MAKING SENSE OF STUDENTS CAREER CHOICES: THE CASE OF TECHNICAL TRAINING INSTITUTIONS IN KENYA.

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ABSTRACT.

This study investigated the factors that shaped students' choices of training programs in two technical colleges in Kenya. The purpose of the study was to determine the nature of the students reasoning with regards to their decisions about enrolling in particular training programs. It also highlights how the students deal with the pressures from their parents, peers, and the community at large, to conform to their 'gender expected' program choices. The expectations of Kenyan society have been that female students would choose programs within the female dominated fields of secretarial, food and beverage, and clothing technology. The expected programs for male students have been in the male dominated fields of engineering and building trades. The study showed that program choices for girls differed from those of boys irrespective of the type of school the students attended.

The study utilized both qualitative and quantitative methodology. Ethnographic techniques were used to analyze the participants experiences obtained through conversation like interviews. Chi square tests and descriptive statistics were used to analyze the enrollment records obtained from the participating colleges.

The participants included 39 students and 4 Heads of Departments from the two participating colleges, College A and College B. There were 14 female and 7 male students enrolled in traditionally female programs, and 9 male and 9 female students enrolled in traditionally male programs. For each college, one head of a department with predominantly female programs and one from a department with predominantly male programs participated in the study. All the participants were interviewed within their college. The interviews focused on the participants' individual experiences related to their choices of training programs. The interviews with the Heads of Departments also looked at the relationship between the
government guidelines on student enrollment and the actual criteria used by the colleges to select the students for different programs within each college. All the interviews were audio taped.

The students indicated that their choices were moderated by factors within the homes they came from, the schools they attended, the society at large, and the world of work. Factors within the homes included gender related socialization, and parental pressure for the students to choose the programs that the parents wanted them to choose. The major factors within the schools the students attended included lack of career guidance, the school facilities, and lack of role models for the students to emulate. The main factors that were related to the society at large were the general expectations that the students would choose "gender appropriate programs. It was interesting to note that the students placed an emphasis on their perception of the expectations of their potential future spouses. The main factors related to the world of work were the availability of employment in particular careers, and the students' perception of the gender biases that the employers might have when recruiting workers for different types of jobs.
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CHAPTER ONE.
IDENTIFICATION OF THE PROBLEM.

INTRODUCTION.

This study investigated how the students graduating from the Kenyan school system chose career programs that prepared them to assume their roles in the society. Understanding how students prepare for contributing to Kenya's economy is very important to both the students and the country. As Harbison, (1973) argues,

Human resources, not capital, nor income, nor material resources, constitutes the ultimate basis for the wealth of the nation. Capital and natural resources are passive factors of production; human being are the active agents who accumulate capital, exploit natural resources, build social, economic, and political organizations, and carry forward national development. Clearly, any country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy, will be unable to develop anything else (p. 3)

This quote implies that education is the key to the success of development projects because their results depend on the implementation and management skills of those involved. McMahon (1987) pointed out that skills and knowledge improve the quality and the organization of human effort used to improve production. This is more so in projects involving direct utilization of new technology by the recipient communities. It is on my belief that education is the backbone of development, that this study rests.

McMahon (1987) argued that education has many benefits that contribute to the development of a country. According to McMahon, benefits of education include improvement in health, reduction of fertility rate, factors that are beneficial, especially to women, who then have more time to engage in income generating activities and in leisure. Education also leads to a greater sense of self-worth.
In the early years of independence, Kenya seemed to have recognized the importance of human resources when she set up her economic and development policies. This is reflected in the high rate of expansion of education in general and the establishment of training facilities, to provide the knowledge and skills necessary for both wage employment and self-employment. It is also reflected in the nations' economic policy as stated in Economic Survey (1992) which stated that,

The ultimate success of planning for economic and social progress depends to a large extent on the people who are the most crucial resource in the development process. ..... The production of goods is predicted on the possession of requisite knowledge, proper attitudes and appropriate skills, capabilities, capacities and values in addition to land capital and technology. Kenya is neither well endowed with physical natural resources, nor capital and technology, but has ample potential for sustained socioeconomic development through the abundance and vitality of her human resources (p. 193).

Human resource development however should take other factors such as social justice and gender equity into consideration. In the race to Africanize the Kenyan civil service and other jobs, such factors were ignored. This is seen in the recommendations made by the many commissions and development plans that were made and implemented in the early years of independence. The effects of these policy documents are explained in Chapter Two.

THE PURPOSE OF THE STUDY.

This study examined factors that influenced students' choice of career programs in two technical training colleges in Kenya. In addition, the study compared the program choices of students who attended single sex schools to those of students who attended mixed sex schools. The purpose of this comparison was to understand the relationships between the programs the student chose and the type of schools they attended. Of special interest here was to find out if some groups were more likely to venture into nontraditional programs. For this study, traditional male programs were defined as those programs requiring mathematics and physics,
while traditionally female programs were defined as those not requiring mathematics and physics. Finally, the study explored the criteria the colleges used to select students for admission into different vocational training programs.

The specific research questions for this study were as follows;

1. What factors influence students' choices of vocational training programs?
2. Are there differences in enrollment patterns between students from mixed sex schools and those from single sex schools?
3. What criteria do the vocational institutions use when selecting students for admission into different vocational programs?

WORKING HYPOTHESIS.

It has been argued that families from different social classes develop different communication patterns such that lower class families use a more closed mode of communication, with the older members doing most of the talking, and defining family roles for all the members of the family. In the higher social class families, however, communication is more open and family roles are negotiated (Bowles & Gintis, 1976). I concur with the above argument. Therefore, with respect to question one, I conjectured that students from high economic and social class families discuss their career choices more with their parents. Such students are more likely to diversify their choices to include nontraditional careers.

In relation to question two, I conjectured that students from single sex secondary schools were more likely to diversify their program choices. This is because, in the absence of students from the opposite sex, all the duties are carried out by these students, without any gender role considerations. I assumed therefore, that those school experiences exposed the students to more career options and resulted in more students from such schools choosing
nontraditional programs in later years. It has also been argued that in mixed schools, teachers' classroom practices are such that in science and mathematics classes, they direct more questions and expect better performance from the male students, while in the languages such expectations are directed towards female students. As a result the final class grades reflect these biases thus further polarizing career options of students (Worrall & Tsarna, 1987). In single sex schools, such polarization is not possible. I therefore expected the performance of students from single sex schools to be more dependent on student ability rather than teacher bias. I conjectured therefore that grades were less likely to limit students' career program choices for students from single sex schools than for students from mixed sex schools.

I agreed with Bowles and Gintis (1976) that schools (and in my case colleges) tended to direct students to various occupations not so much based upon their abilities but according to their social class and gender. In respect to question three, therefore, I expected the official admission criteria to be independent of gender, class, and region. In practice though, I expected the application by the students and the interviews by the college and ministry officials to be done with gender considerations in mind. I also expected cultural and historic factors that have been identified in studies at university level (Eshiwani, 1984), to have gender biases such that students are directed to enter the programs that were traditional for their gender.

ASSUMPTIONS

Although this study was mainly case studies of one diploma and one craft colleges in Kenya, it was assumed that such colleges were similar to other colleges of the same types in Kenya. Inspection of the enrollment patterns of all the national polytechnics gave this assumption merit. For all these colleges, the enrollment patterns were polarized on gender lines such that women were a majority in programs that did not require mathematics and sciences
while male students were a majority in the engineering programs that needed mathematics and physics subjects (see Appendix A on page 170). Also, all the colleges administer common examinations set and marked by Kenya National Examination council or the Kenya Accounts and Secretaries National Examination Board. A diploma certificate for a particular program in Kenya therefore carries the same weight irrespective of the college in which the student trained. The same applies to craft level programs.

ACCESS TO FURTHER EDUCATION.

Godia (1987) has reported that out of 334,00 students who sat for the secondary school entrance examination (Kenya Certificate of Primary Education) in 1985, 200,000 could not find places in secondary schools. He also tells us that in the same year, 108,000 of the students who sat for the university entrance examination (Kenya Certificate of Education or K.C.E) did not continue to the next stage of formal education. This problem of access to further education seems to be getting worse. According to an announcement by the Minister of Education on 2nd January 1999, of the 446,539 candidates who sat the Kenya certificate of primary education in 1998, 248,276 could not be absorbed into the existing secondary schools. This translates to about 56% of the candidates that year. This proportion is higher than that of 1997 where 47% of the candidates could not find places in the secondary schools. It is very difficult for these students to find work because they have no employable skills. This is not only a waste of the country's human resources but it is also a big loss to the parents who may have spent most of their monetary resources educating the students up to that level. The Daily Nation newspaper of 5th January 1999 quoted parents and teachers protesting this problem of access. One of the parents was quoted as saying, "This (lack of places in secondary schools) is creating a lot of uncertainty and confusion to us parents because we do not know where to take our children if
they can not be admitted to secondary schools”. Also, a teacher was quoted saying, “It is unfortunate that many children will be denied secondary school education, not because they did not qualify, but because there are no places for them”. In the midst of all these complaints, the ministry of education announced that it had no money to employ more teachers and therefore no new secondary schools will be opened in the near future. This is a serious situation for the students and the parents. Parents have to look elsewhere to take their children for post primary education. The scenario is even worse for the students who take the Kenya certificate of secondary education at the end of form four. The chairman of the Joint Admission Board (the body responsible for admitting students for all the national universities in Kenya) announced that, out of 156,591 candidates who sat for the Kenya Certificate of Secondary Education in 1998, only 9,017 were admitted in the national universities. This was reported in the Daily Nation of 11th April 1999. This is only 5.75% of the 1998 candidates. The rest have to find alternative type of post secondary education or training. The main question is, “where do these students go?”

It is expected that most of these students end up in the vocational training institutions, where they take either artisan, craft, or diploma programs, depending on their results in the Kenya Certificate of Secondary Examination. With the Kenyan society stratified along gender, social background, and regional lines, it is important to find out whether the access to the different programs offered in these institutions is moderated by this stratification. This study attempts to address this problem.
LIMITATIONS OF THE STUDY.

Although there are many types of training programs, my study was limited to technical training institutions only. Other training institutions, like medical and teacher training colleges, were left out. Also, although technical training institutions and programs exist for both primary level and secondary level graduates, because of the large numbers of the people involved, the study is limited to post secondary technical training only. A comprehensive study covering all levels of vocational training would require more time and funding than was available for this study.

Another limitation was that, although I discussed the information I obtained from the participants with them at the end of the individual interviews, full reciprocity was difficult because I wrote the final text in Canada while the participants were still in Kenya. The physical distance was prohibitive for true reciprocity, which would have involved negotiating the final meaning and results with them.

DELIMITATION OF THE STUDY.

The main delimitation of the qualitative section of this study was that all the participants were volunteers. Those who volunteered to take part were free to withdraw any time during the study if they felt uneasy with the direction the study was taking. These were requirements of the University ethics committee and my supervising committee. These were fair requirements. They respect people's rights to privacy. They also let people decide what information they would like to share and which information is private to them. A second delimitation was that only college students and heads of departments were involved in the study. Parents, classroom teachers and members of the
public were not involved. This was mainly due to the availability of time and funds to carry out the study.

The main delimitation of the quantitative section of this study was that only the programs that fitted the definition of either traditionally female or traditionally male programs were sampled. Any program that did not fit those definitions was not considered. For this study, traditionally male programs were defined as those programs that required mathematics and physics while traditionally female programs were defined as those programs that did not require mathematics and physics.

WHAT FACILITIES ARE AVAILABLE

In Kenya there is a wide variety of technical institutions. Some of these are for primary school graduates while others are for secondary school graduates. These institutions are either run by government, the community, or by private businesses. For the primary school graduates and the students who obtain a failing grade in form four, there are the artisan programs. Those students who obtain an average grade of D in the form four examination can train at a craft certificate level offered in the Technical Training Institutes and the Harambee Institutes of Technology. Those who obtain an average grade of C and above can train at the diploma level offered in the National Polytechnics. These institutions are explained below.

GOVERNMENT RUN INSTITUTES.

(i) Technical Training Institutes.

There are 19 Technical Training Institutes (Economic Survey, 1992). These are the former technical schools, which were converted to career training institutions during the change to the 8-4-4 system. They train the secondary school graduates to a craft certificate level. Their programs take between two and three years depending on the particular program taken.
Since these changes are quite recent, the impact of these institutions in the county's economy has not been felt as yet, and therefore cannot be effectively evaluated. In this study, College B was chosen to represent these institutions. I chose College B because it has many traditionally female and traditionally male programs for students to choose from and because I know the principal well so I would not have any problem of access.

(ii). National Polytechnics.

There are four such polytechnics in Kenya, College A in Nairobi, College C, College D, and the newly established College E. These institutions train the students to Diploma level. There are also some diploma courses offered at Egerton University and Jomo Kenyatta University of Agriculture and Technology (Statistical Abstract, 1990). In this study, College A was chosen to represent the diploma colleges. I chose the College A because it is the main national polytechnic. It has the highest number of traditionally female and traditionally male diploma programs. It is also situated in the nation's capital city, so its population is cosmopolitan in nature.

HARAMBEE BASED INSTITUTIONS.

When Kenya attained independence in 1963, Jomo Kenyatta, the first president of Kenya, declared harambee as the motto Kenyans were going to use to develop the country (Kintzer, 1989). He defined the spirit of harambee in terms of the communal spirit of pooling resources together to finance projects of mutual benefit to all. This spirit has since been used to cover all aspects of development; but nowhere has it had more impact than in the education system. Using the harambee spirit, after independence, the communities assisted the government to build more primary schools by contributing labour and locally available building materials such as bricks and wood. They then organized fund raising meetings to raise funds
for buying factory produced materials like iron sheets and nails. The government provided teachers and education officers to manage the curriculum and maintain standards. As a result, the primary education expanded very fast, making it impossible for the existing secondary schools to cater to the large numbers of primary school graduates. The communities responded to this problem by, pooling their resources together again to build community based post primary institutions, i.e., village polytechnics, and harambee secondary schools. Later, the number of graduates from the increased number of secondary schools became too large to be accommodated in the existing government post secondary institutions. The communities pooled their resources together again to build community owned post secondary institutions under the name of Harambee Institutes of Technology. As explained before, because of limitations in funding and time, these institutions were not represented in the study. However, it is necessary to explain how these institutions have had an impact on technical training in Kenya.

(i). Village Polytechnics.

The village polytechnics were initiated by the National Council of Churches of Kenya (N.C.C.K) and the Christian Churches Education Association (C.C.E.A) in a conference held in Kericho in 1966 (Court, 1972). This conference proposed an apprenticeship scheme in the form of low cost training centers for rural based occupations. The communities would raise funds on harambee basis to build and run the schools while the government and the N.C.C.K would provide some help in the form of some teachers, some teaching materials and, above all, coordination and advice. The programs offered in these institutions depend on the resources and income generating opportunities available locally. These opportunities can be in either wage employment or in self-employment. A supplementary function of the programs offered
in these institutions is to improve the quality of lives of the graduates, their families, and the community, by providing them with foods that have better nutrition and providing other services at cheaper costs than those provided commercially. The executive head of each institution is referred to as the manager. Preferably, the manager and instructors are local residents.

The village polytechnics have faced a number of problems. One of the major problems has been how to integrate with rural development plans so that as the institutes are expanded to cater for the ever increasing primary school graduates, the income generating opportunities also expand to accommodate the increased graduates of the polytechnics. This is a big problem given the economic base of most of the rural communities. The expansion and quality of these institutions depends on the economic and political power of the particular community. Some areas have very powerful leaders who act as patrons to these institutions. It is easier for institutions in such areas to attract both government and donor funds thus making it easier for them to expand and to provide better quality training.

In order for the goods and the services provided by the graduates of these institutions to be able to compete with those provided by large commercial firms, their quality must be comparable. This requires good teaching facilities and qualified teachers. Good teaching facilities and good teachers cost money, which is normally in short supply in most of the communities. This is a dilemma, which needs to be examined carefully if the graduates of these institutions are to be competitive enough to survive economically.

(ii). Harambee Institutes Of Technology.

By the early 1970s, it had become clear that the few government post secondary institutions could not handle the large numbers of students who were graduating from high
school and not finding places in the universities. Communities, with encouragement from the government, started pooling their resources together to build their own post secondary vocational colleges on harambee basis (Kintzer, 1989). These institutes are referred to as Harambee Institutes of Technology. The government encouraged the establishment of such institutes because they helped in reducing the number of high school graduates who flocked to the towns in search of jobs with only a secondary school education. The government and the communities seemed to believe that if the students were given vocational skills they would find it easier to find jobs in industry or to start their own small scale industries. The government also saw these institutes as capable of helping in reducing unemployment by starting commercial production units (Kintzer, 1989). Such units would employ some of the graduates as technicians, sales persons and after sales repair persons. The government assisted the communities who started such institutes by supplying them with teachers.

Although the rhetoric used by the leaders to explain what each institution was expected to accomplish differed, all the harambee institutes had the common objective of providing vocational and practical skills, at a craft level, to secondary school graduates. The skills to be taught were those needed for either wage employment or self-employment, both in the urban and rural areas, depending on where the graduates would find income generating opportunities. With government encouragement, each institution geared its programs towards locally available income generating opportunities. For example, Kiambu Institutes of Technology which is near Nairobi, developed programs on television repair and baking, among other programs, while Western College in the rich agricultural zone developed programs involving water technology (Kintzer, 1989)
As was the case with village polytechnics, regional disparity in both economic and political power has played a major role in determining which communities are able to build and maintain these institutions. For example, Kiambu Institute of Technology which is located in the highly developed central highlands, near Nairobi, offers a variety of programs. It also has the following income generating units:

(i) A large coffee firm,

(ii) A commercial furniture production unit,

(iii) A registered construction firm,

(iv) A technology production unit (producing water heaters, hydraulic pumps, and other types of machinery). At the same time, Ukambani Institute of Technology, which is located in the semi arid Yatta plateau, has difficulty in surviving and has no income generating units. In fact, while the Central Province has four well developed institutes, the North Eastern Province which is arid and poorly developed does not have even one institute.

Although this study did not address the problems of the community controlled (harambee) institutions, I wish to point out that, in order for this sector of education to benefit all Kenyans, there is need for a government policy. This policy should deal with methods of spreading the benefits of these institutions to cover those regions, which are both politically and economically disadvantaged.

BUSINESS RUN INSTITUTIONS.

Some enterprises in Kenya run their own training institutions. Most of these normally train the company's employees to use new equipment or new methods of production brought about by changes in technology. Companies and government corporations like Kenya Railways, Kenya Bus Services, Metal Box Company, and others, train school graduates then
absorb the best into their workforce. They then release the rest to seek employment elsewhere. Such enterprises help economic development because they create a pool of trained workers for small enterprises that cannot afford to train their own workers. Some of these graduates start their own small enterprises and become self employed thus contributing to the reduction of unemployment and providing more goods or services to the people.

