

**FACTORS AFFECTING FEMALE LEARNERS' ENROLMENT IN
TECHNICAL COURSES AT KARUMO TECHNICAL TRAINING
INSTITUTE, MERU COUNTY – KENYA**

BY

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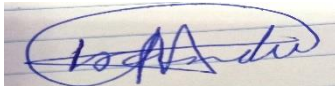
DECLARATION

Declaration by the Student

This research thesis is my original work and, to the best of my knowledge, has not been presented to any other university for the award of a degree or a diploma.

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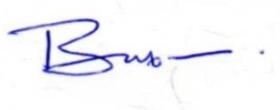
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DEDICATION

I dedicate this work to my Wife, and children, Ntongai Irandu Mugambi, Mwirigi Baraka Irandu, and Zawadi Gatwiri Irandu, for their support, encouragement, and sacrifices during the entire period of this thesis writing.

ABSTRACT

Technical courses offer hands on experience to foster a wide array of self-employability skills among the beneficiaries. However, for a long time the enrolment to technical courses is characterised by low female student enrolment than that of their male counterparts. This study sought to investigate the factors affecting female learners' enrolment in technical courses. The study adopted a mixed study research design and a sample size of 107. Questionnaires and interview schedules were used as data collection instruments. The data was managed and analysed using SPSS. The study found that 77% of the respondents agreed that financial factors affected female enrolment in technical courses. Other factors that affected the enrolment of female students in technical courses included 77% cultural factors, 85% role models and 79% Sociological factors. Regression analysis found out that parent financial background, ability to finance education, availability of grants and sponsorships, and learners' interest in technical courses positively affected female learners' enrolment $\beta = 0.099$, $P = 0.047$; ability to finance education $\beta = 0.205$, $P = 0.026$; availability of grants and sponsorships $\beta = 0.297$, $P = 0.266$ and learners' interest in technical courses $\beta = 0.004$, $P = 0.988$. However, other factors negatively affect female learners' enrolment in technical courses; cultural stereotypes on women in technical courses $\beta = -0.205$, $P = 0.034$; peer pressure $\beta = -0.045$, $P = 0.450$; and social expectations on women $\beta = -0.090$, $P = 0.005$; female genital mutilation was $\beta = -0.012$, $P = 0.938$, early marriages $\beta = -0.086$, $P = 0.407$ and inequalities in access to technical education $\beta = -0.500$, $P = 0.045$. The government should increase funding for women's education in technical courses and efforts to fight against retrogressive cultural practices such as FGM.

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ACRONYMS AND ABBREVIATIONS

MDG	Millennium Development Goals
STEM	Science Technology Engineering and Mathematics
STD	Sexually Transmitted Disease
UNICEF	United Nations Children's Fund
FGM	Female Genital Mutilation
SD	Standard Deviation
STI	Sexually Transmitted Infections

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter presents the background of the study, statement of the problem, the purpose of the study, main objective, research objectives, research questions, the significance of the study, limitations of the study, scope and delimitations, assumptions of the study, operational definition of terms, organization of the study, theoretical and conceptual framework.

The researcher set out to find the factors affecting female learners' technical course enrollment. This was due to personal observation of the enrolment of learners' in the technical course. More female learners' enrolled in hospitality and business studies-based courses, while male learners' tend to enroll more in technical and engineering courses. The study found that several factors affect the career choice of learners'. These include but are not limited to the following: financial, gender stereotypes, parents' education background, female genital mutilation, and female role models in the community.

1.2 Background of the Study

Several factors affect an individual's career choices, including the gender role stereotype. These are societal beliefs about the differences between men and women, which can be summed up in two dimensions defining positive personal attributes. They are the communal and argentic dimensions (Galli, Liguori, Lorenzi-Cioldi, & Fasanelli, 2019). The communal dimension, which women more than men mostly manifest, describes concern for the wellbeing of others. The argentic dimension depicts a strong and controlling tendency believed by some to manifest more strongly

in men than women. With this in mind, the community expects girls to take those careers directly related to nurturing while boys, on the other hand, are expected to take the more serious ones, for example, the sciences and technically based careers (O'Connell, & McKinnon, 2021).

Career choice is mostly based on the social set-up where an individual grew in and how they were indoctrinated to belief in themselves. Youth tend to imitate what they see and find pleasing in society as they grow up; they align themselves with older people in their life who mostly affect their world view of life, like parents, teachers, and other important individuals in society; they find pleasure in playing the games that they see family and friends playing (Tatlah, Parveen, & Sethi, 2022). Many young people choose careers because they believe their parents can afford to finance training. Some choose careers based primarily on how much time they want for family and leisure activities, especially young women. For women currently in careers related to science or technology, the path to success is faced with many obstacles. Despite affirmative action efforts for more than fifteen years, women are still under-represented in the physical sciences and equivalent academic positions (Ford et al., 2019).

Globally, even though tertiary attainment rates of women are now equal to or exceed those of men in America and other developed countries; there is a persistent gender bias in the choice of disciplines. Women still engage in different fields of study than men and are mostly under-represented in the STEM (Science, Technology, Engineering, and Mathematics) fields. At the postgraduate level, the share of women in these fields declines further and yet again in the transition to the workplace. In developed countries, the large majority of degrees in humanities and health are awarded to women (average of 71%), while the majority of degrees in mathematics

and engineering degrees are awarded to men (average of 75%) (Wajngurt & Sloan, 2019). The gender gap in engineering, manufacturing, and construction degrees is particularly large in Japan, where only 11% of graduates are female. For mathematics and computer science degrees, the largest gender disparity is observed in the Netherlands, with only 10% of female graduates. Indonesia has the most balanced distribution of female and male graduates across the subject areas, with a slightly higher proportion of females graduating in all disciplines (de Souza, & Perry, 2021).

Attracting female learners' to technical fields is not enough to remove gender inequalities in scientific careers: in the academic sector, women tend to be concentrated in the lowest academic ranks, and they progress more slowly than men (Research Council of Canada, 2010). The European Commission project "Practicing Gender Equality in Science" (PRAGES), led by Italy's Department for Equal Opportunities, has taken stock of programs and initiatives aimed at promoting gender equality in scientific research within public institutions in Europe, North America, and Australia (ILO, 2010). The guidelines produced within the project highlight the importance of creating an enabling working environment through the change in the work culture, support of work-life balance for all and early- stage career development, including the gender dimension in the research process itself; and promoting women in scientific leadership positions (OECD, 2007).

In Africa, evidence of the gender gap in the trend and pattern of enrolment in Nigerian universities was observed by different researchers (Nwaune, Balogun & Akus, 2022; Olawale, Akinyemi & Ajala, 2022). There was also low evidence of female enrolment in sciences and technology-related courses. Okorafar, Kakiri & Okorafor, (2015) noted that the participation of females in the study of Sciences, Technology, Engineering and mathematics in Nigerian institutions of higher learning has been

discouraging. The females mostly subscribe to social sciences, arts, and humanity courses and those that enroll in sciences are taken as gifted ones. This scenario is not only obtainable in Nigeria. At the higher education level in industrialized and developing countries, women tend to cluster in areas of study, which lead to traditional female careers of teaching, nursing, and others.

Gender imbalance is noticeable in enrolment in different disciplines and programs, especially at the tertiary level. Citing National Gender Policy, 2006, Nwajiuba stated that “evidence abound that several negative aspects of gender relations, such as gender-based divisions of labor, disparities between males” and females” access to power and resources, gender biases in rights and entitlements remain pervasive in Nigeria. The report of situation analysis on education in Nigeria done in 2001 showed that compared with the primary and secondary levels, it is striking that there is a much greater gender disparity in tertiary education, especially in Nigerian universities. The male/female disparity is witnessed in most science courses, Veterinary medicine, English, and technology-based courses, with technical education favouring males and pure arts courses like English and Linguistics favoring females (Agu & Omenyi, 2013).

In the Kenyan formal education sector, females are under-enrolled from the basic to the higher level. This problem is more pronounced when it comes to technical training institutions. Here, females are extremely under-represented, and the few enrolled tend to be on the traditional feminine courses like Home Economics, secretarial duties, Food Processing, and Tailoring and not the pure science and technology-based courses, which lead to technical occupations. Thus, this is basically to acquire skills that tend to prepare them for the social roles of motherhood and homemaking rather than the technological take-off courses and leadership. Therefore, for the female

members of society to take their rightful position in socio-economic development, they need to be encouraged to take courses in science and technology.

According to Oakley (2015), differentiation in course choice based on gender is not biological but rooted in sex stereotyping worldwide.

1. Female learners are assumed unprepared to cope with science and technical courses or lack confidence in pursuing them.
2. The school structure and attitudes in education institutions may not support females taking high-tech courses.
3. The lack of female teacher role models in high-tech training like engineering and medicine discourages the few with the interest and aptitude to venture into these fields.
4. Very few women are enrolled in technical training institutions, and the few who venture into male-dominated courses are discouraged as they form the minority in a course. The government is putting in place mechanisms to encourage more female learners' to register for technical courses in science, mathematics, engineering, and technology, which are essential for the technological advancement of any country.

1.3 Statement of the Problem

Female learners' low enrolment in Technical (STEM-based) courses a matter of great concern. Parental attitude, mentality, and encouragement have great effect on children's career choices. Female carrier choices are further affected by traditional beliefs regarding the ideal gender roles of women and girls in society. Traditionally, the only roles allocated to women are those of wives and mothers. Hence women were viewed as home makers taking care of children, and men who provided for the

family needs. Women are perceived as less capable and require the protection and guidance of men.

Ideally, women are equal to men in education and can even outperform them if given a favourable environment to exploit their full academic potential. Nothing should stand between ladies pursuing any career, just as men. Parents and the community should desist from hindering Women from maximizing their potential and treat them equally with the boys, and the house chores should be assigned indiscriminately as this will make them know that they are equal in all aspects. The government must ensure that girls remain in school by all legal means available. Anybody contravening the provisions of the law should be dealt with in adherence with the said law's provisions. Parents and the entire society should allow children to pursue any career they prefer based on their capability and interest, not their gender.

We must demystify the notion that some careers are perceived to be for a particular gender. Society must fully comprehend what men can do; women can do and vice versa. Parents should reinforce this in how they socialize their children on the allocation of house chores. Technical courses are fairly expensive compared to other courses; hence girls from humble backgrounds are forced to choose other courses that are fairly cheap. In cases where financial constraints arise in a family, boys are often prioritized in pursuing careers of their choice, whereas girls get married off.

1.4 Purpose of the Study

The purpose of the study was to examine the factors affecting female learners' enrolment in Technical Courses at Karumo Technical Training Institute, Meru County - Kenya

1.5 Research Objectives

1.5.1 Main Objective

The main objective of the study was to investigate the factors affecting female learners' enrolment in technical courses

1.5.2 Specific Objective

The following specific objectives guided this study:

- (i) To determine the effect of financial factors on female learners' enrolment in technical courses
- (ii) To establish the effect of cultural factors on female learners' enrolment in technical courses
- (iii) To examine the effect of sociological factors on female learners' enrolment into technical courses
- (iv) To assess the effect of role models on female learners' enrolment choices in technical courses.

1.6 Research Questions

The following research questions guided the study.

- i. How do financial factors affect female learners' enrolment in technical courses?
- ii. How do cultural factors affect female learners' enrolment in technical courses?
- iii. To what extent do sociological factors affect female learners' technical course enrollment?
- iv. How do role models affect female learners' enrolment in technical courses?

1.7 Theoretical Framework

1.7.1 Expectation States Theory

The Expectation States theory explains how group status hierarchies form, with participants sharing a common goal or task. The theory suggests that group members behave and act in a prescribed manner due to the anticipated value norms of the group. Each member strives to be accommodative to others to ensure the group norms and values are always preserved and adhered to. Group tasks are performed in conformance with the expected results based on race, gender, and age (Wright, 2006)

The Expectation States Theory can be used to explain how and why women make choices in technical courses. Men are socialized to believe they are good in technical courses, and women are weaker, hence lower enrolment in these courses. This low expectation of females performance in technical course leads to poor enrolment in this field. This social issue is learned and can be unlearned through motivation via role modeling and mentorship from the formative ages up to the college level.

1.7.2 Stereotype Threat Theory

Stereotype threat theory was developed in 1979 by a social psychologist called Claude Steele, who described how individuals are pressured when they are at risk of fulfilling a negative stereotype about their group. The pressure comes from the believe that individuals in a group will act in a way that confirms the negative stereotype about the said group.

This is a threat in an educational setup that can affect the intellectual performance of a group member targeted by stereotypes suggestive of a lack of intellectual ability in some fields of study. Academic performance is affected as the learners' disengage from the task to save personal self-esteem in the field; they feel threatened with failure. Society has stereotyped girls as far as careers in the technical field are

concerned. Society has made it look like girls are inferior to boys in the field of Science, Mathematics, Engineering and Technology. This interferes with girls as they conform to the stereotype threat theory as society expects it to be so.

Learners' perform better when a test is not stereotyped than when the stereotype is used as a measurement tool in the performance of the set test. Women perform equal to Men when no stereotype is applied, if not better than Men. The stereotype threat women experience in science, mathematics, engineering and technology may dissuade them from pursuing a career in this field to avoid feeling an evaluative threat. Hence, stereotype threat often affects learners' like women who are well endowed with intellect to perform poorly in the technical field due to stereotype threat theory. The stereotype demotivates bright girls from enrolling in technical courses to ensure they conform to what society expects of girls. Therefore, the parents and the entire society as the custodians of stereotypes should do away with it to avoid discouraging girls from enrolling in any field of career because they are as good as boys.

Society expects girls to be weak and to perform household duties helping their mothers fetch water, cook, and take care of the young ones. All these negatively affect their academic endeavor due to being over-tasked with other duties apart from concentrating on their studies. These attitudes toward girls discourage them from enrolling in technical courses and taking courses viewed as more feminine for a career.

Some parents view girls as property once married in exchange for a dowry. Hence girl's education is viewed as a loss to the boy's family, who benefit from her education, and not her parents or family. The few whom their parents educate are discouraged from enrolling in some technical courses that are thought to be reserved

for men. Traditional practices like early marriage and female genital mutilation negatively affect education and career for girls.

1.8 Conceptual Framework

The stereotype threat theory informed the conceptual study framework explained in 1.7.2 above. Independent variables are variables that influence the outcome of the dependent variable. To assess the factors affecting female learners' enrolment in Karumo technical training institute technical courses. The study considered assessing factors such as financial, cultural, sociological, and role models as the independent variables for the study. The study's dependent variable was female learner's' enrolment in technical courses. This study had intervening variables that influenced the outcome of the study: the government and institution policies.

The first independent variable of concern in this study was financial factors. Financial factors include the ability of the parents/guardians and sponsors to pay the college fees for the female learner are enrolled in the technical institute. Inadequate funds limit female learner's' enrolment in tertiary institutions and advance in their careers. Historically, females have been sacrificed at the expense of their male counterparts to progress in their academics.

The second independent variable is the cultural factors. Most communities consider women fragile and require protection from harsh economic conditions. In this regard, they have been given the role of nurturing and caring for their young ones, doing household chores, and tending the land. Allowing them to partake in higher education institutions is still a factor not implemented by many communities. Secondly, the career development aspects have imposed rules and regulations that seem biased

toward the female gender. For example, when advertising for jobs, such as electrical engineering jobs, most recruiters prefer male to female.

The third independent variable is the sociological factors. Sociological factors include inadequate social support for women to enroll in technical courses. During enrolment, few females are selected for the technical courses; the majorities are selected for the social work, business administration, and hospitality courses. Women globally are paid less than their male counterparts irrespective of their job groups; such is a discouragement for women who have tossed themselves to the field of equity, thus reducing females taking up courses meant for the masculine gender.

