square, spearman *rho* correlation coefficient is used in data analysis.

The main advantage of quantitative method is that it is focused, scientific and reliable. They are reliable in the sense that they are designed to make predictions,

discover facts, and test existing hypotheses. It is also a fast and efficient method of data analysis of a large sample size since it involves use of data computing equipment. In this study numerical data obtained was analysed using statistical package for social science. According to William (2021), quantitative method also allows researchers to make predictions and generalization to a larger and more universal population outside the test sample.

3.2 Research Design

The study adopted ex-post facto research design. This research method is also known as ‘after the-fact. It is a design which investigates how an independent variable (a group with certain qualities that already exist prior to the study) affect a dependent variable. In this study students career aspirations are dependent variable which is influenced by students’ academic performance and their attitude towards gender specific roles (independent variable). According to Frankel and Wallen (2002), ex-post facto research design is used to explore the relationship between variables just as it is the case of the current study. They posit that the purpose of this design is to determine reasons or causes for the current status of phenomenon under study. In an *ex-post facto* design, there is no manipulation of variables as the phenomenon under investigation already exists. Consequently, career aspiration is affected by a multiple of factors making it impossible to directly control all the independent variables.

3.3 The Study Site

The study was conducted in Bungoma South Sub County, one of the nine sub-counties of Bungoma County. It is located on latitude 0° 35’ north of the equator and longitude 34° 35’ east of the Greenwich meridian. The county had a population of 1,375,063 people according to 2009 population census and covers an area of 2,069km². The economy of the county is mainly agricultural, specializing in

sugarcane, maize and livestock keeping. Bungoma South Sub County had total population of 229,970 people and covers an area of 210.8km².

Bungoma South Sub County was chosen because it was easily accessible to the researcher and permitted instant rapport with the respondents. In addition, the sub-county has been experiencing poor academic performance in the Kenya Certificate of Secondary Education (KCSE) examination. For instance, analysis done by the Bungoma South Sub County Education office (2015) revealed that the number of Form Four candidates who attained university entry grade (C+ and above) in the Sub - County in the year 2015 were few. This is because out of a total of 3856 Form Four candidates who sat for KCSE in the same year, those who scored grade C+ and above were 742 (19.24%) and those who scored grade D+ and below were 1251(32.44%). This low academic performance in Bungoma County has far reaching impact on students especially in the missing of more rewarding career opportunities. According to Kenya

National Bureau of statistics (2013), only 21% of Bungoma County residents had secondary education or above and had 61% of residents with only a primary level of education, while 18% had no formal education. A majority (57%) of those without formal education were women. This partly explains why women in Bungoma County are underrepresented in many of the high-status occupational fields such as Medicine and Engineering (KBS, 2013). According to the Ministry of labour in the county (2013), the entire County has had a shortage of skilled personnel especially in areas that involved application of science and technology such as in medical field and Engineering. Lastly, no research had been carried out in Bungoma South sub-county on the relationship between secondary students' career aspirations attitude towards gender specific and academic performance among secondary school students.

3.4. Description of the Population

Mugenda and Mugenda (2003) define a population as an entire group of individuals, events or subjects having common observable characteristics. The population of this study comprised of Form three secondary school students from Bungoma South sub-County of the year 2014. There were 42 public Secondary Schools in Bungoma South sub-County with a total enrolment of 14,973 students. Of this, 8,417 were boys and 6,556 were girls. Out of the 42 public secondary schools, 7 were girls' boarding, 5 boys' boarding, 25 were mixed day schools and 5 were mixed day and boarding. Twenty-seven schools were selected for the study forming 65.8% of the total number of public secondary schools. The target population comprised of form three students. The total enrolment of this class was 3,762 students out of which 2,216 were boys and 1,546 were girls (See appendix V).

Form three students were targeted because as Mutweleli (2009) observed, majority of researchers who have studied occupational aspirations focused on the Form four students ignoring the lower-class levels, yet career development theories (Super, 1953) indicate that people form career aspirations and choices at very early stages of life. Form three students are also aware of their academic performance from the first year of schooling and can relate it to their career aspirations. In addition to students, teachers were involved in the study because among the stakeholders, they are at the centre of students' career choices hence in a good position to experience and know the relationship between career aspirations and academic performance.

3.5 Sampling Technique

This study used purposive, stratified, and simple random sampling procedures to select the respondents for the study. This ensured that all the subgroups from which the respondents belong were represented. First, purposive sampling was applied to

select Form three students from the three administrative zones of Bungoma South Sub County that is, Municipality, Mwibale and Sang'alo where the schools were located. There after stratified sampling was done to identify categories of schools from each zone, comprising girls' and boys' public boarding, mixed day and boarding and mixed public day schools.

Stratified sampling was used in selection of 6 girls' and 5 boys' boarding schools from the three administrative zones. Purposive sampling was used to select 16 out of 25 mixed secondary schools. Both Simple random and stratified sampling techniques were used to select the participants for the study. This is because according to Creswell (2009), this technique gives fair chance for every respondent to be included in the study. Simple random sampling also allows for unbiased data collection, which lets the study arrive at unbiased conclusion.

In total 27 schools were selected for the study comprising of 11 Boys' and Girls' schools and 16 mixed schools from the sub county. The 27 schools were selected because they were easily accessible by the researcher due to their proximity to each other within Bungoma south Sub-County. Moreover, it was to enable equal representation of all the sub-groups (categories of schools) to obtain a sample size that is large enough for a better generalization of the results. Table 3.1 gives a summary of the sampling technique.

Table 3.1: Sampling techniques

Study population	Sampling method	Target population	Sample size
Administrative zone	purposive	3	3
Boys' and Girls' schools	stratified	24	11
Mixed schools	purposive	30	16
Female participants	Stratified, random	1250	152
Male participants	Stratified, random	1808	268

3.6 Sample Size

A sample size was calculated using Slovia Formula which is $n = N / (1 + N \cdot e^2)$. In this formula n is the sample size, N is the population size and e the error of tolerance which was 0.05. Therefore $n = 3762 / 1 + (3762 \times 0.05^2)$.

This gave rise to 362(9.6%) participants. This figure was then extrapolated to 420 for the sake of equal representation of the all the sub- groups in the three zones of Bungoma South Sub-County. The sample size was therefore 11% of the target population of a total 3 762 Form three students. This is because according to Mugenda and Mugenda (2003) a sample size of 10% to 20% depending on the population size is appropriate for a research study.

Table 3.2: Sample size

Population	Sample size	Percentage
42 Public secondary schools	27 Public schools	64.3%
14, 973 students	3 762 students	25.12%
3, 762 Form three Students	420 students	11%

3.7 Research Instrument

The questionnaire was the main data collection instrument that was used in this study. The questionnaire is described as the most popular instrument particularly in cases of big inquiries (Orodho & Kombo, 2002). It is an instrument used to obtain information about certain conditions and practices, and to inquire into opinions and attitudes of an individual or a group (Canals, 2017). According to Canals (2017), questionnaires should be posed in a non-intrusive way so that participants do not get the feeling of their lifestyle being judged.

The questionnaire was divided into six sections. Section A comprised of closed-ended items which sought demographic data of the respondents. Part of the demographic

items revealed students' gender with an aim of assessing and comparing responses across gender. Section B consisted of close-ended items that measured students' career aspirations. In this section students were asked which type of careers they would like to undertake after completion of their secondary school.

Section C consisted of a five -point likert scale of structured questions on attitude towards gender specific roles. Attitudes were categorized into four as follows: a) Attitude towards domestic roles. b) Career and employment c) Education and school curriculum and d) General notion about male and female. Section D contained a five-point likert scale on perceived barrier to career aspirations. The likert scale measures how much effect the listed barriers would hinder students from realizing their career aspirations. Section E was also a five-point likert on perceived barriers to students' academic performance.

Lastly, for the purpose of this research, the questionnaire was adapted from the Career aspirations barriers scale developed by Howell Frese and Sollie (1977) and categorise of careers according to level of preparation needed according to Job Zones O*NET available at <https://www.onetonline.org/find/zone>. Job zone groups occupation into five categories based on levels of preparation needed, experience and training necessary to perform the occupation. This was modified to suit the Kenyan system of level preparation for different occupations (see appendix III).

3.8 Administering of Questionnaires

The questionnaires were delivered to schools by the researcher and filled in by the students during free time. Questionnaires were administered and supervised by the researcher with the assistance of school career teachers and class teachers. This was done to ensure that students did not influence each other. For the students' academic

performance, the researcher was assisted by the school directors of studies to obtain the students' grades from the joint County examination.

3.9 Scoring of Questionnaire

Items on students' career aspirations were assigned scores ranging from 1-5 depending on the level of preparation needed to perform a particular career. Categorising careers according to the level of preparation needed was first developed by the United States department of labour. According to the National Center for O*Net Development (2022), O*Net job zone is an online occupational information network data base that was developed by the U S department of labour in 1990s to assist job seekers search for occupation. Career aspiration was therefore scored according to the five levels of preparation needed to be fully qualified in a career as follows: a) little preparation needed- 1 Point b) Some preparation needed-2points c) Medium preparation needed-3 points d) Considerable preparation needed-4 points and e) Extensive preparation needed- 5 points. Categories of careers according to levels of preparation are shown in appendix III. Non-professional occupations were scored between 1-2 points since they require little preparation while professional occupations were scored between 3-5 points since they require more training and experience.

Students' academic performance was based on the aggregate points (AGP) scored in a County joint examination. The points were calculated based on grades obtained from seven subjects based on the Kenya national examination grading system. Each subject is graded based on a twelve-point scale, with 12 points being the highest score and 1 point being the lowest. The grades and their corresponding points are as follows: A (plain) -12, A-(minus) -11, B+(plus) -10, B (plain) -9, B-(minus)-8, C+(plus) -7, C (plain) -6, C-(minus) -5, D+(plus) -4, D (plain) -3, D-(minus), E -1 point. The maximum points that are awarded to a student who scores A plain in all the seven

subjects are 84 (7 x 12) while the minimum is 7 points. The students' academic performance was based on total points scored.

After calculating students aggregate points, their scores were further categorized into 5 levels: Low (7 – 28 points) scored as 1, below average (29 – 42 points) scored as 2, average (43 – 54 points) scored as 3, above average (55-69) scored as 4 and excellent (70-84) scored as 5. This was done to allow for an easy summary of individual's academic performance.

Items on attitude towards gender specific roles were rated on a five-point likert scale ranging from strongly agrees to strongly disagree. For instance, statements portraying positive attitude towards gender specific role were scored as follows:

Strongly agree - 5 points
 Agree - 4 points
 Undecided - 3 points
 Disagree - 2 points
 Strongly disagree - 1 point

Negative attitude towards gender specific roles will score as follows:

Strongly agree - 1 point
 Agree - 2 points
 Undecided - 3 points
 Disagree - 4 points
 Strongly disagree- 5 points

The mean scores obtained from a 5-point likert scale on the respondents' attitude towards gender specific roles were categorized into three as follows:

A) Negative attitude - 1 point

- B) Neutral scored - 2 points
- C) Positive attitude - 3 points.

This was done after calculating the mean for the items on attitude towards gender specific role for each respondent. Students whose mean scores were between 1 and 2.9 points were assigned 1 point indicating negative attitude. Those whose mean scores range between 3 and 3.9 indicated a neutral attitude and were scored 2 points. Lastly, a mean of 4 to 5 was scored 3 points, indicating positive attitude towards gender specific roles.

Students completed a modified Career Barriers scale based on a measure originally devised by Howell, Frese and Sollie (1984) as noted by Creed and Wong (2006). This scale was also modified to measure students' perceived barriers to their academic performance. The 5-item response format had endpoints of *no effect* and *very much effect*. The mean for each item was then computed. Based on the scoring of the likert scale, the barrier indicating the highest mean score was considered as the most influential while that with the lowest mean score is considered as the least influential.

3.10 Data Analysis Technique

Raw data was coded and scored appropriately for statistical analysis using statistical packages for social sciences (SPSS) version 20. Data was analysed using both descriptive and inferential statistics as follows:

3.10.1 Frequency distribution tables and Percentages

According to Cronk (2016) frequency distribution tables are useful to understand which option occur more or less often in the dataset for better understanding of each variable. It is also useful as a method of getting the feel and pattern of your data. It provides more information than just a mean and standard deviation and can be useful

in determining skew and identifying outliers. Cumulative percentages and percentiles are valid only for data that are measured on at least an ordinal scale (Cronk, 2016).

Frequency tables and percentages have been used to analyze:-

- i. Students' career aspirations according to level of preparation needed.
- ii. The distribution of male and female students' career aspirations.
- iii. Students' academic performance such as percentage of those who had low, below average, above average or excellent performance and how they were distributed.
- iv. Students' responses on their attitude towards gender specific roles for example, percentage of those with a positive, neutral or negative attitude and there distribution.