It has been argued though that most employer controlled training is quite specific and lacks a more of general training for a variety of employment settings (Eliason, 1994). This type of training makes it very difficult for the trainees to use the acquired skills if they change to other firms in the future. It also makes it very hard for other firms to evaluate the standards of the certificates the new employees have, for the purpose of determining the employee’s starting position. The Kenya government seems to be aware of this issue because, for each level of training, there is a common examination, set and marked by a government testing body, i.e., the Kenya National Examination Council or the Kenya Accounts and Secretaries National Examination Board. An artisan, a craft, or a diploma certificate in Kenya therefore carries the same weight irrespective of who runs the institution from which it was obtained.

INFORMAL TRAINING.

In the developing countries, the old tradition of informal training continues to be popular. This is the method where a person learns by observing a co-worker or an employer, normally within a small business enterprise or in a family business. In Kenya, small business enterprises referred to as “Jua Kali” enterprises have mushroomed, both in urban and rural areas. Some of these are just one person operations while others have a few employees. They are concentrated mainly in the technological fields providing services like car repair, furniture making and repair, making of metal boxes and farm implements. Young women are mainly in
dressmaking, hairdressing and baking. The government has identified this as the area with high economic growth rate and employment potential (Economic Survey 1992). In response, the government has introduced entrepreneurship education in all vocational training institutions, with the aim of preparing the students for self-employment since the spill over from formal training into informal employment has now become a reality. It has also provided money for building Jua Kali (small informal business) sheds for allocation to some of the informal entrepreneurs, who otherwise would be working in the jua kali (hot sun). The growth rate in the informal sector in Kenya has been reported to have been steady at 14% in both 1990 and 1991 while that of formal employment was down to 2.3% in 1991 from 3.0% in 1990 (Economic survey 1992). If this trend continues, then the expansion of formal training facilities in the form that they have operated in the past will be questionable when viewed from cost/benefit terms. There will be need to reassess the role the vocational institutions will play in the new economic order. The government seems to be aware of this problem because, in partnership with the University of Illinois it has introduced entrepreneurship education in all the government controlled vocational institutions with a post graduate program for teachers of vocational training institutions. The idea behind these measures is to prepare the graduates of the technical training colleges for self-employment in the small informal business sector of the economy. How these training facilities are linked to the formal education system and the world of work is illustrated in figure 1 below.
FIGURE 1. THE LINKAGES IN THE 8-4-4 SYSTEM OF EDUCATION.

SIGNIFICANCE OF THE STUDY.

This study has policy implications in the following areas;

(i) Guidance And Counseling.

It has been reported that in the past career guidance and counseling masters are regular teachers who have neither the time nor the facilities to guide the students in career choices (Kilonzo, 1981). This study explores this problem and gives suggestions on how the problem can be addressed.
(ii) Teaching Facilities For Science In Girls-Only Secondary Schools.

It has been claimed in the past that girls-only schools did not have facilities to teach science subjects. As a result girls have been excluded from science and/or technology based programs (Eshiwani, 1984). Since science subjects have become compulsory, it is important to find out if more girls are enrolling in these programs. My research examines this issue and gives suggestions, as to where improvements are required.

(iii) Providing Guidelines For Recruitment Of Students In The Technical Institutions.

The study also examines the criteria used by colleges to recruit students into programs in the vocational institutions. The aim here is to identify the factors that maintain the gender polarization that has been visible in these programs in the past. It then suggests ways of reducing the effects of such factors in future programs.

It is my hope that the findings and suggestions given in this research will be considered when the government formulates policy to deal with these issues.
CHAPTER TWO
REVIEW OF LITERATURE.

INTRODUCTION.

In this chapter, I present an analysis of some of the available literature on access to education in general and vocational training in particular. As much as possible, I will show how this literature applies to the educational situation in Kenya. The literature covered here is presented under the following major subheadings.

1. Theoretical perspective.
   This section explains the theories on which the study is based. The theories covered here are Social reproduction theory, Resistance theory, and Feminist Theory.

2. Historical perspective.
   In this section, I explain how the education system in Kenya, especially technical education, evolved to what it is like now. This section is divided into three, subsections colonial legacy, postcolonial era, and legacy of vocational education.

3. The harambee spirit and vocational training.
   This section explains how different communities supplemented the government effort in providing training facilities for their children and how this effort was moderated by political and economic power.

4. Effects of changing job markets on education and training.
   This section explains why the training institutions should rethink their role in the face of the new demands placed on employees by changes in academic and practical skill requirements in the job market.

5. Career aspirations.
This section explains how, in the past, career aspirations of students were moderated by gender role expectations. It also explains how these expectations affected students' performance in different subjects thus directing students towards gender appropriate careers.

6. Gender equity in vocational training programs.

This section explains how the gender mix has been in the technical training institutions in Kenya. It also explains some of the factors that seemed to maintain the gender polarization in the programs run in these institutions.

7. Single sex versus coeducational schools.

This section deals with the arguments advanced in the available literature, comparing the academic performance and career aspirations of students from single sex schools to those of students from mixed schools.

THEORETICAL PERSPECTIVE.

No one particular theory is sufficient to explain the process of schooling or career training. This research therefore draws upon three theories: reproduction theory, resistance theory and feminist theory. Each of these theories is useful in explaining certain aspects of schooling but leaves out other useful aspects. My research does not attempt to explain the whole process of schooling but considers the aspects of these three theories that have a bearing on schooling and technical training. To understand the whole process of schooling, a more complex theory and a larger study are needed. Such a study needs to take into account the human agency and resistance which themselves are moderated by gender, social class, and in the case of Kenya, regional disparity in power among others. It should also address the possibility of students to make more realistic career decisions in the future that is, it should be emancipatory in nature.
(i). Social Reproduction Theory.

Social reproduction theory views schools as socializing institutions which reproduce both the values and the ideologies of the dominant groups and of the existing class structure (Bowles and Gintis, 1976). This theory claims that schools do this by using the formal language and associated behavior of the dominant culture, thus disadvantaging the students from the lower classes who are not conversant with this language and values system. In this way, they end up sorting out individuals into various occupational positions not so much by their abilities but according to their social class origins. Thus children from middle and upper class families, are expected to be able to pursue education. Such children are then directed towards professional or more prestigious careers. On the other hand, lower class children are viewed as less able and are placed in programs with lower job expectations (Bowles and Gintis, 1976). Reproduction theory also claims that dominant groups’ control on education becomes possible because they control the state, which in turn controls the production and transmission of school curriculum. In Kenya, the state controls education through several agencies. For example, Kenya Institute of Education prescribes the school curriculum, and inspects the schools to make sure that the prescribed curriculum is being followed. The Teachers Service Commission hires and fires teachers and also controls teachers’ discipline. The Kenya National Examination Council examines the students and gives them certificates on the basis of how they have mastered the prescribed curriculum. However, the state does not have absolute control of the curriculum. Students, parents, and church bodies do challenge some of the state’s decisions on curriculum, sometimes quite successfully. A good example of this is the
recent attempt by the state to introduce sex education in schools. The government was forced to withdraw it because of resistance and demonstrations from parent and church groups.

For my study therefore, this theory alone is not enough because it ignores the possibilities that exist for students to make their education and career goals outside the expectations of the dominant groups.

(ii). Resistance Theory

Some educators have argued that reproduction theory as presented by Bowles and Gintis is too simplistic in nature and does not present the whole picture of what really goes on in schools. For example, Giroux (1983), argues that,

Working class students are not merely the byproduct of capital, compliantly submitting to the dictates of authoritative teachers and schools that prepare them for a life of deadening labour. Rather schools present a contested terrain marked not only by structural and ideological contradictions but also by collectively informed resistance. (p. 260)

This is the base on which resistance theory is grounded. Thus while the proponents of reproduction theory in its pure state paint a picture of hopelessness, resistance theory implies emancipatory possibilities for the dispossessed. Resistance in schools takes different forms. Some students use violence and disruptive behaviour that results in them not benefiting from schooling. Other students use negotiation and other forms of peaceful political acts while still continuing to benefit from what the school has to offer. Resistance theory alone however, is not a sufficient enough to interpret the data from because it does not address gender issues in schooling. I believe that gender issues have to be addressed in any study that seeks to illuminate issues surrounding schooling and training for careers. It is the development of feminist theories that have attempted to address the gender aspects of school knowledge. This study therefore takes into account the argument posed by feminist theory as outlined below.
(iii). Feminist Theory

According to Stamp (1989), there are several categories of feminist theory. For example, third world feminists oppose the stand by western radical feminism that all women are oppressed the same by patriarchy. According to Stamp (1989), radical feminism does not take into account cultural diversity or historical context and experiences of different communities and societies, especially the experience of third world women. She claims that this insensitivity to cultural differences caused African women to walk out of the 1980 women conference in Copenhagen over female circumcision. Third world feminists identify with socialist feminism, which considers gender oppression together with other forms of oppression. Also, according to Jagger (1983), social feminism draws widely from cross-cultural and historical studies, which provide it with raw materials for a rigorous theory of gender relations. In addition, unlike radical feminism, this perspective recognizes that western economic conceptions are inappropriate to the third world because they are rooted in the historical experience of the development of western capitalism and do not consider the actual experiences of the third world women. Mohanty (1991), argues that,

The desire to use western values as yard sticks have produced ‘The Third World Woman’ as a singular monolithic subject, a stereo-type that has worked to her detriment.” This constructed third world woman ideology has caused the western feminists to portray the African woman as a super mother with a golden heart, and the symbol of African culture instead of showing her true experiences, both positive and negative. It does not present the struggle of the African woman “resistance’s and compliance with patriarchal structures that perpetuate their subordination” (cited in Ndunda 1995, p. 47).

Arbega-Maina (1991) points out that,

African women are not passive pawns but are engaged in making their own history, a process which is not only continuous but one where past experiences, knowledge and cultural traits are carried along. They are involved in different forms of struggle and resistance. (p. 32)
This theory however concentrates more on gender issues. Although gender is a very important issue in my study, it is not the only issue. For this reason, feminist theory alone is not enough to base my study on. It is therefore combined with the other two outlined above to illuminate this study.

HISTORICAL PERSPECTIVE.

(i). Colonial Legacy

The low representation of women in the education system can be traced to the introduction of formal education, by the missionaries, during the colonial period. Formal education was introduced in Kenya by the Missionaries in the middle of the 19th Century (Eshiwani, 1993). This education was developed by the colonial administration along gender and racial lines. There were three education systems, one for Africans, one for Asians, and one for Europeans. Education for the Africans was restrictive in that it had examinations at grade 4, grade 8, grade 10 and grade 12. At each of these grades, less than 10% of the students would be allowed to continue to the next level Mwiria (1991). Education for Africans during this period had three purposes.

(i) To provide literate Africans who could assist in translating the bible teachings for the missionaries.

(ii) To provide the settlers and the colonial officers with laborers they could communicate with.

(iii) To provide the colonial government with literate Africans who could serve as chiefs and junior clerks.

The missionaries saw men as the most suitable for their purpose because it was easier to take the boys with them from place to place without too much resistance from the parents and
without raising scandals. The settlers also saw men as the most suitable as laborers because they could move them to the plantations and keep them there for long times with minimum costs in housing and feeding. The British associated leadership with men and so all chiefs appointed were men. All these put together, dictated that education in this era be for men and not for women. Even when the boys grew up and got married, they could not bring their wives to live with them in the plantations because the housing situations and the cost of living would not allow it. The women therefore remained in the countryside where they could supplement their husband’s salaries by cultivating the land to provide the family food. In most cases, as the boys went to schools, the girls helped their mothers in the farm and in child rearing. To force the men and boys to work, the colonial government introduced taxes for every household. In some families where the men were not making enough money to pay the taxes and to live on, some girls had to be married off to provide extra cash in the form of bride price. The colonial legacy therefore gave the men head start in formal education (Eshiwani, 1993)

(ii). Post Colonial Era

When Kenya attained independence in 1963, the first priority was to train enough personnel to take over the managerial, administrative and political positions held by the colonial officers (session paper no. 10, of 1963). The emphasis at this time was Africanization of the work force. Gender inequalities that were already present in the education were not addressed. To produce the required human capital, the education system removed some of the restrictions the colonial government had put on the African education system. This included the removal of the exams at Grade 4 and Grade 10 and the amalgamation of the three education systems into one national education system (Ominde commission, 1964). In addition, primary education was made free, and building of schools was accelerated at the village level. These
measures benefited girls’ education although that was not what they were intended for. It was now easier for the parents to take both the girls and boys to school without the girls having to go far away from home and without the economic constraints that had been present in the colonial days. As a result, the ratio of girls to boys at primary level increased steadily so that by 1979, there were equal numbers of girls and boys enrolled in primary schools. This situation has remained that way since (Economic Survey, 1990, Eshiwani, 1993).

At the secondary school, however, the percentage of girls decreases progressively so that by the time they enter form one (grade 9), the percentages of girls in classrooms are quite small. Ndunda (1995) attributed these problems to the following factors;

(i) High pregnancy rates among senior primary school girls.

(ii) Cultural practices.

(iii) Poverty

(iv) High tuition and other fees at high school.

Eshiwani (1984) identified the same barriers to women’s education. This is a clear indication that the above factors have not been adequately addressed.

Ndunda associates the dropout rates due to pregnancy to the government’s policy. First, the schools are made to shy away from any topics dealing with sex and sexuality, mainly because of opposition from churches and some parents who believe that if children learn about sex they will become immoral. Even when one of the education commissions (Ndegwa commission, 1991) recommended the introduction of sex education, the government shied away from implementing the recommendation because the churches seemed to be up in arms against it. Also, when a school girl becomes pregnant, she is sent away and is not allowed back into the school system. The fear here is that the girl would become a bad role model for the
other girls in school. The blame and the consequences are therefore born by the girl. The only other person who shares some of the blame is the girl's mother who the society blames for not bringing up the girl 'properly'. The problem is made worse by the fact that abortion is illegal in Kenya and therefore, any doctor willing to risk his profession in procuring an abortion for a schoolgirl charges very high fees. Most of the girls who get pregnant in school therefore tend to carry the pregnancy through, thus terminating their education permanently. In addition, secondary schools have been raising their fees year after year. This has forced the poorer parents to decide which child goes on with school and which one drops out. This problem became highly visible when the government introduced the cost sharing policy in the schools (Kamuge report, 1985). This was done mainly due to pressure from the World Bank and donor countries that give development aid to Kenya. The World Bank especially stressed that those who benefit by education should pay for it. The result was that the government shifted the following responsibilities to the parents,

(i) Construction and maintenance of the school buildings
(ii) Buying of the exercise and text books
(iii) Paying of the activity and medical fees
(iv) Paying the salaries of the non teaching staff
(v) Paying any other money seen as necessary for the smooth running of the school.

The government would then pay the teachers and the education officers.

As the financial burden on the parents increases and the decision for some children to drop out of school becomes the norm, the girls are normally the first to drop out. This is because most parents see girls as temporary members of the family. They assume that girls will get married and go away. In some cases the girls are married off or employed as maids to
raise money to educate the boys. The boys' education is seen as a better investment as they are the ones expected to look after the parents when they grow old. Also, the diminishing sizes of family land and high levels of unemployment are forcing most of the mothers to get involved with some money making activities, mainly as small scale traders in the village markets. This means that the girls have to do the domestic chores normally done by the mothers. Examples of these jobs are; collecting firewood for cooking, fetching water for use in the house, cooking, and caring for the young. The girls therefore, have to alternate between school work and house work, thus limiting their study time. As a result the girls do not do well in school examinations. This forces many of them to drop out of school. Most of the girls who do well in school are the girls who go to boarding schools away from home. Most of these are girls from richer families who can afford the higher fees charged by such schools. It is clear here that the education system as it stands disadvantages girls at secondary school and consequently at post secondary levels.

(iii). Legacy Of Vocation Education

In Kenya, vocational education has always been hounded by its history. Sifuna (1980) traces introduction of vocational education to the settlement of freed slaves in Freretown, 10 kilometers from Mombasa, by the missionaries with assistance from the British Government. The settlement included a mission and a school. The education was vocational in nature and was aimed at,

1. Making the African an improved peasant through practical training.
2. Teaching Africans the domestic and social duties of the “coloured people”.
3. Using technical education to provide an inexpensive way of staffing mission estates and houses.
4. Providing a steady supply of planters, miners, and seamen.

This type of education seems to have spread with the colonial settlers. This is reflected in King (1977), where he argues that during colonial days, education for Africans was vocational in nature, with students indentured to follow specific basic trades. According to King, the education for Africans was limited to the level of artisans and was mainly in the building trades. The positions of craftsmen and technicians were reserved for Indian nationals under whose supervision the Africans would work. The Indian foremen (Mistri) were regarded as the master craftsmen both in industry and in the estates of the settlers, while the Africans under them were poorly paid labourers and domestic servants. This is the picture Kenyan Africans had of technical and vocational education i.e. education for labourers. They therefore longed for academic type of education given to the Europeans, who ended up in positions of managers and administrators, in the industries and later in the government departments.

After independence in 1963, the government realized that the industries and the large estates, which were still controlled by foreigners, were not willing to support the training of Africans for the higher technical positions held by the Indians. They still wanted to retain Africans as labourers and artisans. To change this situation, the new government introduced a system where it would recruit trainees for craft and technician training in government controlled institutions. In order to force industries to pay for this training and to absolve some of the trainees, the government introduced an industrial training levy. This levy was paid by every industrial enterprise in the country. The major training institutes used for this purpose were College A and the National Industrial and Vocational Training Center.

Even though most of the students who were given technical training got jobs, especially in the late seventies when white collar jobs were quite limited, most students and
parents were not willing to accept technical education. They still took it to be training for labourers. The government though seemed to believe that the solutions to the high rate of unemployment lay in vocationalizing the education system not only at post secondary but at all levels, including teaching of vocational subjects in elementary and secondary schools.

THE HARAMBEE SPIRIT AND VOCATIONAL TRAINING.

The Government has tried very hard in developing its human resources by providing opportunities for career training. The communities have assisted the government very much through the harambee spirit of self-help. This spirit has played a great role in the education of Kenyan youth by providing them with "second chance" opportunities at all levels of education and training. All the regions of Kenya however have not benefited equally because of regional disparity in both economic and political power. Those with more political and/or economic power are able to attract funding for building their own harambee based institutions to supplement the government ones. Those regions with less power have either not been able to build the institutions, or have struggling institutions with poor teaching facilities and poorly qualified teachers. They also are not able to send their youth to the government controlled institutions because of their inability to pay for these facilities and to some extent, lack of information about their role in the economy. We can conclude that, while the spirit of harambee and the recently introduced policies of cost sharing and district focus for rural development are working well with the more developed and richer areas, they have very little benefit to the less developed and poorer regions of the country. A new policy is therefore required if development is to be balanced throughout all the regions of the country.
EFFECTS OF CHANGING JOB MARKETS. ON EDUCATION AND TRAINING.