Lastly, women role models in the field of technical courses are few. The few who have succeeded in the same field are there but lack platforms to encourage young females to own up to their dreams. With the high unemployment rates, most of the unemployed are women who took up courses such as building engineering since they are always perceived to be weak and thus unable to handle the building industry. The intervening variables include government policies; however, In Kenya, the government is working hard to close the gender parity gap in TVET. KUCCPS, on the other hand, is playing a significant role in reducing gender parity through allowing for the second selection process, where the students are free to choose the courses that fit them according to their grades. All these variables influence the

Outcome of the female learners' enrolment since the support system is available but minimal.

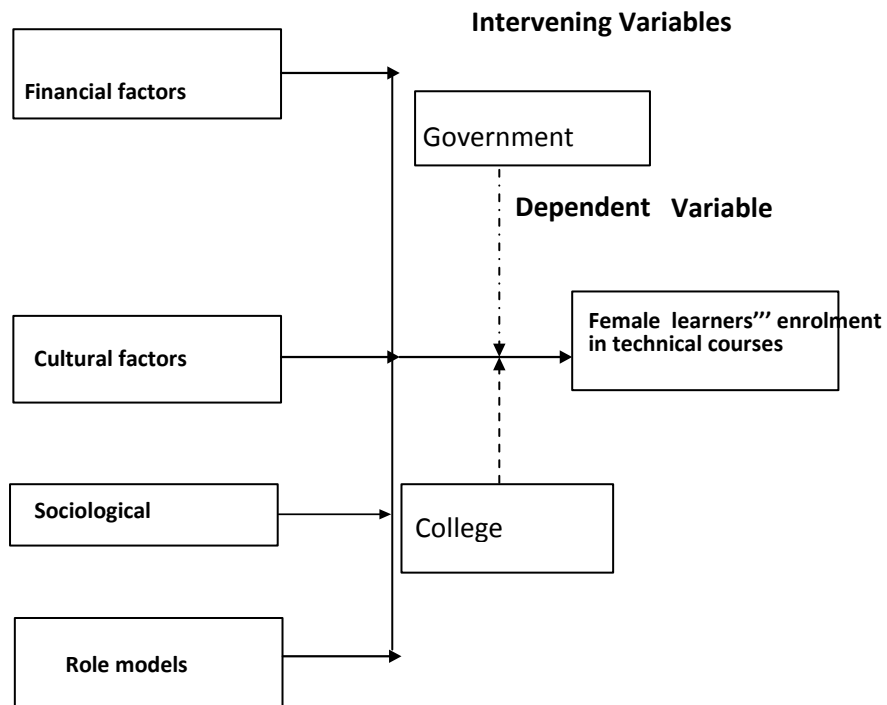
Independent Variables

Figure 1.1: Conceptual framework

(Source: Author, 2021)

1.9 Justification of the Study

Kenya's vision 2030 is premised on making Kenya an industrialized Nation. This is only possible by transforming our economy from an agricultural-based economy to a manufacturing industrial-based one (vision 2030). This calls for the availability of highly trained and qualified local technicians who form the backbone of the industrial take-off of any Country. Women comprise slightly more than half of the population 50.3 % equivalent to 26.45 Million (Kenya census 2019). Hence, this country needs to encourage female learners' enrolment in technical courses to realize this vision. The contribution of females to the development of any country cannot be overlooked. A lot can be done in this field of study, but why the low enrolment? This study aims at identifying the factors that affect female learners' enrolment in technical courses and recommend the solutions.

1.10 Significance of the Study

This study will help all stakeholders involved in the technical courses to develop solutions for encouraging female learners' on career choices. Both parents and female learners' should understand what affects girls 'career choices of technical courses in their enrolment in TVET institutions in Kenya. This will allow for remedial actions to solve or mitigate those problems. Lasting solutions will enable all learners' irrespective of gender, to undertake technical courses as a prerequisite to being absorbed in technical jobs in the labour market.

The Government policy makers through the Ministry of Education, parents, learners' and other stakeholders will prepare learners' wishing to join Technical Training Institutes based on the challenges identified in this study on career choices. This study will further enhance the existing knowledge on what female learners' need to do to

enroll in careers in Technical and Vocational Education. The study will also form the basis for further studies in the field.

1.11 Limitations of the study

The study may not get honest responses from the respondents. Another limitation of the study was the failure of the study to find out more about the female learners' before joining the Technical Institute. To mitigate the above limitations, the researcher used volunteer respondents willing and ready to share their personal experiences on the choice for a career in technical courses

1.12 Scope and Delimitation of the Study

The study was based on Karumo Technical Training Institute. The study was conducted at this Institute because it offers several technical courses and populated with learners' drawn from across the country. Technical colleges in the country face similar challenges in female students' enrollment in technical courses. Therefore, this study was only concerned with factors affecting female student enrolment in technical courses.

1.13 Assumptions of the Study

The following assumptions guided this study:

- i. The respondents were willing to fill the questionnaires that were distributed to them and were knowledgeable enough to give credible information.
- ii. The study assumed the target population was competent to understand what gender mentality entails and how it determines the career path.

1.14 Operational Definition of Terms

Career: This is an occupation that an individual undertakes for some time with an opportunity to progress

Career path: This is the growth of the worker in their working life. It refers to the various opportunities one experiences to better income position and situation in the process of earning a living.

Gender: Refers to physical, biological, mental, and behavioral characteristics that differentiate masculinity and femininity.

Mentality: Refers to one's ability to interpret and respond to life situations.

Cultural factors: These are a set of values and ideologies accepted by a community or group of people in the way they conduct their affairs

Sociological factors: These are attributes or behaviours that a society expects an individual to exhibit at all time.

Financial factors: These are the sources of income for a person or society.

Role models: These are persons who possess some qualities which affect others in decision making.

Government policies: These are guidelines adopted by a government specifying the goals, decisions, aspirations, and actions of its citizens to affect the political and socio-economic management of the country.

College: This is a post-Secondary School institution of higher learning

Social re-engineering: Positive change of mindset of the society on gender stereotype.

1.15 Organization of the Study

This thesis comprises of five chapters: chapters one, two, three, four, and five. Chapter one is based on the background of the study, problem study, research objectives, hypothesis, the significance of the study, delimitation of the study, and the possible limitations that the researcher encountered.

Chapter two deals with reviewing theories and past studies. The researcher borrowed from past research, which offered insightful and beneficial information in the process of carrying out this study.

Chapter three: Research design and methodology. This encompasses the research design which the researcher used. It entails the study area the researcher undertook, the target population, and the sample size that the researcher used to obtain the information. The research instruments were employed in the study during data collection. Validity and reliability testing of the research instruments. Data collection procedures, analysis procedures, operational definition of variables, and ethical considerations.

Chapter four: This chapter presents the study findings based on the objectives. The results were presented on the effect of financial factors on female learners' enrolment in technical courses, cultural factors on female learners' enrolment in technical courses, sociological factors on female learners' enrolment, and role models on female learners' enrolment in technical courses.

Chapter five: The chapter sets to discuss the findings of the study and compare them with previous studies to determine the similarities and explain why this differs from others. Part two of this chapter highlights the conclusions drawn from the research findings. Finally, part three provides recommendations to the policy makers and future research.

1.16 Summary

This chapter is basically about the background of the study, problem study, research objectives, hypothesis, the study's significance, delimitation, and the possible limitations that the researcher encountered. It gives the conceptual framework of the study on which bases the study was done.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the literature review, this study's objective, and the conceptual framework. The researcher takes cognizant of what other researchers have done in the field of interest

2.2 The Effect of Financial Factors on Female Students' Enrolment in Technical Courses.

The economic factor, especially in grinding poverty and hunger, is probably the most influential in adversely affecting female participation in education, especially in rural areas and urban poor (Pino Gavidia, MacDermid, Brunton, & Doralp, 2022). In such harsh economic circumstances, both direct and hidden costs to a family of sending daughters to school are perceived by parents to be prohibitive in terms of the provision of books, stationery, and uniforms/clothing (important for social reasons) as well as the loss of vital help at home and Country. In most cases, the contribution of females is unpaid, and they may have little or no experience handling money, which reduces their status and power and increases their vulnerability (Labib et al., 2021).

Vocational education, which might relate to employment prospects, is weak and undervalued everywhere, especially regarding girls' interests. The apparent inability of some countries to resource their schools and pay their teachers regularly leads to low morale, teacher absenteeism, and parental disenchantment (Tong, & Zhou, 2021).

The "Human capital" model advanced by Gary Becker is used in research on college enrolment patterns. According to this theory, a person decides to enroll in a course in technical/or any other college, hoping to earn from this investment in the future

(Okwu, Andy, Nissi, Owolabi, & Adejola, 2022). Most people value the investment of attending college by comparing costs (direct and indirect) with expected income gains and make the decision based on the perceived income over the long term. To compare the factors like tuition, financial aid, and employment opportunities for those who have not trained in any technical field compared with those who have technical training in any field of study (Banerjee, 2016).

Therefore, these factors can be divided into two: one is based on the learners' academic achievement and parental educational level and the educational or vocational alternatives available, including college fees, financial aid, and unemployment levels. All these factors determine learners' decision to enroll in technical courses based on personal characteristics and the prevalence of social conditions at a particular time.

Low-income learners' are affected differently by publicly available financial aid and aid supplied by institutions. Who state that public grants promote greater equity among income groups in college enrolment? Private grants, however, are often awarded based on academic ability, and they tend to favour learners' who could afford to go to college without them. Dias (2022) expresses the same concern about the effects of institutional aid. Even public aid is not always awarded where the need is greatest.

Science courses enrollment is strongly associated with several background factors, including gender, peer effect, socio-economic status, parents' education levels, and ethnic identity (Kotok, 2017). They constitute external factors that affect learners' enrollment decisions at all levels of education.

According to the ACER studies and research in the USA the choice of physical science is more closely associated with high socioeconomic status (based on parental

occupation) than any other subject area (Khaguya, 2014). However, this is not the case among biology and other science learners' in Australia, as enrolments tend to be fairly consistent across socioeconomic levels. In Ghana and most African countries, socioeconomic levels are generally low; most settlements are rural, with a very high level of illiteracy, reportedly about 60% in Ghana. Aside from the general socioeconomic factors across the country, disparity also exists in terms of the provision of both material (educational infrastructure) and human educational resources and opportunities between rural and urban centers. This affects quality teaching and learning (Alam, 2022), which could eventually affect learners' interest in education, especially science (as a practical subject) among learners' from rural schools in particular

2.3 The effect of Cultural Factors on Female learners' Enrolment in Technical Courses

The perceived ideal roles and characteristics of women and girls affect how girls and boys are socialized at home, community, and school. Because girls and women are considered physically weaker and less capable than men, they are often overtly protected and supervised to keep them from what is considered threatening to their safety, i.e., physical, sexual, mental, and emotional safety (Bird, 2011).

Parents in some rural setups are usually very reluctant to send their daughters to school because they believe education and school could corrupt their morals. In contrast, others believe that in mixed schools, morals would be corrupted because of the amount of time they spend together in school. Some fear the physical and sexual harassment and abuse of girls in school from peers and teachers. In rural areas,

schools are situated long distances away, and parents are worried about their daughters' safety while traveling to and from school (Egli et al., 2020).

Society has socialized boys and girls into different gender roles and characteristics that affect how children behave, assign work, and play games. Specific roles are not assigned to girls, like being sent to do shopping, play outside the home, or at night as boys often do (Khan, 2011). This is detrimental to the girls as it denies them the opportunity to explore and experiment with diverse activities and situations outside the home setting, which are applicable in the technical courses: e.g., boys experiment with mathematics as they pay while purchasing in the shops as they are often sent to get some family supplies from the shops. During games and time with peer, boys engage in various technical aspects used in the technical courses and socialize with others. This prepares boys early enough to take up technically oriented tasks than girls. Hence, boys develop confidence in working with tools and have an advantage in using exploratory and participatory methods advocated for in teaching technical subjects (Replogle, 2011).

In some African cultures, girls are not allowed to address men looking at them directly in the eye but appear humble and respectable in front of elders. This attitude and the subsequent socialization of girls hinder girls from being experiential, participatory, and discovering because they are reluctant to ask questions, participate fully in discussions or work in groups with members of the opposite sex (Jensen & Cross, 2021). This negatively impacts them in handling technical subjects, which require learners' to be inquisitive, participate and discover a lot on their own during course work. Girls are vulnerable to physical and sexual abuse and lack the confidence, skills, and knowledge to handle these situations. This exposes them to the danger of early pregnancy and STIs as well as school dropout. All these lead to girls

having a negative attitude towards school and their ability to focus and perform well academically (Raymond, 2021).

Society expects girls to take up the roles of wives and mothers in adulthood. Hence the community and the parents believe that formal education is not necessary as these roles are passed from one generation to the other. Therefore, some parents do not register them in school or withdraw them before completion. This denies these girls an opportunity for formal education in general and participation in technical subjects in particular (Raymond, 2021).

According to (Raymond, 2021), many parents and other community members view girl child education as a waste of time and money. This is because of the notion that they were married off hence only benefitting the families where they will end up being married off hence a loss. Educating a boy is viewed as an investment as they become family breadwinners to the family and society; hence their education is paramount to achieving the highest level of education. Society expects husbands to provide for their families; hence, girls are only supposed to be housekeepers, not breadwinners.

Kelty, and Wakabayashi, (2020) is of the view that girls are socialized right from home, school, and the entire society to take up the roles of wives and mothers where schooling is geared towards providing them with the necessary experiences to prepare for these roles effectively. At home roles are assigned based on these social gender roles where girls undertake household chores like food preparation, cooking, cleaning, fetching firewood and water, washing clothes and, caring for younger siblings as while as farming activities. According to Newman and Barney (2023), in Ghana, for example, girls engage in petty trading to raise extra income for the family. These duties are done before/after school, affecting their education performance.

Girls being tasked with household chores and other duties outside of class work drain them of energy for academic work. These affect girls' performance in school as they get tired before school time as they engage in these other roles. Class concentration is affected as the girls look forward to engaging in these additional roles in the family (Newman & Barney, 2023).

Girls' additional duties at home do not allow them to study while undertaking them, but the boy's duties can allow them to study while undertaking them. Chores like cooking and washing clothes and dishes cannot be integrated with reading while herding livestock a person can read. Boys are always advantageous as they have fewer duties, unlike girls who are expected to fend for the family early (Murphy, 2019).

Girls have either to wake up early to undertake the household chores or attend classes late after caring for them. This attracts punishment from trainers and disadvantages them from attending Science and Mathematics lessons which are mostly done in the morning when learners' are thought to have the most energy and are thought to concentrate best. Hence girls tend to miss these vital lessons daily, leading to poor performance (Sarabia & Collantes, 2020). Science and Mathematics are hierarchical subjects, and concepts are learned sequentially, where one concept builds on the previous knowledge. Hence missing a lesson makes it difficult for girls to comprehend many topics or to catch up (Bird, 2011).

Some parents prefer to keep their daughters at home to carry out family household chores and engage in gainful activities to supplement the family income. Therefore, these parents find that the opportunity cost of educating a girl is too high, and this is true when the income from such cultural activities in rural Ghana compromises girls' access to education and, therefore, their participation in technical subjects. An example is the Trokosi system found among some communities in the rural areas of

Ghana. This traditional practice requires parents accused of wrong doing to atone for their sins by giving a daughter to the Trokosi cult to serve out in bondage (Stiles-Ocran, 2022). The girls serve the cult members until the leaders feel their parent's sins have been properly atoned for, and the girls are then released back into their communities, which can take years. These girls are not allowed to attend school while serving the cult members. These girls are sexually abused as some become pregnant while within the cult. The girls are past school-going age by the time they are released from bondage with no education or skills hence denying them an opportunity to engage in income-generating activities for self-reliance. These are traditional retrogressive practices that consider girls as the property of their families, with little or no say in their future (Lokot & Avakyan, 2020).