3.10.2 Measure of central tendency and measure of dispersion

According to Cronk (2016), each measure of central tendency and measure of dispersion has different assumptions associated with it. The mean is the most powerful measure of central tendency, and it has the most assumptions. For instance, to calculate a mean, the data must be measured on an interval or ratio scale. In addition, the distribution should be normally distributed or, at least, not highly skewed. The median requires at least ordinal data. The standard deviation is the most powerful measure of dispersion, but it, too, has several assumptions which require interval or ratio scale. In addition, the distribution should be normal. The range is the weakest measure of dispersion. To calculate a range, the variable must be at least ordinal.

The measures of central tendency and dispersion were applied in the following ways:-

- i. Students' academic performance were converted to mean scores and grades obtained, then compared them to their career aspirations.
- ii. Students score on attitude scale was converted into means to establish whether they held positive, negative or neutral attitude towards gender specific roles
- iii. Standard deviation was used to describe students' barriers to their career aspirations and academic performance.

Apart from descriptive statistics the study also used the following inferential statistics to analyse the relationships between variables.

3.10.3 Chi- square

The chi-square test of independence is a non-parametric test which evaluates whether or not two variables are independent of each other and it is essentially a nonparametric test (Jawlik, 2016). Chi-square test was computed to determine gender differences in students' career aspirations because both variables are categorical. For instance, gender can only take on two categories that is male or female. Students' career aspirations was categorized into five according to levels of preparation needed that is, little preparation, some preparation needed, medium preparation, considerable and extensive preparation. Moreover, each participant in the study was assessed independently of each other since they were randomly selected.

3.10.4 Spearman Rho Correlation

The Spearman correlation coefficient determines the strength of the relationship between two variables (Cronk, 2016). It is a nonparametric procedure. This test was computed to analyze the relationship between career aspirations and levels of

students' academic performance. Spearman correlation coefficient functions on the basis of the ranks of data and it requires ordinal or interval or ratio data for both variables that do not need to be normally distributed. In the current study, student's career aspirations was ranked from 1-5 as follows:

1= little preparation needed

2=some preparation needed

3= medium preparation needed

4= Considerable preparation

5=Extensive preparation

Academic performance was ranked from Low, below average, average, above average to excellent with the scores ranging from 1 for low performance to 5 for the excellent performance. Spearman Rho correlation is also useful in cases where the relationship between variables is monotonic. In the current case, it was assumed that students who held higher career aspirations had a higher academic performance and vice versa.

3.10.5 Kendall's Tau-b (τ_b)

This is a non-parametric measure of strength and direction of association that exists between two variables. It is considered a non-parametric alternative to the Pearson's product –moment correlation. This was used to analyse the relationship between students' career aspirations and their attitude towards gender specific roles and the analysis of the relationship between students' gender role attitudes and their academic performance. The assumption for Kendall's tau-b is that the two variables should be measured on an ordinal or continuous scale. Both career aspirations and academic performance were assigned score ranging from 1 to 5 while attitude towards gender

specific roles was scored from 1-3 as negative (conservative gender role attitudes), neutral and positive attitude (egalitarian gender role attitude)

Kendall's tau-b also assumes that the relationship between variables is monotonic that is, an increase in one variable causes an increase in the second one and vice versa. In the current study, it was assumed that individuals who have flexible and less constricted ideas about gender roles are associated with higher career aspirations, higher academic performance and they end up choosing nontraditional careers. Those with conservative gender role attitudes are assumed to be more associated with lower career aspirations, lower in academic performance and tend to choose more traditional careers.

3.11 Pilot Study

According to Thabane, Jinhui and Goldsmith (2010), a pilot study is an experimental, exploratory or preliminary test or trial on an investigation. Its aim is to demonstrate that the methods and procedures can work for later use on a large scale. It is also done to assess the time and budget problems that can occur during the study. Should be done to ensure that the instruments have the capacity to capture the same data when applied at different times (Thabane, Jinhui and Goldsmith, 2010). A pilot study was conducted in two schools in Bungoma North Sub County with an aim of pretesting the questionnaires. The outcome of the pilot study proved that the questionnaires were appropriate and adequate in obtaining the required data save for the few adjustments made.

3.12 Reliability

Reliability, according to Creswell (2009) refers to the degree of consistency of scores obtained by the same individuals when examined with the same test on different

occasions. The greater the degree of consistency in an instrument the greater is its reliability. Therefore a scale or a test is reliable to the extent that repeated measurements obtained using it under constant conditions will give the same results (Creswell, 2009). In order to determine reliability of the questionnaire, a test re-test method was used to establish similarities of the responses.

The questionnaires were therefore administered to twenty Form three students from two different schools. The second test was administered after one week. Responses of the questionnaires were compared to find out the differences or similarities between the two responses for each individual item and each individual respondent. Pearson product moment correlation coefficient was computed to correlate the 1st test and the 2nd test. The reliability coefficient r was found to be $r = 0.78$. This coefficient was above 0.5 level of significant. According to Brown et al., (2004) a correlate on coefficient value above 0.50 is generally considered sufficient and reliable. Therefore the instrument was deemed to be reliable.

3.13 Validity

Validity is the extent to which a researchers' instrument performs what it was designed measure (Creswell, 2009). Face and content validity of the instrument were ascertained by my supervisors and my colleagues in the field of Educational Psychology. The questionnaire items were examined critically and comments passed on to the researcher.

Content validity evaluates how well an instrument covers all the relevant parts of the theme or idea (Nikolopoulou, 2022). It seeks to answer questions such as, "how appropriate is the content? Does it logically get at the intended variable? How adequate does the sample of items or questions represent the content to be assessed?"

Is the format appropriate?” (Fraenkel and Wallen, 2003, p. 159). The researcher did exhaustive literature review and the supervisors evaluated the instrument to check on clarity and appropriateness of the language. Additionally, the supervisors checked whether the content measured the objectives of the study. The researcher then made the recommended correction indicated by the supervisors.

3.14 Ethical Considerations

Ethics refers to the moral principles that guide research from inception through to its completion & publication of results (Jwan, 2010). There are certain ethical issues that were considered in this study as discussed by Jwan, (2010). These ethical issues were considered from the start of the study in development of the instruments to the writing up of the results of the study.

A research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI) facilitate data collection. The research also sought informed consent from the respondents. The researcher explained to the respondents that the undertaking was an official university activity which was required for the completion of the researchers’ masters’ studies. In addition, researchers’ university student identity card, and the research permit obtained from the National Council of Science and Technology was used as a proof. The researcher explained to the respondents the nature and the objectives of the study and what was expected of the respondents. The respondents were informed that they were free to choose to withdraw from the research at will.

The study also considered privacy and confidentiality. The subjects’ information was kept private and confidential. To ensure this, the respondents were not identified in the research by their names, but rather, were kept anonymous. After writing the

results of the study, the researcher went back to the respondents and go through the results of the study collectively. This was to make them confirm the truthfulness of the report and ensure that the report represents the respondents' views and help the respondents to feel part of the study and to own the results.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION, AND DISCUSSION

4.0 Overview

This chapter reports the analyses of data pertaining the relationship between career aspirations, attitude towards gender specific roles and academic performance among secondary school students in Bungoma South Sub County. Reporting of the results follows a consistent format; a restatement of the research objectives after which the pertinent descriptive and inferential statistics are presented. The conclusions are drawn from the results that are obtained. First, the demographic description of the participants involved in the study is presented followed by responses to the following research questions:

- i. What is the difference in students' career aspirations by gender?
- ii. What is the relationship between students' career aspirations and their academic performance?
- iii. What is the relationship between students' career aspirations and their attitude towards gender specific roles?
- iv. What are the students' perceived barriers to their career aspirations?
- v. What are the students perceived barriers to their academic performance?

The participants' demographics that were established are gender and the type of school. Demographic on gender was important because the study aimed to establish the differences in students' career aspirations by gender. Moreover, the study looked at attitudes towards gender specific roles. Barriers to students' career aspirations and their academic performance was also analysed based on gender. Lastly, for the purpose of equal representation the participants were sampled from three types of

public schools that is, boys' and girls' boarding schools, mixed day and boarding and mixed day schools. The basis of sampling the three types of public schools was because of their varied school programmes which may have an impact on students' academic performance and career aspirations. Table 4.1 shows the participants' demographics.

Table 4.1: Demographic description of the respondents

Type of school	Male		Female		TOTAL	
	N	%	N	%	N	%
Public Boarding	101	37.7	53	34.9	154	36.7
Mixed day	86	32.1	52	34.2	138	32.9
Mixed day and boarding	81	30.2	47	30.9	128	30.5
TOTAL	268	100	152	100	420	100

Table 4.1 shows the three types of schools were sampled and the sample size from each school was based on gender. The variation in the sample size by gender and type of school was based on percentage of total enrolment of Form three students. The enrolment of male students was higher than female students in all the three types of schools as shown in appendix V.

4.1 Students' Career Aspirations

Students' career aspirations were categorised according to perceived levels of preparation needed which was adopted from O*Net job zone that was developed by the United States department of labour. According to the National Centre for O*Net Development (2022), O*Net job zone is an online occupational information network data base that was developed by the U S department of labour in 1990s to assist job seekers search for occupation. This career exploration tool divides career into five job zones based on similar level of education, experience and training necessary to

perform the occupation. For the purpose of this research, job zone classification of career was adopted and modified to fit in the level of preparation needed to train for various careers in Kenya.

Table 4.2 shows students' career aspirations by gender and perceived levels of preparation needed.

Table 4.2: Students' career aspirations

Level of preparation needed	Career	Male		Female		Total	
		N	%	N	%	N	%
Little preparation		0	0	0	0	0	0
Some preparation	Electrician	11	4.1	0	0	11	2.6
	Mechanic	3	1.1	0	0	3	0.7
	Actor/actress	2	0.7	1	0.7	3	0.7
	Receptionist	0	0.0	1	0.7	1	0.2
	Secretary	0	0.0	1	0.7	1	0.2
	Fashion designer	0	0.0	1	0.7	1	0.2
Sub- total		16	6	4	2.6	20	4.8
Medium preparation	Journalist	12	4.5	10	6.6	22	5.2
	Police officer	13	4.9	3	2	16	3.8
	Nurse	1	0.4	11	7.2	12	2.9
Sub-total		26	9.7	24	15.8	50	11.9
Considerable preparation	Accountant	30	11.2	26	17.1	56	13.3
	Teacher	14	5.2	12	7.9	26	6.2
	Land surveyor	3	1.8	2	1.3	5	1.2
	Clinical officer	3	1.1	1	0.7	4	1.0
Sub-total		50	18.7	41	27	91	21.7
Extensive preparation	Lawyer	42	15.7	37	24.3	79	18.8
	Doctor	40	14.9	20	13.2	60	14.3
	Engineer	50	18.7	9	5.9	59	14.0
	Pilot	13	4.9	4	2.6	17	4.0
	Architect	11	4.1	5	3.3	16	3.9
	Pharmacist	8	3.0	5	3.3	13	3.1
	Programmer	10	3.7	2	1.3	12	2.9
	Lecturer	2	0.7	1	0.7	3	0.7
Sub-total		176	65.7	83	54.6	259	61.6
GRANDTOTAL		268	100	152	100	420	100

Results from table 4.2 indicate that the most popular careers among male respondents was Engineering since a total of 50 (18.7 %) male students preferred it. This was closely followed by Law which was identified by 42(15.7%) students. The least popular careers among male participants were secretarial, receptionist and fashion design. This was followed by nursing which was chosen by only 1 (0.4%) male respondents. The most popular career for female participants was Law, since it attracted 47(30.9%) students. This was closely followed by Accounting and Medicine which was identified by 26(17.1%) and 20(13.2%) female students respectively. The least preferred careers for females were mechanic, electrician, Actress, Lecturer and computer programming since they were all chosen by 1 (0.7%) each. Female respondents who preferred pursuing a career in nursing were 15 (9.9%) compared to 1 (0.4%) male respondents. Career in the field of Engineering was the most favorite among male participants since it attracted 50 (18.7%) male students compared to 9 (5.9%) female respondents. Regardless of gender the three most popular careers were Law (21.2%), Engineering (14.3%) and Medicine (14%).

From this analysis, it can be observed that female respondents generally were more inclined towards careers that are social- sciences whereas male students' preferences leaned more heavily towards the physical sciences. None of the female respondents aspired to be a pilot, mechanic or an electrician. On the other hand only one male respondent aspired to be a nurse. Careers such as secretarial, fashion design and receptionist were least preferred by male respondents.

The list of career preferences therefore points out marked gender disparity in certain careers. This alludes that career aspirations is somewhat divided along gender lines in the current study. Table 4.3 gives a summary of students' career aspirations categorized according to perceived levels of preparation needed by gender.

