ASSESSMENT OF GIRLS' ADMISSION IN MECHANICAL TRADE IN VOCATIONAL COLLEGES IN TANZANIA, A CASE STUDY OF KILIMANJARO REGION

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A DISSERTATION SUBMITTED IN A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OFMASTER OF EDUCATIONS IN ADMINISTRATION, PLANNING AND POLICY STUDIES OF THE OPEN UNIVERSITY OF TANZANIA

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CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled: "**Assessment of Girls' Admission in Mechanical Trade in Vocational Colleges in Tanzania, A Case Study of Kilimanjaro Region"** in partial fulfillment of requirements for the Degree of Master of Education in Administration, Planning and Policy Studies (MED-APPS) of the Open University of Tanzania.

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Dr. M. Ogondiek

(Supervisor)

……..

Date

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DECLARATION

I, **Joyce Invocavit Makyao**, do hereby declare that, this dissertation is my own original work and have not been registered and presented for any other academic award at any University.

DEDICATION

To the Holy Trinity and My family (My Husband Mr. Invocavit John Makyao, My Daughter Purity, and My Sons Gratitude and Divine)

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To the Father in Heaven be Glory, Honor and Praise.

ABSTRACT

This study assessed the admission of girls in mechanical trade in Vocational colleges in Tanzania, the case study of Kilimanjaro region. The objectives of the study were, to investigate the social factors which affect the admission of girls in mechanical trade in vocational colleges in Tanzania**,** to investigate the contribution of parents in admission of girls in mechanical trade in vocational colleges in Tanzania, to assess the contribution of vocational education and training policy on admission of girls in mechanical trade in vocational colleges in Tanzania,and finally to investigate the strategies of admitting more girls in mechanical trade in vocational colleges in Tanzania. The study employed mixed approach in data collection. The sample consisted of 72 respondents who were, 1 Regional Director, 4 Principals, 2 Registrars, 6 Heads of mechanical trade, 3 female teachers, 10 parents and 46 students. The study employed simple random sampling technique to collect data for students, purposive sampling for principals, registrars, heads of mechanical trade and female teachers and clustered sampling for parents. The study employed interview guide, open and close questionnaires, and focus group discussion guide as instruments for data collection. The findings of the study revealed Employment challenges for female, andlack of confidence, gender stereotype, fear of muscular activities, Unfavorable Working Environment and fear of injury as social factors, which affect the admission of the girls in mechanical trade. However the study revealed poor contribution of the parents towards the admission of girls in mechanical trade, the failure of vocational education and training policy to address the admission of girls in mechanical trade. The study suggested the strategies to increase more girls in mechanical trade, which were education, career counseling, amendment of thevocational education and training policy and independence. Finally the study recommended the area for further study to be “Assessmentof mechanical trade invocational colleges in Tanzania”

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LIST OF ABBREVIATIONS

BM & PF	Boiler Mechanics and Pipe Fitting
CBA	Competence Based Assessment
CEDEFOP	European Centre for the Development of Vocation Education and Training
FM	Fitter Mechanics
MCAST	Malta College of Arts Science and Technology
MDG	Millennium Development Goals
MTM(R)	Machine Tools Maintenance (Repair)
NECTA	National Examination Council of Tanzania
OPET	Office for Professional Education and Technology
PPE	Personal Protection Equipment
PTM&F	Pattern Making and Foundry
RVTSC	Regional Vocational Training and Services Centre
STEM	Science, Technology, Engineering and Mathematics
TDM	Tools and Dye Making
TEGNT	Transforming Educational for girls in Nigeria and Tanzania.
VETA	Vocational Educational and Training Authority
W/F	Welding and Fabrication

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE PROBLEM

1.1 Introduction

Girls Education has been an issue to discuss especially in this era where the world is thirsty of women's performance in various sectors. It has been noticed that, the number of girls in vocational colleges, is far less when compared to the number of male counterparts especially in mechanical sectors in vocational colleges in Tanzania.

1.2 Background to the Problem

Why so few girls in mechanical trade in vocational colleges in Tanzania? The reason to why this is happening is yet to be known. The number of girls in mechanical trade in vocational colleges in Tanzania has remained little which is opposite from the number of boys which has kept increasing. Crotty (2008) noted that, the participation of women in science education and professional careers is limited, particularly in the physical sciences. This problem is not only in Tanzania but also in other parts of the world example in the United States. She added that science marks a strong root and foundation for the students who pursue mechanical trade in vocational and technical colleges. Preparing students for this highly scientific and technological sophisticated world requires the best available education with deliberate inclusion and full contributions of all people.

Project Tembo (2013) explained their big achievement in sponsoring girls, who left primary school or secondary school prior to graduation, to primary, secondary and vocational colleges. They explained that girls were considered for sponsorship if they

were interested in those programs such as hotel management, tour-guide training, and community development or tailoring. They observed that girls were interested in the aforementioned courses and not in Mechanical trade. Project Tembo did not bother to sponsor the girls to the mechanical trade due to low response of girls to the mechanical trade. Craig (2013) quoted the senior structural engineer, Roma Agrawal, agreeing, that, "Having more women in the engineering workforce is vital, to ensure that we are getting the best talent into our profession" This show that the employers are thirst of women work force, but the question is “where are the women in mechanical trade in Tanzania”

1.2.1 Vocational Education and Training Authority (VETA)

VETA is a government autonomy, which is traced back in 1940 when the apprenticeship ordinance was enacted to guide training in the industries. VETA was entrusted with the responsibility of coordinating, regulating, financing, promoting and providing vocational education in Tanzania by providing knowledge and skills, which enable an individual to become an artisan, (VETA 2011). Muzulu (2004) explained the origin of VETA that, it originated from the National Vocational Training Division of (NVTD) which was under the ministry of Power and Manpower Development. (Muzulu et al, 2004) in (Ogondiek, 2013)

1.2.2 The Vocational Education and Training Policy

Ministry of Science, Technology and Higher Education (1996)points out that, Vocational education and Training has been given priority since independence, though there is no clear National Education and training policy which prioritizes on the admission of girls. The unavailability of the clear vocational educational policy on

admission of girls in mechanical trade might have lead to the vocational colleges admitting many boys than girls.

1.2.3 The Current Trend of Vocational Education

VETA (2011) explains that, the technical schools were initially established to fill a real need as the country had neither the industrial network nor the skilled workers who could train others on the job. While the curriculum placed great emphasis on workshop practice, the technical schools were at the same time conforming to the requirements of the education system instead of the industrial system, which inherited two Trade Schools operated by the Ministry of Education. In 1969, a vocational training centre was established at Chang'ombe in Dar es Salaam aiming at training people who were soldiers in the Army and later it slowly admitted standard seven leavers (primary school leavers). The Instructors at first were members of the military force and few civilians (VETA, 2011). The establishment of these trade schools increased the number of the civilians admitted to the vocational colleges but yet there were no girls.

Table 1.1: The Admission of Students in Moshi- RVTSC from the Year 2013-2015

Year	Boys	Girls	Total	% of Girls
2013	81	17	98	17
2014	204	11	215	5
2015	195	10	205	5
TOTAL	**480**	**38**	**518**	7

Source: Moshi- RVTSC Admission Book

With its importance in the national development, vocational education has proved to be male dominated education, especially in mechanical trade. The female who join vocational colleges in mechanical trade remain very few. This is evident in the statistics taken in Moshi (RVTSC) in year, 2013, 2014 and 2015, where the number of girls admitted to the mechanical trade was very small compared to the number of boys. In 2013, the total number of students in mechanical trade, level one, two, and three were 98 students, where 81 were male while female students were only 17(17%). In the year 2014 there were 215 students, where male students were 204 while female students were 11(5%) only. In the year 2015 there were 205 students, where male students were 195 while female students were only 10(5%). The total number of male students in 3 consecutive years was 480 while the number of female students was only 38 (7%) which is equivalent to a ratio of 1:13.

1.2.5 VETA at Present

VETA is spread all over in Tanzania. Each region has the RVTSC. The regions are grouped in to nine zones which are; Southern zone, Southern highlands zone, Northern zone, Central zone, Western zone, Morogoro TTC (Eastern cost Zone), Eastern zone, Dar Es Salaam zone, and Lake Zone. Every college is lead by the Principal while one zone is lead by the Regional Director. The VETA head quarter is in Chang'ombe Dar es Salaam, where there is the office of the Director General. There are several sectors, which are trained in VETA. Each sector includes several trades.

These sectors include Agriculture and food processing, Automotive, Business administration, clothing and textile, construction, electrical, general subject, (Related

subjects), Hospitality and tourism, information Technology, Mechanical, Mining, Pedagogy /Andragogy (training of Trainers), and Printing. The Mechanical sector is comprised of the following trades' legend. Boiler Mechanics, Fitter and Turner, Fitter Mechanics, Instrument Mechanics, Machine Tool Repair and Maintenance, Machinery Fitting,/Fitter Mechanics, Mechanical Draughting, Pattern Making and Foundry, Sheet Metal Fabrication, Tool and Die making, and Welding and Metal Fabrication.

In VETA the training schedule is normally 2 years, where the trainees write the examination. If students did not pass the related subjects they exit in level 11 or by their own reasons they decide to exit in level II. Those who perform well in general (related subjects) and trade subjects continue to level III where they attempt the vocational examination level III and be awarded vocational certificate 2 (C2) category. The Assessment mode is called CBA examination.

1.2.6 The Gender Issue in VETA colleges

The number of girls is less than the number of boys in each mechanical trade in vocational colleges, while it is big in the non mechanical trade VETA (2011). It explains that, sex wise only 4.5 % of girls opted for construction, in electrical trade only 6.7% of the girls opted for it. 2.9% of the girls opt for mechanical trade and 3.5% of girls opted for automotive trade.

Meena (1999) analyzed the cause of Gender inequality in education in Tanzania. She came up with two factors, which cause gender inequality which are non school and school factor. Non school factor included socialization, culture, sex and sexuality

while in school factor she focused on the pedagogy and gender oppression in schools, such as the condition of teachers and gender imbalance. Craig (2013) explains that there was a negative attitude of girls in joining Engineering career. She argued that this problem started right from the beginning where girls were not choosing the engineering careers.

McFadden (2000) joins hands with Meena (1999) that, the above school and non school factors have sieved the number of girls in vocational colleges in such a way that even those few who are remaining are found to have lost interest in mechanical courses as they see that they cannot make it in the mechanical courses. There is an environment, which does not support active learning. This environment includes lack of ethic in teachers and inadequate skills to teachers, which cause some girls to feel that they cannot make it in mechanical trade. Some girls are discouraged by teachers and some are sexually harassed by these unethical teachers. This is due to the fact that, girls being few, they become the centre of attraction hunting by unethical teachers as well as male students and make them discouraged from joining the mechanical trade, (Nyirenda, 2013).

1.3 The Statement of the Problem

The number of girls has kept decreasing in Vocational Colleges in Mechanical trade. This is the main issue to why are there so few girls in mechanical trade in vocational colleges in Tanzania.Despite all these sound strategies of motivating girls to major in science and mathematics, which could latter give them an opportunity to joining mechanical trade and engineering courses in vocational and technical colleges VETA (2011). The society has kept holding a myth that the place of women is in the kitchen

and soft works. Very few girls have ambitions to be engineers and pursue other vocational skills. This has caused the number of girls to be less and less in the vocational colleges.

In vocational colleges many girls and sometimes the whole annual intake would prefer the secretarial, catering, tailoring, or cloth making courses. Some opt for electronics, Motor vehicle mechanics, electrical installation and Masonry trades. Very few opt for mechanical trade. The question remains why? Why so few girls in mechanical trade in vocational colleges in Tanzania? VETA (2011) came out with the statistics, which proved that there were very few female graduates from vocational colleges who pursued mechanical courses while a lot pursued the non mechanical courses.

In the year 2010, a total number of 2572 students were enrolled of which 2241 were boys and only 331 were girls. In the following year 2012 a total number of 2294 students were enrolled of which the boys were 1926 and girls were 368. In the year 2013 a total number of 2562 students were enrolled of which boys were 2367 and girls were 195. In the year 2014, 2042 students were enrolled and boys were 1868 and girls were 174 only. In the tear 2015 a total number of 2583 students were enrolled and boys were 2015 and girls were only173.The total number of boys for 5 years were 10,417 while the total number of girls was only 1,465. The total number of the students who were registered in six years was 12,053, who made the percentage of the boys to be 86% while the percentage of the girls was only 34%, (VETA, 2011). This study intended to assess the admission of girls in mechanical trade in Vocational Colleges in Tanzania.

1.4 The Objectives of the Research

1.4.1 The General Objective

The General objective of this study is to assess the admission of girls in mechanical trade in Vocational Colleges in Tanzania.

1.4.2 The Specific Objectives

(i) To investigate the social factors which affect the admission of girls in mechanical trade in vocational colleges in Tanzania**.**

(ii) To investigate the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania.

(iii) To assess the contribution of vocational education and training policy on admission of girls in mechanical trade in vocational colleges in Tanzania.

(iv) To investigate the strategies for admission of more girls in mechanical trade in vocational colleges in Tanzania.

1.5 Research Questions

The following Research questions were asked.

(i) What are the social factors, which affect the admission of girls in mechanical trade in vocational colleges in Tanzania?

(ii) What is the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania?

(iii) What is the contribution of the vocational education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania?

(iv) What are the strategies, which can be used in order to admit more girls in mechanical trade in vocational colleges Tanzania?

1.6 Significance of the Problem

Tanzania has invested a lot to make sure that girls get the same opportunities in education as boys. Despite these efforts still the number of girls in vocational colleges is small. The implication of this study will contribute to the ministry of education and vocational studies, VETA specifically in mechanical trade in vocational colleges, girls, community, and employers at large. As far as the ministry of Education and Vocational studies is concerned, this study will instigate the formation and amendment of the clear policy, which will include the admission of girls in mechanical trade in vocational colleges. However this study will help VETA to address and solve the challenges of having few girls in Vocational colleges. It will give some techniques to VETA on how to admit more girls.

Moreover the implications of this study will open the minds of girls who think that they are inferior to boys on mechanical trade and that they are supposed pursue other trades and light works. It will add more opportunities for girls to be admitted in mechanical trade in vocational colleges due to the adherence of the recommendation of the amendment of the vocational educational and training policy, which will give priority to the admission of girls in mechanical trades in vocational colleges.

This study again will raise the awareness of the parents and the community at large, that there is no difference between a female and male child as far as career is concerned, both female and male children can perform the same activities. It will help the communities to get out of the myth that girls cannot make good Engineers. The findings of this study will help to quench the thirsty of the employers who have been longing for the female workforce in engineering, as it will lead to the increase of

female artisans and engineers due to the increase of the number of girls admitted in mechanical trade in vocational colleges. The number of girls will increase due to the education and counseling which will be given to girls, the freedom and independence in decision making which will make then opt for mechanical trade, but also from the amendment of the vocational education and training policy which will enable the girls to be given priority.

1.7 The Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts, which is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture real idea and make it easy to remember and apply. Miles and Huberman (1994) explain the conceptual framework that can either be graphically, or a narrative form. It is the main things to be studied, or the key factors, concepts or variables and the presumed relationship among them. A conceptual framework provides the structure or content for the whole study based on literature and personal experience, (Vaughan, 2008).