Benefits of skill training depend on the extent to which the skills are used to secure employment and to improve productivity at the work place. Skill training therefore should be made with clear understanding of the dynamics of both self and wage employment opportunities available within the country's economy now and in the future. Rubenson, (1992) has argued that there have been important changes in the work place which have resulted in economic restructuring. This restructuring has necessitated changes in employment patterns, and in job content and skill requirement. These changes in technology and methods of production are causing changes in vocational training programs, resulting in the need to expand the definitions of and the skills learned in different programs, and the need to prepare people to rapidly adjust to the ever changing demands of production. The present trend is for broader and fewer occupational categories, a decrease in need for manual skills and a corresponding increase in the conceptual content of jobs i.e. scientific, and communication skills. The changes are causing employers to seek individuals with high levels of general education, combined with good attitude towards work (Middleton et al, 1993). Institutes providing vocational training must take these changes into consideration if they are to provide the manpower required by industry. Kenya has responded to these changes by requiring that all vocational training programs include a component of entrepreneurship education (Nelson et al, 1997). However the question of who has the access to these colleges is still moderated by what subjects they took in secondary school, which depends on the ability of the secondary schools to teach the required scientific and communication skills. In the past, it was argued that girls-only schools and some mixed schools did not have the facilities to teach sciences. This study
investigates how gender and the type of school the students attend moderate their access to these colleges.

**CAREER ASPIRATIONS**

It has been argued that students' career aspirations are a reflection of what the students believe are their appropriate roles in society (Kenkel & Gage, 1983). These expectations are formed as a result of socialization by parents, teachers, peers, and the society at large. In Kenya, the influence of parents in students' career aspirations does not seem to be great. This is because most parents are not educated and as such, they do not understand the academic requirements for different careers. Eshiwani (1983) found that 74.6% of the fathers and 94.1% of the mothers of the university students in Kenya were illiterate. The percentages would have been higher had he considered the parents of high school students because ability to pay for education is a factor in determining who manages to finish high school and proceed on to university (Ndunda, 1995).

According to Kilonzo (1981), career masters in schools do not seem to affect the students' career aspirations. His study concludes that career masters in Kenya do not have the time and facilities to provide any career or psychological guidance to the students. Kilonzo associated this problem with the fact that the career masters are just regular teachers who are also carrying their full teaching loads. They only do things that must be done, like issuing students with the career forms as required by the Ministry of Education. One can not say with certainty what the students base their career choices on. We can only speculate that they base their choices on observing the social, political and economic relations of the society they live in, and also from discussing with their peers. This study will examine whether students enrolled in both certificate and diploma level of vocational training received career guidance in
their former secondary schools in order to find out whether the situation in schools has changed with time.

**GENDER EQUITY IN VOCATIONAL TRAINING PROGRAMS.**

When I joined College A in 1972 to train as a Motor Vehicle Technician, there were no women in my class. In fact there were no women in any of the engineering classes in the institution. I did not know then that it was government policy that excluded them. It was in January 1996 when I came across a government publication, which was produced in 1968 and circulated to all secondary schools and training institutions. This booklet with the title “Helping you choose a career” was signed by the then minister of education Hon. Ngala Mwendwa: and listed all the training programs available in Kenya. It also listed all the requirements for joining each program. The requirement that struck me was that of gender: 112 programs were specified as “boys-only” while only 2 were specified as girls-only. Those two were nursing and secretarial. When I joined the same institution again in 1976, to train as a technical teacher, again there were no women in my class. In the following years when I taught motor vehicle mechanics in Machakos Technical School in 1977 and 1978, and later when I trained technical teachers in the Kenya Technical Teachers College from 1982 to 1990, there were no girls in my classes. Although in these later years there were no specific gender requirements for entry into these programs, girls continue to be excluded in these programs. Perhaps the legacy of these regulations has continued to reinforce barriers that maintain women’s low participation in science and technology based career programs thus limiting their choice of career preparation programs to the very few career programs that do not require those subjects. Gender therefore is a central issue in any study involving access to education and training facilities in Kenya.
The term gender is often confused with biological sex. Gender has been defined as a social, cultural, economic, and political construction of what it means to be a boy or a girl, a man or a woman, and ascribed characteristics and behaviours to men or women, according to their biological sex (Ndunda, 1995; Eyre, 1993). This indicates that gender and sex cannot be treated the same in any research dealing with equality in education because such treatment is bound to mask some of the social aspects of gender and deal only with biological sex. Eshiwani (1984), in his study of education of women in Kenya, categorizes access to education into three categories.

(i) Equality of access which referred to the probability of women getting into the school system.

(ii) Equality of survival which referred to the probability of women staying in the school system

(iii) Equality of output which referred to the probability of women to achieve at the same level academically with men. This categorization can be extended to cover other disadvantaged groups like the students from regions disadvantaged by lack of economic and political power.

Eshiwani (1984) found out that, since Kenya's attainment of independence in 1963, the ratio of girls to boys as they enter standard one (grade 1) had been coming closer and closer so that by 1979, it became 1:1. As they progress towards high school, however, girls proportions become smaller and smaller. For example, female drop out rate at primary level in 1984 stood at 26% while that of males was only 7% (p.17). Eshiwani found a serious regional disparity in the enrolment trends. While it was true that the enrolment in some districts like Kiambu, Muranga, Machakos and Embu was 50% boys and 50% girls, others had very low women enrollment. For example, Turkana had 27%, Samburu had 29%, and Madera 19%. The
districts with the highest ratios are the economically and politically advantaged, usually with high agricultural potential, while the ones with poor women participation were the arid and semi-arid, mainly pastoral areas which were economically and politically disadvantaged. In other districts like Kilifi, Kwale, and Narok, cultural and religious factors have been cited as limiting women's access to education. United Nations Children Education Fund (1984) claimed that:

Economic realities and traditions combine to reinforce the perception that there is no benefit and often there is some potential threat in girls' acquisition of formal education. Girls' education is further constrained by comparative inaccessibility of educational facilities (p. 55).

In addition to the cultural and religious factors explained above, social class has been identified as a possible factor in limiting access to education and training to certain groups of the society (Bowles & Gintis 1976). In the Kenyan context, Eshiwani (1983) argues that social class cannot be defined in the same terms as is defined in the western culture. Eshiwani argues, that “where classes exist, they may not necessarily be based on social economic status” (p.16). Class structure in the African context is in relation to political ties, geographic region, and tribal lineage. Social economic status therefore becomes a problematic factor of analysis in research studies. Eshiwani used education level, and type of occupation the parents are engaged in, and the region a student comes from, as factors of analysis in place of class. This study uses parent’s education level rather than social economic status.

Researchers have claimed that one of the major problems in giving equal educational opportunities to women is that Kenya’s education policies do not take women into consideration (Ndunda, 1995). Ndunda associates this with the fact that the policy makers have been mainly men and the gender issues that limit women's participation in education and in the general public sphere are not addressed. There seems to be some truth in this because, since
independence, women have been poorly represented in all the policy making bodies. For example, in the 1992-1997 parliament, out of the 200 members only six were women. Also, since independence the first woman was appointed late 1995 as minister of Culture and Social Services which deals mainly with the affairs of women and children. In the 1998 government, no women ministers were appointed. Again, looking specifically at education, it seems true that policies are made by men. Analysis of the five major commissions of education shows serious under-representation of women. Ominde commission of 1965 had 13 men and one woman. Gachathi commission of 1976 had 22 men and two women. MacKay commission of 1981 had 17 men and no women. Wanjigi commission of 1983 had nine men and no women. Kamunge commission of 1988 had 16 men and two women. Ndegwa commission of 1991 had 14 men and one woman. Reading through these reports one realizes that they did not categorize gender as a factor for their discussion and that gender issues did not feature prominently in any of their reports. It is interesting to note that one of the commissions, the Ndegwa commission, recommended universal primary (elementary) education for women for the purpose of enhancing fertility control. It did not consider education for women beyond primary school. The lack of sensitivity to gender in policy making is reflected in the low women participation in all sectors of Kenya’s economy. Examples of the low representation of women in Kenya are found in the many studies done by agents like World Bank and International Labour Organization. Some examples of such studies are explained below.

Women’s Bureau/ SIDA, (1993) argued that in 1988, 92.6% of the senior civil servants (salary scale G and above) were men while most women were in job groups A to F. According to the Women’s Bureau, in 1993, only 8.2% of women civil servants were in job groups H to T, the top most grades of civil service. The list to illustrate the under-representation of women in
the senior management positions of Kenya’s economy is too extensive to include here. The problem here is how we can convince the school girls to aspire for high level technical positions when they see the limitations imposed on women by both policy and practice.

The World Bank (1989) argues that although in Kenya women form 50% of the population, in both 1988 and 1989, they only constituted 20% of the employed labour force. This report points out that most women are in the informal sector where they are active in the agriculture and in domestic labour. These findings are also reflected in Chlebowska (1990), where it is pointed out that in small hold agriculture, women do 30% of ploughing, 50% of planting, 70% of weeding, 85% of food processing and storing, and 95% of domestic work. Chlebowska’s study argues that in Kenya, almost all the food consumed by the families is produced by the women on small holding farms, in the rural areas.

In politics, in the 1992-1997 parliament, out of the 200 members only six are women. This is despite the fact that over 50% of the voters are women. Also, even those who get elected seem to be left out when higher posts are being given out. For example, since independence the first woman minister was appointed late in 1995 and was given the ministry of culture and social services, which deals mainly with the affairs of women and children.

The economic value of the work the women are concentrated in however is limited by social, political and economic factors that affect women in general. For example, improving small holder farm productivity involves many factors, which include land rights, irrigation, credit, marketing capacity, infrastructure, farm inputs like fertilizers, and the incentives available to farmers. Ability of women to acquire these is limited by the following issues. First, although in most cases the man is an immigrant worker away from home, he has the title to the land. The woman therefore cannot use the land as collateral to obtain loans for buying
better farm inputs or hiring better farming machines. Secondly, most women are so tied to their
domestic work and child rearing duties that they have no time to attend training sessions
offered by agricultural extension officers so they have no access to the latest farming
techniques. Thirdly, very many women are poorly educated such that they have problems
acquiring the information available through publications and also lack the skills needed for
borrowing money i.e., application and accounting procedures. Their farming therefore remains
traditional and labour intensive but with poor returns. Also, in many cases, women do not own
the wealth generated by their labour. For example, although women spend a lot of time tending
livestock, the animals belong to the men and any income generated from the animals is for the
men, who decide how much they apportion to the women for domestic use. The other women
in the informal sectors are small traders, selling handicrafts and agricultural produce. The few
women in the formal sector are secretaries, nurses and teachers, and about 20% are unskilled
casual workers. In contrast, in the formal sector, most men are in the high income sectors such
as manufacturing and communication technologies (ILO, 1981).

In the field of business, in developing countries, it has been pointed out that women are
concentrated in occupations traditionally seen as women’s work. For example, in Nigeria,
virtually all the owners of small firms engaged in soap making, food processing, meat selling,
and hair dressing are female (Middleton et al, 1993). Also 62% of the tailoring establishments
are female. In contrast, women own none of the metal working, construction, automobile
repair, or furniture making enterprises (Middleton et al, 1993). The problem of property
ownership makes it difficult for women to obtain credit to expand their business and to acquire
the modern equipment required to improve productivity. As a result the income these women
get from their businesses is quite limited. These countries do not seem to realize that this is not only a loss to the women but the country’s economy as a whole.

Several reasons have been advanced as to why women are under-represented in the formal labour force. One of these claims is that presently, jobs are concentrated in the technological fields. The training programs, which prepare people for these jobs demand good grades in science and mathematics. Female students generally perform well in arts subjects and poorly in mathematics and science subjects, and as a result, they are poorly represented in the training programs and eventually in the job market (Towns, 1985). Research has found this to be true for Kenya (Eshiwani, 1983).

Another reason that has been advanced is that employers are biased against women when it comes to hiring of workers in the science and technology based jobs (Kithyo, 1989). As such it is harder for women to get jobs in industry. This raises the ethical question of whether we should be encouraging girls to go into these nontraditional programs without a policy that ensures equal employment opportunities for both men and women in these fields. If one of the aspects of good empowering research is that it should not bring any harm to the participants, would the result of a study that may recommend getting girls into nontraditional occupations without guaranteeing them acceptance in the world of work be doing harm to these girls? My answer to that is that the effort to give girls more options by encouraging them to go into nontraditional trades has to be accompanied by government policies that direct government ministries and private businesses to hire a certain percentage of girls in these nontraditional trades as a requirement. This might involve the government giving tax breaks or some other financial rewards to these companies as incentives. If in the early days of independence the government successfully introduced industrial training levy to force business to train Africans
for higher level jobs, then I do not see why it can not use these strategies to impose gender equity both at training level and at the world of work.

A complex factor to deal with is that the women are made to believe that they are responsible for the care and service to the human race thus taking up the responsibility of tending the young, the weak, and the needy. This problem seems to be the one hounding the women in Kenya up to today. Kenyan women tend to train for careers that fit in this category, i.e. teachers, nurses and secretaries. They seem to see the competitive professional fields as the domain of men. The problem here is that the jobs the women are in are few and also are devalued so much that the women who perform them are kept at an economically disadvantaged position. There seems to have been a silent attempt to make women feel proud of their domesticity and to discourage them from having strong career ambitions.

SINGLE SEX VERSUS COEDUCATIONAL SCHOOLS.

Arguments have been advanced for and against both single sex schools and mixed schools. The argument for single sex schools has been based on research that showed that in coeducational schools, boys dominate classroom interactions, especially in subjects traditionally perceived as male oriented. Arnot (1983) claimed that there are three perspectives in favour of single sex schools. These perspectives are,

(i) liberal reformist perspective whose proponents argue that single sex schools help girls to develop spatial and mathematical abilities without competition from boys and gives them a broad based education. It also encourages them to consider careers in science and technology.

(ii) conservative perspective whose proponents argue that single sex schooling is very important in the adolescence years when girls and boys develop differently. This helps the women find solidarity among other women
(iii). a third perspective which claims that, within coeducational classes, academic and social relationships contribute to the subordination of girls, lowering their assessment of their academic performance but in single sex schools they perceive that women can hold power and can have access to the male dominated fields of science and technology. Vorkel & Lobonc (1981) found that girls in girls-only schools were less likely to view careers in science as exclusively for men, and are more likely to study and perform better in physical sciences. Carpenter & Hayden (1987) found that in Australia, single sex schools had definite advantages for girls' academic achievement and social influences on curricula choices than coeducational schools. In Sri Lanka, Perera (1991) found that, in coeducational schools,

(i) Boys interacted more with teachers in science than girls while in languages teachers interacted more with girls.

(ii) In science, boys received more encouragement, while in languages, girls received more encouragement.

(iii) In both sciences and languages, teachers seemed to tolerate chorus and call out answers from the boys and not from the girls.

There are other studies though that questioned the generalized application of such findings to schools across different societies and even countries with different social interaction patterns and cultural norms and values. Some of these studies even go further to show cases where mixed schools have shown more favourable aspects than single sex ones. For example, Dale (1974) concluded that mixed sex schools were more successful than single sex schools but these results were challenged by Riordan (1985) on the grounds that most of the data used in the study were attitudinal and social, not academic. Riordan singled out the finding that students prefer mixed sex schools because the emphasis on academic work and academic
successes is too strong in single sex schools. Riordan takes issue with Dale's study by arguing that it shows that coeducational schools placed less emphasis on scholarship and academic achievement and a greater emphasis on affiliation and nonacademic activities. Also, some studies have raised questions as to whether achievement effects that have been associated with each type of schools may be the result of factors other than type of school. For example, Fin et al (1979) claimed that reviewing international literature on this subject showed that the results were mixed. They claimed that other factors like exposure to non-traditional curricula, provision of academic support for learning in all disciplines, and availability of female teachers as mentors and role models may be more important in explaining the performance other than the type of school. Also, Carpenter and Hayden (1987) found that mother's level of education was a stronger factor in shaping the girls aspirations for more education and for high academic achievement than the type of school the girl attends. Other factors that have been identified as possibly influencing these results are school environment and the type of students these schools attract. For example, Lee & Lockheed (1990) found that in Nigeria, both girls and boys in single sex schools had better family background and were younger than those in coeducational schools. Single sex schools had lower student-teacher ratios than coeducational schools.

It has also been found that some schools controlled by special interest groups, do perform better than the public schools. For example, Riordan (1985) studied catholic schools and got the following findings.

(a) Males in Catholic single sex schools appear to have an advantage at least twice as great as males in Catholic mixed schools.

(b) Females in single sex Catholic schools perform twice as well as females in Catholic mixed schools.
(c). Catholic single sex schools provide a context that offers a greater emphasis on scholarship and academic concerns.

(d). Both male and female students in Catholic single sex schools are, more likely to be in college track, more likely to spend five hours or more on homework per week, and more likely to report that their school had a good to excellent quality of academic instructions, than either mixed Catholic or mixed public schools.

A more recent study, Gabin (1994) found that even when selection factors like social economic status, parental level of education, parent and student educational aspiration, race and gender, are controlled for, the academic advantages of Catholic schools do not disappear. Secondly, in public schools, even when ability tracks are not assigned, course of study decisions are uninformed. This causes the students from high social economic status background to enroll in academic tracks, whereas, low social economic status students opt for general tracks. This kind of choice leads them to lower academic achievement, post secondary achievement, and eventually, employment. She also claimed that catholic schools, do not track their students as much and even when they do, studies show that, their students still out perform their public school counterparts.

In the Kenyan context, generally, Catholic managed schools seem to have superior academic performance (Kenya education Directory, 1997). However, some public schools like Alliance boys and Alliance girls are performing just as well as the Catholic schools. This raises questions as to whether we can associate the academic performance of the Catholic managed schools on the type of management or on other factors like the selection process of the students, superior facilities, or the legacy of good performance that dates back to colonial times. It is however notable that the most of the public schools that perform well in the national
examinations are national schools while a number of the Catholic schools performing at this level are provincial schools. This leaves us wondering whether there is something about schooling that the Catholic schools do differently than the public schools. There seems to be uncertainty as to which system is best for schools to adopt. This seems to be the reason why different societies have adopted different systems. For example, Ireland and most Middle East countries (countries with high religious influence in the people's way of life) have made most of their schools single sex (Baker, et al., 1995). Japan, Thailand, and U.S.A have most of their schools coeducational. Belgium and New Zealand have taken the middle ground, balancing the single sex and coeducational schools almost at half and half.