Table 4.3: Career aspirations and gender

Gender	Levels of preparation needed									
	Little preparation		Some preparation		Medium preparation		Considerable preparation		Extensive preparation	
	N	%	N	%	N	%	N	%	N	%
Male	0	0	16	5.9	26	9.7	50	18.7	176	65.7
Female	0	0	4	2.6	24	15.8	41	27	83	54.6
Total	0	0	20	4.8	50	11.9	91	21.7	259	61.7

Results from table 4.3 reveal that no student aspired to take a career that is perceived as having little preparation. This category according to job zone includes careers such as driving, catering, carpentry, security/guarding and cleaning among others. This means that Form Three students in Bungoma South Sub County agree that different careers require different levels of preparation and are aware of careers that are perceived to be less prestigious.

The most popular careers regardless of gender, were all at level 4 (considerable preparation needed) and level 5 (extensive preparation needed). The students' preference for these careers made up 83.3% of the total sample. Looking further at career aspirations, it was discovered that 91 students (21.7%) aspired for careers within level 4 (considerable preparation needed). In this category, (27%) was female and male was 18.7%. A total of 259 students (61.7%) of the entire sample aspired for careers categorized at level 5 (Extensive preparation needed). Majority of them were male students at 65.7% while female were 54.6%. In addition, a total of 50 students (11.9%) aspired for careers in level 3 (medium preparation needed). In this category, a higher percentage were female students (15.8%) since male were 9.7%. At the other end of the spectrum, 20 (4.8%) students aspired for careers in level 2 (some preparation needed). This category includes careers that require manipulative skills

such as mechanics, designers and electricians. More male (5.9%) than female (2.6%) chose these careers. Students aspiring for careers in levels 1-3 (little, some and medium preparation needed) made up 16.7% of the sample. A total of 42 (15.6%) male students aspired for these careers while female students were 28 (18.7%). This analysis is further simplified in Figure 4.1 which helps to illustrate the direct relationship between level of preparation needed to undertake a career and gender.

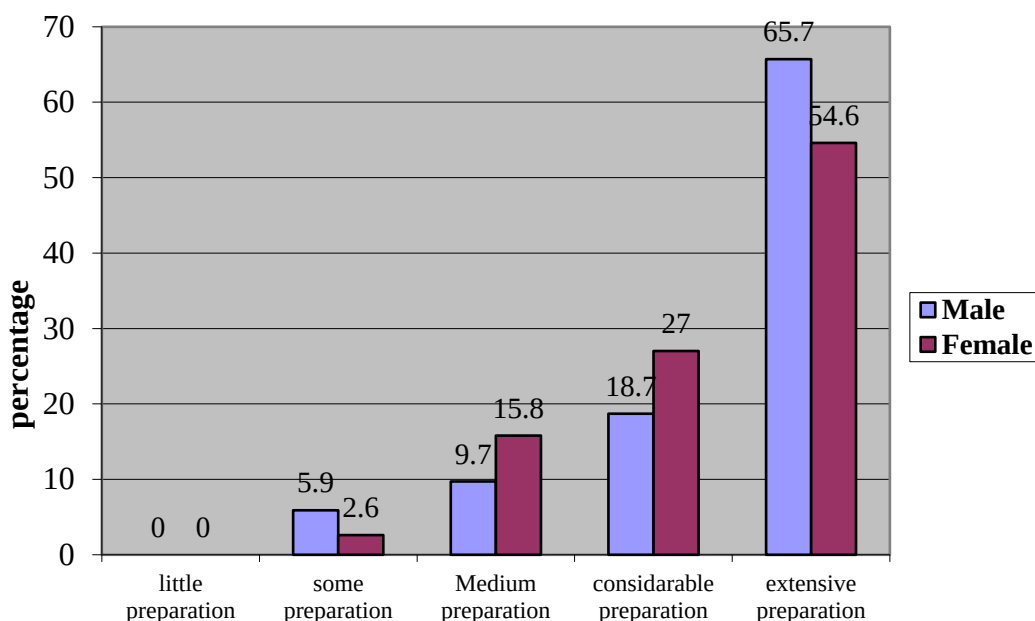


Figure 4.1: Levels needed for career preparedness and gender

4.2 The Gender differences in students' career aspirations

The first objective of this study was to determine gender differences in career aspirations of Form three students in Bungoma South sub-county. To achieve this objective the following research question was posted: What is the difference in students' career aspirations by gender? To determine if there is a significant gender differences in students' career aspirations, chi-square test of independence was computed and the results are shown on table 4.4 below.

Table 4.4: Gender and students' career aspirations

	<i>Value</i>	<i>Df</i>	<i>Asymp.Sig, (2-sided)</i>
Chi – Square	12.808	3	.005
Likelihood ratio	12.371	3	.006
Linear by linear association	2.331	1	.127
N of valid cases	420		

A significant gender difference was found in students' career aspirations $\chi^2 (3) = 12.808, p < 0.05$). Gender is not independent of career aspirations. We therefore conclude that career aspirations for male and female students are different on the basis of the level of preparation needed to perform the career. The first null hypothesis that states: There is no significant gender differences students' career aspirations is therefore rejected.

This finding confirms those of Nduta (2020), whose study on gender differences in aspirations among public secondary school students in Nairobi County revealed a significant gender differences in career aspirations in favor of girls. According to Almisky, Bakar and Mohamed (2009), specific career types are liked by men, for example, the realistic professions and others, for example, the social professions are liked by females. However, some studies have shown that the levels of career aspirations depends on the field of study. For example boys had held higher career aspirations in STEM domain in comparison to girls who ranked high in social sciences (Nduta, 2020; Yates, 2014; Ardies, Maeyer and Gijbels, 2015). The gender disparity in career aspirations is mainly caused by stereotypical beliefs about what field each gender is found to excel (Yates, 2014).

4.3 Academic Performance

Students' academic performance was based on the aggregate points (AGP) scored in a Form three County joint examination. The results for the joint exams were obtained

from their schools' academic offices after analysis had been done. To obtain the results of each participant, students' registration numbers from their questionnaire were used to match their scores. The summary of students' performance in this exam was obtained from Bungoma South Sub -County education office is appended VI. The points were calculated on the basis of grades obtained from seven subjects based on Kenya national examination council grading system.

Each subject was graded on the basis of a twelve-point scale, with 12 points being the highest score and 1 the lowest per subject. The students' academic performance scores (based on cumulative points of the grades) in the county joint examination ranged between 11 and 78 with a mean of 40.16 (SD. = 14.391). Their academic performance was categorized into 5 categories namely: Low (score of 0 - 28), below average (score of 29 - 39), average (score of 40 - 49), above average (50-69 and excellent (score of 70-84) points. Each category was assigned a score ranging from 1 for students in low performance category and 5 for those in excellent category

Table 4.5: Students' academic performance

Performance levels	AGP	Male		Female	
		N	%	N	%
Low	0-28	49	18.3	43	28.3
Below average	29-39	98	36.6	44	28.9
Average	40-49	77	28.7	35	23
Above average	50-69	34	12.7	26	17.1
Excellent	70-84	10	3.7	4	2.6
TOTAL		268	100%	152	100%

Table 4.5 indicates that a higher percentage of girls (28.3%) scored low points compared to boys (18.3%). In total 92 students (21.9%) had low scores. More boys (36.6%) than girls (28.9%) scored below average (29-39 points). This category

recorded the highest number of students (142). This constitutes 33.8% of the total number of respondents.

Together, the students whose scores were between low and below average performance make up 55.7% of the students. In the average category (40-49 points) there were more boys (28.7%) than girls (23%). A total of 112 (26.7%) students had an average performance. A higher percentage of girls (17.2%) scored above average (score of 50-69 points) than boys (12.7%). Lastly, a total of 14 (3.3%) students attained excellent performance (above 70 points). At this level girls were 4(2.6%) while boys were 10(3.7%). Figure 4.2 illustrates students' academic performance.

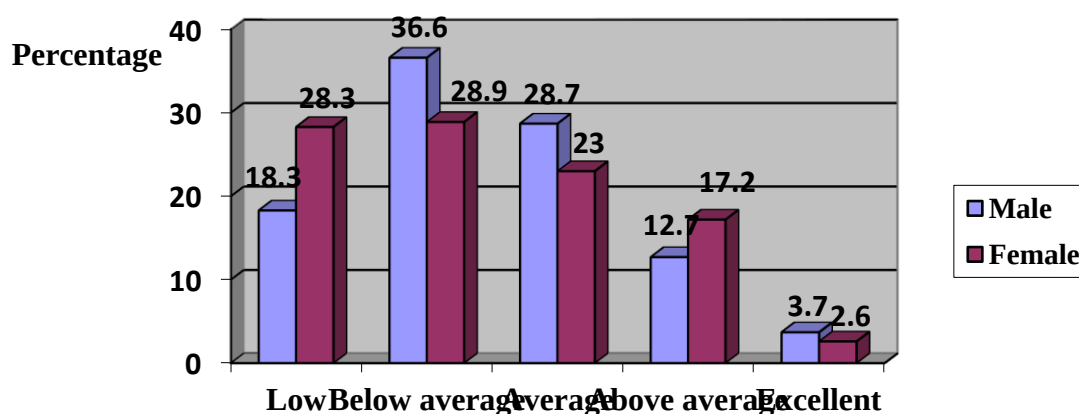


Figure 4.2: Male and female students' levels of academic performance

4.4 Career Aspirations and Academic Performance

The second objective of this study was to investigate the relationship between career aspirations and academic performance among Form three secondary school students in Bungoma South sub-County. To achieve this objective the following research question was posed: What is the relationship between career aspirations and academic performance among secondary school students? To answer this question, the

participants were required to state the kind of occupation they wished to undertake in future. First, career choices were rated to generate data on ordinal scale as shown in tables 4.2 and 4.3. This was followed by cross tabulation of academic performance and career aspiration. Table 4.6 shows students' career aspirations according to the perceived levels of preparation and academic performance.

Table 4.6: Students' career aspirations and levels of academic performance

Career aspirations	Levels of Academic performance										
	Low		Below Average		Average		Above Average		Excellent		TOTAL
	N	%	N	%	N	%	N	%	N	%	N
Little preparation	0	0	0	0	0	0	0	0	0	0	0
Some preparation	4	4.3	9	6.3	4	3.6	3	5	0	0	20
Medium preparation	24	26.1	13	9.9	9	8.9	2	3.3	2	14.3	50
Considerable prep	22	23.9	31	21.8	25	21.4	11	18.3	2	14.3	91
Extensive preparation	42	45.6	89	62	74	66.1	44	73.3	10	71.4	259
TOTAL	92	21.9	142	33.8	112	26.7	60	14.2	14	3.3	420

Results from table 4.6 revealed that none of the students regardless of the academic performance aspired for careers that require little preparation. From the table, a total of 92(21.9%) had a low academic performance (11-28 points). Out of this, 42 (45.6%) students aspired for careers that require extensive preparation, 22(23.9%) considerable preparation and only 4 (4.3%) students aspired for careers that require some preparation. None of the students with excellent performance aspired for careers in the first two levels that is, careers that require little and some preparation. It was observed that out of 14 student who attained excellent performance, 10 (71.4%) of them aspired for careers that require extensive preparation.

Results also indicate that a majority (33.8%) of students score below average. Out of this 74 (66.1%) aspired for careers that require extensive preparation while 4 of them (3.6%) aspired for career that require some preparation. Generally, most students regardless of their academic performance aspired for careers that require extensive preparation. This category of careers attracted a total of 259 (61.7%) students. A majority (51.2%) of those whose yearning were inclined towards careers that require extensive preparation scored below average points. Only 10 (3.9%) students whose career preference were in this category attained excellent performance. The analysis indicates that regardless of academic performance most Form three students in Bungoma South Sub-County aspired for prestigious careers that demand extensive preparation.

To determine whether there is a significant relationship between career aspiration and levels of students' academic performance, the data was further subjected to Spearman *rho* correlation coefficient. The results of this analysis are presented on table 4.7.

Table 4.7: Relationship between career aspirations and levels of academic performance

Variable	Correlations	
	Career aspirations	Academic performance
Spearman correlation		0.263
Sig.(2-tailed)		0.001
N		420

***Correlation is significant at the 0.01 level (2- tailed). P is 0.001.

A weak positive correlation was found ($r_{418} = 0.263$, $p < .01$), indicating a significant weak relationship between the two variables. Career aspiration to some small extend related to students' levels of academic performance. The null hypothesis

(Ho₂) that states that there is no significant relationship between career aspirations and academic performance was therefore rejected.