According to this study, there is a relationship between the little number of girls in mechanical trade in Vocation Colleges in Tanzania and the Social, Economic, Cultural and Religious factors. This is due to the fact that not every culture supports girls to join vocational Colleges. In some cultures it is a taboo seeing women dressing in mechanics work suits (overall). People's myth is also focused on gender stereotype as far as girls' education is concerned. This has also has affected the admission of girls in mechanical trade in vocational colleges.

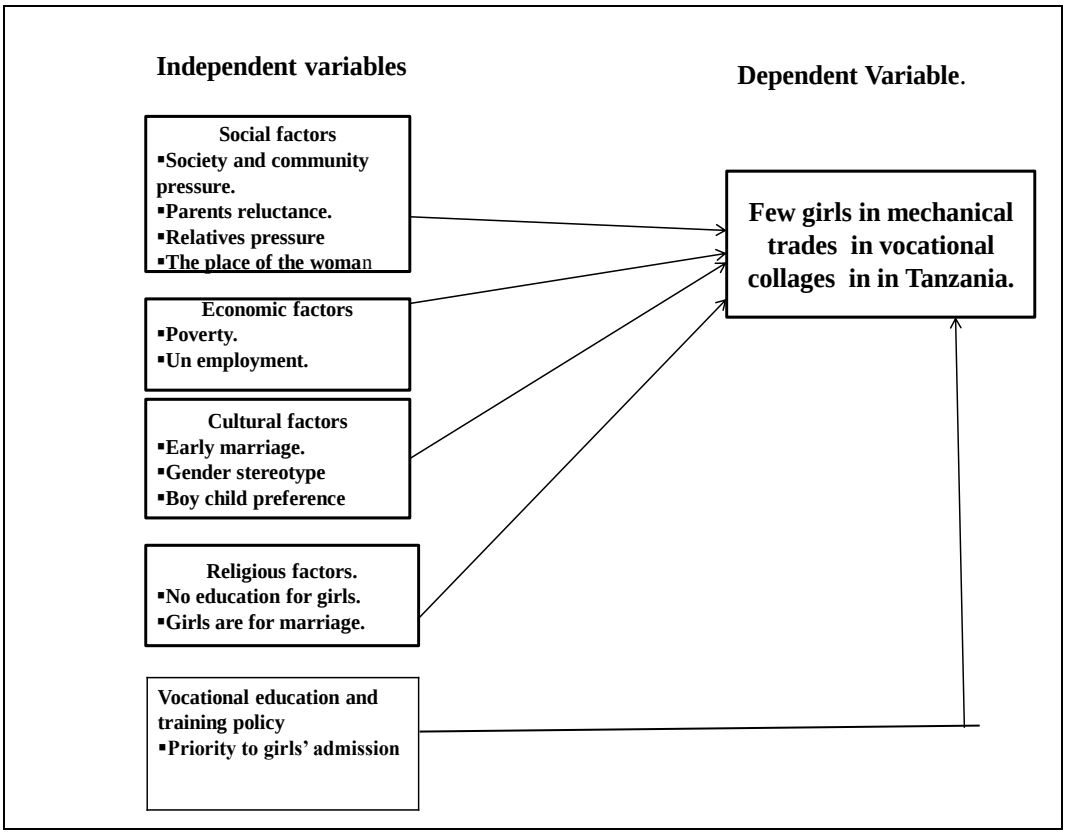

Figure 1.1: The Conceptual Framework

As far as economic factor is concerned, Poverty does not accommodate education. People in this context are struggling to get something from hand to mouth not money to take their children to school. If that is the case it is much more difficult for girls to go to the vocational Colleges as it implies that, an extra cost is needed after the completion of compulsory education circles.

However many Tanzanians suffer from unemployment. They don't have a reliable income, to them sending a girl to school cannot be an option and a vocational college to them is just like extravagance. Some Religions believe that a woman is a man's entertainment so she should stay at home and be attended in everything. So it is nonsense to send a girl to school and later remain at home as someone's entertainment.

1.8 The Scope and Limitation of the Study

1.8.1 The Scope of the Study

The study assessed the admission of girls in mechanical trade in vocational Colleges in Tanzania, the case study of Kilimanjaro Region. The study was carried out in only the vocational colleges which conduct mechanical trade in Kilimanjaro Region. These colleges were Mawela VTC, Karanga VTC, Hai VTC, Imani VTC, Kotela VTC and Moshi RVTSC. This study assessed only the admission of girls in mechanical trade in vocational colleges in Kilimanjaro region in Tanzania.

1.8.2 Limitations of the Study

Basically this study was to take place in all Vocational colleges in Tanzania. But due to time and financial constrains the study covered only the vocational colleges in Kilimanjaro Region. The study covered the total number of six vocational colleges in Kilimanjaro Region in Tanzania. This sample represented all the vocational colleges with mechanical trade in Tanzania, which means that there might be overgeneralization or some important information might miss and hence make the result not very accurate.

1.9 Operational Definition of the Key Terms

The following are the key terms which are used in the study.

Assessment- is a process or an act of making judgment or forming an opinion, after considering something or someone careful.

Admission- is a processes, which allows someone to enter (be enrolled) in to an institution.

Mechanical Trade-This is a career training which enables an individual to become an artisan in mechanics and later an Engineer. Example; welding, fitting, and others.

Vocational colleges-These are type of colleges which train individuals by providing them with the vocational knowledge and skills.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter intends to look at what other Researchers said about the admission of girls in mechanical trade in vocational colleges. It intends to look at theories, which have been formulated in relation to the problem, the empirical review and the gap which was left behind, which needs to be bridged.

2.1.1 Vocational Educational Globally

The US international Journal on Vocational education (2007) explains that in United States, vocational education is given different names, for example career and technical education, educational and professional, and technical education. The term career education started to be applicable in 1970s.In US, vocational education is concerned with occupational skills, which are applicable to all occupations. The purpose of Vocational Education is basically to provide foundational skills that enable high school students to be employed after they graduate. Career and technical education is offered in about 11,000 high schools and more other students are trained in different other institutions including, public middle schools. (The US International Journal on Vocational and Technical Education, 2007).

In Switzerland vocational education is different from that of Tanzania. In Switzerland Vocational Education is overseen by the universities. In Switzerland the institutions which deal with vocational education and training are few and funds are scarce. This is because of the interdisciplinary nature of vocational and training and the poor

understanding of people.Vocational education in Tanzania is under the ministry of Education and vocational studies, which oversees every issue, which is related to vocational education. In order to develop the vocational education and training the dynamic context, the confederation, the cantons and professional organizations needed to be scientifically rooted. In other European countries vocational education and training has also played an important role in social and economic development. Vocational education has caused development of the European countries and it has solved many social and economic needs. Many people have got opportunities to get further education and skills through VET.

Moreover, VET has provided a vital approach towards labor market which shapes the skills development depending on the needs of the scientific sector. CEDEFOP (2013) explains that, in the year 2002 European council promoted the enhancement of the European co operation in VET. They emphasized on quality assurance in education which promote the VET sector as a whole. This shows the difference between education in Tanzania and European countries, (OPET, 2007).

Ogondiek (2013) also explained about vocational education in Germany that, vocational educational was called ‘Dual system. This Dual system provided a flexible vocational education, which trained vocational and academic skills. The vocational education in Germany aimed at solving the problem of skills in order to facilitate economic development of the country. The dual training apprenticeship programs provide the skills personnel who could solve the labor problem. Again these apprentices could employ themselves to solve the employment challenge,(Ogondiek) 2013).

2.1.2 Vocational Education in Tanzania

Ogondiek (2013) explained that the Vocational education in Tanzania was entrusted to VETA (vocational education and training Authority). She continued that, vocational education is traced back in 1940s through the soldiers who returned from the Second World War. These soldiers needed the placement that is why they needed to be trained in vocational skills. This led to the establishment of Ifunda and Moshi trade schools during colonial period. The trades, which were trained in these trade schools were masonry, bricklaying, and carpentry and joinery.

The vocational colleges at this time were called (NVTD) National Vocational Training and Development. The vocational education in Tanzania aimed at transmitting attitude and values and also to inculcate knowledge and skills, which would enable the individual to perform mechanical works. It enabled the individuals to change their mindset from white collar jobs to blue collar jobs. The vocational education also aimed at creating mass employment to the Tanzanians, in formal and informal sectors. The vocational education formulated the curriculum, which was prepared to suit the need of those individuals and the community to which the colleges were located, (Ogondiek, 2013).

2.1.3 Education Policy on Admission of Girls

Ministry of Community Development Women Affairs and Children (1992) pointed out that over a half of the world's population is women. These women need education, which is equitable and effective. Due to this fact the policy developers need to develop the policy, which will benefit this population. The education policy in Tanzania had many objectives one of them being to provide equal education

opportunities for men and women. It also emphasized on provision of quality education. However, it has been observed that boys have been benefiting from education than girls. The difference in provision of education between boys and girls caused a need for the policy to secure the balance. The government has both direct and indirect initiatives to solve this. The policy focus is on mainstreaming, gender concerns, promoting gender specific programs and giving special attention to the girl child, (Beoku-Betts, 1998).

The Ministry of Science, Technology and Higher Education (1996) pointed out that, the need for vocational educational and training policy was triggered by the problems, which existed in all levels of education. The problems caused failure of the standards of technical education and raised a need for Tanzania to have full trained and qualified technical man power in order to meet demand in different sectors of economy. VETA (2011) concludes that these short falls caused the need for policy, and a clear policy. The policy's objective of promoting and encouraging female participation in vocational education ended up in vain as there were no strategies for admission of girls in mechanical trade in vocational colleges. This created a big gap in the admission between boys and girls in the mechanical trade. (The Ministry of Science Technology and Higher Education, 1996).

2.2 Theoretical Review

2.2.1 The Feminist Theory

This study was based on the Feminist theory of gender in Education. The feminists perceive education to be a male-dominated, where historically girls and women have been 'kept in their place' while men have dominated areas such as politics, education,

the military and other important sectors. (Trueman, 2006) The Feminists theory originated from women in United States of America. American colonial law said that, “by marriage, the husbands and wives are one person in the law”. The woman performs everything under the umbrella of her husband after they marry as according to American law the woman is incorporated to her husband.

Lorraine (2003) explains the feminist theory of international relation that it states that ”most of the key players in international relation, such as diplomats, policymakers, heads of government, and academic professionals, have been, and still are, males who come from patriarchal social and political backgrounds”. Women were not permitted to own properties, to vote, and they had no chances for further studies. The feminist theory had the objective of empowering all women in the world to struggle for their chances in education and property owning. The undermined right of education for women in America is that which has spread in the whole world. Women worldwide have no right to education compared to men. This is taking place in Tanzania also where before only boys were sent to school but not girls. At present there are only few girls in mechanical trade. This has the root cause from the feminist theory’s activists.

The goals of feminism were; to demonstrate the importance of women, and to reveal that historically women have been subordinate to men therefore there is a need to bring about gender equity.Trueman, (2006) explains that feminist theories are many, but they all share the common things. He explains that the feminist theories look at different problems in society between men and women and try to find out the solutions to these problems,(Trueman, 2016).

2.2.2 Liberal Feminist Approach

This is a branch of the Feminist theory. Trueman (2016) explained that, the liberal feminists trust that the easiest way to fight patriarchal systems is by establishing legislation to fight against discrimination. When talking about the theory the liberal activists explained that, the liberal feminist theory planned to make sure that the women have the access to all social dimensions the same way men do, Liberal feminists fight for equal allocation of the resources so that women get enough chances for education.

Their great focus was on three major points which were equal opportunities, Socialization and sexual stereotyping and Sexual discrimination. However Liberal feminist approach was against ignoring patriarchy power and the systematic subordination of women when they were addressing these problems. The liberal feminist believed that if women were visible in the current social structure they would achieve better equality. They believe in equal opportunities and equal policies, (Trueman, 2016).

2.2.3 Radical Feminism

Trueman (2016) explained the Radical feminists that, they are against women oppression at work by men. He continued that at work between men and woman, women are more oppressed in the work place by men. They also believe that it is impossible for a woman who is married to be a feminist. They add that any woman who depends on a man must be oppressed. Stromquist (1999) explained radical feminist is a branch of feminist theory, which is concerned with masculine monopolization of culture, knowledge and politics of every way of life in schools. It

focuses on curriculum implementation, female teachers and girls' access to power, and policy formulation in schools, (Stromquist, 1999).

According to radical feminism the State acts as a key agent in the perpetuation of women subordination through strong defense of the family and the care unity of the society. In this regard, girls do not attend classes in the same time as boys hence leading them to be looked down and that they don't have anything to contribute. The aim of the feminist theory was to liberate women especially in education. According to the feminists both male and female are the same so there is no need to send the boy to school and leave the girl behind. (Stromquist, 1999) The feminist spoke what is happening today in Tanzania. The education opportunities are declared for both male and female. There is a satisfactory turn up in male; the question is where there are females especially in mechanical trade in vocational colleges in Tanzania?

2.3 Empirical Review and the Research Gap

2.3.1 Empirical Review

Haney (2002) conducted the study about secondary student perceptions of vocational education. The study was conducted among secondary school students enrolled in Duval county public school system in one of the 7 largest urban in northern Florida. The objective of this study was to examine the relationship between student personal factors, which are gender, race, academic performance, career awareness, and socio-economic factors, and the perceptions of secondary school students regarding vocational education. The sample included 805 students. The study employed purposive sampling technique and the survey instrument was employed during data collection process.

The findings of the study revealed thata low to moderate interest in vocational education exists for secondary school students. This was proved by a drop in vocational education programs enrollment in recent years throughout the county. Moreover the study revealed that, there was a high degree of interest for vocational education on the part of guidance and counseling, but this does not appear to be the case with the secondary school students.

Therefore this study revealed the contradictions in perceptions of vocational educators, guidance counselors, school administrators and political decision makers toward secondary students and their interest in vocational education. These findings were expected to help to clarify the perceptions of students regarding vocational education programming and courses, while highlighting the need for the direction of ongoing efforts to improve and strengthen vocational education within Duval County, (Haney, 2002).

This study investigated the perspective of secondary school students to the vocational education and found that the secondary school students are fifty by fifty to the vocational education. They neither hate vocational colleges nor like. Never the less they did not address the admission of the girls in mechanical trade in vocational colleges. The number of girls in vocational colleges in mechanical trade is very little. This study was conducted to investigate the cause factor to this. Therefore, that's why this study assessed the admission of girls in mechanical trade in vocational colleges in Tanzania. Crotty (2008) conducted the study in the capital region of New York State about Women and girls in science education. The objective of this study was to gain a better understanding of the perspectives and perceptions of girls and women, in both

science educators and students, related to gender and participation in science at the time of an important course, which is high school chemistry.

The study aimed at capturing the voices of the chemistry students and teachers from the selected urban and suburban learning communities in public schools in the capital region of the New York. The study employed qualitative approach in Data collection where survey, interview and focus group discussion instruments were employed to collect data. The study intended to answer the question which asked; *how do chemistry teachers view the role of gender in their professional and personal lives,* as they have pursued education, degree status, and professional careers in science, and how do female chemistry students perceive their educational experiences in science? The findings of this study lead to the implications that the awareness of science educators and other stakeholders raised and improved enhancement and the participation of females in science, (Crotty, 2008).

This study aimed at gaining a better understanding of the perspectives and perceptions of girls and women, in both science educators and students in relation to gender and participation in science. However the study did not go about the admission of girls in mechanical trade in vocational colleges, which is the area of interest of this study. This gave an opportunity for this study to investigate the admission of girls in mechanical trade. Therefore this study assessed the admission of girls in mechanical trade and gave the way out on how more girls could be admitted in vocational colleges in Tanzania.