As a girl becomes older with age, society expects her to take up more responsibilities in the running of the family, which denies her the time to concentrate in her studies which affect her performance, leading to loss of morale in studies. Poor performance often leads to repetition and the resulting frustration could lead to school dropout.

2.4 The Effect of sociological Factors on Female Student's Enrolment in Technical courses

According to Elaine, (2011) Science, Mathematics and Technology are generally considered to be the most difficult and masculine subjects. The society expects girls not to excel well in them hence becoming a conscious and unconscious discouragement for girls to participate in them whether in school or at home. The society believe girls are not interested in academic activities but in romance and their physical appearance.

This is on the general view that these technical subjects are considered masculine and girls are not motivated to excel in them and may lead to those who perform well in them, being alienated from other girls and be held in contempt by boys. In Ghana for example it is reported that society regards girls who perform well in science as witches or as men women (Bird, 2011). Some Parents discourage their sons from marrying women who are science graduates as they feel that they are not submissive to their non-scientists husbands. These attitudes deter girls from participating and performing well in technical subjects.

In some areas of rural Tanzania, on reaching puberty girls are expected to be initiated into womanhood and marriage life. The rites are performed during school term leading to girls missing a considerable amount of school time. Loss of precious school time on the sacrifice of the ceremonies hence they lag behind the male colleagues in catching up with class work in science, Mathematics and Technology leading to poor performance (Reeves, 2022).

Education is a very importance aspect to human beings which cannot be over emphasized. This is a human right which must be accorded to all human beings without any discrimination. No country has ever developed without investing in quality education to its citizens. Quality education and development are intertwined and its key indicator for development. Schooling improves productivity, health and reduces negative features through empowerment. This is the reason why the world as a whole has embraced basic education as a basic right for all citizens. To enhance development, the international community advocates for the acquisition of education up to high school level for the entire world population. In this regards governments all over the world have made commitments to ensure their citizens have access to basic education. Meanwhile, it has been documented that across the globe, there are

inequalities in educational access and achievements as well as high levels of absolute educational deprivation especially in children (Bird, 2011).

In the 1948 Universal Declaration of Human Rights stated that education is human rights which must be accessed by all. It should be noted that girls constitute the largest population of illiterate children in the world to date. This was later affirmed through in Jomtien, Thailand during a world Conference on Education in 1990 where it was declared that every person shall benefit from basic education which meets basic learning needs. Efforts are being put in place by World Governments to ensure the girl child gets the opportunity to acquire education through affirmative action at all levels of education address the gender inequalities in education enrolment and retention. UNICEF has a long-term goal of ensuring all children have access to quality education. The international community has passed several declarations on education for girls including Millennium Development Goals, Sustainable Development Goals, A World Fit for Children Goals and Dakar Goals (World Education Forum)

According to research by Tandrayen-Ragoobur, and Gokulsing, (2022) teachers and parents have a view that girls are academically less capable compared to boys. This attitude negatively affects how girls participate and perform in education and technical courses in particular. Parents who subscribe to this school of thought chose to educate boys at the expense of girls on the hope and believe that they will be married off. According to research done by Afzal-Khan, (2007) girls are not encouraged to work hard in their academic life in school which leads to demotivation and low self-esteem in the academic work. This is so while Boys are challenged to work hard in school for their academic success because more is expected of them.

In accordance to work done by Elaine, (2011) many communities favor marrying off girls while still fairly young leading to school dropout as they start families. This is common in some Muslim communities where young girls are betrothed at a very young age, sometimes at birth and marrying them off in late adolescence. This practice of early marriage discourages girls from pursuing formal education and therefore participating in technical subjects and hence technical careers.

The practice of early marriage is a traditional culture in many communities. Some parents support it for fear of the girls getting pregnant out of wedlock and which would bring shame to the family. In many African culture dowry is paid to the girl family as part of the marriage ceremony (Elaine, 2011). This is popular among communities with economically disadvantaged parents, with little or no education, not aware of the benefits of educating a girl child. Hence this is seen as a quick source of income while educating them is viewed as waste of money (Shakeshaft, 2009).

2.5 The Effect of Role Models on Female Student's Enrolment in Technical courses

Role modeling is an effective sociological area used to affect the youth to learn from older generation on virtues which are necessary to pursue careers in various field. Teachers can have both positive and negative effect on learners' on career selection (González-Pérez, Mateos de Cabo, & Sáinz, 2020). Young women should be encouraged in science, Mathematics and technology careers early enough so as to acquire the necessary skills and mindset attitudes to enable them pursue them. Technical training requires a sound mathematics and science background for the student entering an engineering or physical science course of study. A person with a poor mathematics

and sciences background finds it difficult to pursue a career in technical field at college level (Smith, 2003).

Some teachers perceive female learners' as inferior to their male counterparts which discourages the girls from bettering their class performance in these subjects. (Shepardson & Pizzini, 2002). Hence these teachers act as negative role models to the female learners' who discourage them from achieving their full potential. A teacher who encourages learners' to exploit their potential to become a positive role model for girls to pursue a career in technical field which increases the percentage of girls' selecting science and technology related careers.

There is no reason for under representation of females in science and technology careers. Girls perform as good if not better than boys in science and technical careers if given a level playing ground in their academic endeavour. Trainers at all levels of education should positively motivate all learners' to excel in whatever they set their eyes to undertake in life and not to limit themselves on gender basis (Shepardson, & Pizzini, 2002).

According to Otto, (2007) Parents have a significant role in children career choices in their later adult life. Therefore, a parent input in shaping the future career for their children cannot be gainsaid. Girls' choice of a career is generally affected by the parent's attitude towards them while in school. A parent should always encourage their children and especially girls to pursue any field of study without viewing it as a male career but put into consideration their individual personal capabilities (Badolato, 2008). Hence parents should always be good role models to their girls in selecting what career to undertake in life. This is only possible if the parents are keen on the children interest which must be nurtured into career in future.

According to Epstein, (2022) Women scientists in Nigeria had highly educated parents and fathers in scientific profession. The issue of marriage for ladies studying industrial or technical courses in the same study was of concern. Parents play a great role in the career choice for their children. They need to motivate and encourage them to study hard in whatever area they chose for they are only limited by their perception and not the gender. It should be noted that a concerted effort must be employed to encourage girls to pursue a career in technical courses through scholarships and role modeling. Holding motivational talk chaired by those professionals in science, Mathematics and Technology to share their personal experiences in the relevant field must be held both at primary and high school level

2.6 Summary

The writer considered the following issues that affect female learners', enrolment into technical courses. They include the effect of financial factors on Female Student's Enrolment in Technical Courses, the effect of Cultural Factors on Female learners' Enrolment in Technical Courses, the effect of sociological Factors on Female Student's Enrolment in Technical courses and the effect of Role Models on Female Student's Enrolment in Technical courses

2.7 Research Gap

Inadequate information on female learner's' enrolment in technical courses is unavailable in literature. However, societal perceptions in finances, culture and the sociological aspects deny female the chance to pursue in the male dominated technical courses and careers. Despite the availability of literature in support of the role of women in the society, the literature has failed to explain deeply the factors and their effects on the enrolment of female learner's in technical courses. It was therefore

essential that the factors affecting female learner's' enrolment in technical courses be assessed in selected training institutes in Kenya.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter covers information on the research design, target population, sample size, sampling procedures and research instruments used during the research. The methods were used in measuring validity and reliability of the research instruments. Discussion on data collection and data analysis procedures were also done here.

3.2 Research Design

The study used the mixed study research design. A mixed study is one that is designed to describe the distribution of one or more variables, without regard to any causal or other hypothesis (Aggarwal & Ranganathan., 2019). The mixed study approach design has been chosen because it allows the researcher to determine the distribution of one or more variables at one particular time by use of research instruments like questionnaires and interview schedules (Lengkoan, Andries, & Tatipang, 2022). This allowed the researcher gather to data on the effects of gender mentality on career determination. The mixed study was conducted at Karumo Technical Training Institute. The institution was selected because it gave answers to the study problem because the college is situated in a rural setup but populated with students from the entire Country.

3.3 Target Population

Table 3.0: Target Population

Category	Target Population
Principal	1
Teaching staff	59
learners'	1040
Total	1100

Source: Karumo Technical Training Institute (2021)

Target population is the entire population or a study group, that a researcher is interested in researching and analyzing who share a common characteristic like age, sex or profession. The study targeted learners' and teaching staff from different departments of Karumo Technical Training Institute. The researcher gathered data from the principal, teaching staff and the learners' in order to get in-depth information for the study. The study target was 107 respondents. The principal and the teaching staff have information on the gender enrolment disparity in various disciplines in the institution.

3.4 Sample Size and Sampling Procedures

Sampling is a process in which a small representation of a large target population is selected to make observations intended to yield knowledge about the population of interest for the purposes of statistical inference. A Sampling frame should have the property that enables the study to identify every single element and include any other study aspect possessed in the sample. A researcher should select a frame with a list of

elements of the population preferably the entire population with appropriate contact information. This should be guided by experts in the subject matter under study to ensure the intended information being sort by the researcher was covered during the study period (Kothari, 2006).

3.4.1 Sampling Size

The Krejcie and Morgan formulae (1970) with a total of one principal, 6 teaching staff and 100 students were sampled to form a total target population of 107 respondents. Krejcie and Morgan (1970) formula were used to determine the sampling size:

$$S = X_2NP (1-P)/ d_2 (N-1) + X_2P (1-P)$$

S = required sample size

X_2 = the table value of chi-square for one degree of freedom at the desired confidence level

N = the population size

P = the population proportion (assumed to be 0.50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion (0.05)

Table 0.1 Sample Size

Category	Target Population	Sample size
Principle	1	1
Teaching staff	59	6
learners'	1040	100
Totals	1100	107

Source: Karumo Technical Institute (2021)

3.4.2 Sampling Procedures

Sampling technique is the procedure a researcher uses to gather people, places or things to study (Kombo & Tromp, 2006). This study employed purposive sampling to select the principal. The principal was selected by virtue of his position; he is the most knowledgeable member of the institution in matters concerning gender disparity during admission. Teaching staffs were selected through convenience sampling where those present during the study were contacted for data collection. Snowball sampling or chain referral sampling were employed where students referred their colleagues for data collection during the study to ensure none was discriminated.

3.5 Research Instruments

3.5.1 Questionnaire

Two sets of questionnaire were used to gather responses from respondents based on the basis of the research objectives. The research instruments were administered to the target population sampled to collect data on various determinants of female learners' enrolment. The questionnaire items development used both the fixed choice and open-ended formats of questions during the study. The closed-ended items limit the responses from the respondents as they don't allow them to explain their responses. However, the open-ended questions gave the respondents a leeway to elaborate more on the asked questions which gave more personal opinion on the issue of study and that is why these were used. Questionnaire data collection method was used in the study because it is not biased, it is cheap and the respondents gave well thought out answers and large samples were used to give more dependable and reliable data. These were administered to students during the study period

3.5.2 Interview Schedule

Interview schedules allow a researcher get data from the respondents to enable the achievement of the specific objectives of the study (Mugenda & Mugenda, 1999). They enable the researcher to standardize the interview so as to ask the same questions in the same manner. Interview schedules helps a researcher to obtain in-depth information from the respondents on a face-to-face interaction enabling the researcher to adapt and or reaffirm the questions as necessary so as to clarify doubts to ensure clear precise answers to the asked questions. An interview schedule involves asking questions, listening to individuals and recording responses. Interview schedule was used to collect data from the Principal and the trainers

While in the process of data collection the researcher was keen in order to observe the students population in the institution. Observation is a key tool during data collection as the researcher was able to observe the target populations in their natural setting without them being aware they are being observed.

3.5.3 Validity of the Instruments

Validity is a quality attributed to proposition or measures of the degree to which they conform to establish knowledge or truth. An aptitude scale is considered valid, for example, to the degree to which its results conform to other measures of possession of the aptitude. Validity therefore refers to the extent to which an instrument asks the right questions in terms of accuracy. The content validity of the instrument was determined in two ways. First the researcher discussed the items in the instrument with the supervisors and lecturers from the Department of Technology Education and colleagues. Advice and information gathered from these professionals helped the researcher in determining the validity of the research instruments.

Pre-tests were conducted on a sample population similar to the target population. Items inappropriate for measuring the variables were modified or discarded to improve the quality of the research instrument, thus increasing its validity. Small groups of the population were given questionnaires to fill and were asked whether they experienced any difficulties. It assisted in knowing whether the instruments were clear, precise, and comprehensive. After pretesting, corrections were made to the items. The supervisors also reviewed the research instruments to ensure content validity of the instruments.

3.5.4 The Reliability of the Research Instruments

The reliability of a research instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. The researcher conducted a pilot study in Tigania East Technical Training Institute using half split reliability of instruments test.

The Cronbach's coefficient Alpha was employed to test the reliability of the questionnaires and was computed for each instrument in a Likert scale. A reliability coefficient of 0.7 or over was used as the threshold to reflect the reliability of the instrument. The reliability statistics was 0.959 which means the test instruments were reliable.

Table 0.2 Reliability Statistics

Cronbach's Alpha	N of Items
0.959	4

3.6 Data Collection Procedures

This refers to the series of events followed during the process of data collection as indicated in appendix II to IV. The researcher booked an appointment with the administration of Karumo Technical Training Institute to secure a formal visit for the data collection. During the appointment the researcher requested for permission to conduct the study in the Institution. After securing permission during the visit, then issuing the questionnaire to the respondents.

The researcher guided the respondents on filling of the questionnaire with an assurance of confidentiality. The researcher then collected the questionnaires after they were completed. The researcher conducted an interview with the school administration lead by the Principal. The researcher collected all the data gathered for further analysis.

3.7 Data Analysis Procedures

The researcher applied both qualitative and quantitative data analysis techniques. Qualitative data analysis technique assist in analyzing the interview schedule responses while quantitative, mixed and inferential data analysis techniques were employed in analyzing the questionnaire data. Inferential techniques were applied to help in drawing conclusions and to make predictions about the properties of the population based on information which were obtained from the sample. These were used to answer cause-and effect questions, make predictions and investigate differences between and among the sample groups.

Multiple regression analysis technique was used in the study findings so as to find the determinants of career path. It is most appropriate when both the independent and

dependent variables are interval, though some social scientists also use regression on ordinal data. Like correlation, regression analysis assumes that the relationship between variables is linear or can be seen to be linear.

3.8 Operational Definition of Variables

In order to achieve the objectives of the study, the researcher investigated gender mentality as a determinant of female learners' enrolment in technical courses. The objectives of the study include the effect of; perceived gender roles on technical careers choices, parental attitudes towards gender mentality and choice of technical careers and traditional roles of women on career choice.

The questionnaire used had specific questions for each objective.

Table 0.3 Operational Definition of Variables

Objective	Variables	Indicators	Measurement scale	Tools of analysis	Types of tools
To establish the effect of cultural factors on female learners' enrolment in technical courses.	Dependent female learner' enrolment in technical courses Independent cultural factors	Level societal of support	Nominal Ordinal	Mixed statistics. Tables	Frequency distribution tables

To establish the effect of Sociological factors on female learners' enrolment in technical courses	Dependent female learner' enrolment in technical courses Independent Sociological factors	Level of parental support.	of Nominal Ordinal	Mixed statistics. Tables.	Frequency distribution tables
To determine the effect of financial factors on female learner' enrolment in technical courses.	Dependent female learner' enrolment in technical Independent financial factors	Level poverty of	Nominal Ordinal	Mixed statistics. Tables.	Frequency distribution tables
To assess the effect of role models on female learners' enrolment in	Dependent female learner' enrolment in technical	Level of support from parents and teachers	Nominal Ordinal	Mixed statistics. Tables.	Frequency distribution tables

technical	courses				
courses	Independent				
	role models				

3.9 Ethical Considerations

These are issues pertaining to or dealing with morals or the principles of morality which the researcher observed during the study. The researcher upheld all the ethical issues relating to research to ensure that respondent's privacy and dignity was always upheld during the entire process of carrying out this study. Confidentiality was of paramount importance to the respondents whom the researcher had to guarantee on any piece of information received for the sole purpose of this study. Before an individual became a subject of research, he/she was notified of: the aims, methods, anticipated benefits and potential hazards of the research; his/her right to abstain from participation in the research and his/her right to terminate at any time his/her participation; and the confidential nature of his/her replies.