The findings of this study are in agreement with Lindermans' (2010) study that revealed that the academic capacity of British adolescents (as dictated by accomplishment on an IQ test) was on a small scale identified with their career aspirations. However this study contradicts that Creed et al. (2007) study which discovered that the seventh grade learners' academic abilities as pegged on accomplishment on state standardized testing, was not identified with the career aspirations. The greater part of the learners investigated sought to high status careers paying little mind to test accomplishment (Creed et al., 2007). The implication of this results means that as students quest for suitable career opportunities, they should align it to the reality based on their academic performance to avoid disappointment.

4.5 Students Attitude towards Gender Specific Roles

Students' attitude towards gender specific role was measured using a five-point Likert scale. The responses ranged from Strongly Disagree (SD) to strongly agree (SA) to statements on attitude towards gender specific roles. This was followed by computation of the total number of male and female responses per item. The aim was to establish how many students either agreed or disagreed to statements on attitude towards gender specific roles. Table 4.8 indicates the percentage of students' responses for each item on the Likert scale. In the table M stands for male and F for female.

Table 4.8: Attitude towards gender specific roles

Item	SA		A		U		DA		SD	
	%M	%F	%M	%F	%M	%F	%M	%F	%M	%F
I would like see more women engineer	60.5	60.2	25.7	20.4	8.6	9.2	4.1	6.6	6.6	3.3
Mathematics is for a boy than a girl subject	5.6	7.2	7.9	7.1	5.6	5.3	19.8	18.4	61.9	61.2
It is not important for girls to go to the university	10.1	7.9	5.6	7.9	6.0	7.2	13.4	5.9	64.9	71.1
Men are better than women in making decisions	4.9	5.3	7.1	7.2	7.5	7.9	24.3	24.3	56.3	55.3
I would like to see more male house servants	17.2	14.5	24.3	14.5	16	12.5	20.5	28.9	22	29.6
Men should not do jobs like secretarial and nursing	6.3	6.6	4.5	7.9	4.5	5.3	26.9	23	57.8	57.3
Women should not do jobs like engineering	5.6	5.2	5.6	7.9	5.2	7.3	16.4	23.9	59.7	63.2
All jobs should be open equally to men and women	59	58.6	25	25	5.2	7.2	5.6	7.9	5.6	5.3
Boys are better than girls in technical subjects	4.1	5.9	10.4	4.6	7.5	5.9	32.5	38.2	45.5	43.4
A good education is more important for boys than girls	6.0	3.3	7.1	9.9	2.6	3.9	21.7	21.3	61.2	63.1

Results from table 4.8 reveal that a higher percentage of students either strongly agreed with positive statements on attitude towards specific roles or strongly disagreed with negative ones. For example, 60.5% and 60.2% of male and female students strongly agreed with the idea of having more female Engineers. This is closely followed by 25.7% male and 20.4 female respondents who agreed with the same idea. Those who strongly disagreed were 5.2%. A higher percentage of male (6.6%) than female (3.3%) strongly disagree with the idea of seeing more female Engineers. Majority of the female respondents (71.1%) strongly disagree that Mathematics is more of boys than a girl's subject. Male respondents who disagree with the same statement were 64.9%. The respondents who strongly agreed to this statement were 7.9% female and 10.1% male. The item on having male house savants recorded the highest percentage of respondents who were undecided with male being

16% and female 12.5%. Majority of female (29.6%) than male (22%) strongly disagree on the idea of having more male house savants. This was closely followed by 23.6% who disagreed. This implies that a majority of the students were aware of jobs that are traditionally viewed as feminine such as secretarial work, care of young children and feel that it might be hard for someone of the opposite sex to do those jobs. Despite of this, 58.6% of female students and 59% male strongly agree that all jobs should be open equally to both men and women. More male (6.7%) than female (4.6%) strongly disagree with this statement. Students' responses to items in table 4.8 generally show that majority of them regardless of gender held an open attitude towards gender specific roles with a majority of them strongly agreeing to positive statement and disagreeing to negative ones.

4.6 Career Aspirations and Attitude Towards Genders Specific Roles

The third objective of the study was to investigate the relationship between students' career aspirations and their attitude towards gender specific roles. To achieve this, the following research question was posed: What is the relationship between students' career aspirations and their attitude towards gender specific roles? First, Students mean score for each item on attitude towards gender specific roles was computed. The sum for scores for all items per students then computed and divided by the number of items (10) to obtain the overall mean per respondent.

The scores obtained were then converted into three main categories of attitudes as follows: Students who scored a mean of between 1 and 2.4 were assigned a score of 1 and were described as having a negative attitude towards gender specific roles. Students whose scores average fell between 2.5 and 3.4 were considered as having a neutral attitude and were therefore assigned score of 2. A mean of 3.5 to 5 was scored

3 (meaning positive attitude towards gender specific roles). Table 4.9 shows the three measures of students' attitude towards gender specific roles.

Table 4.9: Summary of students' attitude towards gender specific roles

Attitude towards gender roles	Female		Male		Total	
	N	%	N	%	N	%
Negative attitude	11	7.2	24	9.0	35	8.3
Neutral attitude	18	11.8	24	9.0	42	10
Positive attitude	123	80.9	220	82	343	81.7

Table 4.9 indicates that 7.2% of female students held a negative attitude towards gender specific roles while male students were slightly above at 9%. More female (11.8%) had a neutral attitude than male (9%). Regardless of gender majority of the students held a positive attitude towards gender specific roles. This group had 80.9% female and male slightly higher at 82%. In total there were 35(8.3%) students with negative attitude, 42(10%) neutral attitude and 343 (81.7%) with positive attitude. These findings are further presented in figure 4.3 which shows students attitudes towards gender specific roles.

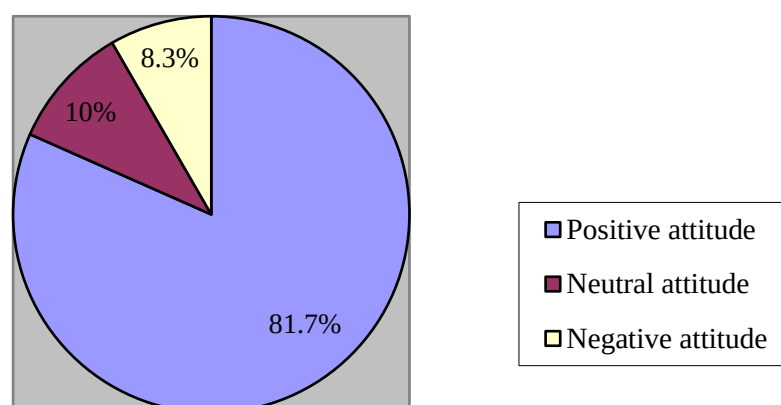


Figure 4.3: Students' attitude towards gender specific roles

To establish the relationship between career aspirations and academic attitude towards gender specific roles, first a direct correlation between career aspirations and students' attitude towards gender specific roles was computed and the results presented below.

Table 4.10: Career aspirations and attitude towards gender specific roles

Levels of career preparation	Attitude towards gender specific roles							
	Negative		Neutral		Positive		Total	
	N	%	N	%	N	%	N	%
Little preparation	0	0	0	0	0	0	0	0
Some preparation	3	15	6	30	11	55	20	4.8
Medium preparation	2	4	8	16	40	80	50	11.9
Considerable preparation	9	9.9	11	12.1	71	78	91	21.7
Extensive preparation	21	8.1	17	6.6	221	85.3	259	61.7
Total	35	8.3	42	10	343	81.7	420	100

From this analysis, it is evident that students who aspired for careers that need extensive preparation recorded the highest percentage (85.3%) of those with positive attitude towards gender specific roles while some preparation recorded the lowest (55%). Careers that require some preparation recorded the highest percentage (15%) of those with a negative attitude towards gender specific roles while the lowest was in careers that require medium preparation (4%). Moreover, students who aspired for careers that require some preparation had the highest percentage (30%) of those with neutral attitude towards gender roles while extensive preparation was lowest at 6.6%. This category of students are said to be undecided.

To establish whether there is a significant relationship between career aspirations and attitude towards gender, Kendall's tau b correlation between the two variables was computed and results represented on table 4.11.

Table 4.11: Kendall's tau-b correlation coefficient

	<i>Career aspirations</i>	<i>Attitude</i>
Career aspirations correlation coefficient		0.42
Sig (2-tailed)	P	0.355
N	420	420

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

Results from table 4.11 reveal that there was no significant relationship between career aspirations and attitude towards gender specific roles ($\tau_b = .042$, $p = .355$) $P > 0.05$. The null hypothesis is therefore accepted. The implication of this finding is that the attitude towards gender specific roles has no influence on the career aspiration of students in Bungoma South Sub-County. Although students' career aspirations are gender biased as indicated in table 4.2, it has been revealed that majority of them hold an open attitude towards gender specific roles. This indicates that there is a general acceptance among students that male and female can take up any job regardless of their gender. More so the finding indicate that there is changing gender roles and social standing of women in today's Kenyan society.

This findings contradicts Kharoufs'and Daouds' (2019), study about gender role among higher education students in Jordan which established that the attitudes of female youth towards gender roles were traditional in comparison to those of their male counterparts. However, Kharouf and Daoud (2019) established that the attitudes towards gender roles tend to be gender balanced among older youths. Again a study by Nadeem and Khalid (2018), on the relationship of gender role attitudes with career aspirations and carer choices among young adults revealed that men had more conservative gender role attitudes and lower career aspirations than women. In the study, females chose more non-traditional and male-dominated careers for themselves

than male. The study therefore draws a significant association between career aspirations and social emancipation of women.

4.7 The Relationship Between Attitudes Towards Gender Specific Roles And Academic Performance

The fourth objective of the study was to examine the relationship between gender role attitudes and academic performance among male and female students. To achieve this, the following research question was posed: What is the relationship between students' attitude towards gender role attitudes and their academic performance? Kendall's tau-b correlation coefficient was computed to assess the relationship between attitudes towards gender specific roles and academic performance and the results presented in table 4.12 below.

Table 4.12: Kendall's tau-b correlation coefficient

	<i>Academic performance</i>	<i>Attitude</i>
Gender roles correlation coefficient		.372
Sig (2-tailed)	P	.265
N	420	420

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

Results from table 4.12 reveal that there was no significant relationship between attitude towards gender specific roles and academic performance ($\tau_b = .0265$, $p = .372$) $P > 0.05$. The null hypothesis is therefore accepted. The implication of this finding is that the attitude towards gender specific roles has no influence on students' academic performance.

The results of this study are in agreement with Korir (2014), study on the influence of students' attitudes towards gender role stereotypes on their performance in Mathematics and Chemistry in secondary schools in Bomet, Kenya which revealed that there was no relationship between attitudes held towards gender role stereotype

and performance in Mathematics and Chemistry. In the study boys had a better performance in Chemistry than girls but this difference cannot be attributed to their attitude towards gender role stereotype.

4.8 Students Perceived Barriers to career Aspiration

The fifth objective was to assess students' perceived barriers to career aspirations. To achieve this objective the following research question was posted: What are the perceived barriers to students' career aspiration? To answer this question, the participants were asked to rate the item 14 to 24 of the students' questionnaire. The barrier to student's career aspirations was analysed first using descriptive statistics. Table 4.13 shows the student responses to barriers to their career aspirations.

Table 4.13: Perceived barriers to career aspirations

Item		No effect	Little effect	Some effect	Very much effect
Lack of interest from parents					
	Female	20 (13.1%)	32 (21.1%)	30 (19.7%)	70 (46.1%)
	Male	56 (20.9%)	45 (16.8%)	45 (16.8%)	122 (45.2%)
The school you are attending					
		74 (48.7%)	31 (20.4%)	29 (19.1%)	18 (11.8%)
	Female				
	Male	136 (50.7%)	55 (20.5%)	51 (19%)	26 (9.7%)
Lack of fees to attend college/university					
		9 (5.6%)	14 (9.2%)	35 (23%)	94(61.8%)
	Female				
	Male	14 (5.2%)	27 (10.1%)	42 (15.7%)	185 (69%)
Academic performance					
		14 (9.2%)	24 (15.8%)	36 (23.7%)	78 (51.3%)
	Female				
	Male	12 (4.5%)	41(15.3%)	72 (26.9%)	143 (53.4%)
Unemployment in the country					
	Female	15 (9.9%)	35 (23%)	49 (32%)	53 (34%)
	Male	29 (10.8%)	57 (21.3%)	99 (36.9%)	83 (31%)
Limited career information					
		5 (3.3%)	38 (25%)	64 (42.1%)	45(29.6%)
	Female				
	Male	24 (9%)	68 (25.4%)	86 (32.1%)	90 (33.6%)
Lack of role models					
		11 (7.2%)	20 (13.2%)	87 (57.2%)	34 (22.4%)
	Female				
	Male	15 (5.6%)	68 (25.4%)	110 (41%)	75 (28%)

Results from table 4.13 reveal that most students perceived lack of college or university fees as a major threat to their career aspirations. A majority of students, 94 (61.8%) female students and 185(69%) male students felt that this barrier had very much effect. This was then followed by academic performance with 94 (61.8%) females and (53.4%) of the males having very much effect to their career aspirations. Lack of parental support was also a threat to most students' career aspiration since 19.7% of female students and 16.8% of male students felt that this barrier has most effect and total of 70(46.1%) of female students and 128(47.8%) of male students felt that it had very much effect. More female students (42.8%) than male (32.1%) perceived lack of career information as having some effect to their career aspiration.