Upor (2011) conducted a study in Nigeria and Tanzania on Transforming Education for Girls (TEGINT). The purpose of the study was to examine the provision of

education for girls and boys in schools in northern Tanzania and northern Nigeria. The study also aimed at achieving a transformation in education of girls in Nigeria and Tanzania, in order to enable these two countries to enroll more girls and successfully addressing key challenges and obstacles that hinder the girls' participation in education. The sample included 1,067 respondents from 57 schools in six districts of Northern Tanzania and 1,751 respondents from 72 schools in eight states of Northern Nigeria. The data was collected through interview and questionnaires, which were distributed to the above sample.

In her study she found out that, there were several factors, which hindered the girls' Education in both Nigeria and Tanzania, such as early pregnancies, distance from school, sickness, and parents withdrawing their girls from school. She concluded that in both countries, which are Nigeria and Tanzania there was a clear difference between the two countries in relation to their capacity to expand school provision. She continued that in both countries they experienced the same challenges and obstacles, which hindered girls' education, (Upor, 2011).

This study concentrated in primary and secondary schools only. It did not focus on mechanical trade in vocational colleges where the number of girls is very small compared to the number of boys. This study again, concentrated on the factors, which hinder girls' education after they are admitted, but it left out the admission of girls in mechanical trade in vocational colleges, and find the strategies for admission of more girls in mechanical trade, which is my area of interest. Therefore this study will assess the admission of girls in mechanical trade in vocational colleges in Tanzania.

Fant (2008) conducted a study in Bankpurugu/Yunyoo in northern Ghana district. The purpose of this was to examine the major barrier to girl-child access and participation in formal education. The study found out that cultural and traditional values and the daily realities of poverty, stand between girls and their prospects for educational opportunities. However, the study found out that, traditional beliefs, practices and sayings perpetuate gender imbalance in terms of educational attainments. The study moreover found out that, early marriage was another barrier, which hindered the girl-child to access and participate in formal education.

Further moreover the study found out that girls were more likely to drop out of school because of their domestic responsibilities at home. Girls perform many activities at home, which limit their time for studying and hence fail their exams and finally get discouraged to go on with school. Finally the study found out that girls are often discriminated against education when it comes to parents' decision to fund their education. Majority of the parents would prefer to support their boy children than girls in education. Through the interview questions, questionnaire, and focus group discussion data collection instruments, and field experience, Fant was able to collect information using simple random sampling and purposive sampling procedures.

The study recommended that the government should further bring to the fore the efforts of growing number of NGOs and international agencies complementing the government's efforts in the Bunkpurugu/Yunyoo in promoting greater participation towards girl-child education. However the study recommended that towards improving girl-child education, the parents should be educated on the importance of girls' education. The study recommended that the fees should be abolished for girls

for junior and for senior school level. Again the study recommended the government to enforce the laws on early marriages so that girls will stop being married and go to school, (Fant, 2008).

This study focused on junior and senior secondary schools. He did not pay attention to the vocational colleges where the number of girls is very small especially in mechanical trade. With all his good recommendations being taken into account by the government and parents, yet there would still be few girls in mechanical trade vocational colleges. Therefore this study assessed the admission of girls in mechanical trade in vocational colleges in Tanzania.

Amponsah (2011) conducted a study on the factors affecting female students in their performance in science subjects. The objective of the study was to investigate the factors, which affect the performance of female students in science in some selected colleges of education in Ghana. The study found out that it was true that there were some factors, which affected the performance of girls in science subjects in the colleges and these included, the teachers, self-motivation, and parents. The study also found out that some teachers were a factor for girls poor performance in science subjects due to their discouraging behavior to girls, and the myth that science is for male students.

However, the study found out that, girls themselves were a factor. These girls were not self-motivated to be courageous enough to pursue science subjects. The study also found out that, there was a behavior of some parents to discourage their girls to study science subjects telling them that, science subjects are for male students and not for

female, (Amponsah, 2011). The study focused on girls' performance but it did not address the admission of girls in mechanical trade in vocational colleges. The study did not assess the admission of girls in mechanical trade and give the strategies, which could be used to admit more girls. Therefore this study has moved further to investigated the admission of girls in mechanical trade in vocational colleges and give out some strategies which could be used to admit more girls in mechanical trade in vocational colleges in Tanzania.

The Alliance of Girls' Schools Australasia (AGSA) (2016) conducted the study on the performance of girls in co-educational schools and the single sex (girls) schools. The study was conducted in selected girls' schools and the selected co-educational schools in Australia. Simple random sampling was employed to select the sample to be used in the study. The objective of this study was to verify among the girls school and the co-education schools, which performs better than the other. The study found out that there is a positive effect on single-sex schooling in Australia.

This included the girls benefit from single-sex environment which helped them to study comfortably and lead to high performance. They also found that, girls attending girls' schools are more confident and assertive compared to the girls in co-education schools. They however found out that girls from girls' schools are more likely to study STEM at school and pursue University studies and careers in STEM fields. However, the findings revealed that girl schools in Australia, consistently performs very well when it comes to academic excellence. The findings further more revealed that, girls in girls' schools also provide nurturing environments specifically catering to the education of girls, leading to

many social, emotional and health benefits, including higher rates of participation in sports and a much lower risk of being bullied at school. Finally the study found out that, at a single-sex school, girls are free to be who they want to be, both in the classroom and outside.

The AGSA fulfilled their objective to verify the better performer between the girls' school and the co-education schools, and just stopped there. They did not advance to make it known as to why there are so few girls in vocational colleges especially in mechanical trade bearing the fact that they found out that girls could study STEM and pursue university studies and career in STEM fields. Therefore, this study assessed the admission of girls in mechanical trade in vocational colleges in Tanzania.

Alexander (2010) conducted a study in Ghana on the factors affecting female participation in senior high school education.The study focused on female participation in Senior High School education. The main objective of the study was to assess the impact of the factors, which affect female access and participation in Senior High School or Secondary education in the Asunafo North and Sunyani municipalities in the Brong-Ahafo Region and Kumasi metropolis in the Ashanti Region of Ghana.

The case study research approach was employed in data collection where the sample of 150 was drawn from the population of all the senior high school students. 30 from the female students, 30 tutors, 30 municipal officials,30 parents and 30 municipal NGO staffs.The findings revealed that female access to and participation in Senior High School education is influenced by many factors such as negative attitudes and

perceptions, poverty, poor academic performance, absence of specific access policies for girls and weak institutional female education support programmes. Therefore, the mentioned above were the major hindrances to girls' participation in Senior High School education.

The study however revealed that the failure of parents to provide adequate care for the school girls' needs has been another factor which hindered female access to and participation in Senior High School education. The study however recommended that for the society to have girls' full participation in Senior High School education, parental support should be based on a clear philosophy so that District/Municipal/Metropolitan Assemblies, Central government and Non-Governmental Organizations could make a commitment to provide assistance for the education of girls in Senior High Schools.

Moreover the study suggested that girls should be supported in adequate financial care, reducing girls' participation in family occupational activities, institution of scholarship, science and technology schemes, introduction of affirmative action in Senior High School admissions, establishment of special girls' Senior High Schools and joint District/Municipal/Metropolitan Assemblies-NGO projects for supply of books, equipment and development of infrastructure. The study concluded that the above can be successful if all the parents and the society at large wear a positive attitude towards girls' education. This will help the girl-child to build up a strong ego and confidence to go through school.This study concentrated in senior high schools, which are better compared to the vocational colleges where girls are very few in mechanical trade. In mechanical trade the situation is alarming where in some colleges

there are no girls at all and no one has taken a step to investigate the reasons, which hinder girls' admission in mechanical trade.

Therefore this study will assessed the admission of the girls in mechanical trade in vocational colleges in Tanzania. The finding of this study revealed that there was no a statistically significant difference in grade point averages, standardized test scores, absences and out-of school suspensions. The findings also revealed that there was a statistically significant difference in school suspensions and withdrawals prior to graduation. Again the findings proved that, there were 227 students who withdrew prior to graduation.

Gunderson (2004) conducted a study,which aimed at determining if vocational/ business education has an influence on a student's ultimate academic achievement in high school graduation. This study compared students with non-vocational/business education experiences to the students who had a degree in vocational/business education. The study employed the cohot group which had 322 students. The study analyzed here data using ANOVA in order to determine the significance difference. She employed survey instrument in data collection. In this study data were analyzed using the Ch-square Test of independence.

The study revealed that, there was no statistically significant difference in grade point averages, in standardized test scores between absences and out-of school suspensions. The study however revealed that, there was a statistically significant difference in in-school suspensions and withdraws prior to school graduation. The study concluded that vocational/business education had a positive effect on the academic achievement

students. Gunderson concentrated on how the vocational education has influenced the students' ultimate academic success, without looking on the other side of admission where the number of girls has grown little in mechanical trade in vocational colleges. Therefore this study will focus on the factors, which affect the admission of girls in mechanical trade in vocational colleges and suggest some strategies, which could be used in order to admit more girls in mechanical trade in vocational colleges in Tanzania.

Mbirianjau (2014) conducted a study on Access to and Participation of Women in Science-oriented Vocation Education and Training Programmes. The study was conducted in Nairobi Kenya, among three technical training institutes, which were: Nairobi Technical Training Institute, Kabete Technical Training Institute, and Kinyanjui Technical Training Institute were involved. A sample of 212 female students was selected through simple random sampling methods. Instruments of data collection, which were employed in this study were: questionnaire, document analysis. Focus group discussion and pilot study. Research Design which was used in this study was descriptive survey design. The objective of this study was to explore the persisting challenges that exclude female students from pursuing science and mathematics programmes in Kenya's vocational training institutes.

Moreover the study aimed at investigating factors, which influence women's access to and participation in science oriented Vocational Education and Training (VET) programmes in selected Technical Institutes in Nairobi. The study again had an objective of realizing the purpose of the study. Primary data was collected by the use of questionnaire and interview schedule. The questionnaire contained both open ended

and structured questions. The study revealed that the general enrolment of females in VET institutions in Nairobi is lower than males and in particular female are under-represented in science oriented courses.

However, the study showed that majority of female students who enter the VET institutions aspire to pursue science based occupations such as Engineering and Laboratory Technology. The study furthermore showed that the main factors that contribute to low female enrolment in science oriented courses are: the negative attitude females have towards sciences, the belief that science is a man's world, females find sciences to be difficult, peer influence, poor performance by girls in the foundation subjects, gender stereo-type by the society and prospective employers, lack of female role models, lack of proper information on science oriented careers, and high school dropout rate due to early pregnancy. In conclusion, it was evident that female enrolment in science oriented courses in VET institutions in Nairobi is very low.

The study recommended that all stakeholders should support and begin the programmes and activities which can increase female enrolment in science oriented courses. The institutes to fulfill the needs of female students, the school curriculum should be made relevant to respond to the needs of girls, and reduce entry points for females in science oriented courses.

The study concentrated on low female enrolment in science oriented courses in technical colleges. The study left out the vocational colleges in mechanical trade where there were very few girls. This was this study's area of interest. This gap gave

an opportunity for this study to come about. Therefore this study assessed the admission of girls in mechanical trade in vocational colleges in Tanzania.

Lauglo (1990) conducted the study on vocational training in Tanzania and the role of Swedish support. The sample of this study was drawn from Moshi Vocational training institution run by the National Vocational Training Division (NVTD) of The Ministry of Labor, Culture and Social Welfare in Tanzania. This study was commissioned by The Swedish International Development Authority and The National Vocational Training Division of The Ministry of Labor, Culture and Social Welfare. The Instruments of data collection, which were employed in this study were interview, structured questionnaires and fieldwork observation. The main objectives of the study were to evaluate and assess the mode of vocational training provision in Tanzania. The Second objective was to summarize experiences from cooperation between Tanzania and Sweden during the years 1978- 88.

Another objective was to summarize experiences from the development of vocational training and make recommendations on future consolidation and expansion of the system, including the possible role of development cooperation. However this study aimed at evaluating the mode of vocational training in Tanzania. The last objective was to summarize experience in vocational training from cooperation between Sweden and Tanzania since 1978, and to make recommendations on the future development of the training system.

The findings of the study showed that, there was excessive proliferation of closely related trades, which is improper. The finding of the study however revealed that there

was a need to extending the duration of the course and to increase unit cost and decrease output, even if resources are better utilized. The finding of the study again proved that there was a need to examine the syllabus and review them. The findings revealed that there was a need to strengthen the inspection of the work at NVTD's headquarters in close association with the VTTC at Morogoro to provide technical assistance. Finally the findings revealed that there was a great shortage of teaching materials and resource books for instructors in trade.

The objective of this study was to evaluate and assess the mode of vocational training provision in Tanzania. This study however did not focus on the admission as girls were very few especially in mechanical trade. Therefore this study addressed the admission of girls in mechanical trade and came out with the strategies, which could be used to increase the number of girls in mechanical trade in vocational colleges in Tanzania, (Lauglo, 1990).

Zilimu (2014) conducted a study on the gender gap in Tanzanian secondary schools Mathematics classrooms. The objective of this study was to explore the teachers' perceptions of their teaching practices in classroom contexts and how their perceptions might perpetuate gender gaps. The research design, which was employed in this study was case study where 3 mathematics teachers were selected as a sample from 3 different secondary schools. The study employed purposive sampling techniques to select the participants. This study however employed qualitative research approach to collection data.

This study was conducted on the North western region of Tanzania. The instruments, which were used to collect data in this study were semi-structured Interview and

classroom observation. Interview was conducted among teachers while the classroom observation was employed to the students. The findings of this study revealed that, teachers, the government, and the leadership of the school were aware of the existence of gender gap in mathematics and there were some efforts to help all students.

The study however revealed that the achievement gap between boys and girls was vivid in classes in which boys were openly favored. The study moreover revealed various instances of gender inequalities that could lead to Mathematics achievement gender gap. The number of girls at each school was smaller than the number of boys and also the number of male teachers was far much larger than the number of female teachers. All mathematics teachers at the three schools were males. The seating patterns in all the classrooms allowed boys to sit by each other and girls to sit while pointing to each other.

This study concentrated on the existing gender gap between boys and girls. The study mentioned that in one school there were more male mathematics teachers than female but it did not go further to highlight the factors, which contributed to more mathematics male teachers than female. Moreover, the study concentrated with secondary schools but it left out the vocational colleges where the situation is worse. This gave an opportunity for this study to investigate the factors, which led to few girls in mechanical trade in vocational colleges in Tanzania.

2.3.2 The Research Gap

Girls' admission in mechanical trade in vocational colleges has not been the area of interest to other researchers. Most of the studies have outlined different issues about

girls' education and vocational education. None of these studies have focused on the little number of girls in mechanical trade in vocational colleges. However there is no any study, which was conducted about the admission of girls in mechanical trade in vocational colleges. The admission of girls in mechanical trade is a problem, which needs attention. Some of the vocational colleges have no girls in mechanical trade and the reasons were not known. That's why this study bridged the gap by study assessing the admission of girls in mechanical trade in vocational colleges in Tanzania, the case study of Kilimanjaro region.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives an overview of the methodology, which was used by the researcher to conduct the study. This Chapter is divided in to the following sections which are, The study area, the research approach, the research design, the study population, the sample, sampling techniques and procedure, data collection methods, Data collection instruments, the data analysis procedure, validity and reliability of the research instruments and ethical consideration of the study.