Every individual who consented to be a subject in this research did so after he/she was given a notice referred to in the preceding paragraph and provides a freely given consent that he/she agrees to participate in the study. No pressure or inducement of any kind was used to induce an individual to become a subject of this research. The identity of individuals from whom information was obtained in the course of the project was kept strictly confidential. At the conclusion of the project, any information that reveals the identity of individuals who was subjects of research shall

be destroyed. No information revealing the identity of any individual was included in the final or in any other communication prepared in the course of the project.

3.11 Summary

This chapter focused on the study design and methodology that was used for this study. It includes mixed study design, location of the study, target population, sampling procedure and sample size, research instruments- their validation and reliability, data collection procedures, methods of data analysis and presentation of findings and Ethical considerations.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study based on the objectives. The results are based on the effect of financial factors on female learners' enrolment in technical courses, cultural factors on female learners' enrolment in technical courses, sociological factors on female learners' enrolment, and role models on female learners' enrolment in technical courses.

4.2 Socio-Demographic Characteristics for learners' and Trainers

4.2.1 Socio-Demographic Characteristics for learners'

The majority of learners', 69.0%, were male, while 31.0% were female. Regarding age, 48% of the learners' were 21-23 years, 31.0% were 24-26 years, 16.0% were 18-20 years, and only 5.0% were above 27 years. The department of Electrical & electronics engineering had the majority of research participants at 39.0 percent, followed by the department of Information & communication at 29%, the Business & accounting department at 19 percent, and Building & Civil engineering department at 13 percent. Moreover, 47% of the research participants took craft certificates, 28% took artisan courses, and 25% took diploma courses. Table 4.1 present this information.

Table 0.1 Socio-Demographic Characteristics of learners'

Characteristics	Category	Number (n)	Percent (%)
Gender	Female	31	31.0
	Male	69	69.0
	Total	100	100.0
Age	18-20 years	16	16.0
	21-23 years	48	48.0
	24-26 years	31	31.0
	≥27 years	5	5.0
	Total	100	100.0
Department	Building & Civil engineering Dept.	13	13.0
	Electrical & electronics engineering Dept.	39	39.0
	Information & Communication Dept.	29	29.0
	Business & Accounting department Dept.	19	19.0
	Total	100	100.0
Course taken	Artisan	28	28.0
	Craft certificate	47	47.0
	Diploma	25	25.0
	Total	100	100.0
Number of learners' enrolled in each department	Business & Accounting Dept.	103	41.4
	Electrical & electronics dept.	73	29.3
	Information & communication	40	16.0
	Building& engineering	33	13.3
		civil	

	Total	249	100.0
Business & Accounting	Female	33	30.8
	Male	70	69.2
	Total	103	100.0
Electrical & electronic	Female	26	35.6
	Male	47	64.4
	Total	73	100.0
Information & communication	Female	19	47.5
	Male	21	52.5
	Total	40	100.0
Building & Civil engineering	Female	8	24.2
	Male	25	75.8
	Total	33	100.0

4.2.2 Trainers' Socio-Demographic Characteristics

The male trainers were 57.1% (n=4), and the female trainers were 42.9% (n=3). Forty-two point nine percent of the trainers had 11-15 years of teaching experience, 28.6% (n=2) 6-10 years of working experience, 14.3% (n=1) had 5 years and over 16 years of working experience each. The research participants worked in the departments of Business & Accounting, Electrical & electronics, Information & Communication, and Building & Civil engineering. Essentially, 41.3% (n=103) of the enrolled learners' were in the department of Business & Accounting, 29.3% (n=73) were in Electrical & electronics department, while 16.0% (n=40) were in Information & communication and 13.3% (n=33) were in Building & Civil engineering. In Business & Accounting department, 30.8% (n=33) were females, while in Electrical

& Electronic Department were 35.6% (n=26), Information and technology were 47.5% (n=19) and in Building & Civil engineering were 24.2% (n=8). Besides, 42.9% were taking diplomas and artisan

Table 0.2 Socio-Demographic Characteristics of Trainers

Characteristics	Category	Number (n)	Percent (%)
Gender	Female	3	42.9
	Male	4	57.1
Total		7	100.0
Years of teaching experience	5 years	1	14.3
	6-10 years	2	28.6
	11-15 years	3	42.9
	≥16 years	1	14.3
Total		7	100.0

4.3 Effect of financial factors on female learners' enrolment in technical courses

4.3.1 Learners' responses

The responses on the impact of parent financial background on female learners' enrolment in technical courses showed that the majority, 42.0 percent agreed, 36.0% strongly agreed, 10.0% strongly disagreed, 9.0% Disagreed, and 3.0% were neutral. On whether the ability to finance education affected female students' enrolment in technical courses, most 43.0% strongly agreed, 34.0% agreed, 11.0% Strongly Disagreed, 7.0% Disagreed, and 5.0% were neutral. On the effect of the availability of grants and sponsorship on female learners' enrolment in technical courses, 50.0% Agreed, 28.0% strongly agreed, 11.0% Strongly Disagreed, 6.0% Disagreed, and 5.0% neutral. On whether learners' interests in technical courses affected female

students' enrolment in technical courses, 60.0% strongly agreed, 18.0% Agreed, 9.0% Strongly disagreed, 7.0% and 6.0% Disagreed, and were neutral, respectively.

Table 0.3 Financial factors

Financial factors	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
Parent financial background	10	10.0	9	9.0	3	3.0	42	42.0	36	36.0
Ability to finance education	11	11.0	7	7.0	5	5.0	34	34.0	43	43.0
Availability of grants and sponsorship	11	11.0	6	6.0	5	5.0	50	50.0	28	28.0
learners' interest in technical courses	9	9.0	7	7.0	6	6.0	18	18.0	60	60.0

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

4.3.2 Mixed statistics - Mean and Standard Deviation on the effect of financial factors

Mixed statistics were used to determine the mean and standard deviation of the responses. On whether parents' financial background affected female students' enrollment, the mean was 3.99, SD 1.345 out of 100 respondents (N)

Table 0.4 Financial factors - Mean and SD

Financial factors	N	Mean	Standard Deviation
Parent financial background	100	3.99	1.345
Ability to finance education	100	3.91	1.326
Availability of grants and sponsorship	100	3.78	1.236
learners' interest in technical courses	100	4.13	1.323

On the ability to finance education, the mean was 3.91, SD 1.326, availability of grants and sponsorship Mean=3.78, SD 1.236. Regarding learners' interest in technical education, the mean was 4.13 and SD 1.323 (Table 4.4).

The study's findings in table 4.3 discovered that 42.0% agreed and 31.0% strongly agreed that parent financial background affects the enrolment of female learners' in technical courses with a mean of 3.789 (Table 4.4). The multiple regression analysis found that parent financial background positively affected female learners' enrolment in technical courses (Table 4.6). The findings of this study are similar to a study conducted in China by Li & Qiu (2018), which found that family background seriously affects the enrolment of students in tertiary education. Parenting academic support and behaviors for their children could cultivate learning habits and affect enrolment in technical courses. Besides, the academic performance and enrolment of female students in technical courses could be substantially affected by their families' socioeconomic status.

The study's findings noted that 77.0% of the respondents either strongly agreed or agreed that the ability to finance education affects the enrolment of female students in technical courses (Table 4.3). It was discovered that ability to finance education positively affected the enrolment of female learners'. The study findings were similar to Ouma (2018) and Nguyen *et al.* (2019), who found that the parents' socio-economic status significantly affected the parent's capacity to pay school fees, affecting enrolment. Moreover, the study revealed that low-income families force girls to engage in wage and domestic labor to supplement household income. Besides, the study noted that inability of parents to finance tertiary education forces parents to delay the enrolment of girls due to a gap of financial challenges.

4.3.3 Inferential statistics – multiple regression analysis

The dependent variable included female students' enrolment in the technical courses. Independent variables include parents' financial background, ability to finance education, availability of grants and sponsorships, and learners' interest in technical courses. Multiple regression analysis indicated that the R Square was 0.021, Adjusted R Square was -0.020, R Square Change was 0.021, the F change was 0.513, and the P value was 0.026. The Beta standardized coefficients for parents financial background was 0.099 and P= 0.047; ability to finance education $\beta = 0.205$ and P = 0.026; availability of grants and sponsorships $\beta = 0.297$ and P = 0.266 and learners' interest in technical courses $\beta = 0.004$ and P=0.988. Therefore, parents' financial background and ability to finance education had positive Beta coefficients, which positively impacted the enrolment of female learners' in technical courses. This was also reflected in the other categories, availability of grants, sponsorships, and ability to finance education positively affected female learners' enrolment.

Table 0.5 Model summary - financial factors

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	0.145 ^a	0.021	-0.020	0.469	0.021	0.513	4	95	0.026

a. Predictors: (Constant), learners' interest in technical courses, Parent financial background, Availability of grants and sponsorships, Ability to finance education

b. Dependent Variable: Gender

Table 0.6 Multiple regression Coefficients

Model	Coefficients ^a				
	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	1.680	.160		10.517	.000
1 Parent financial background	0.034	0.082	0.099	-0.418	0.047
Ability to finance education	0.072	0.100	0.205	-0.716	0.026
Availability of grants and sponsorships	0.112	0.100	0.297	1.118	0.266
learners' interest in technical courses	0.001	0.081	0.004	0.016	0.988

a. Dependent Variable: Gender

The results also revealed that the majority of research participants, 78.0%, strongly agreed and agreed that the availability of grants and sponsorship affects the enrolment of female students in technical courses (Table 4.3). Multiple regression analysis found that the availability of grants and sponsorships positively affects the enrolment of female learners' (Table 4.6). The findings are similar to a study conducted in South Africa by Fomunyam et al. (2020), which indicated that the availability of grants and sponsorships in higher education improves the enrolment of students because grants subsidize the tuition cost. Moreover, the study discovered that when grants and sponsorships were reduced, it significantly reduced enrolment in educational institutions.

Most of the research participants, 78.0%, either agreed or strongly agreed that learners' interest in technical courses affects female learners' enrolment in technical courses (Table 4.3). The findings also indicated that learners' interest in technical courses positively affected enrolment in technical courses. The results are similar to research in Tajikistan by Safarmamad (2019), which highlighted that learners' interest in vocational and technical courses affects enrolment. The study noted that learners' perception of securing a job after completion of the courses is one factor determining their interest in particular courses. On the contrary, the researcher noted that a decline in interest in enrolling for vocational education could be attributed to young people being disheartened or discouraged from getting employment after receiving a formal vocational certificate. Moreover, interest may also be affected by the nonexistence of adequate awareness and knowledge on the value and role of qualifications, skills, and training in the new economy. After completing secondary education, learners' enroll in technical and vocational education and training (TVET) based on their interests and passions.

4.3.4 Trainers' responses

When trainers were asked about the effect of parents' financial background on the enrolment of female learners' in technical courses, 71.4% (n=5) answered strongly agree, and 28.6% (n=2) agreed. On whether the ability to finance education affected the enrolment of female learners' in technical courses, 57.1% (n=4) strongly agreed, while 42.9% (n=3) agreed. Regarding the effect of availability of grants and sponsorships, 42.9% (n=3) strongly agreed, 42.3% (n=3) agreed and 14.3% (n=1) disagreed. When asked whether learners' interest in technical courses affected enrolment of female students in technical courses, 42.9% (n=3) strongly agreed, 28.6% (n=2) agreed, and 28.6% (n=2) strongly disagreed. On whether college offer bursary to female learners', 28.6% (n=2) strongly agree, 28.6% (n=2) agreed, 28.6% (n=2) disagreed and 14.3% (n=1) strongly disagreed.

During the interview, when the principal was asked about the financial factors, he said: *"Finance is a major issue as far as female learners' are concerned because most of them lack money to pay for particular courses. For example, some parents cannot pay for extras required in courses such as Civil Engineering and Building Construction, thus barring their daughters from such courses."*

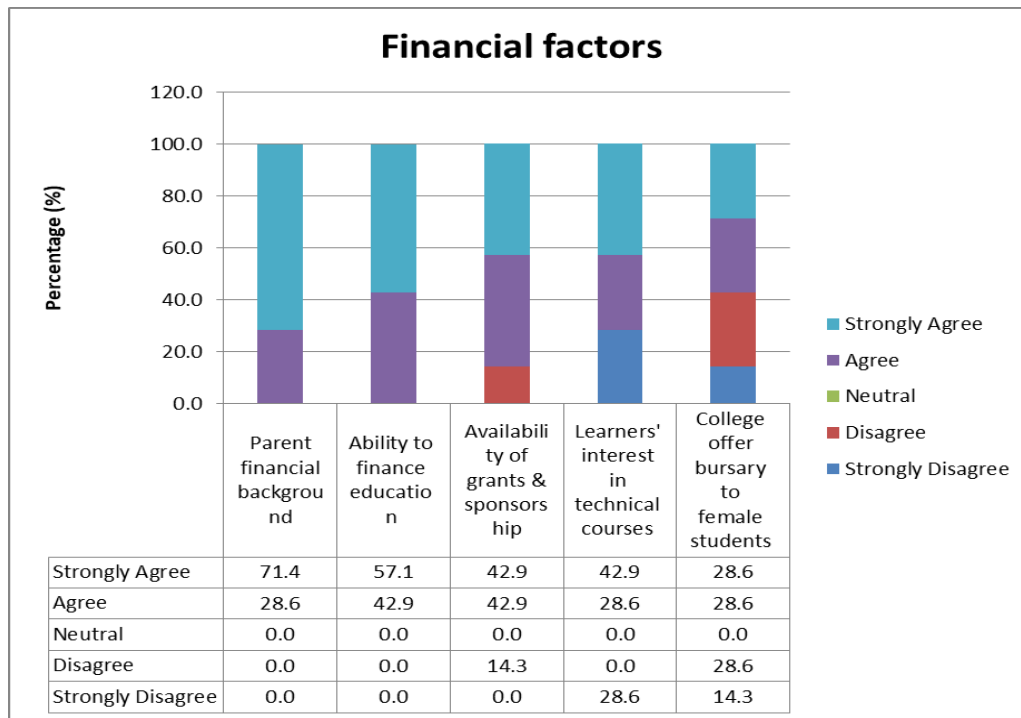


Figure 0.1 Financial factors - Trainers

4.4 Effect of cultural factors on female learners' enrolment in technical courses

4.4.1 Learners' responses

On cultural factors, the research participants were asked whether learners' cultural background affected female students' enrolment in technical courses, where the majority, 58%, strongly agreed, 19.0% agreed, 9.0% disagreed, 8.0% strongly disagreed, and 6.0% remained neutral. On whether the cultural stereotype of women in technical courses affects female students' enrolment in technical courses, most respondents at 48.0% strongly agreed, 45.0% agreed, 4.0% disagreed, and 3.0% strongly disagreed. On whether peer pressure affected female learners' enrolment in technical courses, 40.0% agreed, 28.0% answered neutral, 20.0% disagreed, 9.0% strongly disagreed, and 3.0% strongly disagreed. When asked whether socialization on gender roles played a part in female learners' enrolment in technical courses, 46.0% strongly agreed, 46.0% agreed, 5.0% were neutral, 2.0% disagreed, and 1.0%

strongly disagreed. Besides, when asked whether social expectations on women affected female students' enrolment in technical courses, 53.0% strongly agreed, 38.0% agreed, 5.0% disagreed, and 4.0% strongly disagreed. Finally, when the respondents were asked whether overworking at home after class affected female learners' enrolment in technical courses, 41.0% disagreed, 26.0% strongly disagreed, 27.0% were neutral, 5.0% agreed, and 1.0% strongly agreed.