This means that girls experience the problem of access to career information more than boys. Most students were not so worried with the uncertainty of securing an employment since only 34 % female and 31% male students felt that this has very much effect on their career aspirations. Lack of role model recorded the least number of students who felt that it had very much effect on their career aspirations (22.4% female and 28% male). A majority of students (57.7% female and 41% male) felt that this barrier had some effect.

To establish if there was a significant gender difference in students' barriers to their career aspirations, the mean and standard deviation for each item was computed and the results are represented in table 4.14.

Table 4.14: Mean and standard deviation (SD) for barriers to career aspirations

Items	Group		Male		Female		Sig.
	Mean	SD	Mean	SD	Mean	SD	
Lack of parental support	2.93	1.18	2.90	1.22	2.99	1.09	0.445
The school you are attending	1.90	1.05	1.88	1.04	1.94	1.08	0.549
Lack of money for college	3.46	0.88	3.49	0.88	3.55	0.89	0.388
Academic performance	3.22	0.97	3.25	0.96	3.17	1.01	0.448
Unemployment in the country	2.90	0.98	2.88	0.97	2.92	0.99	0.684
Limited career information	2.93	0.92	2.90	0.97	2.99	0.83	0.371
Lack of role models	2.63	1.03	2.60	1.03	2.69	1.03	0.571

Based on the scoring of the Likert scale, the barrier indicating the highest mean score is considered as the most influential while that with the lowest mean score is considered as the least influential. From the results in table 4.14, academic qualifications and lack of financial resources recorded the highest overall group mean score of 3.22 and 3.46 for both male and female students and were therefore

considered the major barriers experienced by the respondents in their career aspirations. This means that as much as students would love to pursue certain careers of interest their grades and the financial resources available cannot allow them to compete in their fields of interest. Most students worry about their low grades or lack tuition fees as a hindrance to future careers goals. The type of school the respondents attend and Lack of role models recorded lower group mean scores of 1.9 and 2.63 respectively. This shows that most students do not consider their schools and role models as an important aspect when deciding on their careers of choice as much as it may pose as a barrier to a few of the students.

The lower outputs of the standard deviation for both male and female student's responses on barriers to career aspirations in table 4.14 indicate that the data points are close to the mean in both cases and therefore there is no statistically gender difference in students perceived barriers to their career aspirations. The null hypothesis that states that there is no significant gender difference in student's perceived barriers to career aspirations is accepted.

4.9 Students' Perceived Barriers to Academic Performance

Students perceived barriers to academic performance were also established. To achieve this, participants were required to give their perceptions on the extent to which they felt the given barriers hindered or affected their academic performance on a four-point Likert scale. Scores of the Likert scale used were: no effect =1, little =2, some effect=3, very much effect = 4. The responses were converted into percentages as shown in the table 4.15 below.

Table 4.15: Students' perceived barrier to academic performance

Item		No effect	Little effect	Some effect	Very much effect
Negative peer pressure					
	Female	7 (4.6%)	15 (9.8%)	22 (14.5%)	108 (71%)
	Male	10(3.7%)	22 (8.2%)	53 (19.8%)	183 (68.3%)
Inadequate learning resources					
	Female	5 (3.3%)	25 (16.4%)	66 (43.4%)	56 (36.84%)
	Male	9 (3.4%)	58 (21.6%)	107 (39.9%)	94 (35.1%)
lack of school fees					
	Female	6 (3.9%)	12 (7.9%)	32 (21%)	102 (67.1%)
	Male	15(5.6%)	17 (11.2%)	57 (21.3%)	179 (66.8%)
Teacher shortage					
	Female	5 (3.3%)	26 (17.1%)	80 (52.6%)	41 (30%)
	Male	9 (5.9%)	64 (23.9%)	116 (43.3%)	79 (29.5%)
lack of interest in subject content					
	Female	9 (5.9%)	30 (19.7%)	40 (19.7%)	73 (48%)
	Male	18(6.7%)	46 (17.2%)	64 (23.9%)	140 (52.2%)

Results from table 4.15 indicate that most of the listed barrier to academic performance had very much effect on academic performance each recording over 60% of male and female students. However inadequate learning resources and teacher shortage did not have very much effect. These two items recorded fewer students that is, 56(36.8%) female and 94 (35.1%) male and 41 (30%) female, 79 (29.5%) male respectively. More male (52.2%) than female (48%) recorded that lack of interest in subject content had very much effect on their academic performance. Most students felt that negative peer pressure pose the greatest hindrance to their academic performance. This item registered the highest number of students who felt that it had very much effect that is, 108(71%) of females and 183 (68.3%) of males. This was

closely followed by lack of school fees with 102(67.1%) female and 179 (66.8%) male students.

To establish if there was a significant gender difference in students' barriers to their academic performance, the mean and standard deviation for each item was computed and the results are represented in table 4.16.

Table 4.16: Mean and SD for the perceived barriers to academic performance

Perceived barriers to academic performance	Group		Female		Male		Sig.
	Mean	SD	Mean	SD	Mean	SD	
Negative Peer pressure	3.52	0.819	3.52	0.853	3.53	0.819	0.939
Inadequate learning resources	3.09	0.825	3.14	0.825	3.07	0.836	0.398
Lack of school fees	3.50	0.831	3.51	0.806	3.49	0.846	0.807
Teacher shortage	3.00	0.797	3.03	0.758	2.99	0.819	0.586
Lack of interest in subjects' content	3.20	0.953	3.16	0.945	3.22	0.959	0.592

Based on the scoring of the Likert scale, the barrier indicating the highest mean score is considered as the most influential while that with the lowest mean score is considered as the least influential. From the results, all the barriers recorded a mean of above three. This means that the respondents perceived all the five barriers presented as a threat to their academic performance. Of the five barriers negative peer influence and lack of school fees recorded the highest means score of 3.52 and 3.5 respectively. This means that the two barriers are perceived as having very much effect on students' academic performance for both male and female students. Teacher shortage recorded the lowest mean (3.00) which was closely followed by inadequate learning resources with a mean score of 3.09. This means that most secondary schools in Bungoma South sub- County are fairly equipped with learning resources and they do not suffer from sever teacher shortage.

The low values of the standard deviation for both male and female student's responses on barriers to academic performance in table 4.16 indicate that the data points are close to the mean in both cases and therefore there is no statistically significant gender difference in students' perceived barriers to their academic performance. The null hypothesis that states that there is no significant gender difference in student's perceived barriers to academic performance is accepted.

4.10 Conclusion

In this chapter, data analyses and presentation has been done logically based on the objectives outlined. It was revealed that student's career aspirations were high as a majority of them aspired for careers that require considerable to extensive preparation. Moreover, the study indicates that there is a significant gender difference in students' career aspirations. Besides, students' academic performance was reported to be generally below average. The study established a weak positive relationship between academic performance and career aspirations. The study also showed that students held a positive attitude towards gender specific roles. Kendall's tau-b Correlation coefficient was computed for career aspirations and attitude towards gender specific roles. This was also calculated to analyse the relationship between students' gender role attitudes and academic performance. From the analysis, it was established that there was no significant relationship between career aspirations and attitude towards gender specific roles. In addition there was no significant relationship between attitude towards gender specific roles and academic performance.

Lastly the study analysed the barriers to students' career aspirations and their academic performance. Majority of students perceived inadequate financial resources and low academic performance as the major barriers to their career aspirations. More

so, students perceived negative peer influence and lack of school fees as the major barriers to their academic performance. Lastly, the results indicate that there was no significant gender difference in students' perceived barriers to career aspirations and academic performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The study was carried out with the main purpose of establishing the relationship between career aspirations, attitude towards gender specific roles and academic performance among secondary school students in Bungoma South Sub County. It therefore endeavoured to answer the major question: What is the relationship between career aspirations, attitude towards gender specific roles and academic performance among secondary school students in Bungoma south sub-county?

The areas of focus were:-

- a) Gender differences in students' Career aspirations.
- b) The relationship between students' career aspirations and academic performance.
- c) The relationship between career aspirations and attitude towards gender specific roles.
- d) The relationship between attitude towards gender specific roles and academic performance
- e) Students perceived barriers to students' career aspirations and their academic performance.

This chapter will deal with discussions of the findings whose summaries are found at the end of each of the five areas mentioned above in chapter four. It will then make conclusions, recommendations and suggestions for further research.

5.1 Gender and Career Aspiration

The first objective for this study was to determine gender differences in students' career aspirations. Despite of students' academic performance, results indicate that

careers that require extensive preparation are the most preferred career types by both male and female students. Most of these careers require graduates with extensive skills, knowledge and experience. For example in Kenya , surgeons must complete five years of university and additional five to seven years of specialized medical training to be able to do their job. The preference in careers that require extensive preparation means that most students aspire to careers involve coordinating, training, supervising, or managing the activities of others to accomplish goals. According to National Center of O*net development (2018), the careers in this category include pharmacy, law, surgery and the various fields of engineering, and medicine.

A good number of students aspired for careers that require considerable preparation. Most of these careers require a four-year bachelor's degree. These careers require a considerable amount of work-related skills, knowledge or experience. Employees in these occupations usually need several years of work-related experience and on-job training. Examples of careers that require considerable preparation includes high school teachers, accountants, company managers among others. Many of these occupations involve coordinating, supervising, managing, or training others (National Center of O*net development, 2018).

The least preferred careers for both male and female students were those that require little preparation. Some of these occupations may require a high school or college certificate. These careers demand for little or no previous work related skills, knowledge or experience. They also do not require much training and in most cases experienced workers could show an individual how to do the job. These career types involve following instructions, manipulation of tools and manual tasks such as driving, carpentry masonry and catering. The avoidance of students in this zone of careers means they are well aware of careers that are less prestigious.

In as much as male and female students aspire for similar careers paths; certain career types were preferred more by males than female. For instance, more male than female aspired for careers that require extensive preparation. More female students aspired for careers that require medium preparation than male. This category includes careers such as nursing and journalism among others. This difference in career choices could be as a result of the socialization in different cultures where certain careers are not suited for particular gender. The findings of this study agree with those of Rosenbloom et al. (2007) which indicated that men and women are geared towards different careers because they value different aspects of work. According to US Department of labor (2018), factors such as gender and discrimination limit the educational opportunities available for women. However the 21st century has witnessed a reduction in most of the barriers to career choices among women. This has been as a result of greater acceptance of women pursuing male –dominated careers and greater choice in childcare options (zeb,Arshad and Azizullah , 2020).

Many researches have noted that limited exposure in nontraditional careers may hinder their occupational aspirations more so for the academically gifted girls who may have the potential to pursue prestigious careers. On the other hand several researchers have noted that there is greater pressure for boys than there is for girls to adhere to traditional gender role stereotyped behavior. Boys are pressured to aspire for careers that are highest in earning potential and prestige (zeb,Arshad and Azizullah , 2020). Young women are less pressured to pursue female –dominated careers and so they would be more attracted to male-dominated careers (Nadeem and Khalid (2018).

The findings of the current study are similar to previous researchers such as Goffredson (2005) and that of Obura and Ajowi (2012) and whose results revealed

that adolescents' career aspirations are gender biased. For example, research by Obura and Ajowi (2012) revealed that females students often tend to give preference to careers such as nursing, secretarial, catering and clerical jobs, which are perceived to be traditionally suitable for female. According to Migunde et al. (2011), these findings may be due to the existing gender stereotyping which is still practiced all over the world. Both males and females still choose careers that correspond with their traditional gender roles. This may also be due to the differences in self-concept and self-efficacy between males and females (Migunde et al., 2011).

Goffredson (2005) alludes that during adolescence, students are able to discriminate occupational choices based on gender and prestige levels. He gives an example where female students might avoid choosing occupations that are generally perceived as too masculine, such as mining. In addition, females may also eliminate choices that are perceived to be of low social status. Goffredson (2005) further argues that women avoid male dominated occupations due to lack of self confidence in such occupations. Furthermore, research shows that girls tend to aspire to a narrower range of occupations than boys because they believe many jobs are unsuitable for them. On the other hand, their male counterparts seem to have a greater occupational understanding, focus and see more occupational opportunities (Creed et al., 2007). Similar gender differences have been found in the pathways leading to students' aspirations as well (Korhonen et al., 2016). According to Sani (2018) in a study about gender role stereotyping as a correlate of career aspirations established that male gifted senior secondary school students aspired to careers that were higher in education required and prestige than their female counterparts. However, some studies have reported higher aspirations of female students, consistent with trends in college enrollment that indicate more motivation for female than male students (Glazer-

Raymo, 2003). One possible explanation for higher female aspirations may be related to better communication and observation of female role models (Mau & Bikos, 2000).