3.2 Study Area

This study was conducted in Kilimanjaro region in Tanzania. Kilimanjaro region is at the base of Mount Kilimanjaro, the highest peak in Africa, with a height of 5985 m above sea level. Kilimanjaro region is on the north east of Tanzania. It is bordered by the country of Kenya to the North east, Tanga region to the south and Arusha region to the west. Kilimanjaro region is divided in to six districts, which are, Moshi, Hai, Mwanga, Same, Rombo and Siha districts. Kilimanjaro region is occupied by many tribes. The indigenous tribes are the Chagga who have more than 8 dialects and the Pare who have two dialects. Same and Mwanga districts are mostly occupied by Pare in their different dialects while Hai, Moshi, Rombo and Siha are occupied by Chagga in their different dialects. The researcher decided to choose Kilimanjaro region due to the number of vocational college, which are found in Kilimanjaro region, which could give enough information to the researcher. However the researcher opted for Kilimanjaro region, which is her working area to minimize the research expenses.

3.3 Research Approaches

The study employed mixed research approach. The reason behind the use of this approach is due to the nature of the study of which data needs to be described and quantified. Niglas (2004) points out that mixed research approach can be used in different stages of the research process, in the study of the same phenomenon. Creswell (2006) argues that, mixed approach should be viewed as complementary rather than a challenge so that using it, allows the researcher to offset their weakness and draw on the strength of it, in order to ensure the results are valid and not a methodological artifact, (Creswell, 2006).

3.4 Research Design

Kothari (2004) defines the research design as the arrangement of the conditions for the collection and analysis of data in a manner that aim to combine relevance to the research purpose with the economy procedure. This study employed descriptive research design, under this research design the researcher collected data by using interview, focus group discussion, and questionnaire administration to a sample of individuals. These research designs included the coding of data, processing and analyzing it. This research design is economical and without biasness.

3.5 Study Population

Omari (2011) defines population as a totality of any group of units, which have one or more characteristic of interest in common. In this study the target population was all the vocational colleges, which have the mechanical trade in Kilimanjaro region in Tanzania, which were Mawela VTC, Imani VTC, Hai VTC, Kotela VTC, Moshi RVTSC and Karanga VTC. The study population comprised the parents who have

children in vocational colleges or whose children have graduated from the vocational colleges, Regional Director, Principals, Registrars, Heads of Mechanical trade, female teachers who were in mechanical trade, and students who are in mechanical trade in level one and two in both gender. The population covered the Principals or Registrars depending on their responsibility and availability.

3.6 Sample Size, Sampling Techniques and Procedure

3.6.1 Sample Size

Omari (2011) defines a sample as a small portion of a population, which is selected for the purpose of observation and analysis to represent the whole population. The sample comprised of 72 respondents who were`10 parents, 1 Regional Director of VETA Northern Zone, 4 Principal, 2 Registrars, 6 Heads of the mechanical trade, 3 The female teachers, and 46 students who are in mechanical trade.

Table 3.1: Categories of Respondents

Participants	**Number**	**Percentage**
Regional director	1	1.4
Principals	4	5.6
Registrars	2	2.8
Heads of Mechanical trade	6	8.3
Parents	10	13.9
Female teachers	3	4.2
Students	46	63.9
Total	**72**	**100**

3.6.2 Sampling Techniques and Procedure

Kothari (2004) defines sampling technique as a process of selecting a representative portion of the population for analysis. This study employed cluster sampling (area

sampling) purposive sampling (non probability) and simple random sampling (probability sampling). This is due to the fact that the Researcher wanted to avoid biasness in the representation of accessible population. (Oso et al, 2005). This study employed the cluster sampling when dealing with parents where Kilimanjaro region was divided according to its geographical boundaries according to its districts.

Kilimanjaro region was clustered in six clusters,which were her district. That was Hai, Siha, Moshi, Rombo, Mwanga, and Same. Haiwas randomly picked, and 10 parents were picked, 2 from each of the 5 wards. Simple random sampling was employed when dealing with students where the attendance register was used to pick students from each section of mechanical trade.

Simple Random sampling was use to the students in mechanical trade as the researcher wanted to gather information from male studentsalso. Purposive sampling was employed when dealing with the Regional Director, principals, registrars, and teachers. Purposive sampling is a type of sampling procedure by which each item in the population has to be included in the sample. (Kothari, 2004) The purposive sampling was used to select the above mentioned respondent in order to collect focused information. Here the individual's willingness and presentism lead to him being an eligible respondent. These techniques helped the researcher to avoid wasting time and money.

3.7 Data Collection Methods

The data collection methods, which were used in this study were interview, Focus Group Discussion and the questionnaire.

3.7.1 Questionnaire

McMullan and Schumacher (2001) recommend the use of a questionnaire if the respondents know to read and write and have time. This study employed questionnaire to gather information from the students. The questionnaire was sent to the principals with the letter of asking for the permission to conduct the research one week before the interview day.

Both open and close ended questionnaire were used by the researcher in this study. The open and close ended questions helped the researcher to collect both qualitative and quantitative information. The open ended questions gave the respondent a greater freedom to answer in a way which suited for their interpretation while close ended questions limit the number of possible answers to be given. The close ended questions are normally easy to answer.

3.6.2 Interview

Kothari (2004) defines this method of data collection as the instrument by which the researcher asks questions face to face. The face to face Interview was administered to the Regional director, Principals, registrars, heads of mechanical trade and female teachers. This enabled the acquisition of information, which would not be captured by other instruments. In this study both structured and non structured interview guide were administered to the respondents. The interview enabled the researcher to collect extensive responses outside the structured interview schedule. This method was preferred by the researcher because it is flexible and has ability to provide new ideas on the subject, (Kothari, 2004).

3.7.3 The Focus Group Discussion

Kombo and Tromp (2006) explain that, focus group discussion is a method of collecting data by which the objectives of taping relevant information from the selected respondent is fulfilled. Focus group discussion can produce a lot of information quickly and is good in identifying and explaining brief ideas and opinions from the respondents, this method was preferred by the researcher as it was helpful to the individuals who were involved in the discussion to feel being part of the study hence more ideas and views were contributed. The focus group discussion involved groups of at least 5 to 8 students in all 6 colleges. The questions were discussed in a group and each member of the group was free to give his views and opinions on each question posed to them.

3.8 Validity and Reliability of the Research Instruments

In this study two criteria which were validity and reliability were used to test stability and truthfulness of the instruments

3.8.1 Validity

Amin (2005) explains the validity of the research instrument as the extent to which an instrument used during the study measures the issue they are intended to measure. Validity is the degree by which the tool measures what is supposed to be measured It refers to the accuracy, meaningfulness, truthfulness, and concreteness of the instrument or procedures which are used in the study. The researcher ensured the validity of the research instrument by giving the instruments to the research experts from the Open University of Tanzania for modification and comments. The

instruments were also submitted to the research supervisor for further checkup. The instruments were piloted before they were approved for data collection.

3.8.2 Reliability

Mugenda et al (2003) defines the reliability of the research as the degree which the research instruments yields consistent results after repeated trials. The researcher employed the test-retest reliability to test for the consistence of the research instrument. The researcher conducted the pre – test of instruments at Moshi - RVTSC. The questionnaire and the discussion questions were administered to the students of welding and fabrication trade. Only 45% of the students could respond correctly to the instruments in the first instance. The researcher made some modifications to the instruments of which when administered again to the respondents more than 90 % of the respondents, could respond to the instruments independently and correctly.

3.9 Data Analysis Plan

Kothari (2004) defines the process of data Analysis as, editing, coding, classification and tabulation of collected data so that they are amenable. He explains more that, the term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. In this study, the information was analyzed through mixed approach, which involved Qualitative and quantitative approaches.

3.9.1 Qualitative Data Analysis

The researcher employed Qualitative approach, which is subjected to content analysis. The data, which were collected through interview and focus group discussion were

analyzed through content analysis. Kombo and Tromp (2006) define Content analysis as a systematic procedure designed to examine and analyze the recorded information. Through content analysis the researcher was able to synthesize and search for the general pattern by grouping the data into meaningful categories. Data were coded, and labeled according to the findings

3.9.2 Quantitative Data Analysis

The researcher employed the quantitative approach Whereby Microsoft Excel was used to compute data. The information was compiled, Summarized, and presented using frequency, tables, percentage, figures, graphs and the Statistical Package for Social sciences (SPSS).

3.10 Ethical Consideration

The researcher observed the ethical issue of confidentiality. She submitted the copy of research clearance letter to all the principals, registrars and head of sections one week before the interview day. The researcher introduced herself to the respondents explaining the purpose of the study as it was explained in the instruments. She assured the respondents that all the information and their names would remain confidential. The respondents were assured that, the information they provide would be used for the research purpose only.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents analysis and discussion of the data, which were obtained from the field. This chapter is divided into three main parts. The first part included the respondents' rate, the second part included the demographic data of the respondents, and the third part included the presentation analysis and discussion of the data.

The study intends to assess the admission of girls in Mechanical trade in vocational colleges in Tanzania, the case study of Kilimanjaro Region. The study was conducted in six vocational Colleges, which carry out the mechanical trade in Kilimanjaro region. The sample of this study included 72 respondents. Who were 1 regional director, 4 principals, 2 registrars, 6 the heads of mechanical trade, 10 parents, 3 the female teachers, and 46 students.

The study employed questionnaires, interviews and focus group discussion instruments in data collection. The study had four main specific objectives which were; to investigate the social factors which affect the admission of girls in mechanical trade in vocational colleges in Tanzania**,** to investigate the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania, to assess the contribution of vocational education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania, and to investigate the strategies which can be used to increase the number of girls in mechanical trade in vocational colleges in Tanzania.

4.2 Demographic Characteristics of the Respondents

4.2.1 The Respondents Rate (N=72)

Table 4.1: The Table of Respondents Rates N=72

Participants	Number	Percentage
Regional director	1	1.4
Principals	4	5.8
Registrars	2	2.7
Heads of Mechanical trade	6	8.3
Parents	10	13.8
Female teachers	3	4.2
Students	46	63.8
Total	**72**	**100**

The respondents rate The respondents were grouped into 6 groups which included the Regional Director, the principals, registrars, heads of the mechanical trade, Female instructors, parents and the students. The VETA Regional N=1(4%) The Principals N=4 (5.6%), Registrars N= 2 (2.7%), the Heads of the mechanical trade N =6 (8.3%), the female instructors N=3 (4.2%), parents N=10 (13.9%) and the students N= 46 (74.2%).

4.2.2 The Age of the Respondents

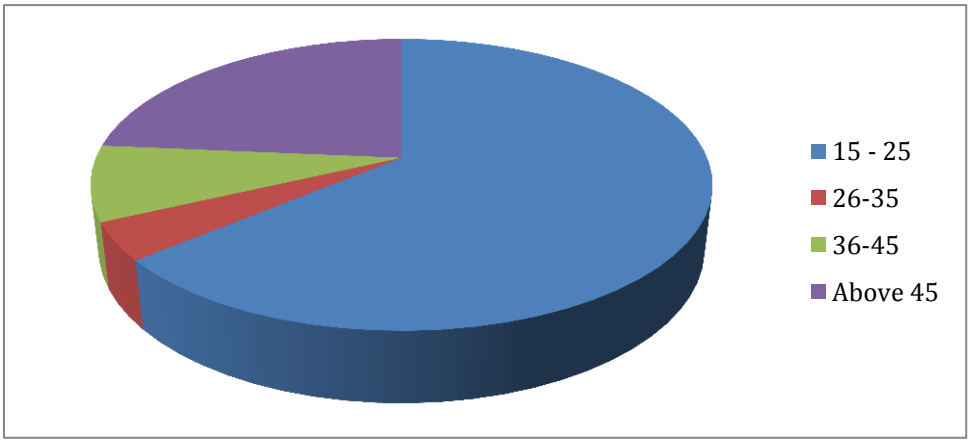

Figure 4.1: The Age of Respondents

The Table 4.1 shows the age of the respondents. In this study the age group of respondent was grouped in to four main groups. From the figure above the respondents of the age group between 15-25 years old were 46 (64. %). This was the largest group. This age group included the students of level I and level II of all the mechanical trade in vocational colleges in Kilimanjaro region. The second group of the respondents was the age group between 26-35 years old who were 9 (12%).This is the age group, which included some young teachers, few aged students and some parents. This is the only group, which included all the respondents who were students, teachers, and parents. The third group of respondents was of the age group between 36-45 years old who were 7(14%). This was the smallest age group. This group included parents and teachers who were only few. The last age group of the respondents was the age above 45 years old who were 10(16 %) This group included the oldest people. Most of the people in this group were the principals, the registrars and the heads of the section.

4.2.3 The Gender of the Respondents

Table 4.2: The Gender of the Respondents

Category	**No of Respondents**	**Percentage** (%)
Male	57	79.2
Female	15	20.8

The Table 4.2 shows the gender of the respondents. As far as this study is concerned the gender was highly considered. The male respondents were 57(79.2%). This was the biggest group, which made the study to be male dominated, due to the fact that in mechanical trade female were very few. In all six vocational colleges only one college had a mixture of boys and girls. The rest of the colleges had only boys in mechanical trade. The mechanical trade had only 3 female teachers and the rest were male.

4.2.4 The Marital Status of the Respondents

Table 4.3: The Marital Status of the Respondents

Category	**No of Respondents**	**Percentage** (%)
Married	22	30.6
Single	50	81

The Table 4.3 shows the demographic data of the respondents, by which the single or unmarried respondents were dominant. The respondents who were single were 50(81%). This group included all the students and young teachers. The second group of the respondents was the married group. This group of the respondents included 22 (30.6%) of all the respondents. This group included the married teachers and parents. There were also some few students who were married. This reveals that the majority of the respondents, who were students, were not married.

4.2.5 Education Qualification of the Respondents

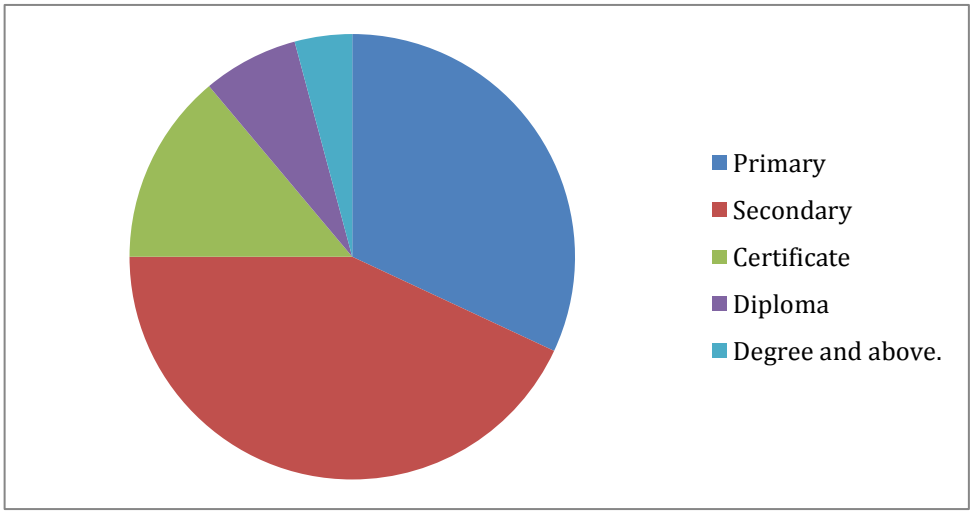

Figure 4.2: Education Qualification

The Figure 4.2 shows the educational qualification of the respondents. The respondents were well distributed in all qualifications from certificate in vocational education to degree in vocational education. The respondents who were primary school leavers were 20 (32%). This was the second largest group. The respondents who were secondary school leavers were 28 (41.1 %).