Table 0.7 Cultural factors - learners'

Cultural factors	1		2		3		4		5	
	N	%	n	%	n	%	n	%	n	%
learners' cultural background	8	8.0	9	9.0	6	6.0	19	19.0	58	58.0
A cultural stereotype about Women in Technical courses	3	3.0	4	4.0	0	0.0	45	45.0	48	48.0
Peer pressure	3	3.0	20	20.0	28	28.0	40	40.0	9	9.0
Socialization on gender roles	1	1.0	2	2.0	5	5.0	46	46.0	46	46.0
Social expectations of Women	4	4.0	5	5.0	0	0.0	38	38.0	53	53.0
Overworking at home after class	26	26.0	41	41.0	27	27.0	5	5.0	1	1.0

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

4.4.2 Mixed statistics - Mean and Standard Deviation of cultural factors

Mixed statistics were used to determine the mean and standard deviation of the cultural factors. The mean and standard deviation of learners' cultural backgrounds were 4.10 and 1.326, respectively. The effect of cultural stereotypes on women in technical courses had a mean of 4.38 and an SD of 0.708, while peer pressure had a mean of 3.32 and 0.994. Besides, socialization on gender roles had a mean of 4.34 and SD of 0.755, while social expectations on women had a mean of 4.40 and SD of 0.765. Finally, overworking at home after class had a mean of 2.14 and an SD of 0.899.

Table 0.8 Mean and SD of Cultural factors

Cultural factors	N	Mean	Standard Deviation
learners' cultural background	100	4.10	1.326
Cultural stereotypes about Women in Technical courses	100	4.38	0.708
Peer pressure	100	3.32	0.994
Socialization on gender roles	100	4.34	0.755
Social expectations of Women	100	4.40	0.765
Overworking at home after class	100	2.14	0.899

4.4.3 Inferential statistics – multiple regression analysis

The dependent variable included female students' enrolment in the technical courses. Independent variables included learner cultural background, cultural stereotypes of women in technical courses, peer pressure, socialization on gender, social expectations of women, and overworking on gender roles. Multiple regression

analysis indicated that the R Square was 0.032, Adjusted R Square was -0.031, R Square Change was 0.032, and F change was 0.508 P value was 0.801. The Beta standardized coefficients for learner cultural background was 0.026, P= 0.859; cultural stereotypes on women in technical courses $\beta = -0.205$ and P = 0.034; peer pressure $\beta = -0.045$, P = 0.450; socialization on gender $\beta = 1.358$, P= 0.178, social expectations on women $\beta = -0.090$, P= 0.005 and overworking $\beta = -0.082$ and P=0.432. Therefore, cultural stereotypes of women, peer pressure, social expectations of women, and overworking at home had negative Beta coefficients, which negatively impacted the enrolment of female learners' in technical courses. However, learners' cultural background and socialization on gender roles positively affected female learners' enrolment.

Table 0.9 Multiple regression analysis - Model summary

Model Summary^b

Mod	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F	df1	df2	Sig. F Change
1	0.178 ^a	0.032	-0.031	0.472	0.032	0.508	6	93	0.801

a. Predictors: (Constant), Overworking at home after class, Peer pressure, learners' cultural background, Cultural stereotypes on women in technical courses, Socialization on gender roles, Social expectations on women

b. Dependent Variable: Gender

Table 0.10 Multiple regression analysis – Coefficients

Model	Coefficients ^a					
	Unstandardized		Standardized	t	Sig.	
	Coefficients		Coefficients			
B	Std. Error	Beta				
1	(Constant)	1.714	0.453		3.780	0.000
	learners' cultural background	0.009	0.051	0.026	0.178	0.819
	Cultural stereotypes about women in technical courses	-0.016	0.078	-0.025	-0.210	0.034
	Peer pressure	-0.038	0.049	-0.080	-0.759	0.045
	Socialization on gender roles	0.107	0.079	0.174	1.358	0.178
	Social expectations on women	-0.054	0.094	-0.090	-0.578	0.005
	Overworking at home after class	-0.042	0.054	-0.082	-0.788	0.432

a. Dependent Variable: Gender

Based on the study's findings, 58.0% of research participants strongly agreed that learners' cultural background affects the enrolment of learners' (Table 4.7). The mean of the responses was 4.10 ± 1.326 (Table 4.8). The findings of this study are similar to research conducted in South Sudan by Bior (2019) that discovered that the education of female learners' is negatively affected by cultural beliefs and practices such as early marriages, female genital mutilation, and the nonexistence of sanitary facilities. Besides, the study revealed that cultural beliefs, including male chauvinism, affect the enrolment of female learners' in tertiary education.

On the effects of cultural stereotypes on women in technical courses, 93.0% of the research participants either agreed or strongly agreed that cultural stereotype on women in technical courses affects their enrolment in technical courses(Table 4.7). The findings are similar to Bior's (2019) conducted in South Sudan, which noted that gender stereotyping significantly affected individual acts and the mindset of the learners' towards demonstrating intra-household biased processes towards the girls. Several gender stereotypes linked to femininity provide roles of women and girls, negatively affecting female learners' education. For instance, some cultural stereotypes view boys as smarter than girls; hence, most parents do not value female education.

Based on the findings that 49.0% of research participants agreed and strongly agreed that peer pressure affects female enrolment in technical courses (Table 4.7). Multiple regression analysis indicated that peer pressure negatively affects female learners' enrolment in technical courses. The results are similar to a study conducted in Kakamega County by Doris & Education (2021) which investigated factors affecting female enrolment in engineering courses. Based on this study, 77.7% of the respondents answered that they strongly agreed that peer pressure existed among

female learners' to do other courses that were perceived as for women. On socialization on gender, 92% either strongly agreed or agreed that socialization on gender roles affects women learners' enrolment in technical courses. The findings are similar to ones by Doris & Education (2021) which indicated that gender-biased engineering curriculum affects the enrolment of female students in engineering courses. On whether overworking after class affected the enrolment of learners', the majority, at 67%, either disagreed or strongly disagreed.

4.4.4 Trainers' responses

When trainers were asked about the impact of learners' cultural background on the enrolment of female learners' in technical courses, 28.6% (n=2) strongly agreed, 28.6% (n=2) agreed, 28.6% (n=2) disagreed and 14.3% (n=1) strongly disagreed. On whether cultural stereotypes about women in technical courses affected enrolment of female learners' in technical courses, 42.9% (n=3) strongly agreed, while 28.6% (n=2) agreed and 28.6% (n=2) disagreed. Regarding the effect of peer pressure, 42.9% (n=3) strongly disagreed, 28.6% (n=2) disagreed, 14.3% (n=1) agreed and 14.3% (n=1) strongly agreed. When asked whether socialization on gender roles affected the enrolment of female students in technical courses, 57.1% (n=4) agreed, 28.6% (n=2) strongly agreed, and 14.1% (n=1) disagreed. On whether social expectations on women affected enrolment of female students in technical courses, 42.9% (n=3) strongly agreed, 28.6% (n=2) agreed, 14.3% (n=1) disagreed and 14.3% (n=1) strongly disagreed. On whether female learners' are encouraged to enroll in technical courses, 42.9% agreed, 28.6% (n=2) strongly agreed, and 28.6% (n=2) disagreed.

When the principal was interviewed about the cultural factors, he noted: *“Cultural factors such as FGM and early marriages for girls significantly affect many young girls from continuing with their education as some begin family life which prevents them from pursuing tertiary education. Some cultures do not pay attention to education for girls, which hamper their education.”*

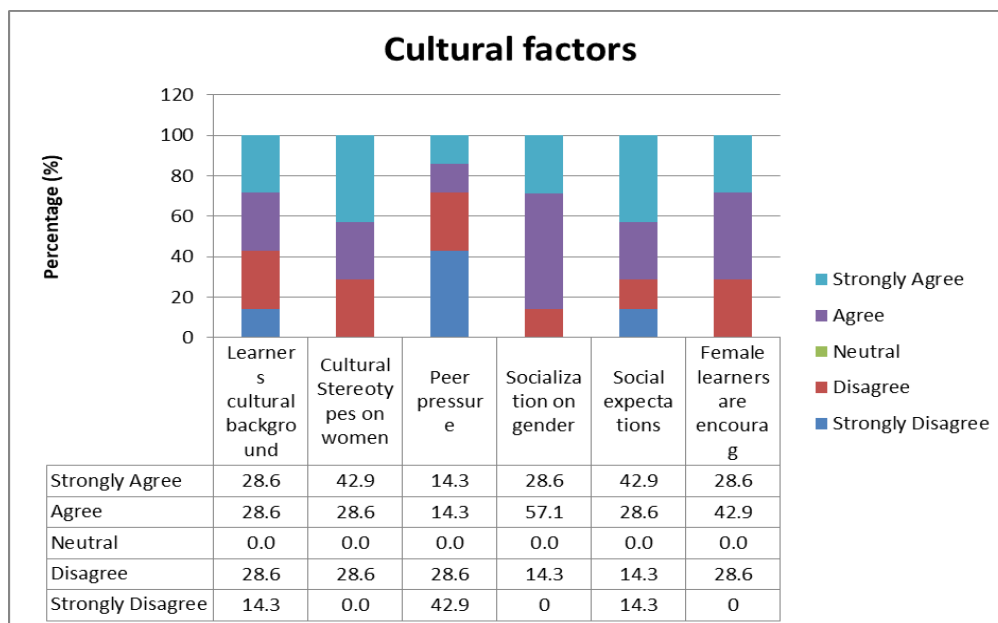


Figure 0.2 Cultural factors

4.5 Effects of sociological factors on female learners' enrolment in technical Courses

4.5.1 Learners' responses

On sociological factors, the research participants were asked whether female genital mutilation (FGM) affected female learners' enrolment in the technical course, where 57.0% agreed, 27.0% strongly agreed, 8.0% were neutral, 5.0% strongly disagreed, and 3.0% disagreed. On whether parents' education background affected female students' enrolment in technical courses, 43.0% strongly agreed, 40.0% agreed, 8.0%

were neutral, 8.0% disagreed, and 1.0% strongly disagreed. Besides, when asked whether early marriages played a role in female students' technical course enrollment, 51.0% agreed, 19.0% strongly agreed, 13.0% were neutral, 12.0% strongly disagreed, and 5.0% disagreed. On parents' sociological view on education's effect on female learners' enrolment in technical courses, 43.0% strongly agreed, 42.0% agreed, 9.0% were neutral, and 3.0% disagreed and strongly disagreed, respectively. When the respondents were asked whether inequalities in access to technical education affected female learners' enrolment in technical courses, 48.0% strongly agreed, 38.0% agreed, 8.0% were neutral, 3.0% disagreed, and strongly disagreed.

Table 0.11 Sociological factors

Sociological factors	1		2		3		4		5	
	N	%	n	%	n	%	n	%	n	%
Female Genital Mutilation	5	5.0	3	3.0	8	8.0	57	57.0	27	27.0
Parents education background	1	1.0	8	8.0	8	8.0	40	40.0	43	43.0
Early marriages	12	12.0	5	5.0	13	13.0	51	51.0	19	19.0
Parents' sociological view on education	3	3.0	3	3.0	9	9.0	42	42.0	43	43.0
Inequalities in access to Technical Education	3	3.0	3	3.0	8	8.0	38	38.0	48	48.0

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

4.5.2 Mixed statistics - Mean and Standard Deviation of sociological factors

The mean and standard deviation were used to provide mixed statistics of the responses on sociological factors. The responses on FGM had a mean of 3.98 and SD of 0.964, while parents' education background had a mean of 4.16 and SD of 0.950.

On early marriages, the mean was 3.60, and SD was 1.206. Besides, on parents' sociological view on education, the mean was 4.19 while the SD was 0.940. Finally, inequalities in access to technical education had a mean of 4.25 and an SD of 0.947.

Table 0.12 Mean and SD of Sociological factors

Sociological factors	N	Mean	Standard Deviation
Female Genital Mutilation	100	3.98	0.964
Parents education background	100	4.16	0.950
Early marriages	100	3.60	1.206
Parents' sociological view on education	100	4.19	0.940
Inequalities in access to Technical education	100	4.25	0.947

4.5.3 Inferential statistics – multiple regression analysis

The dependent variable included female students' enrolment in the technical courses, while Independent variables comprised female genital mutilation, parents' education background, early marriages, parents' sociological view on education, and inequalities in access to technical education. Multiple regression analysis indicated that the R Square was 0.016, Adjusted R Square was -0.036, R Square Change was 0.016, and F change was 0.304 P value was 0.090. The Beta standardized coefficients for female genital mutilation was $\beta = -0.012$, $P = 0.938$; parents education background $\beta = 0.085$ and $P = 0.059$; early marriages $\beta = -0.086$, $P = 0.407$; parents sociological views on education $\beta = 0.046$, $P = 0.912$, inequalities in access to technical education $\beta = -0.500$, $P = 0.045$. Therefore, female genital mutilation, early marriages, and inequalities in access to technical education had negative Beta coefficients, which

negatively impacted the enrolment of female learners' in technical courses. However, parents' educational background and the sociological view had positive coefficients, significantly affecting female learners' motivation.

Table 0.13 Multiple regression analysis - model summary

Model Summary^b

Mod	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	0.126 ^a	0.016	-0.036	0.473	0.016	0.304	5	94	0.909

a. Predictors: (Constant), Inequalities in access to technical education, Female Genital mutilation, Early marriages, Parents education background, Parents sociological view on education

b. Dependent Variable: Gender

Table 0.14 Multiple regression analysis - coefficients

Coefficients^a						
Model	Unstandardized		Standardized	t	Sig.	
	Coefficients		Coefficients			
	B	Std. Error	Beta			
	(Constant)	1.382	.318	4.344	.000	
	Female Genital mutilation	0.006	0.076	-0.012	0.079	0.938
	Parents education background	0.042	0.078	0.085	0.536	0.059
1	Early marriages	0.033	0.040	-0.086	0.834	0.407
	Parents sociological view on education	0.023	0.204	0.046	0.111	0.912
	Inequalities in access to technical education.	-0.025	0.202	-0.050	-0.122	0.045

a. Dependent Variable: Gender

The study's results indicated that 57.0% of research participants agreed that female genital mutilation affected female learners' enrolment (Table 4.11). Multiple regression analysis also indicated that FGM negatively affected female learners' enrolment (Table 4.14). The findings are similar to a study by Bior (2019), which revealed that 41.7% of the research participants noted that FGM affects girls' education greatly. Therefore, the results pointed to the fact that FGM remains a significant factor affecting girls' enrolment in technical courses. Besides, 70.0% of participants agreed/strongly agreed that early marriages affected the enrolment of learners'. The results are similar to the research findings by Bior (2019), which indicated that 40.8% noted that early marriage was affecting the enrolment of female learners' in engineering courses to a great extent.

Regarding parents' educational background, 43.0% strongly agreed that it affects female learners' enrolment (Table 4.11). The findings are similar to Andiema & Manasi, (2021) done in the West Pokot County, Kenya, which revealed that parents' education is an important aspect in the female learners' enrolment in technical causes because the higher the parent's education level attained, the greater the support the learner receives from them to accomplish similar academic success. On the contrary, parents who have not attended tertiary education tend to have minimal direct knowledge of post-secondary education's social and economic benefits. Similarly, parents' education affects their sociological view, meaning educated parents are more likely to support their daughters in pursuing technical courses. The majority of research participants, 86%, either agreed/strongly agreed that inequalities in access to technical education affect female learners' enrolment in technical courses. Multiple regression analysis revealed that inequalities in access to technical education negatively affect the enrolment of female learners' in technical education. The results

are similar to a study conducted in India by Kesarwani & Komaraiah (2019), indicating that inequalities in access to technical education affect female learners'. The study found that when female learners' join tertiary education, they are subjected to delicate environmental challenges, including sexual harassment, verbal abuses and inconvenient sanitary facilities that make their social and academic life more difficult. Besides, gender inequality is strengthened by society's traditional and cultural values and norms.