This finding contradicts those of Nadeem and Khalid (2018) whose study on the relationship of gender role attitudes with career aspirations found out that male had more conservative gender role attitudes and held lower career aspirations than women. Women chose more non-traditional and male – dominated careers for themselves than men (Nadeem and Khalid, 2018). Their results further reveal that female were more inclined towards a greater number of careers and showed greater gender role flexibility in their yearnings than their male counter parts. Therefore female reported higher career aspirations as compared to male. Shapka et al. (2008) in Nadeem and Khalid (2018) contents that both male and female may harbor similar career aspirations through their entire education, however when they are faced with the reality of seeking employment in their aspired field, they may react differently to opportunities or barriers resulting in females opting for less prestigious careers.

5.2 The Relationship between Career Aspirations and Academic Performance

The second objective of this study was to establish the relationship between career aspirations and academic performance among Form three secondary school students in Bungoma South Sub-County. Results revealed that no student, regardless of the academic performance, aspired for a career that requires little preparation. Most of the students surveyed aspired for high status careers regardless of academic performance.

Spearman *rho* correlation coefficient was computed to assess the relationship between participants' career aspirations and academic performance revealed weak positive correlation. This finding confirms studies done by Kisilu et al. (2012); Arhin, (2018); and Mwaura, (2020) which revealed that there is a significant correlation between the

learner's academic performance and occupational aspirations. They attributed this to the structure of the Kenyan school curriculum that requires one to obtain high academic achievement if one aspires to join the prestigious occupations. According to Patton's et al., (2007) study, adolescents who experienced minimal academic risk expected occupations of greater prestige while those who experienced substantial risk of academic failure were more likely to report lower occupational aspirations.

This finding partly agree with Rojewski's (2005) study which revealed that academic achievement has a minimal effect on the career aspirations of teenage students. A summary of the previous findings shows that regardless of achievement level, a large number of high school students held higher levels of career aspirations. Most studies found a correlation between academic achievement and career aspirations but this relationship was generally weak. This finding also coincides with those of Linderman (2010) and Creed et al (2007) which noted that certain career groups attracted students with the highest test scores and other career groups attracted students with the lowest test scores. Findings of the current study also give support to the developmental career theories of Ginzberg et al. (1951) and Gottfredson (1981) with respect to the notion that at least some students consider their ability (GPA) when formulating career aspirations. Previous studies on aspirations and academic achievement have primarily focused on the question whether or not aspirations can be used as a vehicle to raise school academic performance (Linderman, 2010). The conclusion of most of these studies is that the evidence to link raising aspiration with improving school academic performance is either very slim or highly questionable. For instance a study conducted by Sapra & Chaudhary, (2021) on career aspirations and the relationship with academic performance on undergraduate management students established that students held high career aspirations ambitions but their

aspirations were not at a reasonable level and also showed relatively low academic performance. The study also revealed a minimal positive relationship between career level expectations and student's academic performance. Sapra & Chaudhary, (2021) concludes that a commitment to academic and career success appeared disconnected from concrete future goals and plans for most of the students. To solve the disconnect that there is between career aspirations and academic performance Sapra & Chaudhary (2021) suggest the need for an improvement in social support networks that promote academic achievement and career opportunities. Presently, it seems that the effectiveness of the education system is hampered by limited information on student's career aspirations academic attitude and behaviors (Sapra & Chaudhary, 2021).

According to Waithaka & Wainaina (2016) the process of career choice should begin early while students are in school. At this time the learners have the time and opportunity to learn, research, prepare and practice well before they decide on a specific course of higher education and job. A student with a career plan is seen to be a motivated one and is likely to achieve the grades and learn the skills needed in their chosen career. It is expected that learners with higher achievement in class are more likely to get the career they want and achieve a fulfilling and successful vocation.

According to St Clair & Benjamin (2012), career aspirations can help students improve their academic achievement, but they are much more influential if they are accompanied with high expectations as well. However, having high aspirations without being able to achieve them negatively influences students (Khattab, 2014). This according to Khattab, (2014), this may lead to disappointment, frustrations and social withdrawal. Despite this, Cummings et al. (2012) suggest that policy makers, teachers and other professionals in schools should encourage their students to raise

and maintain high level of aspirations. They argue that these high aspirations should be reinforced by equipping the students, particularly those coming from poor and disadvantaged families with necessary skills, addressing their learning needs and improving the information and the opportunities they receive. Cummings et al. (2012) posit that these extra steps and interventions beyond raising aspirations can lead to higher level of expectations and self-efficacy, which in turn help raising school academic performance. Finally Mesa (as cited in Arhin, 2018) opines that students with positive aspirations have high learning goal orientation because their characteristics of seeking to grasp new knowledge and skills, complete assignments and overcome hindrances will be in line with their career pursuits. Arhin (2018) states that learners need to comprehend that the core skills learned in class are directly linked to their career interests and this may increase their chances to perform well academically.

5.3 Career Aspirations and Attitude Towards Gender Specific Roles

The third objective of the study was to find out the relationship between students' career aspirations and their attitude towards gender specific roles. The results revealed that generally, students in Bungoma South Sub-County hold positive attitudes towards gender specific roles. Kendall's tau-b Correlation revealed that there is no significant relationship between career aspirations and attitude towards gender specific roles ($\tau_b = .042, p = .355$) $P > 0.01$.

The above findings are in contrast with Nadeem and Khalids' (2018) study on the relationship of gender role attitudes with career aspirations and career choices among young adults since it revealed that there exist a strong relationship between the scores of gender role attitudes and career aspirations. Their study established that liberal

gender role attitudes are associated with higher career aspirations while conservative gender role attitudes are associated with lower career aspirations. According to Nadeem and Khalids' (2018) there is a paradigm a shift in global gender role as many people embrace egalitarian attitudes in the wave of gender equity that has swept the developed nations. Despite of this, their study established that men had more conservative gender role attitudes and lower career aspirations than women. The studies done by Mendez and Crawford, 2016 and Nadeem and Khalids' (2018) revealed that female chose more non-traditional and male dominated careers for themselves than men. According to Mendez and Crawford, (2016), girls show greater gender-role flexibility in their career aspirations than their male counterpart. However, when it comes to actual work most women prefer to remain in positions that are not superior to occupations that are traditionally occupied by men. As a result, majority of women still remain in the gender stereotyped occupations because they fear that by choosing male dominated fields of work they might display what is commonly known as gender –deviant behaviour which is looked down upon by most patriarchal societies around the world (Nadeem and Khalid, 2018). According to Sani (2018), limited exposure of students in non-traditional career limits the career aspirations of gifted students who have the capacity to pursue education that will lead them to prestigious career. Such limitations make students not to perceive certain career as being within their realm options. Such a situation according to Umar and Usman (2018) is as a continuous gender – role stereotyping of careers early in life results in persistent underrepresentation of women in high –pay high-status professions.

Concerning students positive attitudes towards gender specific roles, the current study is in agreement with Tinklin et al. (2005) study which revealed that generally young

people believed that it was equally important for males and females to get good qualifications at school, to have worthwhile careers and raising a family should be a joint responsibility. According to Tinklin et al., (2005), the young people clearly believed in the principle of equal opportunities when considering the general roles of men and women in a given society. In their study about gender and attitudes to work and family roles, they established no significant relationship between students' career aspirations and their attitude towards gender specific roles. They asserted that while young people's attitudes towards gender roles may have changed, they are still choosing fairly gender-typical subjects at school and aspiring to different types of occupation. Also, while they believed, in principle that men and women are equal to task in any job, they are also aware that those taking up non-traditional occupations might encounter prejudice among their colleagues and employers.

According to Tinklin et al. (2005), individuals perceive differences in ability of males and females particularly in terms of physical strength, which they felt would have a bearing on their ability to undertake certain jobs. In conclusion, Tinklin et al., (2005) felt that in theory, anyone can do any job they want to these days. However, it is still unusual to see a female mechanic or a male nurse.

Findings of the current study also confirm Wanyonyis' (2003) study which revealed that attitude towards gender specific roles does not influence students' career choice. The implications of this finding mean that there is change in attitude of both male and female students about careers. A majority of the respondents in Wanyonyi's (2003) study felt that both male and female students have equal opportunity to enrol in any career regardless of gender. This means that majority of the students in secondary schools are more enlightened on gender equity.

5.4 The relationship between attitude towards gender specific roles and academic performance

The fourth objective of this study was to assess the relationship between attitude towards gender specific roles and students' academic performance. From the results, there is no significant relationship between students' attitude towards gender specific roles and their academic performance. The study also found no gender differences in gender role attitudes between boys and girls. Both genders held a highly positive attitude towards gender specific roles. The findings of this study agree with Korir's (2014) study on the influence of students' attitudes towards gender roles stereotypes on their performance in mathematics and chemistry which revealed that there was no difference in expression of attitudes between boys and girls towards gender roles stereotypes. Korirs' (2014) study also revealed that there was no relationship between attitudes held towards gender role stereotypes and performance in mathematics and chemistry. The disparity in academic performance between girls and boys cannot therefore be explained by the altitude held towards gender roles by both boys and girls. However, a study done by Kharoulf and Daoud (2019), about gender role attitudes among High education students in Jordan revealed that students' attitudes towards gender specific roles has a profound effect on their academic outcomes. The traditional gender attitudes were linked to lower academic performance among female students particularly in sciences. This lower achievement among female students according to Kharoulf and Daoud (2019), was attributed to the fact that gender stereotyping process has a tendency of creating an image in an individual's mind that is not based on personal experiences but derived from the culture and surrounding.

Among some communities in Kenya male dominance is encouraged by culture and it filters in the in the schools and this has an influence students' academic performance.

Concerning schools in Bungoma South Sub County most rural schools are influenced by the strong Bukusu culture which is mainly patriarchal. This prevailing situation according to Korir (2014), among the Kenya communities suppresses the girls in why that they are unable to fully realise their academic potential. The society has got perception of male and female roles and these perceptions are transmitted within the education system. For instance teachers are more permissive and biased towards boys in a positive way by praising them more frequently and this attributes to their diligence. On the other end when labelling is applied in schools often girls are predisposed to behave according to the labels and this affects their perception of self, their motivation and performance.

5.5 Students' perceived barriers to career aspirations and academic performance

The fifth objective of this study was to assess gender differences in students' perception of barriers to career aspirations and academic performance. First, the study assessed the perceived barriers to students' career aspirations, then barriers to academic performance. From the results, academic qualifications and lack of financial resources recorded the highest mean score of 3.22 and 3.46 for both male and female students and were therefore considered the major barriers experienced by the respondents in their career aspirations. This means that as much as male and female students would love to pursue certain careers of interest, they were worried about their grades and the available financial resources as an impediment to their future career prospects. They feared that low grades or lack tuition fees might hinder them from pursuing their careers of interest.

The type of school the respondents attend and Lack of role models recorded lower mean scores of 1.9 and 2.63 respectively. This is a point to note that majority of students do not consider their schools and role models as an important aspect when

deciding on their careers of choice as much as it may pose as a barrier to a few of the students. Despite males and females ranking the different barriers differently in terms of their influence on career aspirations and academic performance, no significant differences were found for each barrier by gender. This implies that the listed barriers influence career aspirations and academic performance of males and females in a similar manner.

These results are similar to those of Natalie (2006) whose respondents voiced lack of financial resources as the major barrier in their career choice. Lack of financial resources can be explained to be as a result of the high levels of poverty in Bungoma county, whereby most students are not able to attend school regularly due to lack of school fees (Kenya National Bureau of Statistics, 2013). This was also observed during data collection in that most of the students in some of the institutions were away to collect school fees. According to Migunde et al. (2011), education in Kenya has also become very expensive more so for the bright students who come from low economic backgrounds hence preventing them from pursuing their careers of interest.

Results from the current study differ from those of Perrone et al. (2001) in which male mostly cited time management as the main challenge to their academic and career achievement. Females on the other hand cited lack of financial resources as the main challenge to career aspirations. This difference may be as a result of the difference in the list of barriers to career attainment provided in the two studies. For example, time management did not form part of this study. Moreover, studies have shown consistently that adolescents perceive a substantial number of barriers to career development. The barriers observed include among others, ethnic and gender discrimination, lack of finances, family attributes and lack of educational opportunities (Creed et al., 2007).