This was the largest group of the respondents. Another group was the Certificate holders in vocational education. This group included 6 (9.7%) of respondents and the diploma holders in vocational education were 5 (8.1%). The degree holders were the smallest group who were only 3 (4%). The demographic data of the respondents reveals that, the students were many compared to the employed respondents.

4.3 Data presentation, Analysis, and Discussion

This part intends to present the findings of the study analysis and discussion of the study. The purpose of this study was to assess the admission of girls in mechanical trade in vocational colleges in Tanzania.

This part is based on four objectives which were: to investigate the social factors which affect the admission of girls in mechanical trade in vocational colleges Tanzania**,** to investigate the contribution of the parents in admission of girls in mechanical trade in vocational colleges in Tanzania, to assess the contribution of vocational education and training policy on admission of girls and to investigate the strategies for admission of more girls in mechanical trade in vocational colleges in Tanzania.

4.3.1 The Social Factors which affect the Admission of Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro Region in Tanzania

The findings of the study were analyzed in respect to the factors, which affect the admission of girls in mechanical trade in vocational colleges in Tanzania. The findings based on the first objective of the study. This objective intended to investigate the factors, which affect the admission of girls in mechanical trade in vocational colleges in Tanzania. This objective intended to find out the reasons, which hinder the admission of girls in mechanical trade. The responses to this objective were collected through interview and supported by questionnaire and focus group discussion. The responses to this objective addressed the question, which asked:

> *Why are there only few girls in mechanical trade in vocational colleges in Tanzania?*

The study revealed out several factors, which affected the admission of girls in mechanical trade in vocational colleges in Tanzania. These Included; The Employment challenges for females, lack of confidence, Avoiding Muscular works, Fear of injuries, Dependence on decision making, Gender stereotype, and unfavorable working environment.

Table 4.4: The Social Factors Affecting the Admission of Girls in Mechanical Trade in Vocational Colleges in Tanzania

	Response N	%
The Employment challenges for females	8	11
Lack of confidence	7	10
Avoiding Muscular works	23	32
Fear of injuries	5	7
Dependence on decision making	12	16
Gender stereotype	15	21
Unfavorable working environment	2	3
Total	**72**	**100**

The Table 4.4 shows responses to objective number one which requested the respondents to give out the factors which affect the admission of girls in mechanical trade in vocational colleges in Tanzania. The findings revealed that, 8 (11%) of the respondents supported that an employment Challenge for female was one of the factors which affect the admission of girls in mechanical trade in vocational colleges in the male dominated community in Tanzania. The study revealed that many employers are not willing to employ girls because they waste time and financial resource during maternity leave. The respondents also commented that, female are poor performers compared to male as many girls waste time in talking and gossiping. Respondents however pointed out that girls are unreliable. They work for a short while and later they get married and quit the working place and follow their spouse, which costs the employer to recruit another person. Moreover one respondent in the group discussion commented that:

> *"It is difficult for girls to be employed in mechanical trade because during pregnancy, they cannot work in the machine. They will need light works which are not there in mechanical sector and also the bosses complain that they reduce the manpower in the machines"*

Branham and Olinger (2012) explained the challenges facing women as few vacancies and the low wage employment. They explained that women suffer unemployment and even when they are employed they get very low wages which discourage them even in pursuing mechanical trade. They added that about half of the world's population is women and yet they represent a staggering 70% of the world's poor. For this reason, millions of women are living in poverty; their lives are a full of injustice, discrimination and obstacles, which get in their way of achieving their basic needs.

The respondents also revealed that lack of confidence is another factor, which affected the admission of girls in mechanical trade in vocational colleges. 7 (10%) of the respondents revealed out that girls lack confidence when performing different activities. The respondents commented that lack of confidence is dangerous in mechanical trade. They continued that lack of confidence causes poor performance in machine work which causes girls to lose qualification for mechanical trade. The respondents revealed that girls experience psychological fear, which hinders them from performing well in machine works. The respondents added that it is easy for girls to injure themselves with the machine due to lack of confidence. Machines works need confident people who think and decide before they start working, not a person who works while thinking and who has fear that the measurements may not be correct, and who hesitates while working. The respondents commented that lack of confidence leads to fear, which can cause girls to destroy the customers' work and destroy the reputation of the company.

Another factor, which was revealed by the respondents was the tendency of girls to avoid muscular works. 23 (32%) of the respondents revealed that girls tend to have a negative attitude towards hard-works. Their Interest is in soft works, which do not consume much of their energy. The respondents added that girls prefer trades such as tailoring and cookery which are their interest and do not consume much energy. One respondent from group discussion said,

> *"Girls fear hard work especially in mechanical trade because they harden their hands. Also hard -work create muscles which make then look like boys, hence hate mechanical trade"*

The respondents commented that, according to their nature of creation girls are less energetic than boys. They sometimes face difficult to lift the final products in

mechanical trade. One respondent from the welding and fabrication trade explained that:

> *"In our workshop we make grills and the gates which girls normally cannot lift them. They normally ask for boys to help them move their work from one place to another"*

The respondents also revealed out fear of injuries as another factor which affect the admission girls in mechanical trade in vocational colleges. 5(7%) of the respondents revealed that, the welding sparks destroy eyes and they cause excessive pain especially when a welder forgets to wear the PPEs. The respondents commented that many girls fear that they might lose their sight or destroy their facial outlook hence shy away from mechanical trade.

The respondents added that some girls are very sensitive to injuries when they see other students in mechanical trade being injured by the machines, they scream hence fear the mechanical trade. The respondents pointed out that, the street artisans do not consider the use of safety rules and gears hence scare girls of being injured therefore discourage them from pursuing mechanical trade. One respondent from the group discussion from the pattern making and foundry trade explained that:

> *"One day our teacher was chopped by the machine when he was cutting timber. As he was bleeding all the girls ran out of the workshop screaming and the following day one girl was absent. When we asked her where she was, she told us that, she couldn't come back. She said that she was afraid of what happened to the teacher the day before that it might happen to her one day"*

Another respondent from the group discussion said that:

> *"Girls fear the welding trade because during welding there are spackling light which make t eyes red and painful. Most of the girls forget to use the protective gears hence find themselves injured".*

Braun (2007) supported that Eye injuries account for one quarter of all welding injuries, making it the most common injury for welders. He added that those most at risk for welding-related eye injuries are workers in industries that produce industrial and commercial machinery, computer equipment, and fabricated metal products.

Girls' dependency on decision making was another factor which was revealed by the respondents as a factor which affects the admission of girls in mechanical trade in vocational colleges in Tanzania.12 (16%) of the respondent supported that girls are not strong in their decision. The respondents commented that if a girl is convinced to do something she can easily change her mind from what she had decided before. That's why many girls are convinced to not to pursue mechanical trade and agree hence having few girls in mechanical trade. One respondent in a group discussion pointed out that:

> *"Girls like to do what others girls are doing. If they find themselves in a class without a girl, those other girls in other trades convinces them to move to other trades with girls and they quickly find transfer to move to the trade which has girls. They cannot stand on their own they need support from other people''*

The finding moreover revealed gender stereotype as another factor, which affected admission of girls in mechanical trade in vocational colleges. 15 (21%) of the respondents revealed that, there are men's jobs, which are different to women's jobs. They commented that a woman is just a woman. There is no way that a woman starts doing the men's works. The respondents added that girls as well as some boys are said to have a tendency of feeling that mechanicals is men's job. However some people view girls as inferior gender that cannot perform muscular tasks. The respondent from the group discussion said:

Another respondent commented that:

> *"Girls should always look beautiful, smart and clean. Girls are compared to flowers that blossom and stay to attract people for their beauty. They should not do mechanical works"*

Another respondent from the group discussion pointed out that:

> *"Mechanical trade leaves people untidy. It is worthless for girls doing jobs that leave them dirty or untidy. Works such as welding, painting, and making dyes would definitely leave a person dirty. If this is the fact, then mechanical trade should be for men and not for women, mechanical trade suits more boys than it is for girls"*

Bendera and Mboya (1999) talked about gender stereotype explaining that, girls are home workers different from boys. Girls who go to school become overburdened with more activities and hence perform poorly academically. They added that due to gender stereotype girls' opportunity cost is usually much higher than boys. Bendera and Mboya supported that gender stereotype affected admission of girls in mechanical trade in vocational college.

As far as gender stereotype is concerned, The Guardian (2016) explained that female students have been reluctant and not interested in vocational training especially in the professions related to machine-operated works. The guardian investigated the opportunities for women trainees and the obstacles they face in exploring technical jobs or machine-operated work. They also wanted to know how a male and female student perceives the potential of dredging machine operation.

The guardian concluded that gender stereotyping was the reason behind the few girls in machine due to few girls in mechanical trade. COMEDAF (2007) when addressing the problem of girls' admission to school pointed out the Gender stereotype in

Technical and Vocational Education and Training (TVT) as one of the key strategies to address. This is due to the fact that in some vocational colleges girls are admitted in trades like dressmaking, hair dress and cookery. These trades have been named as the trades for the girls who are less gifted academically. COMEDAF added that these girls are academically referred to as following the ‘c’ option of secondary school curriculum. This causes the number of girls in mechanical trade to be little.

Hill (2010) and Rao (2010) also supported that gender stereotype is one of the factor which hinders the admission of girls in mechanical trade in vocational colleges.The findings of the study moreover revealed unfavorable working environment as one of the factors, which hinder the admission of girls in mechanical trade in vocational colleges. 2 (3%) of the respondents revealed that when the artisans graduate and don’t get employment in the companies or workshops they employ themselves in the streets. The street employment is very difficult especially for girls. The respondents explained that some artisans just make the benches under the trees or at the verandas of the houses and start their workshop. This environment is difficult for the girls. The respondents argued that most of girls feel the working places outside the college are very hostile as they lack privacy. Girls feel too much exposed to the community and to the passersby.

4.3.3 The Contribution of the Parents to Admission of Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro Region in Tanzania

This part is based on the objective number two, which requested the respondents to outline the contribution of the parents towards the admission of girls to the mechanical trade. The findings of this part were well analyzed in respect to the objective number

two which was to investigate the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania. This objective intended to find out the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania. The data under this objective was collected through the research question, which asked:

> *What is the contribution of the parents to the admission girls in mechanical trade in vocational colleges in Tanzania?*

The responses to this objective were collected through interview and supported by questionnaires and focus group discussion. The responses to this objective addressed the following questions:

> *What is the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania*.
>
> *What is your contribution (as a parent) in increasing more girls in mechanical trade in vocational colleges in Tanzania?*

The findings revealed several comments from the respondents, which showed the negative contribution of the parents towards admission of the girls in mechanical trade in vocational colleges in Tanzania. The findings were summarized in the following themes, which were: The parents' unwillingness, Parents choice, improper for female, Dangerous, difficult in employment and lack of carefulness.

The Figure4.3 shows the responses for objective number two, which requested the respondents to outline the contribution of the parents to the admission of girls in mechanical trade in vocational colleges in Tanzania. 11(15%) of the respondents revealed parents unwillingness as one of the factors, which affect the admission of girls in mechanical trade in vocational colleges in Tanzania.

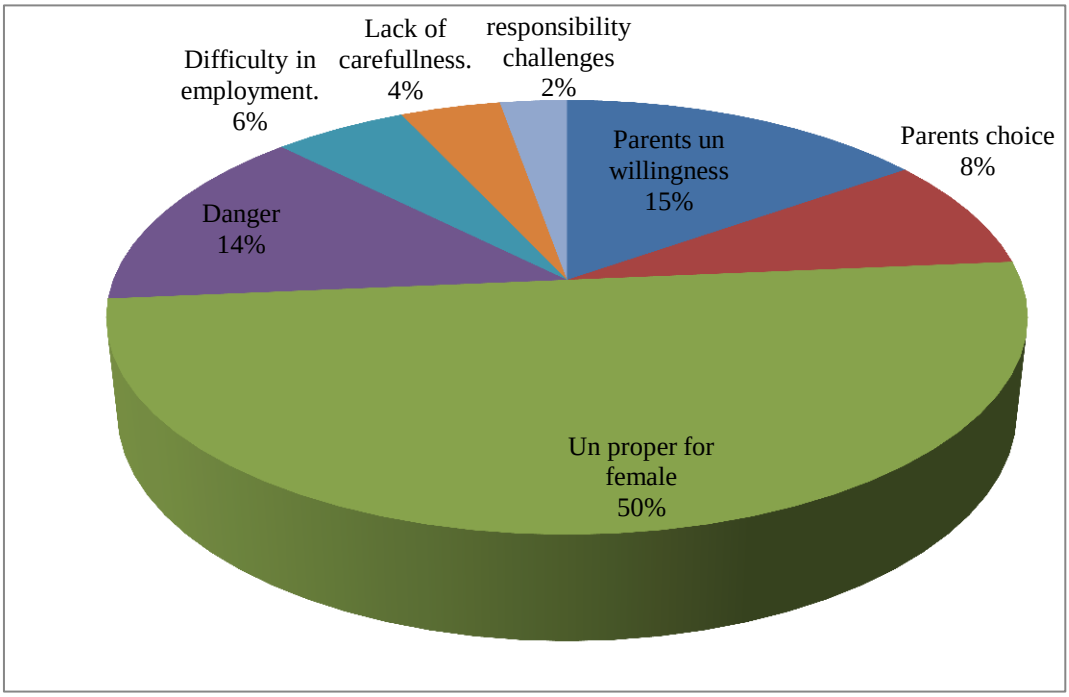

Figure 4.3: The Contribution of Parents to the Admission of Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro region in Tanzania

The respondents explained that most of the parents are not ready to send their girls in mechanical trade because there are other trades, which are most suitable for girls than mechanical trade. The respondents added that trades like food production, secretarial and computer and tailoring are suitable for girls, there is no need to send girls to the mechanical trade. One respondent in a group discussion commented that:

> *"When girls join mechanical trade, they look like boys due to the nature of the activities which they perform in the workshops. Those activities change in their morphology and roles and make them look like boys as they create muscular shapes"*

The findings revealed that 6(8%) of the respondents commented on the parents' choice. The respondents explained that some parents send their girls to the vocational colleges with the courses to pursue ready in their mind. They are always not ready to change their mind. Most of these parents opt for non-mechanical trade like electrical trade and others. The respondents added that some families have projects which need

to be carried on they trust girls to carry on the projects well compared to the boys. So they are sent to the vocational colleges for the special task, which do not allow them to opt for mechanical trade. A trainee in a group discussion said that,

> "My *father has been a civil engineer constructor for a long time, and he wished our sister to take over the company. So when he sent our sister to the vocational college he wanted her to pursue civil and construction trade where she became an architect*

Moreover 36 (50%) of the respondents revealed that mechanical trade is not proper for girls but men are fit for it. They added that it is not necessary that every person does everything. What is important is that, there are people who are taking care of a certain area (activity). Due to the fact that there are men who can do mechanical trade, it should be left for them and girls do other activities. Girls fit to be accountant, nurses, businesswomen and others of the sort but not mechanical trade. The respondents also added that, girls' morphology does mot mach the mechanical trade. The respondent from the foundry workshop commented that.