In the Kenyan context, where both single sex and mixed sex schools exist, Eshiwani (1983) showed that both girls and boys in single sex schools were doing better academically than mixed schools. Most of the single sex schools in Kenya are the former government maintained schools whereby, all the teaching staff were paid by the government. The government also used to give these schools grants to meet all the schools recurrent running costs. Most of these schools are the former European and missionary schools which were fully established and equipped by the time Kenya got independence in 1963. As such they have far superior physical and teaching facilities. Although such categories as government maintained have been abolished such that, all the schools in Kenya now are supported by the parents, these schools are still better supported politically and attract the best teachers. It is therefore problematic to assess how much contribution to the good performances we can relate to the type of school and how much we can associate with these other factors.

In addition to the factors explained above, it should be noted that although most of these schools are national schools and are supposed to enroll the best students from the whole
country, in practice, most of the students who end up in them are from high and middle class families. The students from lower class families are excluded by the amount of money the schools levy for the maintenance of their superior social facilities like swimming pools and school bands. Because of the superior facilities, superior teachers, and the legacy of excellence these schools have, their performances in the university entrance examinations are quite superior to those of the other schools. These schools have remained elitist in nature and most of the top level leaders and managers of the country's economy are their former students. The change to the 8-4-4 system of education was expected to change this. This study will attempt to find out if this change has occurred.

Students who pass K. S.C.E. but do not have access to the government maintained schools end up in either the former government assisted schools or the former unaided harambee schools. Government assisted schools were schools established by communities after independence on harambee basis but later the government decided to assist them with government paid teachers. The community was however supposed to provide the physical and the teaching facilities, and to absorb the recurrent running costs of the school. The harambee (unaided ) schools were built and fully supported by the communities. The communities built the physical facilities, provided the teaching facilities, paid the teachers and the support staff and absorbed the recurrent running costs. These schools are normally mixed day schools. Because of the variations in social, economic, and political power of the different communities in Kenya, there is a wide regional disparity in the number and quality of both these types of schools. By the time these categories were abolished some communities had built and equipped as many schools as they needed while others were struggling any and any that they managed to built were poorly equipped. Since all the students take a national university
entrance examination, students in schools with the poor facilities normally perform poorly in these examinations. This has made it possible for some communities to educate their youth to the levels where they go on to achieve higher levels of education and consequently to become managers and administrators while others have to take up the lower levels in the county’s social and economic hierarchy. This has tended to establish and perpetuate a class system where some regions dominate others economically. Also, since some of the parents consider girls education a poorer investment compared to boys, they tend to take the boys to the better schools. They then take the girls to the former harambee schools where the girls can be day scholars, thus avoiding paying of boarding fees and keeping the girls available at home to assist the mothers in domestic chores. Also, because these schools are community controlled, it is easier for the parents to make arrangements with the school management to be paying the school fees by installments or by supplying labour or materials that the school might need. Such arrangements are not possible in the government schools, most of which are boarding and the management not so accommodating.

The fact that most girls end up in these former harambee secondary schools has its disadvantages. The major problem is the quality of education students receive in these institutions. As has been argued before, most communities cannot afford to equip the schools with adequate teaching facilities, especially the facilities needed to teach sciences and other practical subjects. Also, in order to generate enough money to keep the schools running, and still maintain the school fees low enough to be affordable by most parents, the classrooms are quite crowded. Because the secondary school curriculum is the same for all schools in Kenya, such schools, with all these problems, are forced to teach the same curriculum as the better equipped and less crowded schools. Also, in the, final year of secondary school, all the
students sit for the same examination, set and marked by the Kenya National Examination Council. The result is that these schools perform very poorly in the national examinations. Given that most of the girls end up in these schools, it means that girls in general perform poorly in the final examination. This limits their chances to compete with the boys for post secondary programs and for employment. For example, Eshiwani (1983) found that while there were 1,255 harambee schools compared to 557 government schools in the country, only 6.6% of the university population came from harambee schools. Since the universities are the major training grounds for high level management of the country's social and economic sectors, we can say that most of the students who went to the harambee schools could only end up in the lower social and economic positions.

The government has tried to force all the schools to teach the science subjects by changing the education system to the 8-4-4 system of education, which has made science and mathematics compulsory for all secondary school students. It is not clear how the former harambee schools are expected to improve performance in science subjects without funds being made available for equipping them with teaching facilities. Girls therefore who mainly go into these schools will remain excluded from science based careers, not because they can not do well in science subjects but because they do not get equal facilities to learn and practice the skills involved in mastering these subjects. In addition, Economic constraints in general limit the children from areas with less economic and political power from joining the schools with better academic performance because the student cannot pay the fees in these high cost schools. These schools charge very high fees for the maintenance of their many extra curricular activity facilities like swimming pools, school bands and elitist types of sports like rugby. Girls from the poorer communities therefore suffer double disadvantage. To overcome these
disadvantages requires a specific policy that deals with gender and regional disparity aspects of Kenya's education system in addition to other aspects of the country's development.

Girls' poor performance in science and mathematics seems to affect their participation in the university level (Economic Review, 1992) in Kenya. Eshiwani (1983), argued that most of the programs in the Kenyan universities are science and mathematics based. He therefore associated the low percentages of girls in the national universities to the girls' poor performance in these subjects. He also found that the girls who make it to the universities are concentrated in the few programs that do not need high grades in mathematics and science subjects, especially physics.

These findings are backed up by the available government statistics. Economic Survey (1992) showed that in 1992, women formed 21.9% of the total students who enrolled in the first year in all the national universities. The statistics also show that out of the total 27 programs offered in the universities only eight had women enrollment of 30% or more. Economic Survey (1997) shows that, in the 1996/1997 enrolment, female students constituted 25.3% in Nairobi University, 35.6% in Kenyatta University, 23.5% in Jomo Kenyatta University of Agriculture and Technology, 25.2% in Moi University, 33.1% in Maseno University, and 30.1% in Egerton University. It also indicated that in total, female students formed 28.8% of the Kenya's enrolment in the Kenyan Universities. The women therefore are still under-represented in the Kenyan Universities. In the national polytechnics, women are also under-represented. The 1997 enrolment records show that women constituted 28% in College A, 22% in College C, and 29% in College D (Ministry of Research, Technical Training and Technology records, 1997). Women are therefore under-represented here too. Since the national universities and the national polytechnics are the breeding ground for the influential positions
in the country, it is not surprising that women are under-represented in the higher levels of Kenya's work force.
CHAPTER THREE
METHODOLOGY AND METHODS.

INTRODUCTION.

According to Harding (1987) methodology can be defined as "the theory and analysis of how research does and should proceed". Method on the other hand, can be defined as "the technique for gathering evidence" (p. 3). Having these definitions in mind, I will deal with methodology and methods as separate topics. First I will discuss methodology as the theory which guided my collection and analysis of data. Secondly I will discuss methods as the procedure that I followed when I conducted the actual research. The methodology section is discussed under the following subsections:

1. The dilemma in presenting the voices of others.
2. The need for representation.
3. Ethics of doing qualitative research.

The methods section is discussed under the following sub-sections:

1. Selection of site
2. Selection of participants
3. Procedure for data collection
4. Procedure for data analysis
METHODOLOGY.

(I). The Dilemma In Presenting The Voices Of Others.

Salazar (1991) begins with a quote, which reads as follows,

Those anthropologists, sociologists, and historians who poke at our bones, our social systems and our past events try to tell us who we are. When we don’t read their books they think we are rejecting our heritage. So they write more books for themselves (p. 93).

This quote reflects the type of negative atmosphere those who write about cultures other than their own face. Because of unequal distribution of cultural capital, however, some cultures can only gain access to a public discursive space through an investigator who collects their voices and speaks with them, to those with power to effect change that improves the quality of their lived experience. How these voices have been represented in the past however is a subject of controversy. Crapanzano (1986) claims that the context in which the studies take place reflects a power difference between the researcher and the ‘other’ with the researcher demanding that the ‘other’ expose herself of himself. This power play results in a mistrust that causes the subject to withhold information from the researcher. This is well illustrated in Rigoberta’s (a Guatemalan woman) testimony where she says,

I am still keeping my Indian identity secret. I am keeping secrets no one should know. Not even anthropologists or intellectuals, no matter how many books they have, can find out our secrets (p. 101).

Tobin, and Davidson (1990) argue that there has been a research tradition whereby, “Westerners study non-Westerners, Whites study non-Whites, scholars study practitioners, and men study women and children” (p. 271). This practice creates suspicion as to why the researchers do not seem to study the dominant cultures or do cross-cultural studies comparing
the dominant culture and the minority cultures. Also, according to Hargreaves (1996), studies of minority cultures by scholars from the dominant cultures have been over romanticized. Hargreaves (1996) claims that some researchers choose subjects whose voices mirror the expectations of the researcher or whose views the researcher is comfortable with, then present that as the collective voice of the culture being studied. The tendency is to avoid the voices which do not fit the researchers' expected norms and might make it hard to present the culture "the way we would like to see it". To illustrate this point, Hargreaves (1996) gives an example of Louden (1991) where the researcher said that "he had found a school with the sort of friendly and informal environment he had always admired", and that he was looking for a teacher who,

shares my interest in the balance between student independence and teacher's control, who was struggling to make some changes in her teaching, and who was teaching subjects I did not know about (p. 12).

In this case then, the collective voices of teachers can not be said to be presented. What is presented here is a mirror image of the researcher's expectations of an ideal teacher.

(ii). The Need For Representation

Alcoff (1991) claims that, some feminists have labeled speaking for others as arrogant, vain, and unethical. She also claims that in feminist magazines, it is common to find authors who claim that they can only speak for themselves because to speak for others is to practice some kind of "discursive coercion and even a violence" (p. 6). Those who subscribe to this school of thought also express reservations on feminist research conducted by men and question the role of men in feminism. They also claim that questioning such a role is important when one realizes that feminism makes men feel unsafe, unsettles assumed positions, undoes given identities and creates fear. According to Smith (1991),
Men entering feminism are looked upon with suspicion, (by some feminists) a more or less illegal act of breaking and entering, entering and breaking, for which these men must be made to account. They question the extent to which this … is justified? Is it of any political use to feminism? To what extent is it wanted? (p. 33).

Jardine (1991) takes this argument further by asking,

What is it that keeps them (men) from speaking and writing about themselves, of their own positionality in the contemporary discursive field? ….. Most difficult of all is that these few men, our allies, have learned their lesson well. The actual content of their writing is rarely incorrect per se. It is almost as if they have learned a new vocabulary perfectly, but have not paid enough attention to syntax or intonation (P. 36).

Heath (1991), associates this type of argument to “radical feminism” whose problem, he claims, is “that of a jealous defense of feminist autonomy - separatism in fact, which is a scandal that any revolutionary, man or woman must surely denounce” (p.11).

To escape this dilemma, some western feminists have taken what Alcoff (1992) terms “a retreat position.” This is the position that one can only speak for him or herself and his or her personal experience. The problem here is that this argument justifies silence on issues that concern people who are oppressed or have no access to the language, resources, and space to speak for themselves, thus enforcing oppression. This is more so in the African context, especially in the rural areas, where cultural norms discourage some groups like women and children from speaking out, especially on matters concerning leadership, property ownership and economic development. There is therefore need for the people who are aware of this problem, irrespective of whether they are men or women, to work towards correcting it.

Kenyan culture is a good example of this lack of communication between different groups within the same community. Although Kenyan society is composed of many ethnic groups, many of these groups have common social norms and values that define the accepted social interactions within the society. These norms include the accepted interactions between
adults and children, women and men, among men, and among women. In many of the ethnic
groups the men and boys have an open fireplace, outside the houses. At these places, boys are
socialized on what it means to be men within their particular society. This includes accepted
ways of acquiring a wife and being able to provide for her and their children, mainly by getting
and keeping a job, establishing a business, or engaging in farming or, in some cases, hunting.
The picture of man as the head of family and provider is strongly stressed through story telling
and discussions where the father, uncle, or any other older male relatives, guide the
interactions. Girls and women are not allowed to sit with men in these areas. The women and
girls sit in the kitchen where the girls are socialized on what it means to be women within the
particular society. Most of this socialization is related to being good wives and mothers. This
segregated socialization begins at early ages so that by the time the children go to school they
have already internalized their expected future roles. Further socialization and specific aspects
of being able to perform the duties associated with adulthood are carried out during the
circumcision rituals. These rituals take several months but the actual length of time depends on
the specific ethnic group. The candidates are trained by specific experts in the society. At the
end of these rituals the candidates are allowed to marry and raise their own families.

The ethnic culture as explained above differs very much from the school culture the
children are expected to fit into when they start schooling. While in the ethnic culture there is
very little interaction between female children and adult males, or male children and female
adults, in school the children are expected to interact freely with their teachers irrespective of
their gender. This puts both the students and the teachers under pressure because they are
expected to keep switching between the two cultures, as they alternate between school and
home. This difference in cultures also makes educational research very difficult, especially
gender related research involving either adult males and young females or adult females and young males. This is the dilemma that researchers, whose studies involve both female and male students as participants, have to deal with. In this case the researchers are faced with the task of representing voices of people who are different to them due to age, education, title, gender and cultural expectations.

The need for representation is well argued by Alcoff (1992) when she points out that, it is not only the text that is written and how well it is written that matters, but also the social location of the person who writes, and for which audience. This is what determines how the message is heard and the effectiveness of the message given. In Alcoff’s words, “How what is said gets heard depends on who says it, and who says it will affect the style and language in which it is stated, which will in turn affect perceived significance” (p. 13). The message here is that there is a relationship between the text, the speaker, and the audience, which affects the effectiveness of the message being given. Good messages given by sincere speakers are sometimes not given serious hearing by the audience because of the difference in social positionality between the speaker and the audience. Roman (1993) argues that “the concept of “speaking with” conveys the possibility of shifting alliances between speakers from different unequally located groups” (p. 184). This can be seen as an argument for the researcher’s role in creating a space for dialogue between groups from different social positions.

In the African context there are many people, especially in the rural areas, who are limited by lack of education and lack of chances to interact with the people who make the policies that affect their health, their economic development, and the education of their children. In these cases then, I see a need for us as educators and researchers, not to speak for others, but to speak to and with them. The aim here is to provide a space for the silenced to
make their voices heard by those who have the power to bring about the required change, and to open up dialogue between the oppressed and those with power to effect social change. I see it as wrong for us to take retreat as a safe option and leave the disempowered to remain in their position of oppression. If we agree that change is a result of receptive listening, and that receptive listening is a function of the social location of both the speaker, the listener, and the vocabulary of the text, then retreat is not the option to take, unless we say that those who are oppressed can only free themselves by use of violence. In my opinion, violence is an option whose consequences we can not predict and should be avoided by all means. I believe that in educational research, a discourse or discourses among all the stake holders, if handled with sensitivity and respect for the individuals, groups and cultures involved is a legitimate way of bringing about change. My study, which intends to present the voices of the students of College A and College B, is based on this belief.

There is a question as to whether a single text can speak to the oppressed as well as the people in position of power or whether we need to produce multiple texts from the same research in order to speak to people in different social positions. There is a need to explore the best ways to establish dialogue between those who need help and those who have the power to effect change. This makes it necessary for the writer to take account of the politics of the context under which or within which they produce the text and the purpose it is supposed to serve. The writers should always be aware that they have a duty to protect their informants against any harm that may result due to their participation in the study. They are accountable for the texts they produce and the effect it has on the participants.

There is need for exploration of the best method to use in doing an emancipatory research; a method, which can help us change the present unfair distribution of resources and
power, and the injustice in social interactions. Such a method must recognize that, as Rich (1979) put it, “Facts are constructed as are theories and values” (p. 187). It must also recognize that there is no ‘the truth’ and the normal way things are out there. It must allow us to explore the different possibilities of making sense of the complex experiences in human lives. This is what postpositivism is all about. According to Lather (1991),

Postpositivism is marked by inquiry approaches which recognize that knowledge is socially constructed, historically embedded, and valuationally based. ... Research does not constitute a truth test ... advocacy based research has arisen a new contender for legitimacy (p. 52)

I agree with this argument on the grounds that human behaviour and experiences are too complex and too varied to be tested by the positivist methods whereby everything is expected to fit into formerly established categories with defined rules principles and boundaries. I also agree with Lather (1991) when she argues that

Theory adequate to the task of changing the world must be open-ended, non-dogmatic, speaking to and grounded in the circumstances of every day life. It must moreover be premised on a deep respect for intellectual and political capacities of the dispossessed. (p. 55)

Educational research is about understanding human behaviour with intentions of possible transformation of such behaviour to produce better teaching or learning process. Lather’s argument therefore fits well with this type of research. For research to be empowering it must treat the people researched as participants, not subjects. I find the argument presented by Heron (1981) fitting very well with Lather’s argument. Heron points out that persons as autonomous beings have a moral right to participate in decisions that claim to generate knowledge about them. Such a right protects them from being managed and manipulated. Heron (1981) points out that the moral principle of respect for persons is fully honoured when
power is shared, not only in the application, but also in the generation of knowledge. Heron also points out that, any research should provide conditions under which participants can enhance their capacity for self determination in acquiring knowledge about their conditions. This idea seems to have been applied successfully by Ndunda (1995). Her study in Kilome Kenya resulted in the formation of new self-help women groups whose aim was to make mothers agents of their daughter’s education and improve the economic positions of these mothers through their engagement in income generating projects. We can say that the research encouraged women into taking action that created the possibility of improving and transforming the mothers’ and their daughters’ social and economic conditions. This is what emancipatory research should be about. Mies (1983) argues that,

Active collective consciousness becomes possible only when women (here we can add other oppressed groups) can use their own documented, understood, and analyzed history as a ‘weapon’ in the struggle for themselves. (quoted in Ndunda, 1995, p. 45)

The argument presented above shows the power of reciprocity in emancipatory type of research. Reciprocity is a system of negotiations of meanings and power, which when handled with care, allows the researcher to move from being a stranger in the setting to a friend. This makes it easier for him or her to gather personal information from the participants. This is what Everhat (1977), recommends for an empowering research. It allows the researcher to understand the participant’s condition and to speak with the participants in order to improve their condition. Lather (1991) also argues for the use of reciprocity by noting that in addition to being used for empowerment, reciprocity can be used to build a more useful theory. Allowing for scrutiny of concepts and explanations by all involved makes theorizing collaborative which is at the heart of research that advances both emancipatory theory and empowers the researched. Although I discussed the information obtained from the participants during group
meetings with them during the individual interviews, a true reciprocity where I needed to take my final findings to the participants for verification was not possible. This was made difficult because I wrote the final text in Canada while the participants were still in Kenya. The physical distance was prohibitive for true reciprocity to take place.