4.5.4 Trainers responses

When trainers were asked about the impact of female genital mutilation (FGM) on the enrolment of female learners' in technical courses, 57.1% (n=4) strongly agreed, and 42.9% (n=3) agreed. On whether parents' educational background affected the enrolment of female learners' in technical courses, 57.1% (n=4) strongly agreed, and 42.9% (n=3) agreed. Regarding the effect of early marriages, 71.4% (n=5) and 28.6% (n=2) agreed. On the impact of parents' sociological view on education, 57.1% (n=4) strongly agreed, and 42.9% (n=3) agreed. When asked whether inequalities in access to technical education affected the enrolment of female students in technical courses, 57.1% (n=4) strongly agreed, 28.6% (n=2) agreed, and 14.1% (n=1) disagreed.

During the interview, when participants were asked about the role of sociological factors in the enrolment of female learners', one of them said: *“Socialization of the society is a serious issue which significantly affects education. For example, the society setup creates gender roles that discourage women from taking technical courses. Women are viewed as physically weaker compared to men, which creates a perception that they cannot succeed in technical courses.”*

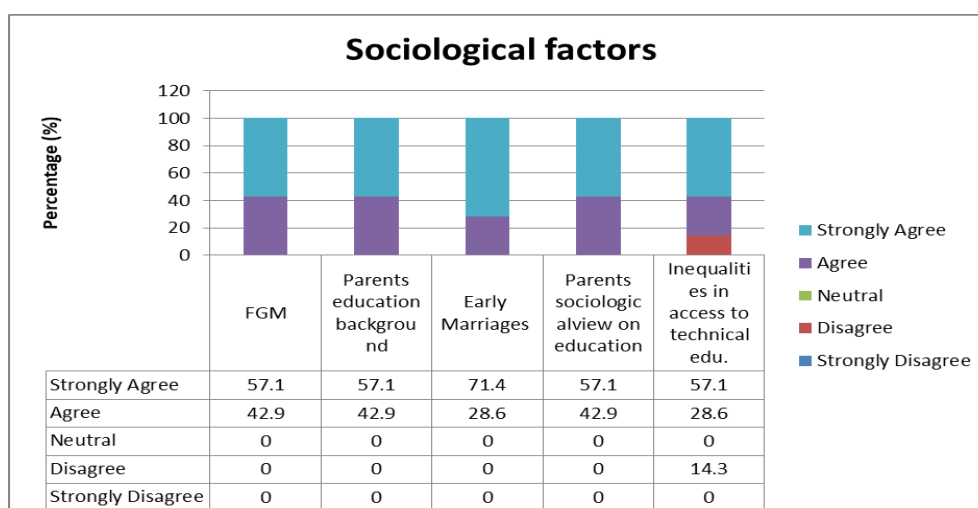


Figure 0.3 Sociological factors

4.6 Effect of role models on female learners' enrolment in technical courses

4.6.1 Learners' responses

On role models on female learners' enrolment in technical courses, the responses on the impact of role models in career choices on female learners' enrolment to technical courses showed that 62.0% strongly agreed, 23.0% agreed, 7.0% disagreed, 4.0% strongly disagreed, and 4.0% were neutral. Regarding whether teachers and parents as role models affect female students' enrolment in technical courses, 44.0% agreed, 40.0% strongly agreed, 8.0% were neutral, 6.0% disagreed, and 2.0% strongly disagreed.

On whether lack of motivation in technical courses affected female learners' enrolment in technical courses, 46.0% stated agree, 37.0% answered strongly agree, 11.0% disagreed,

3.0% strongly disagreed, and 3.0% were neutral. When asked whether parents affect played a part in female learners' enrolment in technical courses, 46.0% strongly agreed, 35.0% agreed, 11.0% strongly disagreed, 5.0% disagreed, and 3.0% were

neutral. Besides, when asked whether professional effect affected female students' enrolment in technical courses, 53.0% strongly agreed, 37.0% agreed, 5.0% were neutral, 4.0% disagreed, and 1.0% strongly disagreed.

Table 0.15 Role Model

Role Model	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
Role models in career choices	4	4.0	7	7.0	4	4.0	23	23.0	62	62.0
Teachers and parents as role models	2	2.0	6	6.0	8	8.0	44	44.0	40	40.0
Lack of motivation in Technical courses	3	3.0	11	11.0	3	3.0	46	46.0	37	37.0
Parents effect on Technical career	11	11.0	5	5.0	3	3.0	35	35.0	46	46.0
Professional effect on Technical career choices	1	1.0	4	4.0	5	5.0	37	37.0	53	53.0

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

4.6.2 Mixed statistics - Mean and Standard Deviation of role models

The mean and standard deviation (SD) were used to present the mixed statistics of the study. The mean and SD of role models in career choice were 4.25 and 0.947, respectively. Regarding teachers and parents as role models, the mean and SD were 4.14 and 0.943, respectively. Lack of motivation in technical courses had a mean of 4.03 and SD of 1.058. Parents' effect on technical career had a mean of 4.00 and SD of 1.303. The mean and SD were 4.37 and 0.837 regarding the professional effect on technical career choices.

Table 0.16 Mean and SD of role models factors

Role models	N	Mean	Standard Deviation
Role models in career choices	100	4.25	0.947
Teachers and parents as role models	100	4.14	0.943
Lack of motivation in Technical courses	100	4.03	1.058
Parents' effect on Technical career	100	4.00	1.303
Professional effect on Technical career choices	100	4.37	0.837

4.6.3 Inferential statistics – multiple regression analysis

The dependent variable included female students' enrolment in the technical courses, while Independent variables comprised role models in career choices, teachers, and parents as role models, lack of motivation in technical careers, and professional effect on technical career choices. Multiple regression analysis indicated that the R Square was 0.108, Adjusted R Square was 0.061, R Square Change was 0.108, F change was 2.280, and P value was 0.005. The Beta standardized coefficients for role models in career choices was $\beta = 0.135$, $P = 0.029$; teachers and parents as role models $\beta = 0.310$ and $P = 0.034$; lack of motivation $\beta = -0.107$, $P = 0.035$; parents' effect on technical careers $\beta = 0.056$, $P = 0.708$, parents effect on technical career choices $\beta = 0.083$, $P = 0.045$. Therefore, only lack of motivation in technical courses had negative Beta coefficients, which negatively impacted the enrolment of female learners' in technical

courses. On the other hand, role models in career choices, teachers and parents as role models, and parents' effect on technical careers and professional career choices had positive coefficients, which suggested they positively affected female learners' enrolment in technical courses.

Table 0.17 Multiple regression analysis - Model summary

Coefficients^a					
	B	Std. Error	Beta		
(Constant)	0.717	.305		2.352	0.021
Role models in career choices	0.057	0.054	.135	1.064	0.029
Teachers and parents as role models	.153	.071	0.310	2.146	.034
Lack of motivation in technical courses	-0.047	.082	-0.107	- 0.567	0.035
Parents' effect on technical careers	0.020	0.053	0.056	0.376	0.708
Professional effect on technical career choices	.046	.075	.083	.616	.045

a. Dependent Variable: Gender

Based on the study's findings, 62.0% strongly agreed that role models in career choices affect female learners' enrolment in technical courses. The regression analysis

also indicated that role models positively affect the enrolment of female learners' in technical courses. Moreover, the study findings also indicated that 84.0% of the research participants agreed or strongly disagreed that teachers and parents serve as role models. The results are similar to a study by Ngugi & Muthima (2017), which indicated that few female trainers act as role models, discouraging female learners' from enrolling in technical courses. The study argued that role models help eliminate stereotypes and perceptions that hinder women in technical courses and motivate female learners' to enroll in TVET-related fields. They also shape the career choices of girls before joining tertiary training. The study also discovered that girls taught by female trainers do well in science courses and have higher chances to pursue science; technology, engineering, and mathematics (STEM) related careers. The study concluded that there is a clear association between the accessibility of female trainers and the effect on girls in STEM courses.

From the study findings, 46.0% of the participants agreed that lack of motivation in technical courses affects female learners' enrolment in such courses. Multiple regression analysis revealed that lack of motivation negatively affects female learners' enrolling in technical courses. The study findings are consistent with research conducted in the United States by Makarova et al. (2019), which found gender differences in terms of interest in science and mathematics subjects among high school students. Female learners' demonstrated a more prominent gender stereotype for math than male learners'. The study also noted that even girls who had chosen math-intensive majors had challenges in linking math with them since they linked math with the male gender. Similarly, in physics, being interested in this subject was related to the male gender, and among female students being interested in physics risked their self-identification with the female gender. Besides, a normal physics and

mathematics teacher was considered a man. The female gender was heavily linked with traits such as flexible, frail, lenient, dreamy, soulful, playful, and soft, whereas semantic characteristics linked with physics and math were features such as rigid, robust, strict, sober, distant, serious, and hard.

Regarding parents and professional effects on technical careers, 46.0% and 53.0% of research participants strongly agreed that they affect the enrolment of female students in technical courses. Both factors positively affected female learners' enrolment in technical courses. The study's findings are consistent with research by Kesarwani (2019), which noted that due to lack of many women professionals in STEM, young female learners' do not have sufficient role models to motivate them to pursue these courses. It was established that women professionals in STEM courses constitute only 28% of the slots in engineering and computer sciences courses. Such a gender gap challenges young girls because of the nonexistence of role models.

4.6.4 Trainers' responses

On role models affect in career choices, 28.6% (n=2) strongly agreed, 28.6% (n=2) agreed, 28.6% (n=2) strongly disagreed and 14.3% (n=1) strongly disagreed. On whether teachers and parents as role models affect female learners' enrolment in technical courses, 57.1% (n=4) strongly agreed, 28.6% agreed, and 14.3% disagreed. On whether lack of motivation in technical courses impacts female students' enrollment, 42.9% strongly agreed, 28.6 (n=2) agreed, and 28.6% (n=2) disagreed. On parents effect on technical careers, 42.9% (n=3) agreed, 28.6% (n=2) disagreed, and 28.6% (n=2) strongly disagreed. On the impact of the professional effect on technical career choices, 57.1% (n=4) disagreed, and 42.9% (n=3) strongly disagreed.

When participants were asked during the interview about the impact of role modeling in female learners' enrollment, one of them was quoted saying: *“Young people look up to people who have succeeded in life to inspire their dreams. In this respect, role models motivate young people to achieve their dreams. In this case, there are few women in these technical courses, which can lower the motivation of the young generation to join the technical courses.”*

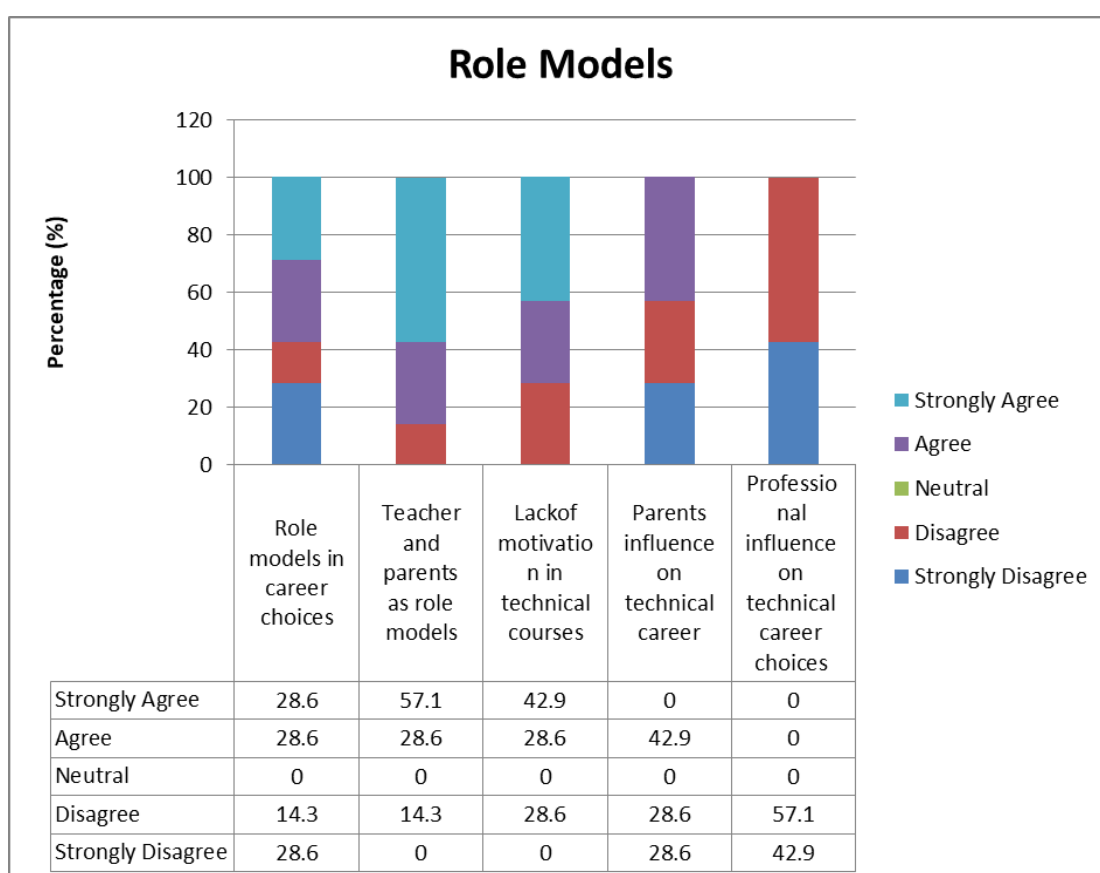


Figure 0.4 Role models

4.7 Why there are few females enrolled in technical courses

When asked why few female learners' enrolled in technical courses compared to their male counterparts, 43.0% responded that beliefs that some courses best suit males, as opposed to female students, were responsible for few females' enrolments. Moreover, 31.0% of the respondents stated that parents' unwillingness to educate girls after high

school contributed to low enrolment. Fifteen percent of the participants stated that lack of support from family members was the main reason for the enrollment in few females' technical courses. Eleven percent of the research participants suggested that females' roles in society led to few enrolments in technical courses.