> *"Girls face difficulty in the foundry workshop especially when melting the iron. The heat in the foundry workshop is too hot to keep girls working around. The fire at the foundry workshop is above hundreds of degrees which can melt the iron"*

The respondents in the group discussion commented that,

> "*Exposing girls to the foundry is very dangerous because the heat in foundry is very high"*

The respondents commented that, it was better for girls to pursue other trades. Girls do work in foundry workshop but in a great fear, which causes stress and it might cause the destruction of work and injury to them. Another respondent said that,

> "*If it was possible I would advise the VETA not to admit girls in mechanical trade. Girls in mechanical trade face a hard time in the workshop. So they better pursue other trades"*

Again 10 (14%) of the respondents revealed danger, as another factor, which affect the admission of girls in mechanical trade in vocational colleges. The findings revealed that, mechanical trade is dangerous for girls as most of them have the behavior of making stories while working. The respondents added that it is very easy for girls to lose some of their limbs, and even their lives in the machine or destroy the machines. The respondents commented that this risk is very high to take. One parent said that:

> "*I have never convinced any person to take his girl to the mechanical trade as I cannot also take mine in mechanical trade. I know my girls. I am not ready to see my daughter coming back bleeding after being injured by the machine. Mechanical trade is not all that important than other trades. Let her do other trades which have no machine works because she will be safe"*

The difficulty in employment was also revealed out in this objective as a factor, which affects the admission of girls in mechanical trade in vocational colleges in Tanzania. 4(6%) of the respondents revealed that girls are difficult in self employment as most of people do not trust them in machine works. For the girl to employ herself, she needs to be well known or employ well known and skilled personnel who will act as the manager of her workshop.

The respondents commented that employment problem has affected many girls, and some have ended in conflict with those people who manage their workshop as those people they employ to manage their workshops feel that they own the workshop, as they contribute much to the existence of the workshops. The respondents added that some girls change their professional completely after they find that it is difficult to employ themselves. They end up in becoming hardware sellers, shopkeepers and grocery sellers. The respondents commented that mechanical trade has no future for

girls. They added that if a girl pursued food production it was easy to open the canteen and manage it by herself. If the girl pursued secretarial courses she can open the stationery and manage it. If a girl pursues tailoring she could sit on a verandah and sew clothes to earn living, but that is not with mechanical trade, mechanical trade is difficult for girls the respondents concluded. The respondents explained that, it is better for girl to pursue the trades, which they can employ themselves and be trusted. Therefore the respondents insisted that employment difficulty is one of the factors, which affect the admission of girls in mechanical trade in vocational colleges.

The study again revealed carelessness of the girls as another factor, which affects the admission of girls in mechanical trade in vocational colleges. 3 (4%) of the respondents revealed carelessness as a factor, which affect the admission of girls in mechanical trade in vocational colleges. The respondents pointed out that girls concentrate in many things at a time, which causes poor concentration in their work. Poor concentration is bad in mechanical trade. Poor concentration leads to carelessness, which leads to poor performance and also the destruction of customers' tasks, which will make the company or workshop lose customers hence firing of the girls in mechanical employments.

One respondent from the group discussion from tool and die making trade who works with the machines, which engrave the plates for the inauguration of different buildings said:

> "*We were assigned with the customers' task of engraving the plate me and a girl. As the girl was engraving the plate another girl called from a nearby machine. As she turned to talk to the girl who called her, the machine bent and the letters got destructed. The customers' plate was destroyed and the teacher told us to go and buy another plate to replace that one, all this was caused by her carelessness"*

The respondents explained that girls do not pay enough attention while performing something. They can start the machine and leave it running and do other things, which make them, underperform and become mistrusted by the employers and the customers. The respondents commented that due to carelessness some girls produce rough works, which are below standard and not attractive to the customers. The respondents added that it needs enough raw materials before the girl produces an Item, there will be several rejects of the commodities. One parent commented that:

> *"It is good that our daughters pursue mechanical trade but I doubt about their performance. My daughter has always been burning food when she is cooking. When I asked her why it was happening, there is no good reason just carelessness. I think something is needed before we release them for mechanical trade"*

Another respondent explained that:

> "*Most of girls are care free. Even when they do a mistake they are not ready to be corrected and even if you correct them they don't pay attention. It doesn't pain them how much cost they add to the parents, what they know is that parents will take care. I, as a parent, I am not ready to be held responsible on the carelessness of my daughter. I know that she will cost me so she better pursue other trades"*

The respondents concluded that parents are the ones to incur the cost when their girls cause loss. The girls' carelessness is one of the factors, which affected admission of girls in mechanical trade in vocational colleges in Tanzania.Wade (2012) and Thanawala (2015) supported the carelessness of girls that, it is not only with mechanical trade but also with their own properties such as phones, and other personal properties.

Some few respondents 2 (3%) revealed the girls future responsibilities as mothers as a factor, which affect the admission of girls in mechanical trade in vocational colleges. The respondents commented that, when girls grow as mothers, their responsibilities

increases also. There are some times when they will not be supposed to use machines because of health safety. Sometimes some of the women when they are pregnant they require a total bed rest. The respondents commented that Machine works require night shifts, which are difficult for the breast feeding mothers. The respondents concluded that sending the girl to mechanical trade is over working her and to some extent looks just as an extra work. However, the employers become dissatisfied due to frequent absenteeism.

A male respondent in a group discussion said:

> *"I will not allow my wife to work in mechanics employment as she will have no enough time to take care of the children. My wife will always be tired so she will not be able to fulfill other family responsibilities so she better do other trades"*

Another respondent from a group discussion said that:

> "*My mother worked as a textile machine operator and she used to do the night shifts. She told us that, after my young brother was born she had to stop working a machine operator because she found a hard time when she was taking care of me while working. For the time being she keeps animals and does small business. She has stopped working"*

A respondent who is a head of mechanical trade in one of the colleges said that:

> *"I as a parentand a teacher have brought some girls to mechanical trade in different years. Also in my mechanical trade I have trained some girls. These girls from my home and my workshop work just for a little while. After they get married most of them stop working, for now about 90 % of them are out of mechanical trade some are doing other jobs and others are just house wives. This includes my own daughters whom I sent to mechanical trade"*

He added that:

> "*My wife was trained as a mechanics in machine tools repair after we married and got our first child she stopped working. For the time being she is a business woman"*

The respondents commented that sending the girl child to the mechanical trade is the misuse of the resources as male could do better in mechanical trade. Therefore the respondents concluded that, girls' responsibility after they become mothers is one of the factors, which affect girls' admission in mechanical trade in Vocational colleges in Tanzania.

Ndahi (2002) and Otto, (2000) explained that, parents have influence over their girls, in shaping the direction or path of their children. Children obey and trust their parents in such a way that they will follow and do whatever they instruct them. They explained about the young people's perceptions of parental influence on their career development and concluded that both boys and girls look to their parents when they make career choices. (Upor, 2009) added that parents have a great influence to their children to the extent that some dare to withdraw their girls from school. Parents influence has played a big role in hindering girls from pursuing mechanical trade and hence their admission in mechanical trade.

4.3.4 The Contribution of the Vocational Education and Training Policy on Admission of Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro Region in Tanzania

This part intends to investigate the contribution of the education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania. This part is based on objective number three which investigated the contribution of education and training policy on admission of girls in mechanical trade in vocational colleges in Tanzania. The information to this objective was gathered through the research question, which asked:

What is the contribution of the vocational education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania?

The information in this objective was collected through Documentation where the researcher read the vocational education and training policy to see what was its contribution to the admission of girls in mechanical trade in Vocational colleges in Tanzania. The researcher read the vocational education and training policy and other educational policies to see what they said about admission of girls in mechanical trade in vocational colleges in Tanzania.

4.3.5 The Vocational Education and Training Policy in Relation to the Educational Background of the Women

The documentation revealed that, the educational background of women has largely affected the admission of girls in mechanical trade Egbo (2000) pointed out that; Tanzania was once colonized by the British, so her education system was very much influenced by the British ideas and philosophy which was grounded in Christianity. The Arabs also colonized Zanzibar and spread the Islamic religion, which influenced most of the coastal areas. The Arabs education was transmitted by the medium of the madrasa, which were Islamic institutions, which affected the social norms for men and women through cultural patterns, Islamic theology, and philosophy. Moreover African education was based on communal cooperation and oral tradition. Women were the key people in transmitting oral education history. Their stories were integral to protect and transmit the communal history.

Kerner (2005) explained that, Tanzanian education trend was claimed to make those areas which were influenced by the Islamic as backward-looking areas and traditional.

He added that those areas which were influenced by Christianity looked forward and progressive. Depending on a student's background and upbringing, any of the aforementioned educational philosophies could influence the access of women to education. The Arabs and British's education was limited. They did not concentrate on educating the women as the British educated men whom they could use for their special purpose. Education for women was not given attention. Girls were prevented from attending schools at younger ages than their male counterparts.

He added that, the importance of women's education within a developing country is significant though it was not given priority. Several international agencies including UNESCO, UNICEF, and the World Bank recognized the importance of eliminating women's illiteracy and enhancing access to education for women. He gave an example of the Millennium Development Goals, where the United Nations recognized the importance of promoting gender quality and empowering women.

Kerner (2005) commented that there are certain cultural and social barriers, which exist in the societies. These barriers reinforce social standards in addition to cultural norms within the societies. He explained that girls, suffer from gender barriers, which make them difficult to access and achieve education. Girls are socio-cultural, economic, political and structurally affected. Girls often vary by culture, community or family. Among the major barriers for girls education are male child preference, attitudes towards girls' early marriage, negative schooling, cultural taboos, resistance of girls to co- education classes, school distances that exceed the local security, morality code, teacher absenteeism that puts girls' security at risk, lack of female teachers, and irrelevant content.

The Tanzania policy of education insisted on equity and equality to both boys and girls. It was expected that primary schools should prepare the children and students for life in villages and communities. In fact one of the major objective of the policy was to set up an effective educational and training instrument, which would equip young people with skills applicable and relevant to the mainly rural environment. The study finding revealed that the educational background of women was another factor, which affected the admission of girls in mechanical trade in vocational colleges in Tanzania. The education, which was male centered could not prepare girls for mechanical trade.

UNICEF (2003) explained the efforts made by Tanzania to make sure that all primary school age children go to school by 2002.They pointed out the major issues for girls which were: late entry for girls in grade one, early marriage, Poor performance in standard seven leaving exam and high rate of repetition of classes in primary school that were among the factors which hindered the education of girls. In secondary school it is even worse as only 5% of girls were admitted to secondary education at that time.

They explained some barriers for the admission of girls in secondary school which were social and cultural belief and practices which included early marriages and pregnancy, Gender biasness and socialization in school which is expressed the acceptance of boys more than girls, leaving boys in the classroom studying and taking girls out to help teachers to do domestic works like fetching water, which reinforced gender stereotype. They also explained the economic barrier where girls were taken to

work in order to supplement the family income by doing small business and stop schooling.

4.3.6 The contribution of Vocational Educational and Training Policy in Admission of Girls

The study found out that, the education and training policy dictated equal rights to every individual with the ability to pursue education. In this policy men were more advantageous in education than their female counterparts. This gave the policy an opportunity to perpetuate the systematic gender imbalances. However, direct and indirect government initiatives of giving equal opportunity to girls and boys are included in this Policy, though it had not been well enacted.

The policy identified three focus areas of education, which included: mainstreaming, gender concerns, promoting gender specific programs, and giving special attention to the girl child. These areas were included to this policy to enable it to comply with the UNICEF directives. (Beoku-Betts, 1998)and (Swainson, et al (1998).

The Ministry of Science, technology and Higher Education (1996) pointed out that, the need of vocational educational and training policy was triggered by the problems, which existed in all levels of education. The ministry added that, these problems caused failure of the standards of technical education and raised a need for Tanzania to have full trained and qualified technical manpower in order to meet demand in different sectors of economy. The ministry concluded that, these short falls caused the need for policy, a clear policy.

The study revealed that the objective of the vocational education and training policy of promoting and encouraging women participation in technical education in Tanzania was not successful as there were no deliberate strategies to admit more girls in mechanical trade in vocational colleges, thus existing of a very big gap between the admission of boys and that of girls. It has been difficult to solve a problem of work distribution as it was difficult for the policy to solve the problem of girls' admission to the mechanical trade in vocational colleges in Tanzania. The policy and the ministry did not emphasize on girls admission.

Therefore the study concluded that the vocational education and training policy has affected the admission of girls in mechanical trade in vocational colleges in Tanzania. The failure of the vocational and education training policy to address the admission of girls in mechanical trade has been the root cause of few girls in mechanical trade in vocational colleges in Tanzania.

4.3.7 The Strategies for Admission of More Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro Region in Tanzania

This part intends to discuss the strategies, which can be used to admit more girls in mechanical trade in vocational colleges in Tanzania. It based on the objective number four of this study, which investigated the strategies for admission of more girls in Mechanical trade in vocational colleges in Tanzania. The information in this objective was collected through interview, questionnaire and focus group discussion where the respondents responded to the question, which asked,

> *What are the strategies, which can be used in order to admit more girls in mechanical trade in vocational colleges in Tanzania?*

What could be done to solve the problem of few girls in the Mechanical trade in vocational colleges in Tanzania?

What can be done in order to increase the number of girls in mechanical trade in vocational colleges in Tanzania?

The findings revealed that, giving more priority to girls during admission, Career counseling to girls, independence, amendment of the vocational education and training policy, government subsidy to VET providers, Exposure and orientation, and encouragement were the strategies which could help to increase the number of girls in mechanical trade in vocational colleges in Tanzania.

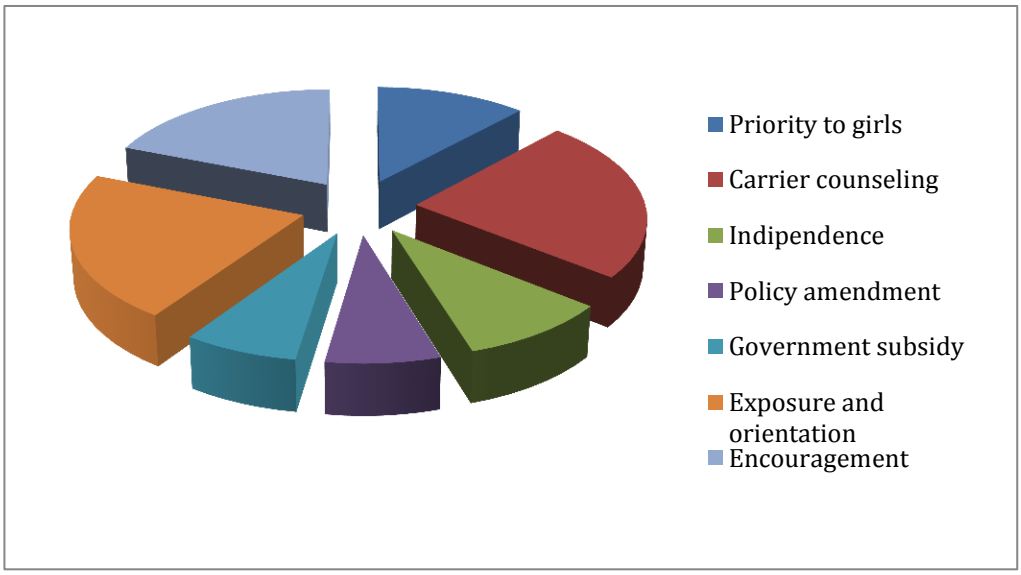

Figure 4.4: The Strategies for Admission of More Girls in Mechanical Trade in Vocational Colleges in Kilimanjaro Region in Tanzania

The Figure 4.4 shows the findings of the objective number four, which was to investigate the strategies, which could be used to increase the number of girls in mechanical trade in vocational colleges in Tanzania. This objective requested the respondents to suggest the techniques, which can be used in order to admit more girls in mechanical trade in vocational colleges in Tanzania. The findings revealed that

40(56%) of the respondents revealed that giving priority to girls who apply for mechanical trade is one of strategies which could be used to increase the number of girls in mechanical trade in vocational colleges in Tanzania. The respondents commented that, it did not mean that girls do not apply for mechanical trade, but it seems that the priority is given to boys than girls. The respondents from Moshi RVTSC commented that there are some girls who apply for mechanical trade but after selection their names don't appear. They added that due to the authority of selection which The VETA head quarter has been given by the government, the authority could set some strategies over the selection of the girls and adhere to it, example selecting at a certain percent let us say 40 % girls and 60 % boys in mechanical trade then if the girls cannot fill their chances boys should top up, or set the 50 by 50 strategy where girls are given equal chances compared to boys. If the girls are unable to fill up their chances then boys can top up.