It is very important for researchers to be careful that, in their effort to control the direction of the research and to maintain authorship of the final text, they do not end up imposing meanings on situations and discounting the meanings arrived at through negotiations. This would make the participants objects of research instead of making them active subjects, and empowering them to understand and change their situations. On the other hand, they should guard against what Tripp (1983) calls “participants who want to unsay their words”. A balance therefore needs to be maintained whereby the voices of the participants are heard clearly while the validity of the results is maintained. In these cases, the ethical judgment of the researcher becomes very important. On judgement, Bunda (1985) argues that,

> A judgement... concerning the correctness of action alternatives, requires the agent to hypothesize the consequences of the alternatives available, to quantify the effects of those alternatives on the members of the group (both positive and the negative effect), and then to aggregate the quantification across the members of the group. That action is appropriate which results in the greatest aggregate increase in positive effects (p. 6).

My research study takes the subjects to be active participants rather than objects of research. In my data collection, I first let the participants narrate their experiences without interruption. I then opened up a discussion in which meanings were discussed and clarified with the participants in an attempt to ensure that the voices coming out in the text were those of the participants and not my own voice. However, to check on the validity of the information given by the participants, enrolment records from the participating colleges were scrutinized. The aim here was to check whether the reports given by the participants were reflected in these
records. This section of my study utilized quantitative methodology because the records themselves were quantitative in nature. However, my study remains mainly qualitative in nature.

(iii). Ethics Of Doing Research.

Marshall & Rossman (1995) argue for sensitivity on the part of the researcher to ethical issues in research. Ethical behavior is a very important aspect of research. Flinders (1992) draws our attention to the ingredients of good ethics in research as informed consent, avoidance of harm to the participants, and confidentiality. He tells us that the participants should be given as much information as possible and a chance to accept or decline participation. They should also have the right to decline to provide information they feel is too personal for them and even to withdraw from the study altogether if they feel that they are not comfortable with the direction the research is taking. According to Tobin, et al (1990), the researcher should obtain consent of the informants without using his or her power position thus the participation should be voluntary. They add that the participants should be informed about the nature of inquiry being undertaken and how it could affect their lives in the future. Also, they should be assured of confidentiality and complete anonymity throughout the study and in the final text. In my study, this was taken care of in that the purpose of the study was explained to large groups of possible participants and only those who volunteered were interviewed. Also, it was made clear to those who volunteered that they had the right to refuse to answer any questions they were not comfortable with and even to withdraw from the study at any point if they felt that they were not comfortable in the direction it took.

Marshall and Rossman (1995) however point out that there are dilemmas that researchers face as they attempt to protect their clients. They illustrated such dilemmas with
two cases. In the first case, the researcher witnessed an incidence of police brutality. The researcher in this case,

debated the pros and cons of complying with the law and turning the officer in, risking the destruction of the study, or remaining silent in order to gain the trust of those he was observing along with leverage for later on. (p. 77)

They then contrast this case to another case in the same project whereby, another researcher who observed a police officer harassing blacks indignantly reported the event and was banned from further observation. The question here is, do researchers have responsibility to the society as a whole outside their research project? In cases like these where the research unveils some information of criminal nature, is it more ethical for the researcher to protect the research participants (in this case, the police) or the public at the risk of losing the research? This is a dilemma one needs to deal with after evaluating the seriousness of the situation.

Ethical research also involves protection of the researched from harm which might result from the information volunteered by the participant, including the harm which the participant may not be aware of. For example, information about a teacher's method of teaching or class interactions or classroom management can be used by school administration to deny the teacher promotion or scholarships which would have been available to him or her before the interaction with the researcher. It was necessary for me to be aware of this as I interviewed Heads of Departments who volunteered to take part in my study. I was aware that their views might not have been the same as those of their superiors. In order to cover them, I referred to them by pseudonyms. Consideration of the use to which information obtained from the research can be put, brings us to the need for confidentiality.

Confidentiality is supposed to protect the participants against risks of embarrassment, job related risks and any other risks harmful to the participants. Maintaining confidentiality is
not an easy task. Although researchers may use pseudonyms and coding systems, the very nature of qualitative research, which relies on thick and vivid description, makes it easy for colleagues and administrators to read into these descriptions and sometimes be able to identify the contributor of the information. This is a dilemma the researcher has to deal with. Another problem comes in situations where the researcher wants to share authorship with participants. It becomes quite difficult to anticipate the possible harm that can come out of the disclosure of the participants for the sake of co-authorship. Where co-authorship is being considered, the consequences of the disclosure of the participants should be discussed with the participants, whereby, all the possible effects of such disclosure are examined. In my study, co-authorship was not considered so it was not a problem. However, confidentiality was to be maintained. This was achieved in that the real names of the participants were not used in the data or in the text and were not available to anyone except me, and my research assistants.

Wax (1982) has taken concerns for ethical issues farther by arguing that informed consent alone is not enough and should be replaced by reciprocity whereby participants acquire active assistance from the researcher to the point of colleagueship resulting in mutual benefit and support. This seems to be what Glazer (1982) had in mind when he argued that,

In essence, reciprocity requires the careful formulation of agreement, the willingness to exchange goods and favours for information, the understanding that others may both assist us and attempt to use us for their own gains, the likelihood that we will be expected to serve as advocates and thus go beyond the requirement of putting our thoughts down on the printed page, and the necessity to share both the joy and fun, and the pain and loss of those we hope to understand (p. 68)

To me, acting as researchers as well as advocates for those we research is a very important aspect of emancipatory research, especially for participants whose access to the cultural capital is limited by policy, cultural practices, language, lack of space, and lack of
resources needed for airing their views. In order to act as an advocate for an oppressed group, it is necessary to know as much of the nature of their oppression as possible. For the participants to be free to give you the whole story it requires a relationship of colleagues not a more informed superior researcher and a consenting but inferior researched. As I did this study I was aware of this problem. First, I had a female assistant all the time when I interviewed girls either in groups or individually. I did this in order to make the girls feel free to participate in the interviews. Secondly, the girls were free to refer any information or questions to my assistant in my absence. Thirdly, I opened the interviews with general discussion where I explained my position as a student and a concerned father. Even though, I can not say that the students took me as a colleague, they seemed to be relaxed when I interviewed them. In fact, I was surprised that the girls did not take the option of discussing any issues with my female assistants in my absence. Maybe the culture is not as strong as it used to be.

Some researchers have even gone farther to recommend relational ethics which are characterized by emotional attachment to and regard for the other (Kohlberg, 1976). Noddings (1986) recommends replacing reciprocity with collaboration where the researcher becomes a co-member of the participants' immediate community. The researcher in this case becomes a friend and a confidant. It is a very good way of reciprocity where the researched get something from the researchers and the researchers get as much reliable information as possible. This level of relationship with participants is very difficult to achieve because of differences in power, position, class, gender, cultural norms and language. The usual effect of these differences is to establish a social distance between the participants and the researcher. To bridge the gap created by these differences requires the researcher to understand and be sensitive to the other's culture. They should be aware that an individual is part of a large
system and the individual’s protection must include protection of the whole system. The question of how a study can be structured such that it empowers the participants is a subject for discourse, especially in a situation where there are cultural and or political power differences.

(iv). Choice Of Methodology.

The strength of qualitative research stems from the fact that it allows data collection and analysis to go on at the same time, that is, data analysis is an on going process. This gives the researcher freedom to establish categories and themes of the inquiry as they emerge from the data. It also gives some power to the participants to control the direction the research goes, in relation to their own experiences and needs. Such freedom is not available in quantitative research where categories are fixed in advance and the researcher’s work involves fitting the data into these categories. Human behavior is not so linear and predictable as to fit neatly into previously established categories. Qualitative research, especially when based on critical inquiry, is therefore a better way of exploring human behavior. Lather (1991) supports this method, by arguing that critical inquiry inspires and guides the dispossessed in the process of cultural transformation.

Cripanzano (1986), however, explains how some of the qualitative research methods like ethnography can and have been used to misrepresent cultures of ‘the other’, leaving a long established negative legacy. He gives examples which include the negative presentation of the Mandan Indians’ O- Kee- Pa ceremony as,

the most sanguinary (bloody) rites in the annals of ethnography, an ordeal torture in which young Mandan men...were hung by raw hide passed through the skewed flesh of their shoulders and breasts from the lounges roof until they were lifeless.(p. 54)

He went on to describe a scene where one of the hanging victims of torture was,
surrounded by imps and demons ... who seemed to be concerting and devising means for his exquisite agony with one of the imps, approaching the victim in a sneering manner and commencing to turn him around with a pole gently first then increasing the speed until the victim burst out in the most lamentable and heart rendering cries that the human voice is capable of producing, crying forth to the Great Spirit to support and protect him in this dreadful trial ... continued to turn faster and faster and there is no hope of escape from it, no chance of relief, until by fainting, his voice falters, and his struggling ceases, and he hangs, apparently, a still and lifeless cope! (P. 57).

Cripanzano (1986) tells us that some of the accounts presented in this ethnographic text were proven, to be incorrect and over exaggerated for the purpose of appealing to the readers.

What these opposing claims prove is that ethnography is a tool for studying human conditions and behaviours, but like any other tool it can be used for a good purpose or for a bad one. Just as a gun can be used by a good government to protect its citizens, or by a bad government to suppress them, ethnography can be used by an insensitive researcher to suppress or misrepresent the voices of the participants. It can also be used by a sensitive researcher, to give voice to the research participants. Therefore, before we blame ethnography for the purposes and the effects of the research studies for which it has been used in the past, maybe we should consider whether the blame should be laid on the people rather than the method used in researching others. As Street (1995) observes, “Ethnography on its own is not a magic solution ... Without theoretical clarity the investigation of literacy will only reproduce our own prejudices, whatever meaning we attach to ethnography” (P. 52).

Educational research should be informed by critical theory. Critical theory is about empowerment of people whose voices have been suppressed by lack of language, resources, and/or forum for presenting their voices. According to Lather (1991),

Critical inquiry is a response to the experiences, desires, and needs of the oppressed people. Its initial step is to develop an understanding of the world view of the research participants. Central to developing such an understanding is a dialogic research design where respondents are actively involved in the construction and validation of meanings.
The purpose of this phase is to provide accounts that are basis for further analysis and a corrective to the investigators' perception regarding the subjects' life-world and experiences (p. 63).

Critical theory deals with power relations among people of different social economic class, race, religion or gender. Of more importance to educators is how these relations are reproduced in the school and what steps can be taken to induce positive change within the school system. This should be aimed at empowering students and teachers to take constructive part in the production of knowledge that shapes their lives and the relationships that guide the delivery of such knowledge to students. A subsidiary question is whether positive change in school is possible without a corresponding change in the society and in the world of work.

Critical theory requires that the research be as non-hierarchical as possible, that the researcher discloses his or her position in relation to the researched, and that the researcher make provisions for negotiating meanings and results with the participants (Eyre, 1993; Lather, 1986; Ndunda, 1995). According to Eyre (1993), non-hierarchical research takes the form of life history, action research, participatory research, experiential research, and interviews that resemble conversations. For this reason, interview questions should be open ended so that participants can express their experiences in their own words, and as fully as possible, with as little interference from the researcher as possible. The research should be flexible enough to accommodate experiences the researcher did not expect to find. Tobin, et al (1990) used what they called "polyvocal discourse" whereby, information from participants is returned to them in order to discuss meanings of words and actions obtained through observations, questionnaires or interviews. They claimed that this method can, besides giving the subjects the opportunity to present their own voices, give them opportunity to educate each other. These researchers claim that this method empowers the informants by replacing the traditional ethnographic
authority with polyvocality, and decenter the text from its authors by shifting the power of reflexivity from metadiscourse of the researcher to the understandings of the participants.

As an educator, I see the polyvocal type of research, which respects the position of every one involved, as very important in empowering the participants who have no access to the discursive space required to air their views on matters affecting them. The advantages gained by the creation of such a space, and using it to speak with the people involved are higher than the risks of the possible biases, brought about by the researchers’ social position. As I carried out this research therefore I was and have remained sensitive to and have tried to take steps to reduce the effects of my own biases. Each participant was given a chance to narrate his or her experiences without interruptions. Secondly, a discussion between the participants and myself was opened to explore any issues not fully covered and to clarify meanings of terms and/or words used by the participants in the interviews. The aim of this was to present the voices of the participants as closely as possible.

METHODS.

In this section I will present the methods I used to collect the data for answering the three specific questions of my study. These questions were,

1. What factors influence students' choices of vocational training programs?
2. Are there differences in enrollment patterns between students from mixed sex schools and those from single sex schools?
3. What criteria do the vocational institutions use when selecting students for admission into different vocational programs?

This section is divided into the following subheadings.

1. Selection of sites.
2. Selection of participants.

3. Procedure for data collection.

4. Procedure for data analysis.

   (i). Selection Of Sites

   The setting of this study was one craft training institute and one diploma college, in Kenya. For craft level colleges I chose College B because it has a large variety of both traditionally female and traditionally male programs. Also, since I knew the principal personally, I had no problem with obtaining access to the college facilities. For diploma level colleges, I chose College A because it is the most established diploma college in the country and has very many traditionally female and traditionally male programs. For this study, traditionally male programs were defined as those requiring mathematics and physics. These included engineering and building courses. Traditionally female programs were defined as those which do not require mathematics and physics. These included secretarial, clothing technology, food and beverage, and institutional management programs. The new 8-4-4 system of education made mathematics, English, and science compulsory subjects in all secondary schools. Each school can only decide whether to offer pure science, that is physics, biology and chemistry (which involve a lot of laboratory work), or to offer physical science and biological science (which are more theoretical in nature and do not need a lot of laboratory equipment and materials to teach). To check the gender differences in these subjects, therefore the students’ performance in the subjects was used, rather than their decision to take the subject or not.

   The colleges used in this study were used as case studies rather than representative samples. It should, however, be noted that all the craft colleges offer common courses, use the
same syllabus and have common externally set and externally marked examinations. They are examined by either the Kenya National Examination Council, or the Kenya Accounts and Secretaries National Examination Board. The same applies to the diploma colleges. The entry requirements, for each program, are specified by the Ministry of Research, Technical Training, and Technology. The candidates must, however, meet the minimum requirement of the examining body, otherwise, they would be barred from taking the examinations. For any given program, the requirements are the same, irrespective of the college offering the program.

(ii). Selection Of Participants.

Selection of all the participants was done on voluntary basis. For each selected college, I requested that the administration let me talk to the available students in their classrooms (the classes which were in session), and the Heads of Departments in the conference room. I explained to each group the purpose of the study and then asked them to volunteer as participants. In College A, these meetings took place on 2nd June 1997, while, in College B, they took place on 9th June 1997. I realized that it was not going to be possible to use one female assistant in both colleges so I recruited two female assistants, one for each college.

At the beginning of each group meeting, I introduced myself and my female assistant. I then read the following orienting statement to the participants. “As we begin this meeting I would like to give you some information about my project and explain to you why the project is so important to me. This study developed out of my experiences as a student in College A, and later as a technical teacher at different technical institutions including College B, Kenya Technical Teachers’ College, and in the Technology Education Department in Moi University. In all these cases I found that there was gender polarization in training programs such that female students were concentrated in very few programs that did not require high school
mathematics and physics. As a father and an educator I found this situation quite disturbing so much that when I got a chance for doing a research project I chose to address this problem.

It is my belief that you can help me address this problem by participating in this study. From the information we generate in the study, you and I will make available information that will help us and others understand the factors that maintain that polarization. Such information will be quite useful to those of us who might be called upon to further their careers or give career related opinions to our friends, our children, or, our students. At this stage I am asking those of you who volunteer for this study to go home and start reflecting on this subject so that next time we meet, we can share information on the factors involved in the enrolment of students in different programs in this college. The information that we share at any stage in this project will be used for this project only. No names or any form of identification of who supplied which information will be given to anybody else. Pseudonyms will be used wherever quotations are used anywhere in the project.” I then gave the participants a chance to ask questions. Then, I requested them to volunteer. The participants were then selected on first come first served basis. For the students, the first three boys and the first three girls in a traditionally male program, and the first three boys and the first three girls in a traditionally female program, were chosen. For the Heads of Departments, the first head of a department that had traditionally female programs and the first head of a department that had traditionally male programs, were chosen

(iii). Procedure For Data Collection.

To answer question 1, (i.e., What factors influence students’ choices of vocational training programs?), I conducted a 1 hour group interview, in College A, on 16th June 1997, with all the students I had recruited. I then repeated the same exercise in College B on 23rd
June 1997. These interviews were carried out in the presence of a female assistant. The presence of this assistant was to help in making the female students feel relaxed enough to participate freely in the interviews. The purpose of these interviews was to

(i) Establish the broad categories of the study from the students’ own concerns and general experiences.

(ii) Inform the female students that if they had any information they felt more comfortable discussing with my assistant without my presence they were free to do so either as a group or individually.

The following orienting statement was used at the start of the above meetings, “As I explained in our last meeting, this project is very important because it has the potential of illuminating career choice process in the future. I am hoping that the information obtained in this project will help students to evaluate all the available choices and all the factors involved before they make their final program choices. In addition, I am hoping that this information will help teachers and career counselors to have more information to use when helping students choose their future training programs. At this stage, I am asking you to tell us in as much detail as possible how you ended up in the program you are in now”.

I also conducted individual interviews with the participants, in February and March of 1998 so that I could get more detailed information on the individual experiences of each participant. I intended to carry out these interviews in July 1997, but this proved impossible. In 1997 an election was held in Kenya, but unlike other election years, there was serious political unrest, so much that by late June there were street battles between the police and different groups of people who wanted political change before the elections. This political unrest spilled over to the colleges. The government then decided to close the colleges in July.
For this reason, my study could not go on as scheduled. These colleges were not opened until after the elections. The elections were carried out between 29th and 31st December 1997. The colleges then opened in January 1998, but there were problems at College A because the students were demanding refund of the fees they had paid for the days that the colleges remained closed. It wasn’t until February that I could continue with my study but still under the atmosphere of student and political tension. By this time I had postponed my return to Canada twice and my return ticket was expiring soon. I had no choice therefore but to carry out the study under that atmosphere. I must say though that college administrations and the students of both College B and College A were quite cooperative under very difficult conditions.

My plan at the beginning was to interview 12 students from each of the two participating colleges as explained before. However, when I started the interview, some students came with their friends who requested to be included in the study. As a result, instead of interviewing 24 students as planned, I ended up interviewing 39 students in the order shown below.