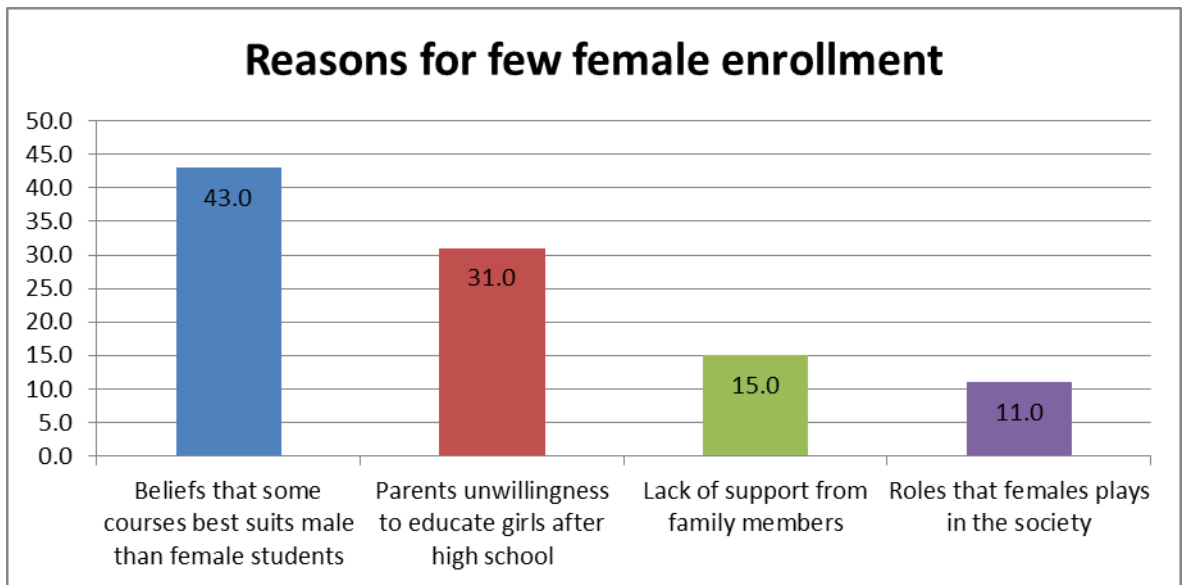


Figure 0.5 Reasons for few female enrolments in technical courses

4.8 What discourages female learners' from enrolling as male counterparts?

When trainers were asked what discourages female learners' from enrolling as male counterparts, 28.6% (n=2) stated that it was due to a lack of awareness of the opportunities available in Technical Training Institutes, 28.6% (n=2) reported that the distribution of teaching workforce was male-dominated hence female students did not have role models to look up to, 14.3% (n=1) suggested it was because of poverty, 14.3% (n=1) because of associating sciences and mathematics with males and 14.3% (n=1) because of courses offered attracts few females students. This study was in agreement with a study done by Lauren (2014), which revealed that career patterns are influenced by a variety of forces, among them gender-role stereotypes. Although the study also showed that girls perform equally well on many technical skills and

attitudes assessments in the elementary school years, the majority of the respondents in the study indicated that technical courses are masculine and are meant to be pursued by boys. A study on youth polytechnics in west Pokot County showed that lack of modern training equipment, inadequate number of qualified instructors, and low enrolments brought about by lack of funds are the key challenges (Ngugi & Muthima, 2017). Therefore, what they need are role models to encourage them to pursue technical courses in their tertiary education programs.

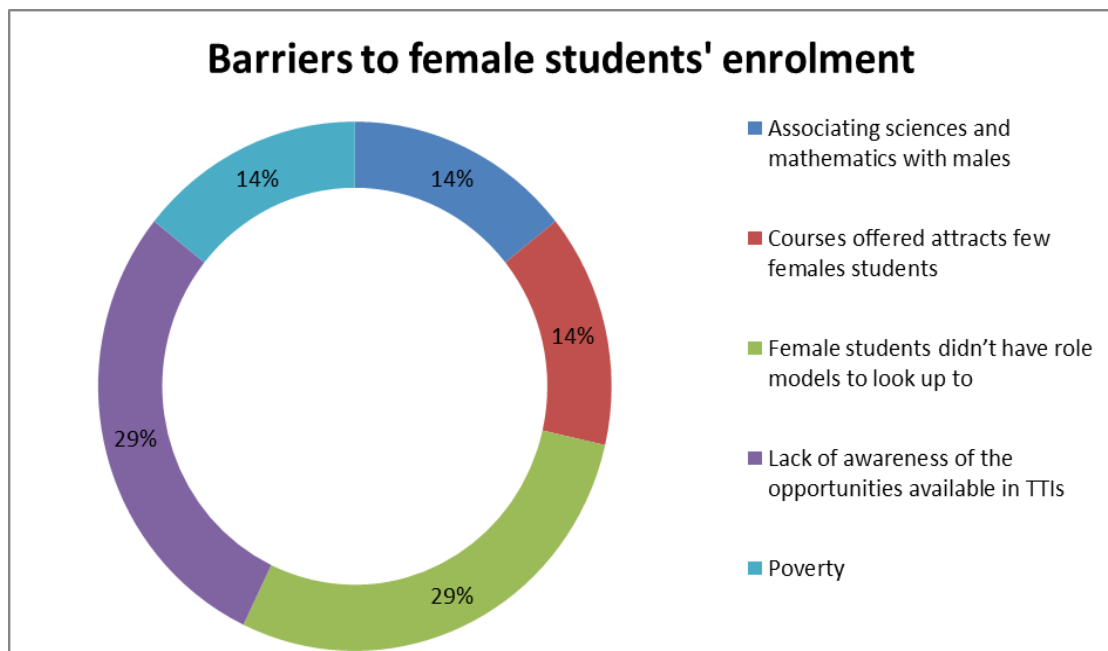


Figure 0.6 Barriers to female learner's enrolment

4.9 Whether something can be done to encourage more female enrollment

When asked whether something can be done to encourage more female enrolment, 62.0% stated "yes," while 38.0% stated "no."

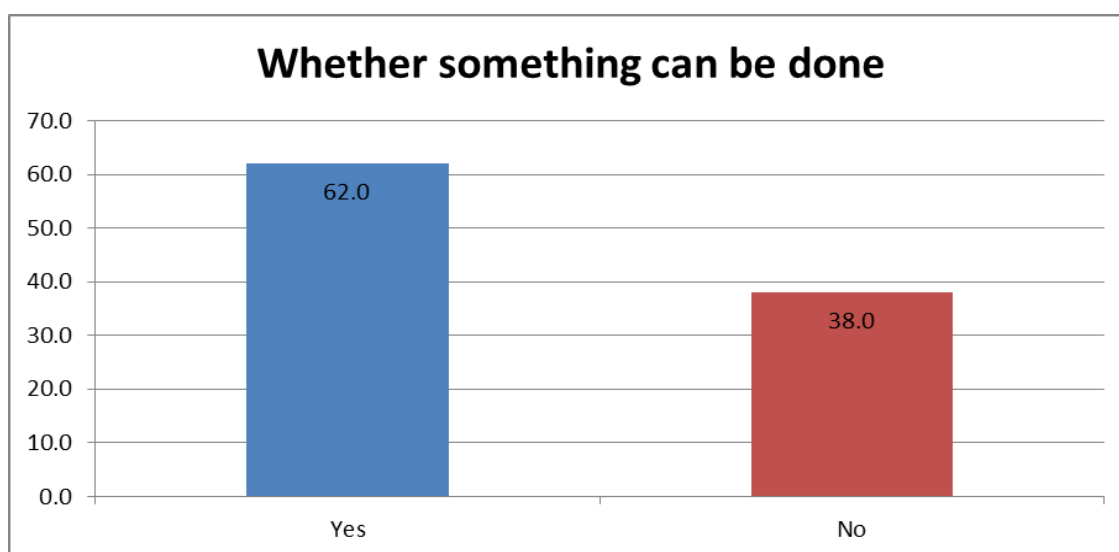


Figure 0.7 Whether something can be done

Having more women in TVET fields has been attributed to the high participation level of women in all TVET fields, from training to the work environment. Schechter (2010, in UNESCO, 2015) points out that women make up 50-60 per cent of employees in the computer industry, with a majority of them in management levels. This has been attributed to the government's commitment to specific policy initiatives and perceptions rooted in social and cultural norms since the computer industry constitutes an indoor "profession."

4.10 What can be done to encourage more females to enroll in technical courses

Out of 62 participants who stated "yes" in the previous question were asked what can be done to encourage more females to enroll in the courses, 61.3% (n=38) stated that change of social norms could encourage female enrolment in technical courses. In contrast, 38.7% (n=24) indicated that changing of attitudes regarding male and female students could help in encouraging female enrolment in technical courses.

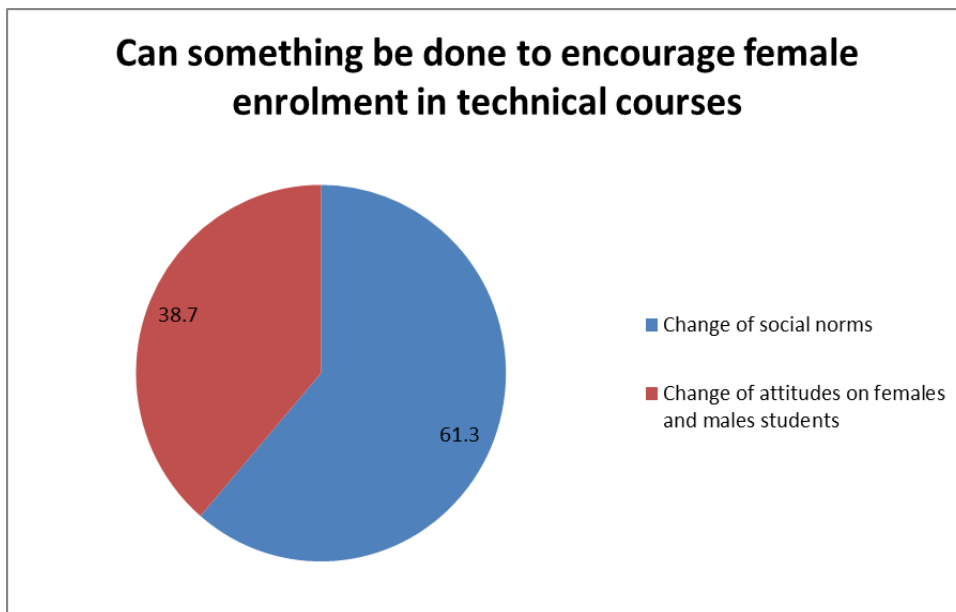


Figure 0.8 What can be done to encourage more female enrolment?

4.11 Why change cannot be realized

Out of 38 persons who stated “no” in the previous question were asked why they believed nothing could be done to realize change, 57.9% (n=22) answered that socio-cultural practices were against female students, and 42.1% (n=16) answered those gender disparities still exist.

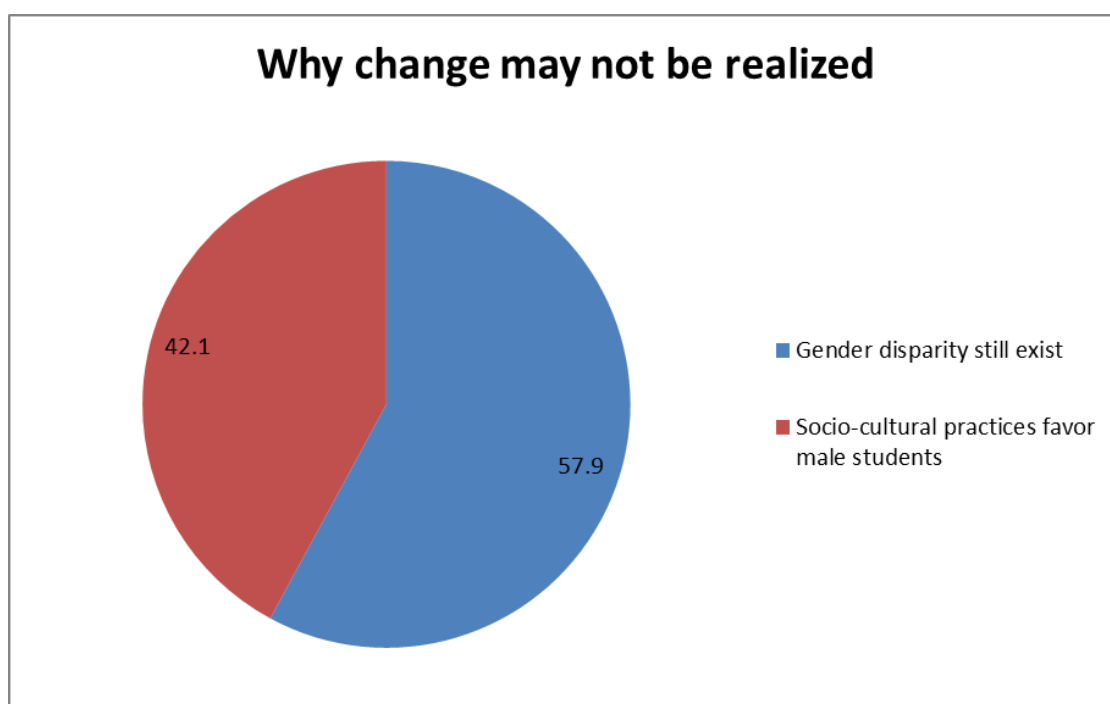


Figure 0.9 Why change may not be realized

4.12 What can be done to encourage more female learners' to enroll in technical courses?

When trainers were asked what can be done to promote more female learners' enrolment in technical courses, 42.9% (n=3) suggested introduction of mentorship for girls, 28.6% (n=2) suggested improving access to secondary education for girls, 14.3% (n=1) suggested enhancing quality of pre-tertiary education, and 14.3% (n=1) proposed the hands-on training opportunities should be provided. During the interviews, when the participants were asked on what the Technical Training Institute had done to improve enrollment of female learners', one of them said: *“As an institution we have introduced lower entry marks for girls when enrolling for all the technical courses. This creates an opportunity for girls to enroll in large numbers. Moreover, we introduced seminars where we invite persons who have good reputation*

and who our girls can look up to. These people give a word of counsel not only to our girls but boys too.”

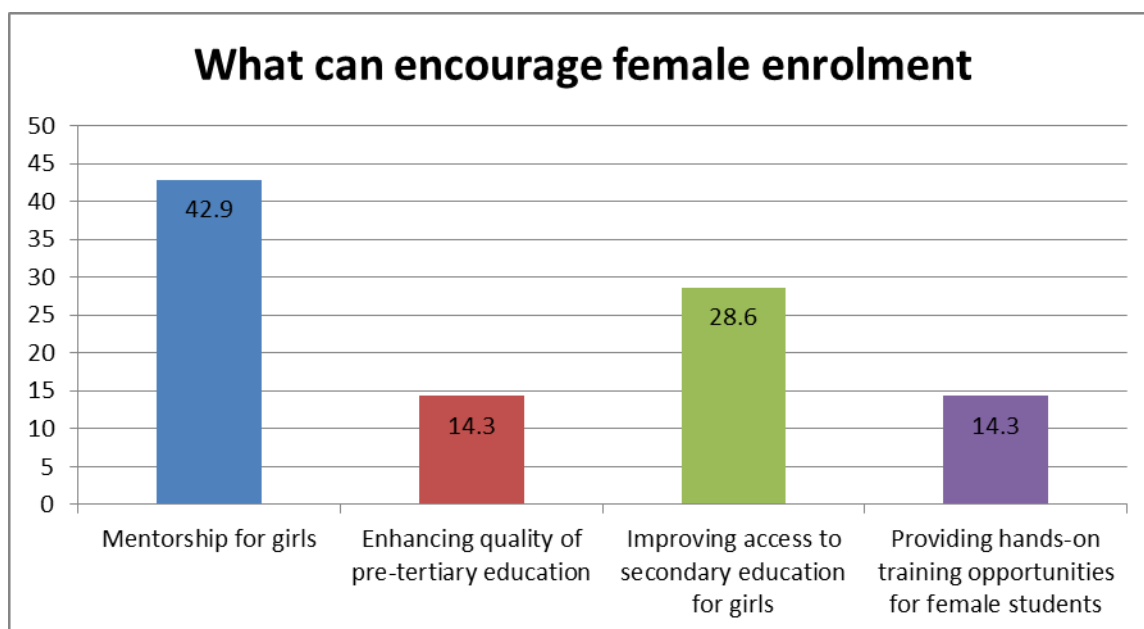


Figure 0.10 What can encourage female enrolment?

At national level, the individual governments of a country should address the institutionalizing of gender-responsive action in various sectors with focus to improving female participation in TVET. These levels may range from gender responsive strategies in education to the labour market policies. Other strategies may include enforcement of gender-related laws, as well as specific initiatives for advocacy and raising awareness. These are needed in order to attract more girls and women into TVET related fields. The government should also put measures in place to ensure the effective implementation and strengthening of policies related to education, gender and coordination between various ministries. By so doing, this will ensure that both human and social capital is taken care of in relation to support for equal opportunity for both male and female participation in TVET education and subsequently, in economic growth and development. At educational level, the curricula and learning materials should undergo further rigorous review from a gender

perspective to ensure that they do not perpetuate gender stereotypes. This would ideally involve a representative group of stakeholders with male and female experts in order to ensure different perspectives. In addition, gender responsive teaching strategies, career counselling and scholarship programs would be of importance in promoting gender parity in TVET. This would go along with having ensured that Teacher Education, be they pre- and in-service programmes, is transformed to ensure that teachers are trained in gender-responsive teaching strategies so that female and male students can develop their full potential in STEM-related subjects.