The respondents however revealed that girls can be given priority by caring out the per-entry course for girls who are not qualified for mechanical trade to help them qualify as it is done to higher learning institutions. The respondents commented that higher learning institutions announce the pre-entry program for girls who are interested in sciences and engineering where these girls are trained for about 3 months and later they are given a test to qualify them for the required course. The respondent revealed that if priority is given to girls their number would obviously increase in mechanical trade in vocational colleges in Tanzania. These data were collected though the research question which asked:

> *Which are strategies can be used to increase more girls in mechanical trade in vocational colleges in Tanzania?*

The respondents from the group discussion commented on the priority of girls and said:

> *"The boarding facilities should give priority to girls in mechanical trade in order to promote and motivate them. We boys can stay at home even if it is far, but it is difficult for our sisters to walk every morning and yet pursue mechanical trade. This is because they get tired very quickly"*

Another respondent commented that,

> *"Girls should stay at school because staying far from school is a threat and a temptation to them. They will be motivated and opt for mechanical trade if they know that they will stay in boarding"*

Another strategy, which was revealed by the respondent was career counseling. 8(11%) of the respondents revealed that girls need career counseling in order to help them make a proper choice in their career. The respondents explained that girls can be guided, educated and convinced to opt for mechanical trade. The respondents revealed that, if girls are advised and educated about the importance of mechanical trade, then some would opt for mechanical trade. The respondents added that it does not mean that girls are poor in mechanicals, but most of them have not received the awareness of a girl becoming a mechanics or a mechanical engineer. The respondents commented that, some girls are very good at mathematics but they end out being accountants because they see many female bankers and accountants. The respondents concludedthat girls need career counseling. The head of section in mechanical trade from one of the colleges commented that:

> *"Girls are very positive to counseling. They always listen and follow the advice. The problem is that we have not taken initiative to counsel them. I personally do not get disturbed because I have many boys in my mechanical trade. I feel ok. But after you have talked about it is when I feel the absence of girls".*

The respondents however, also independence as a strategy to increase more girls in mechanical trade in vocational colleges. 5 (7%) of the respondents revealed independence as a strategy, which can be used to increase more girls in mechanical trade in vocational colleges. The respondent commented that most of the girls who apply for vocational colleges are above 18 years old of which at this age a girl can make her own decisions without interference. The respondents commented that parents have become a hindrance for girls to join mechanical trade due to their behavior of mistrusting their girls that they cannot make their own decision. Parents also raise a lot of doubt and excuses, which scare girls from pursuing mechanical trade. The respondents revealed that independence could be the only solution to get rid of girls from negative comments of parents against them. Moreover as far as the independence is concerned, the respondents added that, the workshop instructors should also give independence to the girls. The respondents commented that, some of the workshop teachers discourage girls by telling them that mechanical trade is difficult for girls as well as the employment and that, there is no future in mechanical trade, as the working environment is hostile for girls. One respondent from the group discussion commented that,

> *"If girls are helped to decide their mind becomes stagnant. It is better to leave them to decide by themselves. If they make a mistake they will correct themselves on the way and it will be a lesson to them"*

However, 6 (8%) of the respondents revealed amendment of vocational education and training policy as a strategy for admission of more girls in mechanical trade in vocational colleges in Tanzania. The vocational education and training policy skipped out the area of admission of girls. The respondents commented that, if this area of admission was included in the policy, it would open the door for admission of more

girls in mechanical trade. The respondents argued that, the selection of students for vocational colleges should be done directly by the National examination council of Tanzania, (NECTA) rather than how it is normally done by VETA. They added that, after NECTA selects the best students to the advanced level, the second step should be the selection for the students who would join the vocational colleges especially in girls who would pursue mechanical trade. The respondents commented that, girls should be posted directly during the first selection. One of the principal from one of the college said that:

> *"It is unfortunate that, our vocational education and training policy has remained quiet about the admission of girl. This might be because formally it was known that vocational education was mainly for boys. In this era where there are some girls who are also admitted in vocational colleges, the policy needs amendment"*

UNICEF (2003) explained the strategies, which they planned in order to solve the barriers of education for girls. One of the strategies was policy advocacy to ensure gender sensitivity and addressing critical issues of admission of girls to schooling. They also planned to ensure girls retention and improved performance in schools through implementing child friendly schools. UNICEF expected that, among the achievements would be an achievement on gender advocacy to ensure admission of girls. So far this plan has not been successful hence admission of girls is still small.

Another strategy, which was revealed by the respondent was government subsidy. 8 (11%) of the respondents revealed that the government should sponsor girls in mechanical trade by paying fees and pocket money to them. The respondents explained that if other students in other colleges in science and engineering departments receive full government sponsorship why not these in mechanical trade.

The respondents added that, the Government should give a full financial support to girls who opt to pursue mechanical trade in VET colleges as it is in higher learning institutions. They pointed out that this could make a great motivation for girls to pursue mechanical trade and many others would dream to pursue mechanical trade. The respondent explained that full government subsidy is very important as the final product of these girls in mechanical trade, is the same as those who are doing engineering in the higher learning colleges. A girl from the group discussion said that,

> "*We like recognition and motivation. If the government pays our fees many others will join mechanical trade"*

The respondents revealed exposure and orientation as another strategy, which can increase the number of girls in mechanical trade. 3(4%) of the respondents commented that exposure and orientation is one of the best solution to increase the number of girls in mechanical trade in vocational colleges. Normally the new and aspirant girls to vocational colleges, come blindly and pursue what their parents have sent them for or follow what others are doing. The respondents pointed out that, if it happens that these girls stay in a college for about three months for exposure in mechanical trade, more than a quarter of the girls in the intake would opt for mechanical trade.

Furthermore the respondents revealed orientation to the mechanical trade can help to solve the problem of few girls in mechanical trade in vocational colleges in Tanzania. The respondents commented that, girls are attracted by the things they see and do. They would like to know what is mechanical trade, how do people study, how does it look like, future prospects of the trade, what are the subjects in mechanical trade and

other questions about mechanical trade. The respondents revealed that orienting girls to the mechanical trade is a winning kick as for more than 80% of girls would be influenced by the orientation but also they would influence one another during orientation and finally majority would join mechanical trade. One girl from the group discussion commented that,

> *"I did not know anything about mechanical trade until I joined the college. I was afraid when I selected to join mechanical trade. During the week of orientation I knew a bit about the trade and also I met some girls in the same trade who encouraged me and I gained confidence. For now I like mechanical trade and I want to become a mechanical engineer".*

The respondents addedthat, girls need to be exposed to the mechanical trade for at least 3 to 6 months before they join the colleges. Therefore the respondents concluded that orientation and exposure was one of the strategies to increase the number of girls in mechanical trade.

Finally Encouragement was another strategy, which was revealed by the respondents. 2 (2.8%) of the respondents revealed that, if girls were encouraged they could easily join mechanical trade. The respondents explained that, girls get discouraged easily when they see things moving against their expectation. If they get someone to tell them that they can make it, then they become energized and press on. The respondents explained that some girls have been hearing about mechanical trade that is a very busy trade and difficult. The respondents said that, girls are told that mechanical trade has a lot of mathematic and it consumes time. The respondents added that these discouragements make girls feel that they cannot pursue mechanical trade. But it is high time that principals, registrars, workshop teachers and parents encourage girls

and they would join mechanical trade. One respondent from group discussion said that,

> *"I decided to quit the mechanical trade because I was the only girl in the class. My workshop teacher called me and asked me what was the reason. I explained the reasons to her that I have decided to join the civil trade where there are other girls. Fortunately the teacher was a female. So she told me not to worry, and that she would be my partner. I went back to the mechanical trade and now I am in my last year"*

Gallardo (2014) explained the discouragements from her teachers in the classroom because she was the only girl. Sometimes the teacher called her "you boy" knowing that she was the only girl in a class of many boys. Teachers in mechanical trade need to encourage the few girls who happen to be in their workshops so that they don't feel that they have fallen in the wrong place and wrong hands. The respondent concluded that, if girls are encouraged to pursue mechanical trade, their number in mechanical trade would increase.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter intends to summarize the findings, which were obtained from this study, to give a general conclusion, and recommendations, which could help to curb the problem of poor admission of girls in mechanical trade in the vocational colleges in Tanzania and suggest the areas for further study.

5.2 The Summary of the Study

The admission of girls in vocational colleges in Tanzania has been a crosscutting issues since the mechanical trade in the vocational colleges admit less number of girls when compared to the number of boys. This study aimed at assessing the admission of girls in mechanical trade in vocational colleges in Tanzania. The study had four main specific objectives, which were:

(i) To investigate the social factors which affect the admission of girls in mechanical trade in vocational colleges in Tanzania.

(ii) To investigate the contribution of the parents in the admission of girls in mechanical trade in vocational colleges in Tanzania.

(iii) To assess the contribution of vocational education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania.

(iv) To investigate the strategies for increasing the number of girls in mechanical trade in vocational colleges in Tanzania.

(v) The data were collected through the following research questions.

(vi) What are the social factors, which affect the admission of girls in mechanical trade in vocational colleges in Tanzania?

(vii) What is the contribution of the parents to the admission girls in mechanical trade in vocational colleges in Tanzania?

(viii) What is the contribution of the vocational education and training policy to the admission of girls in mechanical trade in vocational colleges in Tanzania?

(ix) What are the strategies, which can be used in order to admit more girls in mechanical trade in vocational colleges Tanzania?

5.2.1 The Social Factors which affect the Admission of Girls in Mechanical Trade in Vocational Colleges in Tanzania

The findings revealed that, admission of girls in mechanical trade in vocational colleges in Tanzania was affected by several factors. The respondents revealed the following;

(i) The challenge of employment for girls in mechanical sectors as a factor, which affected the admission in mechanical trade in vocational colleges in Tanzania.

(ii) Lack of confidence is another factor, which affected admission of girls in mechanical trade and cause them to opt for other trades.

(iii) The respondents revealed the tendency of girls to avoid muscular works, where they tend to opt for soft works. This makes them to shy away from mechanical trade and run for trades like Hospitality, secretarial, cloth making and others trades of the sort.

(iv) The findings revealed the Fear of injuries as another factor, which affected admission of girls in mechanical trade especially the welding and fabrication

trade where the respondents complained that the welding sparks cause pain and redness of the eyes.

(v) The study also revealed the nature of girls being dependent on Decision Making as another factor, which affect the admission of girls in mechanical trade in vocational colleges. The respondents revealed that girls do not have their own decision instead they follow what other girls are doing and what other people advice them.

(vi) The respondents however revealed gender stereotype as another factor which affect the admission of girls in mechanical trade in vocational colleges where girls feel that they have their own works and trades to study but not mechanical.

(vii) The findings revealed Unfavorable Working Environment especially in welding and fabrication trade where the street welding discouraged some girls and hence lose interest in mechanical trade in vocational colleges in Tanzania.

5.2.2 The Contribution of the Parents in Admission of Girls in Mechanical Trade in Vocational Colleges in Tanzania

The findings revealed the negative contribution and attitude of the parents towards admission of girls in mechanical trade.

(i) The respondents revealed the unwillingness of the parents towards the admission of girls in mechanical trade in vocational colleges in Tanzania. The respondents did not find the reason to why they should convince their daughters to pursue mechanical trade while there are other trades, which can fit them than mechanical trade.

(ii) The respondents revealed parents' choice as a factor, which affects the admission of girls in mechanical trade in vocational colleges in Tanzania. This is due to the fact that some parents send their girls to the vocational colleges with their preference of the trades, which they want their girls to pursue for their own purposes.

(iii) The respondents revealed that mechanical trade was improper for girls. The respondents pointed out that, not everyone was supposed do everything. There are people who are proper for mechanical trade. It was better to leave boys pursue mechanical trade rather than taking girls to mechanical trade.

(iv) The respondents revealed that, mechanical trade was dangerous to girls due to their lack of concentration which is in many girls, that they can be affected by the machines or destroy the work of which distort the reputation of the company.

(v) The respondents revealed difficulty in employment, which faced girls after they graduate from the vocational colleges that sometimes they are forced to change the career or remain house wives. The respondents revealed this as one of the course for few girls in mechanical trade in vocational colleges.

(vi) The respondents revealed carelessness of some girls who are not care full when performing some activities, which is against the requirements of the safety rules in mechanical trade. The respondent commented that mechanical trade needs the individual to observe the safety rules and regulations.

(vii) Finally the respondents revealed the responsibility challenges as another factor, which affects the admission of girls in mechanical trade in vocational colleges especially when girls grow as mothers.

5.2.3 The Contribution of the Vocational Education and Training Policy on Admission of Girls

The objective number three of this study was to assess the Vocational Educational and training Policy on the admission of girls. The data in part was collected through documentation. The finding revealed the education background of the girls and the vocational education and training policy as the factors, which contributed to the admission of girls in mechanical trade in vocational colleges in Tanzania.

(i) The findings revealed that, the educational back ground of the girls was one of the factors which affected the admission of girls in mechanical trade in vocational colleges as both Arabs and British provided education which was men centered for their own purposes.

(ii) The documentary revealed the British wanted to educate men who they could help them as their assistance in their colonial administration.

(iii) The finding revealed that, the Arabs and British's education was limited. They did not concentrate on educating the women as they were useless to them.

(iv) The documentary revealed that, Education of girls was not paid attention. Girls were prevented from attending schools at younger ages than their male counterparts.

(v) The findings revealed that the vocational education and training policy was not able to specifically address the issue of admission of girls to the mechanical trade in vocational colleges. The findings pinpointed the issue of policy on admission of girls as a loophole, which made the admission of girls to the mechanical trade to be a problem.

(vi) The findings revealed that, policy did not lay out the strategies on how to admit more girls in mechanical trade in mechanical trade in vocational colleges.

(vii) The study revealed that the objective of the policy of promoting and encouraging women participation in technical education in Tanzania was not successful as there were no deliberate strategies to admit more girls in mechanical trade in vocational colleges, thus existing of a very big gap between the admission of boys and that of girls in mechanical trade.