1. Females enrolled in traditionally female diploma programs-11
2. Males enrolled in traditionally female diploma programs-3
3. Females enrolled in traditionally male diploma programs-5
4. Males enrolled in traditionally male diploma programs-4
5. Females in traditionally female craft programs-3
6. Males in traditionally female craft programs-4
7. Females in traditionally male craft programs-5
8. Males in traditionally male craft programs-4
I accepted to interview all the extra students for two reasons. First, I was aware that if I refused to interview those students brought by the selected participants, I could lose the participants too. Secondly, I thought that those new volunteers had some concerns that they wanted to share with others and needed a forum to do so. I would therefore be doing them a disservice if I denied them such a forum. As in the group interviews, the individual interviews with female students were conducted in the presence of a female assistant. As it turned out, the students seemed comfortable with me interviewing them so the assistants did not have any private interviews with the female students. In fact, the students seemed to prefer dealing with me directly, rather than my assistants, who were teachers in the colleges.

At the beginning of each of the individual interviews I read the following orienting statement to each participant. "In the last meeting, we discussed in general the factors that you thought students consider when they make their career choices. At this point, I am asking you to tell me in as much detail as you can remember all the steps you personally went through in your career choice and the factors that guided you so that you ended up choosing this particular career program. I then let the participants narrate their experiences without interference. If, however, a participant stopped for a long time I asked him or her a probing question to keep them going.

To answer question 2, (i.e., Are there differences in enrollment patterns between students from mixed sex schools and those from single sex schools?), I obtained the available enrollment records of the students enrolled in either traditionally female or traditionally male programs in the two participating colleges. I randomly chose 4 traditionally female diploma programs with total enrolment of 87 students and 3 traditionally male diploma programs with a total enrolment of 178 students. At the craft level, I chose 3 traditionally female programs with
a total enrolment of 111 students, and 6 traditionally male programs with a total enrolment of 144 students. This brings the number of the student records analyzed to 520. From these records I extracted the information relating to gender, type of high school attended, and program enrolled in.

To answer question 3, (i.e., What criteria do the vocational institutions use when selecting students for admission into different vocational programs?), I interviewed the two Heads of Departments selected from College A, and the two from College B. Those from College A were interviewed on the 11th June 1997 while those from College B were interviewed on the 13th June 1997. The purpose of these interviews was to compare the actual criteria the colleges used in recruiting their students, to the official criteria given in the government guidelines.

While the Heads of Departments from College A were interviewed separately, those from College B preferred to be interviewed together. Their argument was that the criteria used in all the departments in the college was the same since the exercise is carried out at the same time for all the departments in the college, under the chairmanship of the principal.

At the beginning of these interviews, I read the following orienting statement to each participant. "As a Head of Department I believe you have been involved in the process of admitting students for the programs run by your department. The purpose of my project is to make as much information as possible available to students who apply for these programs and the officers who admit these students so that they see how other people who had to do this went about conducting the exercise. My aim is to have a pool of information from which people involved in this exercise can draw. I am therefore requesting you to explain to me, in as much detail as possible, the steps you go through and the factors you consider when you conduct this
exercise. Please, begin from the time you decide that you are going to require new students to the time you enroll the selected students”. All the meetings and interviews conducted in this study were audio-tapped. In addition, the government documents, which lay down the criteria for student admission to the different programs, were obtained, from the college administration. These were analyzed to see if they conformed to the criteria the heads of department actually used and whether either or both the official and the actual criteria used were biased against any groups of students. It should be noted that in this study, all the participants are referred to by pseudonyms in place of their real names. The researcher is referred to as K.M:

(iv). Procedure For Data Analyzing.

The information used to answer question 1 was obtained from interviewing a sample of students enrolled in diploma programs in College A and in Craft programs in College B. This information was analyzed qualitatively in that all the audio tapes were transcribed first. The information was then sorted into common themes that emerged from this transcription. Twelve themes emerged from this data. The themes were then combined to form broader categories. These themes seemed to fit into four categories, which were used as sub-topics later in Chapter Five.

Most of the information used to answer question 2 was analyzed quantitatively, by the use of Chi-square statistics. This type of analysis was chosen because the data were categorical. The aim here was to establish whether there was a difference in enrollment patterns between students from mixed schools and those from single sex schools. The exceptions to this was the data involving academic performance by the students in mathematics, English, and in physics, which were analyzed using MANOVA, and by different types of schools which were analyzed using ANOVA.
The data used to answer question 3 was obtained by interviewing heads of departments from both College A and College B. These interviews were audio taped. To analyze this data, the tapes were transcribed and the data organized into themes. These themes emerged from the data. There were no preset themes that the data was to be fitted into. Analysis was therefore data driven. Three themes were seen to emerge from this data. These themes were used as sub-topics in Chapter Five, where the full analysis of the data is presented.
CHAPTER FOUR.
ANALYSIS OF THE QUANTITATIVE DATA.

INTRODUCTION.

This study involved the collection of both qualitative and quantitative data. The analysis of the qualitative data will be dealt with in Chapter Five. This chapter deals with the analysis of the quantitative data. These data address question two of my study, which reads as follows.

Are there differences in the enrolment patterns between students from mixed schools and those from single sex schools?

First, I explain the present enrolment patterns in the two colleges used in the study. Then I present the analysis of the effects of gender on career choices of students to answer the following:

1. Are there significant differences in career choice patterns in general, between boys and girls irrespective of the type of school they attended?

2. Are there significant differences in career choice patterns between girls and boys from single sex schools?

3. Are there significant differences in career choices between girls and boys from mixed sex schools?

I then try to find the effects of the type of school by answering the following:

1. Are there significant differences in the career choice patterns of girls from single sex schools compared to girls from mixed sex schools?

2. Are the career choice patterns of boys from single sex schools significantly different from the choice patterns of boys from mixed sex schools?
In each case, I point out whether the results found confirm or differ from the assumptions I made in Chapter One.

ENROLLMENT PATTERNS IN COLLEGES.

In this study I made the assumption that the enrollment in the two selected colleges was still segregated such that female students enrolled in the few programs that did not needed mathematics and sciences, especially physics, while male students enrolled in greater numbers in programs that need sciences. This was shown to have been true before the introduction of the 8-4-4 system of education (Eshiwani, 1984). Although Eshiwani’s study was on university students, my experience showed this segregation to have existed in the technical training programs at craft and diploma levels in the 1980s. To check whether these claims still held true, especially after the introduction of the 8-4-4 system of education, the total enrolment records of the two colleges were obtained. The enrollment of College A and College B are provided in the Table 1 and 2 respectively.
TABLE 1: COLLEGE A ENROLLMENT, MARCH 1997

<table>
<thead>
<tr>
<th>Program</th>
<th>First Year</th>
<th></th>
<th></th>
<th>Second Year</th>
<th></th>
<th></th>
<th></th>
<th>Third Year</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Applied Science</td>
<td>179</td>
<td>95</td>
<td>158</td>
<td>115</td>
<td>123</td>
<td>73</td>
<td>460</td>
<td>283</td>
<td>743</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Studies</td>
<td>129</td>
<td>127</td>
<td>80</td>
<td>93</td>
<td>74</td>
<td>74</td>
<td>283</td>
<td>294</td>
<td>577</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building &amp; Civil</td>
<td>156</td>
<td>10</td>
<td>207</td>
<td>11</td>
<td>119</td>
<td>8</td>
<td>482</td>
<td>29</td>
<td>511</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81</td>
<td>39</td>
<td>36</td>
<td>12</td>
<td>168</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical And</td>
<td>221</td>
<td>15</td>
<td>264</td>
<td>14</td>
<td>139</td>
<td>4</td>
<td>624</td>
<td>33</td>
<td>657</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronics.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphic Arts</td>
<td>168</td>
<td>80</td>
<td>99</td>
<td>58</td>
<td>40</td>
<td>18</td>
<td>307</td>
<td>156</td>
<td>463</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Management</td>
<td>26</td>
<td>140</td>
<td>33</td>
<td>130</td>
<td>29</td>
<td>63</td>
<td>88</td>
<td>333</td>
<td>421</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information And</td>
<td>46</td>
<td>34</td>
<td>59</td>
<td>33</td>
<td>54</td>
<td>36</td>
<td>159</td>
<td>103</td>
<td>262</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal Sciences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>162</td>
<td>2</td>
<td>246</td>
<td>2</td>
<td>201</td>
<td>5</td>
<td>609</td>
<td>9</td>
<td>618</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey And Mapping</td>
<td>83</td>
<td>14</td>
<td>103</td>
<td>29</td>
<td>92</td>
<td>13</td>
<td>278</td>
<td>56</td>
<td>334</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1170</td>
<td>517</td>
<td>1330</td>
<td>524</td>
<td>907</td>
<td>306</td>
<td>3407</td>
<td>1347</td>
<td>4754</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE 2: COLLEGE B ENROLMENT, MARCH 1997

<table>
<thead>
<tr>
<th>Career Programs</th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Sub Totals</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
</tr>
<tr>
<td>Electrical Craft.</td>
<td>18  3</td>
<td>16  1</td>
<td>17  0</td>
<td>51  4</td>
<td>55</td>
</tr>
<tr>
<td>Electrical Diploma.</td>
<td>0   0</td>
<td>8   1</td>
<td>10  3</td>
<td>18  4</td>
<td>22</td>
</tr>
<tr>
<td>Motor Mechanics</td>
<td>23  1</td>
<td>23  0</td>
<td>14  1</td>
<td>60  2</td>
<td>62</td>
</tr>
<tr>
<td>Mechanical Craft</td>
<td>21  0</td>
<td>17  0</td>
<td>12  2</td>
<td>50  2</td>
<td>52</td>
</tr>
<tr>
<td>Welding &amp; Fabrication Craft</td>
<td>16  0</td>
<td>0   0</td>
<td>0   0</td>
<td>16  0</td>
<td>16</td>
</tr>
<tr>
<td>Carpentry &amp; Joinery Craft</td>
<td>3   0</td>
<td>5   0</td>
<td>4   2</td>
<td>12  2</td>
<td>14</td>
</tr>
<tr>
<td>Masonry Craft</td>
<td>5   0</td>
<td>7   0</td>
<td>5   0</td>
<td>17  0</td>
<td>17</td>
</tr>
<tr>
<td>Clothing Craft</td>
<td>1   18</td>
<td>0   25</td>
<td>1   15</td>
<td>2   58</td>
<td>60</td>
</tr>
<tr>
<td>Clothing Diploma.</td>
<td>0   0</td>
<td>0   0</td>
<td>0   0</td>
<td>0   0</td>
<td>0</td>
</tr>
<tr>
<td>Food &amp; Beverage Craft</td>
<td>5   30</td>
<td>5   15</td>
<td>1   21</td>
<td>11  66</td>
<td>77</td>
</tr>
<tr>
<td>Food &amp; Beverage Diploma.</td>
<td>2   12</td>
<td>0   0</td>
<td>0   0</td>
<td>2   12</td>
<td>14</td>
</tr>
<tr>
<td>Secretarial Craft</td>
<td>0   25</td>
<td>0   0</td>
<td>1   13</td>
<td>1   38</td>
<td>39</td>
</tr>
<tr>
<td>Secretarial Diploma</td>
<td>2   29</td>
<td>1   23</td>
<td>0   22</td>
<td>3   74</td>
<td>77</td>
</tr>
<tr>
<td>Marketing Craft</td>
<td>8   23</td>
<td>11  12</td>
<td>10  13</td>
<td>29  48</td>
<td>77</td>
</tr>
<tr>
<td>Marketing Diploma.</td>
<td>0   0</td>
<td>0   0</td>
<td>0   0</td>
<td>0   0</td>
<td>0</td>
</tr>
<tr>
<td>K.A.T.C Intermediate</td>
<td>13  11</td>
<td>0   0</td>
<td>0   0</td>
<td>13  11</td>
<td>24</td>
</tr>
<tr>
<td>K.A.T.C Final</td>
<td>12  5</td>
<td>0   0</td>
<td>0   0</td>
<td>12  5</td>
<td>17</td>
</tr>
<tr>
<td>C.P.A. 1</td>
<td>2   3</td>
<td>0   0</td>
<td>0   0</td>
<td>2   3</td>
<td>5</td>
</tr>
<tr>
<td>Gender Total</td>
<td>131  160</td>
<td>93  77</td>
<td>75  92</td>
<td>299 329</td>
<td>628</td>
</tr>
</tbody>
</table>

Note:

C.P.A. 1 = Certified Public Accountants stage one.

The government records did not include data about the high schools the students attended and the homes the students came from. To obtain these records, it was necessary to go to the students themselves. It was not possible to go to all the students so a sample was used.

In this regard, I obtained the available enrollment records of the students enrolled in either traditionally female or traditionally male programs in the two participating colleges. At diploma level, I chose 87 students enrolled in four traditionally female programs, and 178 students enrolled in 3 traditionally male programs. At craft level, I chose 144 students enrolled in 6 traditionally male programs and 111 students enrolled in 3 traditionally female programs.
The total number of students surveyed was 520. Because of the small numbers involved in some of these programs, the programs were combined into two categories as shown below.

1. Traditionally female programs.
2. Traditionally male programs.

As explained in Chapter Three, the criteria used to group these programs was that those programs that required mathematics and physics were categorized as traditionally male while those which did not require these subjects were categorized as traditionally female programs. This categorization was made in view of the claim found in the literature review that one of the major causes of career polarization along gender lines is that girls avoid or perform badly in mathematics and science subjects, especially physics (Towns, 1985). The Literature reviewed in Chapter Two identified teachers' classroom practices as a factor in students' academic performance. In mixed schools, teachers seem to concentrate on the male students when teaching the science subjects and on female students when teaching languages (Anort, 1983). As a result boys tend to score better grades in science while girls score better grades in languages (Towns, 1985).

**EFFECTS OF GENDER ON ENROLMENT PATTERNS.**

The first step in the analysis of the data was to check whether the difference in the patterns of enrollment between the girls and boys in my sample was statistically significant. A cross tabulation analysis was done between the students' gender (with two levels, female and male), and the program the students took, (with two levels, traditionally female programs and traditionally male programs). For College A the sample included 80 female and 7 male students from traditionally female programs, and 31 female and 147 male students from traditionally male programs. For College B the sample included 96 female and 15 male
students enrolled in traditionally female programs, and 9 female and 135 male students enrolled in traditionally male programs. The output was layered by the colleges the students were attending. The reason for this layering was to find out if there was a need for the colleges to be analyzed separately. For College A, gender was found to be significantly related to career choice (Pearson’s $X^2(1, N=265)=133.38$, $p=0.00$). For College B, gender and career choice were also found to be related (Pearson’s $X^2 (1, N=255)=166.61$, $p=0.00$). The results are presented in Tables 3 and 4 below.

**TABLE 3: FREQUENCY TABLE SHOWING THE RELATIONSHIP BETWEEN GENDER AND ENROLMENT PATTERNS.**

<table>
<thead>
<tr>
<th>College</th>
<th>Gender</th>
<th>Type of program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Traditionally female</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Traditionally male</td>
<td></td>
</tr>
<tr>
<td>College A</td>
<td>Female</td>
<td>80</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>7</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87</td>
<td>178</td>
</tr>
<tr>
<td>College B</td>
<td>Female</td>
<td>96</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>15</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>111</td>
<td>144</td>
</tr>
</tbody>
</table>

**TABLE 4: CHI SQUARE TEST FOR THE RELATIONSHIP BETWEEN GENDER AND ENROLLMENT PATTERNS.**

<table>
<thead>
<tr>
<th>College name</th>
<th>Chi square</th>
<th>d.f</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>College A</td>
<td>133.383</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>College B</td>
<td>166.605</td>
<td>1</td>
<td>0.00</td>
</tr>
</tbody>
</table>
These results showed that the enrolment patterns in both colleges were similar, (ie, gender was significantly related to enrollment patterns). It was therefore not necessary to analyze each college separately. It was also clear from these results that in spite of the change to the 8-4-4 system of education, students in these two colleges still chose their careers along gender lines. These results confirmed that there was need to investigate the factors that maintained gender polarization in the training programs offered in craft level and diploma level colleges in Kenya. This was important especially in view of the argument posed in Eshiwani (1985) that programs at the national universities were polarized on gender lines. Since 8-4-4 was expected to give equal access to all programs for all students it is important to find out why this did not happen.

**EFFECTS OF SCHOOL TYPE ON ENROLMENT PATTERNS.**

After confirming that the programs in the technical colleges were still polarized along gender lines, I proceeded to answer the quantitative question the study was supposed to address, i.e. whether there was a difference in career choice patterns between students from mixed schools and students from single sex schools. To test this, the data relating to the gender of each student and the program the student was enrolled in were extracted from the sample data explained above. Cross tabulation of gender (with two levels, female and male) against the type of program each student chose (with two levels, traditionally female programs and traditionally male programs) were run. For single sex schools the sample included 158 female and 15 male students enrolled in traditionally female programs, and 37 female and 176 male students enrolled in traditionally male programs. For mixed sex schools the sample included 18 female and 7 male students enrolled in traditionally female programs, and 3 female and 106 male students enrolled in traditionally male programs. Chi square statistics were then used to
see if there was a significant relationship between the genders of the student and the programs the students chose. The output was layered by the type of school the students attended (with two levels, single sex schools and mixed sex schools). For single sex schools, gender was found to be significantly related to career choices (Pearson’s $X^2 (1, N=386)=208.90, p=0.00$). Also, for mixed schools, gender was found to be significantly related to career choices Pearson’s $X^2 (1, N=134)=73.79, p=0.00$. These results are presented in Tables 5 and 6 below.

**TABLE 5: FREQUENCY TABLE SHOWING THE RELATIONSHIP BETWEEN PROGRAM CHOICES AND GENDER.**

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Gender</th>
<th>Type of program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Traditionally female</td>
<td>Traditionally male</td>
</tr>
<tr>
<td>Single sex</td>
<td>Female</td>
<td>158</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>15</td>
<td>176</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>173</td>
<td>213</td>
</tr>
<tr>
<td>Mixed sex</td>
<td>Female</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>7</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>25</td>
<td>109</td>
</tr>
</tbody>
</table>

**TABLE 6: CHI SQUARE TEST FOR THE RELATIONSHIP BETWEEN PROGRAM CHOICE AND GENDER.**

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Chi square</th>
<th>d.f</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single sex</td>
<td>208.892</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>Mixed sex</td>
<td>73.788</td>
<td>1</td>
<td>0.00</td>
</tr>
</tbody>
</table>

These results were contrary to my assumption that, in single sex schools, career choices of students would be diversified to include non-traditional careers for their sex. If this
had happened then, there would have been no significant differences between the choices
made by girls and those made by boys who attended this type of school. The results,
however, supported my assumption that, in mixed schools, boys' program choices would
differ from those of girls. The reasons behind these assumptions are explained in Chapter
Three.