4.13 Chapter Summary

This chapter presented the findings, interpretation and discussion according to the study objectives on factors affecting female learner's enrolment on technical courses in Karumo technical training institute, Meru County. The discussions were related to the literature review. The study findings were presented in frequency tables, charts and pie charts. Qualitative data was presented according to its relevant thematic analysis, in quotations. The discussions were conducted concurrently according to the research objectives and findings.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter sets to present the summary of findings of the study and compare them with previous studies to determine the similarities and explain the reasons why this differs with other studies carried earlier. Part two of this chapter highlights the conclusions drawn from the research findings. Finally, part three provides recommendations to the policy makers and future research.

5.2 Summary of the Findings

5.2.1 Effect of financial factors on female learners' enrolment to technical courses

Financial factors such as ability to finance education, parents' financial background, availability of grants and sponsorships and learners' interest in technical courses were found to affect female students' enrolment to technical courses. The socio-economic status of the family determines the financial ability of the parents to cater for the financial needs of the female students in tertiary institutions. Female students from higher socio-economic status are more likely to enroll in technical courses because the parents are willing and able to pay for their education. Besides, existence of grants and sponsorships was identified to positively affect enrolment in technical courses. Increasing access to grants and sponsorships can help female students especially those from poor families to pursue technical education.

5.2.2 Effect of cultural factors on female learners' enrolment in technical courses

Based on the study findings, it was established that cultural factors play an important part in enrolment of female students. Some cultural practices beliefs that boys are smarter than girls negatively affect enrolment of girls in technical courses. Moreover, cultural stereotype on women still exists which negatively affect female learners' enrolment in technical courses. Gender stereotypes links boys to science and mathematics courses while female students are not linked to sciences and mathematics. Similarly, social expectations and peer pressure were found to negatively affect enrolment of female learners' in technical courses.

5.2.3 Effect of Sociological factors on female learners' enrolment in technical courses

Sociological factors such as parents' education background, early marriages, parents' sociological view on education, and inequalities in access to technical education were found to affect enrolment of female students. Precisely, early marriages and inequalities in access to technical education were identified to negatively affect enrolment of girls in technical courses. After female genital mutilations, most young girls are considered grown-ups and ready to get married. Therefore, they are denied a chance to continue with their education. On the other hand, parents' education background can positively affect enrolment of female students. Girls whose parents have acquired higher education are more likely to support their daughters to acquire technical education. Besides, educated parents tend to have favorable sociological view on education which means that they support their daughters when they desire to pursue technical courses. Inequalities in access to education may be contributed by delicate environmental challenging in colleges or higher education institutions such as

sexual harassment, verbal abuses and inconvenient sanitary facilities that turn their academic lives more difficult.

5.2.4 Effect of role models on female learners' enrolment in technical courses

Role model factors including teachers and parents as role models, parent's attitude on technical career and professional background effect on technical career choices. Existence of role model in technical career positively affects females to pursue courses that are viewed as for men such as engineering. Besides, role models help in girls' enrolment in technical courses by eliminating stereotypes and perception which hinder women enrolling in technical courses. Professionals in technical careers and female trainers in technical courses can act as role models who affects young girls in choosing and believing they can make it too.

5.3 Conclusions

Conclusions from the study finding are as follows:

- Parent financial background influences female learner's enrolments in technical courses, for example, a wealthy parent will not mind paying for their daughters to study any technical course, unlike a poor parent. Grant and sponsorship availability affects the female learner's enrolment in technical courses.
- Cultural factors such as social expectation, stereotype on women taking technical courses, overworking at home after class and socioeconomic background affects the female learner's enrolment in technical courses in the study area.

- Sociological factors such as female genital mutilation, parent's education background, early marriages and inequalities in access to technical education affect female learner's enrolment in technical courses in the study area.
- Professional role models affect female learners' enrolment in technical courses, by demystifying the myth that there are professions for men and others for women in the study area.

5.4 Recommendations

Based on the findings of this study, the following recommendations are made:

1. The government should consider increasing grants, bursaries and sponsorships among female learners' who are pursuing technical courses especially from low socioeconomic status families.
2. The government should also find legal means and ways of encouraging societies to discard outdated socio-cultural practices which discourage female learners' from enrolling in technical courses.
3. The government should employ more female trainers in TVETs to act as role models of young girls who would like to pursue technical courses.
4. There is need for social re-engineering to enable /allow female learners' exploit their full potential in the development of our Country by enrolling in any course of their choice

5.5 Suggestions for further research

Areas for further research include;

- Technical courses fit/favourable for women considering their gender roles.

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APPENDICES

Appendix I: Introductory Letter

Dear Respondent,

I am a post graduate student, pursuing a master's degree in Education in Technology Education of University of Eldoret, am conducting a research entitled Factors Affecting Female learners' Enrolment in Technical Courses at Karumo Technical Training Institute, Meru County –Kenya.

The purpose of this letter is to request for your indulgence to allow me collect relevant data from you. The data collected shall be treated with utmost confidentiality and only used for the intended purpose.

Thank you,

Yours Sincerely

Stephen Mugambi M. Irandu

Appendix II: learners' Questionnaire

Dear Respondent

This study seeks to determine the factors affecting female learners' enrolment in technical courses at Karumo Technical Training Institute, Meru County

INSTRUCTIONS:

Please read the questions carefully and give appropriate responses. The responses are strictly for research purpose and confidentiality is guaranteed.

SECTION A: RESPONDENTS DEMOGRAPHIC INFORMATION

Please tick [√] appropriately

Respondent Gender Female [] Male []

Age bracket 18-20yrs [] 21-23 yrs [] 24-26 yrs [] 27 yrs and above []

Name of the Department enrolled.....

Course enrolled.....

Level Artisan [] Craft Certificate [] Diploma []

SECTION B: INFORMATION ON THE STUDY OBJECTIVES

Please tick [√] appropriately

I Effect of Financial Factors on Female learners' Enrolment to Technical Courses

To what extent do you agree with the following statements on the effect of financial factors on female learners' enrolment to technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Financial factors	1	2	3	4	5
1	Parent financial background					
2	Ability to finance education					
3	Availability of grants and sponsorship					
4	learners' interest in technical courses					

II Effect of Cultural Factors on Female learners' Enrolment in Technical Courses

To what extent do you agree with the following statements on the effect of Cultural factors on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Cultural Factors	1	2	3	4	5
1	learners' cultural background					
2	Cultural stereotype on Women in Technical courses					
3	Peer pressure					
4	Socialization on gender roles					
5	Social expectations on Women					
6	Overworking at home after class					

III Effect of Sociological Factors on Female learners' Enrolment in Technical Courses

To what extent do you agree with the following statements on the effect of Sociological factors on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Sociological Factors	1	2	3	4	5
1	Female Genital Mutilation					
2	Parents education background					
3	Early marriages					
4	Parents sociological view on education					
5	Inequalities in access to Technical education					

IV Effect of Role Models on Female learners' Enrolment in Technical courses.

To what extent do you agree with the following statements on the effect of Role Models on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Role Model	1	2	3	4	5
1	Role models in career choices					
2	Teachers and parents as role models					
3	Lack of motivation in Technical courses					
4	Parents' effect on Technical career					
5	Professional effect on Technical career choices					

Why do you think there are few female learner' in enrolled in your course?

Do you think something can be done to encourage more female to enrol in this course?

If Yes, What?

.....

If No, Why?

.....

Appendix III: Questionnaire for Trainers

Dear Respondent

This study seeks to determine the factors affecting female learners' enrolment in technical course at Karumo Technical Training Institute, Meru County

INSTRUCTIONS:

Please read the questions carefully and give appropriate responses. The responses are strictly for research purpose and confidentiality is guaranteed.

SECTION A: RESPONDENTS DEMOGRAPHIC INFORMATION

Please tick [] appropriately

Respondent Gender Female [] Male []

Teaching experience below 5yrs [] 6-10 yrs [] 11-15 yrs [] 16yrs and above []

Name of the Department

Number of learners' enrolled.....

Level ArtisanMale..... Female.....

Craft certificate.....Male..... Female.....

DiplomaMale..... Female.....

SECTION B: INFORMATION ON THE STUDY OBJECTIVES

Please tick [] appropriately

I Effect of Financial Factors on Female learners' Enrolment to Technical Courses

To what extent do you agree with the following statements on the effect of financial factors on female learners' enrolment to technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Financial factors	1	2	3	4	5
1	Parent financial background					
2	Ability to finance education					
3	Availability of grants and sponsorship					
4	learners' interest in technical courses					
5	college offer bursary to female learner'					

II Effect of Cultural Factors on Female learners' Enrolment in Technical Courses

To what extent do you agree with the following statements on the effect of Cultural factors on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Cultural Factors	1	2	3	4	5
1	learners' cultural background					
2	Cultural stereotype on Women in Technical courses					
3	Peer pressure					
4	Socialization on gender roles					
5	Social expectations on Women					
6	Female learner' are encouraged to enroll in Technical courses					

III Effect of Sociological Factors on Female learners' Enrolment in Technical Courses

To what extent do you agree with the following statements on the effect of Sociological factors on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Sociological Factors	1	2	3	4	5
1	Female Genital Mutilation					
2	Parents education background					
3	Early marriages					
4	Parents sociological view on education					
5	Inequalities in access to Technical education					

IV Effect of Role Models on Female learners' Enrolment in Technical courses.

To what extent do you agree with the following statements on the effect of Role Models on female learners' enrolment in technical courses?

Key: 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

	Role Model	1	2	3	4	5
1	Role models in career choices					
2	Teachers and parents as role models					
3	Lack of motivation in Technical courses					
4	Parents' effect on Technical career					
5	Professional effect on Technical career choices					

In your own view what discourages female learner' from enrolling in large numbers like their male counterpart in your department?

What do you think can be done to encourage more female learner' to enrol in your department?

Appendix IV: Principal's Interview Schedule

Thank you Mr. Principal for giving me an opportunity to interview you on the factors that affect female learners' enrolment in Technical courses.

The information shared here will only be used strictly for the purpose of this research hence confidentiality were paramount when handling the data collected

Mr. Principal how many learners' do you have currently enrolled in this Institution?

.....

How many are female?Male.....

How does finance as a factor affect the enrolment of female learner' to technical courses?

How does cultural factor affect female learner' in technical courses?

Which are these factors?

Do sociological factors affect female learners' enrolment in technical course?

.....

Can you kindly enumerate these factors?.....

How does role modelling affect the female learners' enrolment in technical courses?.....

How as this institute encouraged female learner' to enrol in technical courses?.....

Thank you Mr. Principal.

Appendix V: Trainers Interview Schedule

Thank you Sir/Madam for giving me an opportunity to interview you on the factors that affect female learners' enrolment in Technical courses.

The information shared here will only be used strictly for the purpose of this research hence confidentiality were paramount when handling the data collected

Sir/Madam how many learners' do you have currently enrolled in this course?

How many are female?Male.....

According to your own opinion does finance as a factor affect the enrolment of female learner' to technical courses?

Would cultural factor affect female learner' enrolment in technical courses?
.....

If NoWhy?.....

If Yes.....How?.....

Which are these factors?

Do sociological factors affect female learners' enrolment in technical course?
.....

Can you kindly enumerate these factors?.....

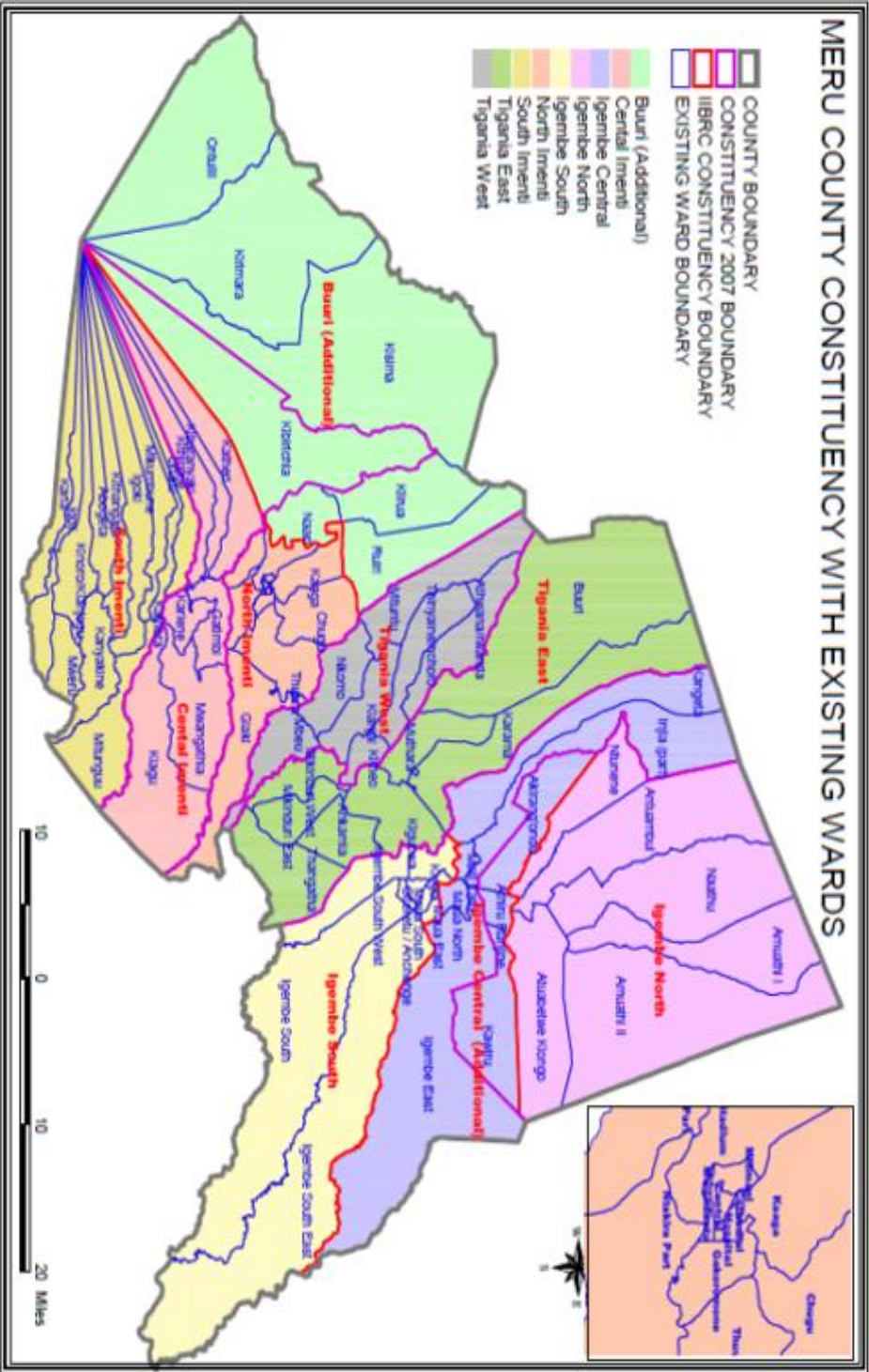
How does role modelling affect the female learners' enrolment in technical courses?.....

In your own opinion, what do you think can be done to encourage more female students to enrol in technical courses? If nothing why do you think so?


How as this institute motivated female learner' to enrol in technical courses?.....


Thank you Sir/Madam.

Appendix VI: Map of Study Area




Appendix VII: Research Permit


REPUBLIC OF KENYA


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Appendix VIII: Similarity Report