5.3.4 The Strategies for Admission of More Girls in Mechanical Trade in Vocational Colleges in Tanzania

The findings revealed some strategies, which can be used to admit more girls in mechanical trade in vocational colleges in Tanzania.

(i) The findings revealed advice as one of the strategies which could help to admit more girls in mechanical trade in vocational colleges due to the fact that, girls are easy to accept advice.

(ii) The findings revealed education and conviction as another strategy which could help to increase more girls in mechanical trade in vocational colleges that , girls needs to be educated and also convicted about mechanical trade and its importance to girls rather than running to the trades which they call girls trades.

(iii) Exposure and orientation was also revealed as a strategy which could be used to increase the number of girls in mechanical trade in vocational colleges, that girls needs to be exposed and oriented to the mechanical trade in order to raise their interest to join mechanical trade.

(iv) The findings revealed Encouragement and counseling as another strategy which could help increase the number of girls in mechanical trade in vocational colleges that, girls are easy to change their mind when they are counseled and encouraged to opt for mechanical trade.

(v) The findings revealed Priority to girls as another strategy, which could increase the number of girls in mechanical trade in vocational colleges. The respondents argued that, if girls were given priority during selection, their number would increase in mechanical trade.

(vi) Independence was another strategy, which was revealed by the finding that, the parents should give freedom to their girls to select what they want to pursue rather than parents choosing the career for them.

(vii) The findings revealed the amendment of vocational education and training policy as a strategy to admission of more girls in mechanical trade in vocational colleges.

(viii) The findings revealed that the policy did not lay the strategies on admission of girls and the policy lacked clear guidelines on admission of girls. If the policy is amended the number of girls would increase,

(ix) Finally the findings revealed Governmentsubsidy as a strategy for the admission of girls in mechanical trade in vocational colleges. The findings revealed that, if the fees of girls in VET provider's colleges is subsidized for the girls who are pursuing mechanical trade it would enable admission of more girls in mechanical trade due to the fact that, girls would be attracted by the subsidy and opt for mechanical trade.

5.3 Conclusions

Based on the objectives and the findings of the study this study, the following conclusions were made.

(i) The admission of girls in mechanical trade in vocational colleges in Kilimanjaro region in Tanzania is affected by the social factors which includeEmployment challenges for female,lack of confidence for girls, gender stereotype, fear of muscular activities, Unfavorable Working Environment and fear of injury.

(ii) Thepoor contribution of the parents and their negative attitude towards admission of girls in mechanical trade also affected the admission of girls in mechanical trade in vocational colleges in Kilimanjaro region in Tanzania.

(iii) The failure of vocational education and training policy to address the admission of girls in mechanical trade has also affected the admission of girls in mechanical trade in vocational colleges in Kilimanjaro region in Tanzania.

(iv) Finally the study concluded that, in order to increase the number of girls in mechanical trade in vocational colleges in Tanzania girls should be educated on their importance in mechanical trade and that they can do well on it. Career counseling, amendment of the vocational education and training policy and independence were also concluded as strategies which could help to admit more girls in mechanical trade in vocational colleges in Kilimanjaro region in Tanzania.

Therefore as far as the findings and objectives are concerned, the study revealed that the admission of girls in mechanical trade is affected by the above factors of which there are some strategies to solve them.

5.4 Recommendations for Immediate and Further Action

Basing on the findings of the study and the situation, which was observed during the study, the following recommendations were made for immediate and further action.

5.4.1 Recommendation for Immediate Action

5.4.1.1 Employers

Employers should give priority to girls as they can work as men do. The employers should not mistreat girls because of their biological responsibility of bearing and bringing up the children and the family. The employers should not cause girls to be afraid of bearing and taking care of the children in fear of losing their employments. However employers should be kind to the female who are in mechanical trade and bear with them during pregnancy that they should not bother them but rather give them light duties and not machine works.

5.4.1.2 Parents

Parents should regard their girls as people who can make their own decisions and that they can do well in mechanical trade. Parents should know that girls are very careful at machine works and they are committed to their works. There are some employers who would prefer girls to boys. Parents should leave their girls decide on their careerr. Parents should encourage and facilitate their girls to pursue mechanical trade. They should not discourage them to pursue mechanical trade but rather prepare them from the time when they are still young and help them grow knowing that they will be engineers. Parents should know that they have a very big role of creating and mould their children’s dreams.

5.4.1.3 Heads of Mechanical Trade

The heads of mechanical trade should prepare special programs in mechanical trade to assist the girls in mechanics so that they can perform just as good as boys. Those programs like extra classes and trade clubs should be applied to those girls who are below the pass mark which is 60%. Girls should not be given names like failures and under looked because they are few. The teachers should assist, encourage and advice girls when they notice that they are under performing.

There should be groups of mixed gender in order to help girls not to be isolated and be alone especially those who underperform. If they are assisted they will perform well. Teachers should conduct counseling sessions for all students especially girls to help them solve some personal and family problems which might affect their performance in mechanics. There should be one by one session (teacher student discussions) which will help to detect the areas of weakness for girls in the early stages and solve them before girls are affected.

5.4.1.4 Male students

Male students should show cooperation with female student and not to segregate them. Taking in to considerations that in mechanical trade boys are many than girl then in each group of boys there should be a girl or two depending on the number of girls. Boys should not feel bad when they discover that they have helped the girls and enable them to perform above him. They should keep on helping and encouraging them.

5.4.2 Recommendations for Further Action

5.4.2.1 The Government

(i) Direct Entry

The selection for vocational education especially in mechanical trade should take place during the first bunch of selection that is the selection for the students who will join high schools. This selection should include girls. It is very difficult to have a student who is a failure in science subjects to pursue mechanical trade as it is now that, all the selections are done and finally those who are left who cannot be admitted any where are those who apply for vocational colleges and in mechanical trade. The selection of girls in mechanical trade in vocational colleges should be done by the NECTA direct.

The government should invest more to the vocational education. The artisans are very important to the development of our country economically. In this era which the president has come with a slogan of "The Tanzania of Industry" The president is determined to change and turn our country to industrial country. We cannot have industries if the vocational education is left to the students who are failures and those who have nowhere to go.

(ii) Government subsidy

The girls in mechanical trade in vocational colleges should be given full sponsorship by the government. This should cover the girls in mechanical trade in government owned vocational colleges and those who are in private VET colleges. This will encourage more girls to apply for mechanical trade.

5.4.2.2 VETA

(i) The Admission of Girls

The number of girls admitted in vocational colleges in a specific year should be equal to the number of boys, the ratio should be considered. The admission of girls should be equal to the admission of boys in colleges unless there are some dropouts or few applicants in the specific year. The admission should not consider the marks scored but the number of students who are needed to be admitted that year, the number of boys equal the number of girls.

(ii) The Boarding Facilities

The boarding facilities for girls should be increased in order to accommodate enough girls especially girls in mechanical trade. Girls who need to pursue mechanical trade should be considered first to stay in boarding before those girls who are pursuing non mechanical trade. The boarding facilities should be provided to girls in mechanical trade in order to promote and motivate other girls to pursue mechanical trade.

(iii) Special Treatment

The girls in mechanical trade should be treated with special treatment to attract other girls to join mechanical trade. These treatments should include the freedom and no-uniform. The girls in mechanical trade should be free whenever they want to go out of the college and they should not dress in uniforms. This will differentiate them from other students in other trades and motivate other girls to join mechanical trade.

(iv) Second Selection

Whenever there are vacancies to fill in (second selection) girls who applied for mechanical trade and did not get an opportunity to be selected should be considered

first. Girls should be invited to fill the vacancies (those who want to join mechanical trade). When they are finished then boys could be considered later.

(v) Pre-entry programs

There should be pre-entry programs for girls who want to join mechanical trade. This will help them to have prior knowledge and acclimatize in mechanical trade to create interest for them to pursue mechanical trade. Pre- entry also will provide confidence to girls and provide extra knowledge, which will make them raise their knowledge on mechanical trade.

(vi) Recognition of VET Providers

The Vocational Educational and training Authority should recognize the contribution of the VETs towards vocational Education and make effort to the growth these colleges as they lead to the advancement of VETA, as they reach many girls easily and faster because they are many and well spread compared to a VETA (RVTSCs) college which is only one in most of the regions in Tanzania. Empowering VETs will enable them to admit many girls.

5.4.3 Recommendations for Areas for Further Studies

In this study the Researcher found out that in the whole region of Kilimanjaro, which had 6 districts there were only 6 vocational colleges which conducted mechanical trade and which are situated in only two districts. The rest of other four districts have no any college with mechanical trade. Therefore the researcher suggests the further study to "Assess the availability of mechanical trade in vocational colleges in Tanzania" This will help to assess the presence of mechanical trade in vocational colleges and come out with strategies to construct the mechanical trade in vocational colleges in Tanzania.

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APPENDICES

Appendix I: Interview Questions for the Regional Director, Principals, and Registrars

These Interview questions are prepared as a part of partial fulfillment of my Master Degree in Administration, Planning and Policy Studies, (MED-APPS). The study aims at assessing the admission of Girls to the mechanical trade in vocational colleges in Tanzania.

Please be assured that confidentiality will be highly considered for any information which will be obtained from this questionnaire.

Respondent no.

Age:

Sex;

Trade:

Level:

Marital Status:

Education qualification:

Profession:

1. How many girls are there in your college?……...
2. How many girls are there in mechanical trade?.....

3. Why do you think there are only few girls in mechanical trade?

……

……

……

4. What is the contribution of the parents to the admission of girls in mechanical trade in vocational colleges?

……

……

……

5. Do you have any strategies to increase the number of girl in mechanical trade?

……

……

……

Appendix II: Interview Questions for Heads of the Mechanical Trade and Female Teachers who are in Mechanical Trade

These Interview Questions are prepared as a part of partial fulfillment of my Master Degree in Administration, Planning and Policy Studies, (MED-APPS). The study aims at assessing the admission of Girls to the mechanical trade in vocational colleges in Tanzania.

Please be assured that confidentiality will be highly considered for any information which will be obtained from this questionnaire.

Respondent no:

Age:

Sex;

Trade:

Level:

Marital Status:

Education qualification:

Profession:

1. How many sections are there in your trade……..
2. How many girls are there in your mechanical trade?……
3. Why do you think only these few girls have qualified for mechanical trade?

   ……

   ……

4. What is the contribution of the parents to the admission of girls in mechanical trade in vocational colleges

……

……

……

5. Which strategies can be used to increase more girls in mechanical trade in vocational colleges

Tanzania? .....

.....

.....

.....

Appendix III: Interview Questions for the Parents

These Interview Questions are prepared as a part of partial fulfillment of my Master Degree in Administration, Planning and Policy Studies, (MED-APPS).The study aims at assessing the admission of girls to the mechanical trade in vocational colleges in Tanzania.

Please be assured that confidentiality will be highly considered for any information which will be obtained from this questionnaire.

Respondent no.

Age:

Sex;

Trade:

Level:

Marital Status:

Education qualification:

Profession:

1. Have you ever sent any of your girl child to the vocational college? Which trade?.....

2. It has been noticed that there are very few girls in mechanical trade in Tanzania. What do you think can be the reason behind?

……

……

3. You as a parent, what is your personal effort to increase more girls in mechanical trade in vocational colleges?

……

……

4. Which strategies can be used to increase the number of girls in mechanical trade in vocational colleges in Tanzania?……

……

Appendix IV: Research Questionnaire for Students

This questionnaire is prepared as a part of partial fulfillment of my Degree in Master of Education in Administration, Planning and Policy Studies. (MED-APPS) The study aims at assessing the admission of Girls to the mechanical trade in vocational colleges in Tanzania.

Please be assured that confidentiality will be highly considered for any information which will be obtained from this questionnaire.

Please fill this questionnaire with the required information.

Respondent no:

Age:

Sex;

Trade:

Level:

Marital Status:

Education qualification:

For each of the following statement tick the extent to which you agree or disagree with the statements.

SA= strongly agree. A- agree. SD= strongly Disagree. D=disagree. U= Undecided

S/N	STATEMENT	SA	A	SD	D	U
1.	Mechanical trade are suitable for men.					
2.	Girls fear mathematics which is a key subject in mechanical trade.					
3.	Girls are allergic to overalls and spanners.					
4.	Some parents discourage girls from pursuing mechanical trade.					
5.	When girls walk to the college with trousers and overall people around look down at them.					
6.	Other girls laugh at those girls in mechanical trade.					
7.	Girls feel ashamed with activities in mechanical trade.					
8.	Men perform best in mechanical trade than girls.					
9.	I don't feel comfortable to see girls in mechanical trade.					
10.	In my class girls are less than 5 and boys are more than 5.					
11.	The pass marks for girls to be admitted in mechanical trade should be reduced.					
12.	Vocational Colleges need to start a pre-entry course for girl who did not qualify in the first selection to help and encourage them to pursue					

	mechanical trade.					
13.	Trainers should give extra class to girls who are in mechanical trade.					
14.	Science subjects should be given weight for girls in schools.					
15.	Some trainers create bad relationship to female trainees with a promise to help them in their Examinations.					
16.	The distance from home to school discourage girls in concentrating in mechanical trade.					
17.	The fees challenges disturb some girls when are at the college.					
18.	Girls have a lot of duties at home hence no time to study at home thus cause them to fail in mechanical trade.					

Appendix V: Focus Group Discussion Questions

This questionnaire is prepared as a part of partial fulfillment of my Degree in Master of Education in Administration, Planning and Policy Studies. (MED-APPS) The study aims at assessing the admission of Girls to the mechanical trade in vocational colleges in Tanzania.

Please be assured that confidentiality will be highly considered for any information which will be obtained from this. Focus Group Discussion questions.

1. There is a myth that girls are soft and they should study, secretarial, hospitality, tailoring and dress making which are courses only which are easy. What is your views……

   ……

2. There are some parents who discourage their girls to pursue mechanical trade and encourage their boys to study it. Is it true? What do you advise these parents.

   ……

   ……

3. What do you think are the factors that affect the admission of girls in mechanical trade?……..

4. What measures do you think can be taken in order to increase the number of girls in mechanical trade in vocational colleges in Tanzania? .....

   .....

Appendix VI: The Summary of VETA Enrollment in Mechanical Trade from the Year 2010-2015

S/NO	Year	Male		Female		Total
			%		%	
1	2010	2241	87	331	13	2572
2	2011	1926	84	368	16	2294
3	2012	1801	89	224	11	2025
4	2013	2367	92	195	8	2562
5	2014	1868	91	174	9	2042
6	2015	2410	93	173	7	2583

THE OPEN UNIVERSITY OF TANZANIA
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Date: May 16th ,2016.

To whom it may concer.

RE: RESEARCH CLEARANCE

The Open University of Tanzania was established by an act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No. 55 in the official Gazette. The act was however replaced by the Open University of Tanzania charter of 2005, which became operational on 1st January 2007. In line with the later, the Open University mission is to generate and apply knowledge through research. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Ms. Joyce Invocavit Makyao** PG201400337 pursuing Master of Education in Adminstration Planning and Policy Studies. We hereby grant this clearance to conduct a research titled "An assessment of Girl's admission to the mechanical trades in Vocational Colleges in Kilimanjaro Region, Tanzania". She will conduct her research at Vocational Collenges in Kilimanjaro Region from 23rd May 2016 to 23rd June 2016.

Incase you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O. Box 23409, Dar es Salaam. Tel: 022-2-2668820. We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

Prof Hossea Rwegoshora
For: VICE CHANCELLOR
THE OPEN UNIVERSITY OF TANZANIA