The next step was to check whether there were differences in career choices between
students of the same sex who went to different types of schools. Cross-tabulation was done
between the type of schools (with two levels, single sex schools and mixed sex schools), and
program (with two levels, traditionally female programs and traditionally male programs). The
sample included 158 female from single sex schools and 18 female students from mixed sex
schools enrolled in traditionally female programs, and 37 females from single sex and 3
females from mixed sex schools enrolled in traditionally male programs. The sample also
included 15 males from single sex schools and 7 males from mixed schools enrolled in
traditionally female programs, and 176 males from single sex schools and 106 males enrolled
in traditionally male programs. The output was layered by gender (with two levels, female and
male students). For girls, the results showed that type of school was not related to the choice of
career (Pearson's $X^2$ (1, N=216)=0.276, p=0.599. For boys also, the type of school attended
did not seem to be related to career choice (Pearson's $X^2$ (1, N=304)=0.291, p=0.590.)
These results are presented in Tables 7 and 8 below.

**TABLE 7: FREQUENCY TABLE SHOWING THE RELATIONSHIP BETWEEN PROGRAM CHOICE AND TYPE OF SCHOOL THE STUDENTS ATTENDED.**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Type of school</th>
<th>Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Traditionally female</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Traditionally male</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Single sex</td>
<td>158</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>176</td>
<td>40</td>
</tr>
<tr>
<td>Males</td>
<td>Single sex</td>
<td>15</td>
<td>176</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>7</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22</td>
<td>282</td>
</tr>
</tbody>
</table>

**TABLE 8: CHI SQUARE TEST FOR THE RELATIONSHIP BETWEEN PROGRAM CHOICES AND TYPE OF SCHOOL THE STUDENTS ATTENDED.**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Chi square</th>
<th>d.f</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female students</td>
<td>.276</td>
<td>1</td>
<td>.599</td>
</tr>
<tr>
<td>Male students</td>
<td>.291</td>
<td>1</td>
<td>.590</td>
</tr>
</tbody>
</table>

For female students, these results were contrary to my assumption as stated in Chapter One, and also contrary to the arguments advanced in the literature review that girls in single sex schools are socialized to believe that all types of jobs are available to them (Arnot 1983). These results support my assumption that boys choices would not be affected by the type of school they attended because even in mixed schools they were said to dominate the learning process and to benefit more from this process than the girls.
From these tables, a table showing the girls and boys from different types of schools, who chose non-traditional programs for their sex were constructed. The resultant table is shown as Table 9 below.

**TABLE 9: FREQUENCY TABLE SHOWING THE STUDENTS WHO CHOSE NON-TRADITIONAL PROGRAMS AND THE TYPE OF SCHOOLS THEY ATTENDED.**

<table>
<thead>
<tr>
<th></th>
<th>BOYS</th>
<th>GIRLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE SEX</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>MIXED SEX</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

From the above tables, it can be noted that, Contrary to expectations, more girls than boys chose non-traditional programs, i.e. 20% of the girls from single sex schools and 14% from mixed schools as compare to 8% boys from single sex schools and 6% from mixed schools. The reason behind these results may be that more girls are attempting to gain access to the more prestigious male dominated jobs.

It should be noted that boys and girls from single sex schools, who were enrolled in these programs were almost equal, i.e. 195 girls to 191 boys. However, from mixed schools only 21 girls compared to 113 boys were enrolled. This raised questions as to why the girls from mixed schools were under-represented compared to girls from girls-only schools. Was it because girls in mixed schools were academically disadvantaged as claimed in the studies reviewed in chapter 2 (Arnot, 1983, Vorkel & Lobonc, 1981, Carpenter & Hayden, 1987, Perera, 1991)? This is a question that needs attention.

**ACADEMIC PERFORMANCE.**

One of the factors that separated traditionally female programs from traditionally male programs in the 1980’s was that boys performed better than girls in science and mathematics while girls outperform boys in languages. If this claim still held true, it might partially explain the continued polarization of the program choices along gender lines. The language used for
instructions in Kenya is English. To check this, I used multivariate analysis to compare the performance of girls and boys from different types of schools in mathematics, physics and English.

The MANOVA showed that there was no significant relationship between performance in different subjects and type of school attended, Wilks’ $\Lambda=0.986$, $F(3,514)=2.42$, $p=0.065$. However, gender was significantly related to performance, Wilks’ $\Lambda=0.914$, $F(3,514)=16.050$, $p=0.00$. There was no interaction found between gender and type of school, Wilks’ $\Lambda=0.993$, $F(3,514)=1.98$, $p=0.310$.

The between subject results showed that there was a significant difference between the performance of the boys and girls in mathematics $F(1,520)=17.916$, $p=0.00$ and in physics $F(1,520)=28.377$, $p=0.00$. Inspection of the means showed that the results supported my assumption that boys would outperform girls in both these subjects. In English however, no significant difference was found $F(1,520)=2.541$, $p=0.112$. These results were contrary to my assumption that girls would outperform boys in English. It can therefore be assumed here that boys had more access to the traditionally female programs. However, as shown in previous results they did not seem to enter those programs in great numbers. It seemed as though there were other factors operating here.

No significant differences were found in the performance of students from mixed schools and single sex schools in English $F(1,520)=3.793$, $p=0.052$, and in Physics $F(1,520)=0.175$, $p=0.676$. This was contrary to my assumption that students from mixed schools would have more diversified grades than the students from mixed schools (Arnot, 1983). In Mathematics however there was a slightly significant difference $F(1,520)=4.544$, $p=0.033$. No significant interaction was found between gender and type of school in
mathematics $F(1,520)=2.391$, $p=0.123$, in physics $F(1,520)=3.026$, $p=0.083$, or in English $F(1,520)=0.192$, $p=0.661$.

These results are shown in the Table 10 and 11 below.

**TABLE 10: DESCRIPTIVE STATISTICS FOR THE RELATIONSHIP BETWEEN ACADEMIC PERFORMANCE AND THE TYPES OF SCHOOLS ATTENDED.**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Type of school</th>
<th>Mean</th>
<th>Std deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Single sex</td>
<td>3.24</td>
<td>2.04</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>3.05</td>
<td>1.94</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.22</td>
<td>2.02</td>
<td>216</td>
</tr>
<tr>
<td>Males</td>
<td>Single sex</td>
<td>5.09</td>
<td>2.85</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>3.91</td>
<td>2.63</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.65</td>
<td>2.82</td>
<td>304</td>
</tr>
<tr>
<td>Total</td>
<td>Single sex</td>
<td>4.16</td>
<td>2.64</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>3.78</td>
<td>2.54</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.06</td>
<td>2.62</td>
<td>520</td>
</tr>
<tr>
<td><strong>Physics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Single sex</td>
<td>3.03</td>
<td>2.60</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>3.48</td>
<td>2.75</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.07</td>
<td>2.61</td>
<td>216</td>
</tr>
<tr>
<td>Male</td>
<td>Single sex</td>
<td>5.43</td>
<td>2.68</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>4.70</td>
<td>2.61</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.16</td>
<td>2.68</td>
<td>304</td>
</tr>
<tr>
<td>Total</td>
<td>Single sex</td>
<td>4.22</td>
<td>2.90</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>4.51</td>
<td>2.66</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.29</td>
<td>2.84</td>
<td>520</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Single sex</td>
<td>6.02</td>
<td>2.48</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>5.57</td>
<td>2.38</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.97</td>
<td>2.47</td>
<td>216</td>
</tr>
<tr>
<td>Male</td>
<td>Single sex</td>
<td>5.68</td>
<td>2.17</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>4.97</td>
<td>2.04</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.41</td>
<td>2.15</td>
<td>304</td>
</tr>
<tr>
<td>Total</td>
<td>Single sex</td>
<td>5.85</td>
<td>2.34</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>Mixed sex</td>
<td>5.07</td>
<td>2.10</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.65</td>
<td>2.30</td>
<td>520</td>
</tr>
</tbody>
</table>
TABLE 11: TEST RESULTS FOR THE RELATIONSHIP BETWEEN ACADEMIC PERFORMANCE, GENDER, AND THE TYPES OF SCHOOLS ATTENDED.

<table>
<thead>
<tr>
<th>source</th>
<th>Dependant Variable</th>
<th>Sums of Squares</th>
<th>d.f</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Mathematics</td>
<td>110.882</td>
<td>1</td>
<td>110.882</td>
<td>17.916</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>197.363</td>
<td>1</td>
<td>197.363</td>
<td>28.377</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>13.164</td>
<td>1</td>
<td>13.164</td>
<td>2.541</td>
<td>0.112</td>
</tr>
<tr>
<td>Type of school</td>
<td>Mathematics</td>
<td>28.125</td>
<td>1</td>
<td>28.125</td>
<td>4.544</td>
<td>0.033</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>1.214</td>
<td>1</td>
<td>1.214</td>
<td>0.175</td>
<td>0.676</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>19.647</td>
<td>1</td>
<td>19.647</td>
<td>3.793</td>
<td>0.059</td>
</tr>
<tr>
<td>Gender/type</td>
<td>Mathematics</td>
<td>14.1797</td>
<td>1</td>
<td>14.1797</td>
<td>2.391</td>
<td>0.123</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>21.046</td>
<td>1</td>
<td>21.046</td>
<td>3.026</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>0.996</td>
<td>1</td>
<td>0.996</td>
<td>0.192</td>
<td>0.661</td>
</tr>
<tr>
<td>Error</td>
<td>Mathematics</td>
<td>3193.520</td>
<td>516</td>
<td>6.189</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>3588.812</td>
<td>516</td>
<td>6.955</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>2672.891</td>
<td>516</td>
<td>5.180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Mathematics</td>
<td>12116.000</td>
<td>520</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>13764.000</td>
<td>520</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>19328.000</td>
<td>520</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be concluded that gender had more of an effect on student performance than type of school for the students who made it to the technical colleges. However, the number of girls from mixed schools who enrolled in the sampled programs was quite small (21) compared to the number of boys from the same schools (113). This might mean that girls from these schools had poor general performance such that they were eliminated at the time of admission. It should also be noted that in general, the total number of students in these programs who came from mixed sex schools is quite small (i.e. 134 out of 520) students surveyed. This prompted me to check for the proportions of the three different types of schools in the Kenyan school system. To do this, I obtained the list of all secondary schools in Kenya. I then constructed a frequency table showing the numbers and percentages of each type of school.
The resultant table was as shown in Table 12 below.

TABLE 12: THE THREE TYPES OF SCHOOLS AS PROPORTIONS OF ALL THE SCHOOLS IN KENYA.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys only</td>
<td>291</td>
<td>12.2</td>
</tr>
<tr>
<td>Girls only</td>
<td>378</td>
<td>15.9</td>
</tr>
<tr>
<td>Mixed sex</td>
<td>1710</td>
<td>71.9</td>
</tr>
</tbody>
</table>

From this table it was noted that about 72% of all the schools in Kenya were mixed schools yet only 134 out of 520, that is about 26%, of students enrolled in the programs in this study came from mixed schools. The same trend had been reported for university programs where only about 7% of the university students came from the nearly 1,300 harambee schools which form the bulk of mixed schools in Kenya, as compared to about 93% of the students coming from the 557 schools that were classified as government schools, mainly the single sex schools (see Eshiwani 1983). This calls to question the academic performance of students in the mixed schools in Kenya in general.

This question becomes clearer when the schools reported as performing at the top 100 in the last five years are examined. When these schools are put into the school type category, their proportions are as shown in the Table 13 below.

<table>
<thead>
<tr>
<th>Type of schools</th>
<th>The examination year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys only</td>
<td>63</td>
</tr>
<tr>
<td>Girls only</td>
<td>30</td>
</tr>
<tr>
<td>Mixed sex</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

It can be noted here that mixed schools account for less than 7.6% of the top 100 schools academically in the last 5 years i.e. 1992-1997 combined. This is a very poor performance, especially when one realizes that this category forms 72% of Kenya’s secondary schools. This prompted me to compare the K.C.S.E performances of the different types of secondary schools in Kenya (i.e. girls-only, boys-only and mixed schools). The idea was to see if there were any significant differences in their performances, which might explain the under-representation of the mixed schools in these colleges. To do this I obtained the results of all the schools that took the Kenya Certificate of Secondary examination in 1997. I then used Univariate ANOVA statistics to compare their mean grades. The dependent variable was mean grade (with one level), while the independent variable was school type (with three levels, girls-only schools, boys-only schools and mixed sex schools). The ANOVA indicated that there were significant differences among the three types of schools \( F(2, 2170) = 329.44, p = 0.00 \). Examination of the means showed that students from boys-only schools performed best with a
mean of 5.70. Students from girls-only schools came second with a mean of 5.25. Mixed schools came a distance third with a mean of 4.20.

These results are illustrated in Table 14 and 15 below.

TABLE 14: DESCRIPTIVE STATISTICS SHOWING THE DIFFERENCES IN GENERAL ACADEMIC PERFORMANCES OF THE THREE TYPE OF SECONDARY SCHOOL IN KENYA.

<table>
<thead>
<tr>
<th>School type</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys only</td>
<td>5.6964</td>
<td>1.3993</td>
<td>282</td>
</tr>
<tr>
<td>Girls only</td>
<td>5.2484</td>
<td>1.4344</td>
<td>336</td>
</tr>
<tr>
<td>Mixed sex</td>
<td>4.1877</td>
<td>0.8762</td>
<td>1555</td>
</tr>
<tr>
<td>Total</td>
<td>4.5475</td>
<td>1.2083</td>
<td>2173</td>
</tr>
</tbody>
</table>

TABLE 15: UNIVARIATE ANOVA TEST FOR THE DIFFERENCES IN ACADEMIC PERFORMANCES OF THE THREE DIFFERENT TYPES OF SCHOOLS IN KENYA.

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>d.f</th>
<th>Mean square</th>
<th>F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of school</td>
<td>738.595</td>
<td>2</td>
<td>369.297</td>
<td>329.444</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>2432.509</td>
<td>2170</td>
<td>1.121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48108.801</td>
<td>2173</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These performance differences may have a relationship with the under-representation of students from mixed schools in these colleges. However, of the 134 students from mixed schools, only 21 were girls. This problem needs further investigation.

SUMMARY

In summary, we can say that there was no significant relationship between the type of training program a student chose and the type of secondary school the student attended (ie single sex school or mixed sex school). However, this study found that there was a significant relationship between gender and the programs the students chose. Female
students chose programs that were traditionally female dominated (ie secretarial and food and beverage programs), while male students chose programs that were traditionally male dominated (ie building and engineering programs). However, it was noted that both male and female students from mixed schools were under represented in these colleges. Only 134 students had attended mixed secondary schools while 386 had attended single sex secondary schools. The situation was more critical for girls. Only 21 girls had attended mixed schools while 195 girls had attended single sex schools. This was in spite of the fact that 72% of all secondary schools in Kenya are mixed sex schools. One finding that raises curiosity was that the mean grade of all the students from mixed sex schools who took the Kenya certificate of Secondary Education in Kenya in 1997 was 4.20. Those from girls only had a mean grade of 5.20 while those from boys only schools had a mean grade of 5.70. This study concluded that there were some factors in the mixed schools that affected the academic performances of students thus limiting their access to further education. A more comprehensive study, which targets the whole environment of mixed schools, is therefore needed to find out what these factors are.
CHAPTER FIVE
ANALYSIS OF THE QUALITATIVE DATA.

INTRODUCTION.

Data used to address question one and question three were obtained from the comments made by the participants in unstructured interviews. The data for these questions were analyzed qualitatively such that the interview tapes were transcribed and for each question the emerging themes were identified. The themes that seemed related were grouped together to form categories.

The first question was as follows.

What factors influence students’ choice of vocational training programs?

This question was answered using data from interviewing 22 college students enrolled in diploma programs in College A and 17 students enrolled in craft programs in College B. As I explained before, my intention was to interview 12 students from each college but there were students who felt strongly that their voices should be heard. I felt that it was unfair to deny these students the chance to participate in the study so I interviewed them also. This increased the participants by 15 students. The audio tapes from these interviews were transcribed. 12 themes were identified as the ones students considered when they chose their training programs. These themes were grouped into four categories. These categories were

1. School environment
2. Home environment
4. Workplace environment
Each of these categories is explained separately to show how it shaped the student's choice of training program.

SCHOOL ENVIRONMENT

From the students interviews I identified several factors related to the secondary school the students attended. These factors are explained below.

(i). Lack Of Facilities In The Schools The Students Came From.

Lack of facilities seemed to be more of a factor for students from girls-only schools and mixed schools. No student from boys-only schools mentioned this as a factor. This factor has some history to it. Since colonial days, in most African countries, girls were not expected to take science based programs (Lee & Lockheed, 1990, Eshiwani, 1985). As such, the girls-only schools were not equipped with facilities for teaching science subjects. At independence, the emphasis in education was on the Africanization of jobs. No serious efforts were made to change this gender imbalance in either education or in the work place. Also, as explained in Chapter Two, most girls ended up in the former harambee secondary schools, which lacked science facilities. Since the 8-4-4 system of education made science subjects compulsory, each school has been forced to teach these subjects. However, since the parents of each school and the community in which the school is located has to provide the teaching facilities, the quality of those facilities depends on the economic and political power the region enjoys. The schools from the poorer regions offer general science, (i.e. physical sciences as a single subject and biological science) as a single subject while those in richer areas offer pure sciences, (i.e. physics, chemistry, and biology) as separate subjects. The pure sciences are more comprehensive because they include more laboratory work. More boys than girls take pure sciences. For example, in 1995 form four examination, 19% of the female candidates took
pure science as compared to 35% of the male candidates. It is possible that students who take pure sciences feel more comfortable taking engineering courses.

The 8-4-4 system of education also introduces special practical subjects to be offered in secondary schools. The schools have a choice as to which of these practical courses they offer. Judging from what the students I interviewed said, it seems like the secondary schools offer these courses along gender lines such that the girls-only schools do not offer technology based courses like drawing and design, and/or introductory engineering programs in mechanical or building trades. Instead they offer home science, and secretarial subjects. Although these subjects are not listed as requirements for enrollment into any of the programs in the vocational training colleges, it seems as though the students take them to be required by any one who wants to succeed in certain career programs. This came out clearly in what most of the students, especially girls, had to say. For example, Anyonje’s choice of careers was limited to what was available in the secondary school she attended. This is how she put it.

Anyonje: You see that right from the start in the school that I was, that is (name of school) Girls High School, the special subjects we were given were agriculture, home-science and French. I specialized in home science so you find that my career is based on home-science. Although previously I thought of secretarial or teaching, I preferred to do textiles and clothing because of the home-science I had done. But you know here people make choices because somebody has told you, you are going to do this so you do it. Sometimes you find that in schools, for instance where I was, we didn’t have subjects like technical drawing or art and craft so you can not do any other thing, you have to specialize in somewhere you have had a base in. ... Actually, right from primary school, I like arts and any other kind of drawing. For example, right now I know, I can even draw a house. But, because I went to a high school without these subjects, I had to choose clothing because I did not have options.

Maybe if she had been exposed to a broader range of courses, she would have chosen something else.