According to Borchert (2002), the income level of high school families may determine what career a student chooses during a specific time in the student's life; choices that will determine a large part of that student's future. Survey done by Prairie Research Association (2005) on Canadian high school students revealed that low academic achievement was one of the most common barriers among those intending to finish their education with a high school diploma. Among these students surveyed, almost half reported poor marks as a significant barrier to their career aspirations. In addition the survey revealed that lack of interest and motivation for further studies and the belief that post-secondary education will not pay off in the long run are a significant barrier to students' careers. In other words, they do not like school and are not interested in furthering their education (at least immediately after high school). The desire to begin to earn money with a full-time job was more often a significant barrier for those who intend to quit their education after high school (Prairie Research Association, 2005). The study also cited parents and peers as a significant barrier to their career aspirations.

5.6 Students' perceived barriers to academic performance

Students were presented with the following five barriers to their academic performance: inadequate learning resources, lack of school fees, negative peer pressure, teacher shortage and lack of interest in subjects' content. The respondents perceived all the five barriers presented as a hindrance to their academic performance. Of the five barriers, negative peer influence and lack of school fees recorded the highest means score for both male and female students. This means that the two barriers are perceived as having very much effect on students' academic performance. Teacher shortage recorded the lowest mean (3.00). This was closely followed by inadequate learning resources with a mean score of 3.09. This implies that most

secondary schools in Bungoma South sub- County are fairly equipped with learning resources and do not suffer from an acute shortage of teachers. The results also revealed that there was no significant gender difference in students' perception of barriers to their academic performance.

These finding confirm those of previous research by Rumberger and Palardy, (2005) who concluded that student's social economic status, limited resources at home and school exposes students to academic success barrier. In view of this, a school lacking learning materials and support places students at a disadvantaged position. Rumberger and Palardy (2005) further identified school absenteeism as an academic success barrier. They posit that students who experience frequent absenteeism are at a risk of reduced academic achievement since they miss important academic content and consequently fall behind in their academic work. Moreover, Gleason and Dynarski (2002) posit that at school level, emphasis is placed on covering specific curriculum, which makes teachers not have adequate time to help students who are academically behind during class time.

Previous research by Schargel and Smink, (2005) suggests that prior academic achievement characterized by repeated failure, academic and social skill deficit, disability and early assumption of adult roles pose a risk to students' academic performance. Insufficient school supplies and facilities including the need for a laboratory as well as a shortage of teaching staff and the need for a library were the most common inhibitory factors mentioned (Schargel & Smink, 2005). Additionally, insufficient teacher training, student food insecurity, and the absence of water on school premises were issues raised as factors that inhibit students' academic excellence.

5.7 Conclusion

The results from data analysis indicate that there is a significant gender difference in students' career aspirations in Bungoma South Sub- County. From the results, more male students than female students aspired for careers which require extensive preparation such as careers in the field of medicine and engineering. A majority of female students aspired for career that require medium to considerable preparation. Such careers include nursing, teaching, social work, secretarial among others. This indicates the need to address gender disparity in careers from an early stage by encouraging more girls to aspire and eventually take up career in physical sciences. It is therefore, absolutely necessary to address the structural barriers to gender equality, negative gender stereotypes and career biasness that results to under presentation of girls especially in STEM related career fields.

It was established that there was a weak positive significance between career aspirations and academic performance. As a result, certain career groups attracted students with the highest test scores and others career groups attracted students with the lowest test scores. Data revealed a wide range of academic performance within the proposed career groups. Most of the students' academic performance was low, despite of holding high aspirations. Career aspirations if well raised through proper career guidance will address the gap there is between career aspirations and academic performance. The result of this is that students' career aspirations will strongly correlate to their academic performance. This is because the desire to attain certain career goals stimulates students' motivation to work hard for better academic performance.

Results also revealed that there is no significant relationship between career aspirations and students' attitude towards gender specific roles. Majority of students

held positive attitude towards gender specific roles. This indicates that in the light of changing perspective regarding women in the current society, the prevailing view of gender-stereotyping of occupations may have undergone a change. The study established that although students' careers aspirations are gender biased, majority held positive attitude towards gender specific roles. However more male had more conservative gender role attitudes and high career aspirations than women.

It was also established that there was no significant gender differences in students' perceived barriers to their career aspirations and academic performance. Lack of school fees and learning resources remains a serious problem in academic performance. Students' career aspirations are hampered mainly by inadequate career information and low academic achievement.

5.8 Recommendations

The following recommendations were made based on the findings and the conclusions of the study:

1. Career mentorship programs should properly be integrated in secondary school curriculum to enable students acquire necessary information about the nature of jobs, and develop interest in their aspired careers at an early stage. This will inform their subject selection, enhance students' academic performance and increase chances of attaining their aspired careers.
2. Secondary schools in Bungoma County should link up with institutions of higher learning to obtain more information on career opportunities offered. This can shade more light on the available career opportunities and it may act as an impetus to improved academic performance among secondary school students.

3. The ministry of education should organize more capacity building for career teachers.
4. Stakeholders in education should come up with students' occupational interest inventory that will help learners identify their careers early.
5. Academic performance can be boosted among students by fostering discipline, teachers' commitment to their work, students taking charge of their own learning and providing conducive environment for learning both at school and at home.

5.9 Suggestions for Further Research

The following suggestions were made after research findings and discussions since they were not adequately underscored:

- i. Teachers' efficacy in curriculum implementation and its impact on students' career aspirations.
- ii. Perceptions of counselors, administrators and other education stakeholders on students' career development.
- iii. The effect of school and home environment on students' career aspirations.

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THIS IS TO CERTIFY THAT:
MR. DENNIS SIUNDU MUKISU
of MOI UNIVERSITY, 0-50200
bungoma, has been permitted to
conduct research in Bungoma County
on the topic: THE RELATIONSHIP
BETWEEN CAREER ASPIRATIONS,
ATTITUDE TOWARDS GENDER SPECIFIC
ROLES AND ACADEMIC PERFORMANCE
AMONG SECONDARY SCHOOL STUDENTS
IN BUNGOMA SOUTH SUB- COUNTY
for the period ending:
30th October,2015

.....
Applicant's
Signature

Director General
National Commission for Science,
Technology & Innovation

Appendix II: Students' questionnaire

Dear Student,

Your school has been selected to participate in this research seeking to evaluate the relationship between secondary students' career aspiration, attitude towards gender specific roles and their academic performance. The study is for the completion of my Master Degree in Education. Kindly fill in the responses as truthfully as possible, the research will contribute to knowledge on the importance of your career aspiration in relation to your academic performance.

Seek any clarification on the questions from the person distributing the questionnaires.

Instructions

Where choices are provided, put a tick (✓) in the appropriate box provided. Where the options do not fit your response, kindly use the 'other' option and specify. For open ended questions with no options, write your opinion/response in your own words.

PART A

Personal Information

NAME OF YOUR SCHOOL.....

What is your Gender?

[1] Male ☐

[2] Female ☐

PART B

Questions on career aspirations

1.If you would go to the university or collage, which course would you like to take? Please choose one course from the following list

Education

[]

Law []
 Medicine []
 Engineering []
 Economics and statistics []
 Architecture []
 Forestry []
 Agricultural engineering []
 Nursing []
 Bachelor of commerce (B com) []
 Journalism []
 Mass communication []
 Secretarial studies []
 Others please specify.....

SECTION C

Questions on attitude towards gender specific roles respond by: Strongly Agree (SA),

	SD	A	U	D	SD
2. I would like to see more male house servants					
3. I would like to see more women engineers					
4. Mathematics is more of a boys than a girls subject					
5. It is not important for girls to go the university					
6. Girls would be as good as boys in sciences if they are given the same opportunity					
7. Men are better than women in making decisions about money					
8. Women are better at making decisions about child care					
9. Boys are naturally better than girls in technical subjects					
10. All jobs should be open equally to boys and girls					
11. A good education is more important for boys than girls					
11.Boys are better than girls in technical subjects					
12.women should not do certain jobs like Engineering					
13. Men should not do certain jobs such as nursing and secretarial					

Agree (A), Undecided (U), and Disagree

SECTION D

How much effect do you think the following can keep you from pursuing their future career?

	No effect	Little effect	Some effect	Very much effect
14. Lack of parental support				
15. The school you are attending				
16. Academic performance				
17. High unemployment rate				
18. Limited career information				
19. Lack of role model				

SECTION E

How much effect do you think the following can keep you from performing well in your academics?

	No effect	Little effect	Some effect	Very much effect
20. Negative peer pressure				
21. Inadequate learning resources				
22. Lack of school fees				
23. Teacher shortage				
24. Lack of interest in subject				

Appendix III: Career aspirations based on level of preparation needed

GROUP	LEVEL OF PREPARATION NEEDED	OCCUPATION
1	Little or no preparation needed	Amusement and recreation attendant, Automotive service attendant, Cleaner, Cook, Guard, Counter attendant, Dishwasher, Waiter/Waitress, Taxi driver, Chauffeur, House Help.
2	Some preparation needed	Actor/Actress, Machine Operator, Agricultural Equipment Operator, Aircraft Cargo handling Supervisors, Ambulance drivers, Athletes and Sports Competitor, Secretaries, Medical Equipment Repairer Laboratory Technician. Pharmacy Aid, Textile Work Carpenter, Electrician, Library Assistant, Receptionist and information clerk, security guard, Switchboard Operator, Typist, Veterinary Assistant.
3	Medium preparation needed	Nurse, Advertising Sales Agent, Aircraft Controller, Electrician, Electronic Engineering Technician, Medical Technician, Medical Technician and Paramedic, Executive secretary/executive administrative assistant, Fashion Designers, Film and Video Editor, Journalist, Firefighter, Occupational Therapist Power Plant Operator, Police, Radio Operator/Journalist, Quality Control Analyst, Vocational Education Teacher, Web Administrator, Web Designer, Sound Engineering Technician and Primary school teacher.
4	Considerable preparation needed	Accountant, Instructors, Aerospace Engineer, Business Manager, Agricultural Engineer, Pilot and Flight Engineer, Auditor, Biochemical Engineer, Computer Programmer, Computer System Analyst, Graphic Designer, Architect, Quality Control System Manager, Secondary School Teacher, Cartographer, Surveyor.
5	Extensive preparation needed	Pathologist, Administrative law, Judge, Lawyer, Surgeon, Paediatricians, Marriage Therapist, Post-Secondary teacher in various field such as engineering, medicine, education law, Counselling, Psychologist, Immunologist, Astronomer, radiologist, Statistician, Ophthalmologist, Architectural and Engineering Manager, Pharmacist and Psychiatrist, Veterinarian

Adapted from job zone O*Net online www.onetonline.org/find/zone

Appendix IV: 2015 public Secondary schools' enrolment

2014 PUBLIC SECONDARY SCHOOL DATA 1ST TERM																
ZONE	SCHOOL	STAFF		TOTAL	STREAMS	TYPE	FORM 1		FORM 2		FORM 3		FORM 4		TOTAL	GRAND
		M	F				B	G	B	G	B	G	B	G		
1 MUNICIPALITY	Y BUNGOMA BAPTIST GIRLS	7	11	18	11	GIRLS/B	0	150	0	136	0	100	0	64	0	450
2 MUNICIPALITY	N ST PETERS MUSIKOMA	8	6	14	9	MIXED DAY	145	54	111	51	83	39	91	25	431	169
3 MUNICIPALITY	Y BUNGOMA MUSLIM S	10	5	15	8	MIXED DAY	31	19	40	35	46	41	43	52	160	147
4 MUNICIPALITY	Y CARDINAL OTUNGA GIRLS	9	17	26	15	GIRLS/B	0	223	0	182	0	209	0	172	0	786
5 MUNICIPALITY	Y ST PATRICKS KIMUKUNGU	4	7	11	5	GIRLS DAY/BOARD	0	97	0	56	0	52	0	29	0	234
6 MUNICIPALITY	Y NAMACHANJA HIGH SCH	10	26	36	20	MIXED DAY	171	100	174	82	193	64	166	81	704	1031
7 MUNICIPALITY	Y ST MARYS KIBABII BOYS	31	14	45	20	BOYS BOARDING	296	0	264	0	284	0	236	0	1080	0
8 MUNICIPALITY	Y BUNGOMA HIGH SCHOOL	8	15	23	21	BOYS BOARDING	316	0	283	0	342	0	230	0	1170	0
9 MUNICIPALITY	N WAMALWA KIJANA	3	1	4	8	MIXED DAY	57	42	65	43	55	54	49	30	231	162
10 MUNICIPALITY	Y NAMASANDA SEC	1	4	5	1	MIXED DAY	35	24	14	29	25	18	8	9	82	80
11 MUNICIPALITY	Y NABUKHISA MIXED	6	1	7	3	MIXED DAY	30	15	29	25	38	40	0	0	97	80
12 MUNICIPALITY	Y SILOBA SECONDARY	4	2	6	4	MIXED DAY/BOARDING	35	25	25	20	25	30	20	30	105	105
13 MUNICIPALITY	Y SAMOYA SEC	8	3	11	7	MIXED DAY	53	67	64	46	44	41	28	17	195	171
14 MUNICIPALITY	Y BGM ADULT SEC EDU CN	7	2	9	4	MIXED DAY	22	37	20	32	28	30	24	22	94	121
TOTAL		116	114	231	136		1157	853	1088	737	1163	718	896	531	4349	2832
1 MWIBALE	Y LUTUNGU ST JOSEPH	3	1	4	4	MIXED DAY	19	23	24	27	24	27	24	13	91	90
2 MWIBALE	N ST MARTINS MWIBALE	6	2	8	10	MIXED DAY	56	74	54	72	49	44	52	38	192	243
3 MWIBALE	Y SIKALAME SECONDARY	4	1	5	4	MIXED DAY/BOARDING	48	39	50	30	45	38	38	23	179	130
4 MWIBALE	Y FRIENDS SEC MISANGA	7	5	12	8	MIXED DAY	45	70	50	69	49	72	60	63	204	274
5 MWIBALE	Y NZOIA SUGAR GIRLS	4	6	10	8	GIRLS/B	0	120	0	84	0	95	0	87	0	386
6 MWIBALE	Y KIMUGUI SEC SCHOOL	4	5	9	8	BOYS/B	111	0	96	0	115	0	100	0	432	0
7 MWIBALE	Y FRIENDS BUKENGE BOYS	15	9	24	8	BOYS BOARDING	145	0	130	0	135	0	140	0	550	0
8 MWIBALE	Y FRIENDS SC NABICHAKHA	2	0	2	3	MIXED DAY	25	26	35	31	37	35	34	25	131	117
9 MWIBALE	Y SANGO SECONDARY	1	1	2	4	MIXED DAY	14	19	17	20	15	25	5	14	51	70
10 MWIBALE	Y MAABUUSI SEC	1	1	2	1	MIXED DAY	25	30	24	26	20	18	9	13	78	67
11 MWIBALE	Y FUCHANI FRIENDS S.C	5	4	9	2	MIXED DAY	48	46	26	32	18	24	0	0	52	99
12 MWIBALE	Y ST LONGINUS SEC KONGO	7	2	9	8	MIXED DAY	41	55	40	35	62	56	48	57	199	369
13 MWIBALE	Y KIMUGUI GIRLS	0	2	2	2	GIRLS/B	0	52	0	55	0	48	0	0	0	155
14 MWIBALE	Y KHAKULA RCEA	1	1	2	4	MIXED D	18	16	19	23	17	17	23	18	77	74
TOTAL		60	40	100	74		605	570	567	504	586	495	539	351	2,267	1,862
2014 PUBLIC SECONDARY SCHOOL DATA 1ST TERM																
ZONE	SCHOOL	STAFF		TOTAL	STREAMS	TYPE	FORM 1		FORM 2		FORM 3		FORM 4		TOTAL	GRAND
		M	F				B	G	B	G	B	G	B	G		
1 SANGALO	Y SANGALO SECONDARY	5	3	8	7	MIXED DAY/BOARDING	51	53	44	40	50	47	34	12	179	333
2 SANGALO	N ST VERONICA RANJE SEC	4	3	7	4	MIXED DAY	35	26	26	27	15	11	16	10	92	74
3 SANGALO	N BULONDO SECONDARY	6	2	8	4	MIXED DAY BOARDING	30	19	28	38	19	22	34	30	111	109
4 SANGALO	Y NAMWACHA SEC	5	1	6	8	MIXED DAY	55	36	43	40	52	38	57	35	205	151
5 SANGALO	Y MATUMBUFU GIRLS BAPT	2	5	7	4	GIRLS DAY	0	76	0	72	0	66	0	42	0	256
6 SANGALO	N F S S LWANDA GIRLS	7	6	13	9	GIRLS	0	130	0	128	0	85	0	59	0	402
7 SANGALO	Y FRIENDS SCHOOL KITALE	6	3	9	8	MIXED DAY	82	44	59	43	48	35	54	27	219	153
8 SANGALO	Y ST THADDEUS NDENGELWA	9	5	14	6	MIXED D	28	22	41	10	33	28	20	18	158	88
9 SANGALO	Y ST JOSEPH BULONDO	5	3	8	4	MIXED DAY	20	28	20	17	37	32	20	39	97	116
10 SANGALO	Y SIANGWE GIRLS SEC	1	3	4	2	GIRLS/B	25	15	24	6	22	8	0	0	71	29
11 SANGALO	Y F S S LWANDA BOYS	7	6	13	9	BOYS	66	0	79	0	75	0	65	0	285	0
12 SANGALO	Y KITALE SECONDARY	6	7	13	4	MIXED D	50	58	49	43	54	40	86	57	215	175
13 SANGALO	Y BUTIELI SEC SCHOOL	2	0	2	1	MIXED D	37	42	33	39	44	29	0	0	114	110
14 SANGALO	Y NAMISI SECONDARY	5	3	8	4	MIXED D	21	25	16	18	18	22	0	0	65	65
TOTAL		70	50	121	74		480	574	462	415	254	463	386	329	1801	1882

FOR INFORMATION OFFICER
BUNGOMA DISTRICT
DUNGOMA-30200
TEL: 053 30148

Appendix V: Sample Frame for 27 Secondary Schools

<i>Zone</i>	<i>School</i>	<i>Category</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
<i>Municipality</i>	Bungoma Baptist	Girls Boarding	0	100	100
	Cardinal Otunga	Girls Boarding	0	209	209
	Bungoma High sch.	Boys Boarding	342	0	342
	Kibabii High sch.	Boys Boarding	284	0	284
	Namachanja High	Mixed day	193	64	257
	St Peters Musikoma	Mixed day	83	39	122
	WamalwaKinjanas.s.	Mixed day	55	54	109
	Siloba secondary	Mixed day & boarding	25	30	55
<i>Mwibale</i>	Samoya Sec. Sch.	Mixed day	44	41	85
	Nzoia Girls	Girls Boarding	0	95	95
	Kimugui Girls	Girls Boarding	0	48	48
	Kimugui Sec Sch.	Boys Boarding	115	0	115
	Friend Sch. Bukembe	Boys Boarding	135	0	135
	St. PatrickcMwibale	Mixed day	49	44	93
	St. Joseph Lutungu	Mixed day	24	27	51
	St. Longinus Kongo	Mixed day	62	56	118
	Friends Misanga	Mixed day	49	72	121
	School	Category	Boys	Girls	Total
<i>Sang'alo</i>	Sikalame Sec. School	Mixed day & Boarding	45	38	83
	F.S. Lwanda	Girls Boarding	0	85	85
	Matumbufu Girls	Girls Boarding	0	56	56
	Lwanda Boys	Boys Boarding	75	0	75
	Friends sch. Kitale	Mixed day	48	35	83
	St. Veronica Ranje	Mixed day	15	11	26
	Butieli Sec School	Mixed day	44	29	73
	Namwacha Sec School	Mixed day	52	38	90
	Sang'alo Sec. School	Mixed day and boarding	50	57	107
	Bulondo Sec School	Mixed day & Boarding	19	22	41
<i>Grand Total</i>			1 808	1 250	3 058

SUBJECT PERFORMANCE SUB COUNTY RANKING																				
RANK	CODE	NAME	NO.	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	U	MEAN	M.G
101 ENGLISH LANGUAGE																				
RANK	CODE	NAME	NO.	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	U	MEAN	M.G
1	600	NATIONAL SCHOOLS	239	0	0	1	10	31	44	65	50	26	8	4	0	0	0	0	5.9916	C
2	602	BUNGOMA SOUTH	3059	4	16	54	126	256	374	395	422	414	346	461	191	187	0	0	4.3489	D+
3	621	KIMILILI BUNGOMA	2025	3	12	11	51	121	227	291	380	330	206	259	132	55	2	0	4.2543	D+
4	626	BUNGOMA WEST BUNGOMA	1738	5	12	40	75	102	156	210	217	252	219	322	125	112	3	0	4.204	D+
5	630	CHEPTAIS BUNGOMA	938	1	2	5	30	47	67	103	126	120	127	216	93	54	1	0	4.0093	D+
6	611	BUNGOMA NORTH BUNGOMA	2863	5	13	27	61	125	248	303	340	408	406	641	286	123	0	0	3.9743	D+
7	613	BUNGOMA EAST BUNGOMA	3557	7	14	30	104	162	310	438	470	464	452	696	409	180	1	0	3.9354	D+
8	628	BUMULA BUNGOMA	1975	7	4	19	34	77	129	211	294	295	304	461	140	76	0	0	3.8992	D+
9	605	MT ELGON BUNGOMA	920	0	3	9	3	28	58	90	145	154	170	200	60	29	0	0	3.8643	D+
10	612	BUNGOMA CENTRAL BUNGOMA	2761	4	2	12	40	124	237	329	367	372	353	575	345	74	1	0	3.7244	D+
COUNTY TOTALS			20075	36	78	208	534	1073	1850	2435	2811	2835	2591	3835	1781	890	8	0	4.0475	D+
102 LUGHA YA KISWAHILI																				
CODE	NAME	NO.	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	U	MEAN	M.G	
600	NATIONAL SCHOOLS	235	3	8	24	54	52	51	20	17	3	1	1	1	3	0	0	7.8553	B-	
602	BUNGOMA SOUTH	3050	31	67	140	270	338	364	375	370	336	282	318	158	189	1	0	5.2351	C-	
612	BUNGOMA CENTRAL BUNGOMA	2762	12	40	112	183	295	335	385	369	349	281	286	115	80	0	0	5.2213	C-	
605	MT ELGON BUNGOMA	927	3	13	30	65	91	137	148	130	117	84	88	20	23	1	0	5.2122	C-	
630	CHEPTAIS BUNGOMA	939	7	5	21	40	62	109	125	134	143	136	133	24	58	0	0	5.0259	C-	
621	KIMILILI BUNGOMA	2029	14	48	134	207	257	301	239	177	195	146	217	94	61	0	0	5.0042	C-	
626	BUNGOMA WEST BUNGOMA	1736	9	23	55	85	163	192	215	256	235	205	209	88	106	1	0	4.9842	C-	
628	BUMULA BUNGOMA	1972	15	26	55	125	182	245	243	289	265	218	235	74	81	0	0	4.9347	C-	
613	BUNGOMA EAST BUNGOMA	3533	14	51	100	203	338	405	447	478	469	362	510	156	220	0	0	4.7413	C-	
611	BUNGOMA NORTH BUNGOMA	2861	14	22	46	92	175	271	356	433	431	383	470	168	129	0	0	4.6942	C-	
COUNTY TOTALS			20044	122	303	717	1324	1953	2410	2553	2653	2543	2098	2467	898	950	3	0	4.9812	C-
121 MATHEMATICS																				
CODE	NAME	NO.	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	X	Y	U	MEAN	M.G	
600	NATIONAL SCHOOLS	240	24	13	9	18	15	23	22	25	21	48	20	2	0	0	0	6.2125	C	
602	BUNGOMA SOUTH	3066	50	46	50	85	111	175	161	211	261	559	757	597	186	3	0	3.0539	D	
630	CHEPTAIS BUNGOMA	939	6	3	8	21	15	33	29	32	43	142	294	312	60	1	0	2.7946	D	
612	BUNGOMA CENTRAL BUNGOMA	2743	15	13	24	37	60	72	96	118	180	463	334	831	81	0	0	2.5254	D	
605	MT ELGON BUNGOMA	922	3	2	7	6	21	18	25	41	68	195	355	181	33	0	0	2.5128	D	
613	BUNGOMA EAST BUNGOMA	3554	14	12	25	29	51	95	121	169	207	667	993	1171	199	0	0	2.4575	D-	
611	BUNGOMA NORTH BUNGOMA	2873	21	17	19	28	39	67	78	113	147	438	854	1052	135	0	0	2.4491	D-	
626	BUNGOMA WEST BUNGOMA	1738	9	3	10	17	23	38	42	74	99	285	540	598	122	0	0	2.372	D-	
621	KIMILILI BUNGOMA	2019	11	18	26	37	46	72	69	142	146	364	538	549	71	1	0	2.3533	D-	
628	BUMULA BUNGOMA	1974	8	5	14	12	36	39	59	63	105	264	586	783	76	0	0	2.2471	D-	
COUNTY TOTALS			20068	161	132	192	290	417	632	702	988	1277	3425	5771	6076	963	5	0	2.5487	D
231 BIOLOGY																				

Appendix VII: Map of the study area