Cheptoo would definitely have chosen a different program had she been exposed to more subjects in her school. When fine art was introduced in her school she was already
graduating. If it had been introduced earlier, She would have taken it. This is what she had to say.

Cheptoo: I can’t say that there is something that made me have interest in whatever I am doing. I was in (name of school) Girls High School where there was home-science. Art was introduced, that is fine art, when I was in form four. Actually it was introduced in form one. I wanted to do it, that is fine art, but I didn’t take it because I was in form four.

The historical differences in curriculum between girls and boys schools seemed to have had a negative effect on the students such that by the time the students came to choose careers they had already internalized these differences to mean that there are different careers for women and for men. This may be what was in Cheptoo’s mind when she said,

Cheptoo: I think there are careers for men and others for ladies. You will find that in girl’s schools they don’t have courses like engineering. You will only find these courses in either boy’s schools or mixed schools. So the problems come from high school because we do not have all the subjects offered the same way in both girls and boys schools. There is no way someone who has a base in a certain course can be the same as someone who has just started the course in college.

The 8-4-4 system of education was meant to correct all this. Now that the parents are required, by the new policies of cost sharing, to equip the schools, it is not clear how the facilities in girls schools, and in the former harambee schools, will be improved to match the facilities found in the boys-only schools. The boys’ schools were equipped during colonial days. As such they have superior teaching facilities including facilities to teach science subjects, which are missing in the other types of schools.

(ii). Grades Obtained In High School

The grades students obtained in high school seemed to play a major role in students’ choice of career programs. While lack of facilities at high school seemed to specifically affect
girls, grades seemed to affect both girls and boys. For example, Hammed had to match his academic ability with his career choice. This is what he said.

Hammed: In school, I had seen that I was not good in mathematics and Sciences subjects, but in languages I was doing well. I finished secondary school and got a C+ that was in 1994. I got a D- in mathematics and in physics I got a D+. Chemistry I got a C-.

Mwendwa was also affected by his high school grades. He did poorly in mathematics in high school therefore his mathematics grades prevented him from taking certain programs. The food and beverage program he was trying to get into required at least C- in mathematics and C- in biology, both of which he did not have. This is how he put it.

Mwendwa: I completed school in 1994 and got a C- average. I decided to repeat school in 1995. I did better but I was unable to go to the University, which was my aim. I applied for Utalii College, which told me I had failed. My brother who is a lecturer helped me in finding a place I could go. He saw an advertisement of College B saying they were taking some people. When he showed me the advertisement, I applied here for food and beverage diploma. Because I had not done very well in mathematics, I was told I couldn’t do it.

Liaka was afraid of taking the food and beverage because of the grades she got in biology. This is in spite of the fact that the program is a traditionally females’ program. Again here we see the restriction grades had on students choices of programs. This is how Liaka put it.

Liaka: I chose clothing technology. My friend was doing food and beverage but I did not want to choose it because I didn’t do well in Biology. I decided to take clothing technology because in the future I want to become a designer and be self-employed. 
K.M: If you had done well in Biology you would have taken food and beverage?
Liaka: Yes. But my friend told me that you must be good in Biology to do the course, and that there is a test done so as to discontinue those who are not doing well. I thought I might fail and took clothing technology.
K.M: How did you do in physics?
I had a D+.

This is one factor that available research has not given serious attention to in its own right. Most of the research involving grades seems to consider grades in relation to gender
differences only. It may be necessary to consider the effects of grades in general on career choices especially now that studies are claiming that careers are requiring more scientific and communication skills together with high general education (Rubenson, 1992, Middleton et al, 1993). While it is normal for students to be restricted from accessing some programs by grades in certain subjects, if the same types of subjects like mathematics and sciences keep showing up, then there is a problem.

(iii). Lack of career guidance in high school.

Career guidance seems to be the major factor that affected most of the students in this study. It is surprising to see this factor coming up now since it has been reported by many of the studies done about schooling in Kenya and nothing seems to have been done about it. For example, Kilonzo (1981) concluded that career masters in Kenya do not have the time and facilities to provide any career or psychological guidance to the students. Kilonzo associated this problem with the fact that the career masters are just regular teachers who are also carrying their full teaching loads.

It seems as though, up to now, most of the secondary schools in Kenya do not have career masters. This fact kept coming up in my conversation with the participants. In some cases the students were in total confusion when they were called upon to choose careers, mainly without any information whatsoever.

One of the best examples of this is found in my conversation with Cheptoo. This conversation went as follows,

Cheptoo: I like design, but then I did not know what type of design I would have been good in. I was confused as whether to take clothing design or architectural design or maybe landscaping. After school I simply sat down and thought about it. I was wondering what to do because there are many types of design. I did away with architectural design because I knew I couldn’t do it.

K.M: Why?
Cheptoo: Because I know I’m not so accurate and I know I just can’t. I know I’m creative but I knew I had no accuracy. It was easy to pick up clothing because it was easier than all the other types of design. At least I could make dresses. I decided to look for a college so I went to Evelynn’s school of design. I was to be admitted but the fees were so high. We decided with my parents. They said I could choose anything I want. Actually I didn’t know clothing technology would have anything to do with design so I had to come to this place to find out. In school we had not been told that there was something like College A. My parents did not also help me in looking for a college. Their work was just to read the list of things and money I needed in my course and provide it, up to where they could. I applied from some information I got on the newspaper and I got an acceptance letter two weeks later.

Chebett had the same problem. She was not aware of the different programs available to her after finishing form four. She did not even know the existence of the diploma or the craft colleges with the exception of the College C, which was in her neighbourhood. This is how my conversation with her went.

Chebett: I got to know about College A through a friend who helped me apply. I only knew of College C because I lived in Mombasa.
K.M: Why didn’t you choose something like engineering?
I was not aware of something like engineering. I thought it was for men not for women. If I had a chance I could have done engineering. I would not have objected.

Even students who knew about the existence of the craft and diploma colleges did not know what they offer. They had no knowledge beyond what they might have heard people talk about. Their options were therefore limited by this lack of knowledge or guidance as to what is available to them. Had Musau been exposed to more options maybe he would have chosen something else but he was not aware of the type of options that existed in the vocational training colleges. This is quite evident in the conversation below.

K.M: Did you have career guidance in secondary school?
Musau: No we did not. No body guided me. It was my friends and I. I just chose on my own.
K.M: Did you consider other careers like secretarial or food and beverages?
Musau: I had no idea about them.
K.M: Did you know about other engineering courses besides mechanical?
Musau: I had no idea. I thought there was only one course, mechanical. I did not know about electrical or automotive engineering.
Even the schools that have career masters seem to operate with the assumption that all the students will end up in the universities. They concentrate more on helping the students fill the university application forms. The reality however, is that less than 10% of the students graduating from high school end up in the Universities and the rest have to find something else to do (Godia, 1987). This is the same problem pointed out by Kilonzo (1981), that the career masters guided students on only how to fill university forms. It looks like nothing has changed. Many of my participants pointed out that filling forms is all the guidance they got from their career masters. This was made clear by Mwende in the following conversation.

K.M: What kind of guidance were you given in secondary school about choosing careers?
Mwende: There was no career guidance in our school. When you finish school you were to go and do whatever you want.
K.M: Did you see any career teachers or guidance counselors when you were in school?
Mwende: No, I didn’t see anyone of them.
K.M: Who gave you the university forms?
Mwende: The deputy headmistress gave us the forms for university entrance.

In Kenya, students choose the subjects they do for their high school certification when they are in form two. The subjects they choose at this time determine what type of careers are open to them later. This is because each career has prerequisite subjects and anybody who abandons those subjects at form two effectively excludes him or herself from that career. It is therefore unfortunate that the students are not made aware of the kind of restrictions the subjects they choose place on them. This is the problem Atieno was referring to below.

Atieno: In high school, we were doing ten subjects that included sciences and one option; one had to choose from French or Economics, that is a business subject. Then there were the general subjects like English, Kiswahili. Out of ten subjects, we did not specialize in anything until we got to form four when we were given University forms to fill. Here we had to choose our career courses. We did not even have an idea on what to choose. We just chose to be lawyers. We thought it would be easier to get to university to do law because it would not require one to have passed sciences. Then we
finished school, some of us stayed at home, others worked, but it would have been good if we got career guidance. Generally I didn’t have a choice. I just did whatever came first.

K.M: In your school was there a career master?
Atieno: There was no career master. We didn’t even know. In fact when we were given those forms to choose university programs, people were stuck. Others were saying they want to be doctors and they are not even good in sciences, you just filled anything because we were not informed.

In some schools, the students were asked to buy career booklets and left to choose careers on their own, without any directions whatsoever. The schools seemed not to realize that the students had limited money to buy books so they would most likely buy textbooks first. Secondly, the students did not know the importance of the career books they were being told to buy. Thirdly, the students would rather study for their examinations rather than studying the career books. The schools however seemed to trust that the students would somehow get the career books and use them. This can be seen in the conversation I had with Omino.

K.M: Did you get any career guidance in secondary school?
Omino: We were given though not so much, we were told to buy ourselves career guidance books but they did not help because I even could not tell whether a diploma is higher than a certificate.

K.M: Do you mean that the teachers did not tell you that if you get these qualifications, you could do this course and so on?
Omino: No.

K.M: And did they ask you about your interests and things like that?
Omino: No, nothing.

K.M: You mean you were not given any career guidance at all?
Omino: Yes, we were just told to buy booklets and find out more information for ourselves. The school could sometimes buy one book for us and we could read for ourselves and get whatever we would get and that’s all. They said, not to rely on employers. I do the technical subjects and I think they are better. We used to choose subjects in form two and maybe you drop chemistry and physics and that time you want to be a doctor, they won’t tell you before you drop any subject you consider your career choice. We just chose what we passed most and not what would help us in the future.

K.M: So you never considered careers while dropping subjects?
Omino: No, we just did what we passed most and yet we had all the time from form two to form four to improve.
Menze’s situation was a very good example of students for whom lack of career guidance had serious consequences. Because of lack of information and guidance, she stayed home five years, after finishing secondary school, before she joined a career program. This occurred in spite of the fact that the school she attended actually supplied the students with career books. Again here we can see that the students did not study the career books keenly or they did not know how to use them, so the career books alone were not enough. This is how my conversation with her went.

Menze: Actually this career was not the one I always thought of doing, but I don’t regret much because it is almost similar with the one I wanted in my life. I did my form four in 1991 and for the following five years I was still at home. I was interested in nursing. For those five years I tried a lot of nursing interview but did not succeed. I wasn’t given a positive answer. It was last year but one when I heard about College B. I thought technical colleges offer courses, which involve very hard work, which I thought they were for men. My uncle gave me a newspaper, which had an advertisement of this institute and the courses they were offering so I decided I would do better in accounts.

K.M: How had your high school prepared you for career choice?
Menze: Our school supplied us with career booklets from which we could get information about careers. I only considered what I could do at university. I did not think about other colleges. Nobody told us about these other colleges. We thought they were for those who fail. I did not think about failing so I did not consider these colleges.

K.M: Do you think that if you had the information you have now, about careers, you would have stayed home for five years?
Menze: No. There are so many courses I could have done. I think I would be working by now.

Halima narrates the dilemma she had when she was faced with the task of choosing a training program. Although she knew what she wanted to be, her school had not made her aware of where different types of training programs were offered. As such she had to waste a lot of time moving from college to college to find out. Although this might be easy to do for students who live in the major urban areas, it is extremely difficult for the students who live in the poorer villages of Kenya where there are no telephones or newspapers. This can be a very
frustrating experience for these students such that some of them don’t even try. Mercy was lucky because she lived in the city so she had access to communication systems. It is quite obvious that the career booklets the school supplied the students with did not help her very much. This is how she put it.

Halima: I knew the course before but I didn’t know where to get it so first I tried Kenya School of Mass communication but I didn’t make it to go there. Again I tried Air traffic control and the plans got postponed. Later a friend came and told me to try College A and I got really inspired.

K.M: Why did you decide to take the course?
Halima: This was because in Kenya today you can do a course and end up doing nothing.

K.M: Did you get career guidance in high school?
Halima: We were given booklets to read.

K.M: So you didn’t have anyone talk to you about careers?
Halima: No.

K.M: Where then did you get information about careers?
Halima: Most of the information on careers, I got from home, from my relatives and especially my cousins and also from the booklets we were issued with at school.

Again here we see the trust the schools put on the career booklets. Halima’s school seemed to believe that the students would read and understand the career booklets well enough to base their career choices on them.

Career booklets seem to have been the only source of career information available to Nzembi in high school. My discussion with her on this topic went as follows.

K.M: Did you have career guidance in high school?
Nzembi: No. We only filled career forms for university.

K.M: Where did you get the information you needed to fill the career forms?
Nzembi: The school supplied us with career books. We were told to consult these books. We never discussed other possible career colleges. I think the schools do not help or they don’t care about careers.

It is clear from the above accounts that the school environment strongly affects the students career choices in that first the school facilities determine how well the students do in the subjects that are prerequisites for certain career. Secondly, the availability of career
guidance, or lack of it, determines how much information about careers the students have access to. Improving the school environment for all the schools, especially the mixed schools, which are the majority in Kenya, would go a long way in improving students access to careers of their choice.

One clear outcome of all this is that the school environment, both physical and academic tended to limit the students' choice of careers in that, first many schools did not have the facilities necessary to give the students wide choice of subjects to base their career choices on. Secondly, schools did not give students enough information about the relationship between careers and subjects especially in form two when the students chose subjects to study for their high school certification. Thirdly, schools seemed to be expecting all the students to be heading to the national universities so they did not make the students aware of the alternatives to university education such as the programs offered in the diploma and craft programs. This is very unfortunate because knowing that most of the parents of these students may not know very much about careers, the schools should have prepared these students to take their future positions in the development of the country.

HOME ENVIRONMENT.

As the interviews with the students continued it became apparent that there were certain aspects of the home environment which were instrumental to the kind of careers the student chose. These aspects were identified and organized into themes as explained below.

(i). Parental Pressure

Some students seemed to have been pressured into certain careers by their parents. In many cases, there seemed to be quite a struggle between what the parents wanted and what the
Some times the students stood their ground and chose what they wanted. Cheptoo was one of those who defied the parent's pressure to go into the parents chosen career.

Her response to my questions was quite emotional as can be seen from the following account.

Cheptoo: My dad is a teacher and my mother is a nurse. My mum wanted me to be a nurse, but I told her I'm not interested in nursing. She even took me for a nursing interview by force. I actually passed the interview, but when I was called, I was in Nairobi and I had left home. When I came to Nairobi I decided to do design in College A somebody told me they did design.

I am happy with my decision, but there are other courses that I could have done apart from nursing or teaching. My dad wanted me to be a teacher like him.

K.M: Does he teach at high school level?
Cheptoo: Yes, he does teach a high school, but he is a bit flexible because he told me that if I preferred either teaching or whatever it is okay.

K.M: So you believe some parents are not flexible enough?
Cheptoo: Yes. Another girl told me that her mother forced her to take a career she didn’t want. Yes some people get forced for instance our neighbor got an A in his final exam and he was called to do medicine though he wanted to do aviation but his dad forced him to do medicine. So he told his dad he would go for his sake and after the six years of doing medicine, he committed suicide, probably because he felt he had wasted the time he could have done something else, it was a case of depression.

Having a career chosen for us bothers us so much because you don't want to go against your parent's wishes or they would take you as an outcast. At times we have to go without fees and even accommodation if necessary. Right now I know of so many people here in college, who have chosen careers against their parents wish. Many of them end up doing what they want to do, but they are not given enough co-operation at home. They are not comfortable.

K.M: Do you think they give you their decisions considering what is good for you?
Cheptoo: No, they are mostly after social status, they want that recognition like, my daughter is a nurse, or a doctor.

K.M: Why are they after that?
Cheptoo: I think they are mostly after the recognition because I don’t think if I started working as nurse I would earn more than 15,000 but if I start my own job, I would make that money in two weeks. But I really wonder why a parent would not understand that. I also feel parent's fear that if we start our jobs we will not make it or the job will collapse. There are some parents who are encouraging and you find that some have been civil servants. Like my dad is a civil servant, but he hates what he is doing. He likes teaching but he hates how they are treated. My mum, even if I say I want to do nursing now, she would be very happy. I know she hates what I am doing because whenever I tell her we design and we model, she thinks of beauty contests and it puts her off. She has to understand we model in the clothes we design. It is so discouraging when I go home maybe my designs won or I got a trophy then she asks me, what are you actually doing in college? She often tells me that she hates my course. She thinks design is only making yourself beautiful. She doesn’t consider the fact that I am also
learning how to make my own source of income. It is business. She has an attitude in
the fact that we are more open-minded. We think of the outcome of our courses and
they do not seem to realize.

Liaka had to confront her parents because she found their pressure uncomfortable. This
is what she said.

Liaka: My parents wanted me to be a nurse and because I hated nursing I objected. My
mum was a nurse and I didn’t want to become like her. They also told me to do
something about teaching but I didn’t like the idea of being a teacher. I decided to have
a talk with my parents and they told me to choose what I wanted so I chose clothing
technology.

Other students like Chebett had to stay home for a long time hoping that they would get
a chance to train in the career the parents thought was best for them. She said,

Chebett: I stayed out for a long time because my dad wanted me to be a teacher but I
could not get a college until I came here. After I came here I was called to go to Shanzu
Teachers’ Training college but I did not like the idea of teaching. My dad complained
but I had to do what I wanted. When this came up I didn’t have a choice because I had
stayed a long time without going to college. My mom wanted me to do anything so she
didn’t complain.

Some times the student’s resistance to parental pressure was mediated in more civil
ways until the student gave in. Njeri was a very good example of this as she says,

Njeri: My mother told me to do secretarial but I thought she was joking so I told her to
forget about it. She just kept quiet. She brought up the subject another day when all
family members were present and said she wanted Njeri, me, to be a secretary. I really
wanted to be a journalist.

It is interesting to note that although Njeri was very strong in opposing her mother’s
wish, the mother had a way of getting around that resistance. She finally managed to get Njeri
to do the secretarial program Njeri had said she would never do.
Some parents did not even consult the students when they chose the careers they thought were good for “our daughter” or “our son”. Chemweno was one of those students for whom career program was chosen by the parents. This is what she had to say.

Chemweno: When I did not make it to university, I stayed home for one year. Then my mother told me of College A where I could go and do secretarial.

K.M: Is your mum a secretary?
Chemweno: She had been one but she has stopped working. One day she came and told me, you are going to the polytechnic. I didn’t know where it was so she brought me and she cleared everything for me.

K.M: So you didn’t choose your courses?
Chemweno: No.

K.M: What was your dad’s reaction?
Chemweno: He was mad I didn’t make it to campus, also he wasn’t happy with the job I got. When I told him I was going to do secretarial, he wasn’t amused. He asked me if there was nothing better I could do, but he still encouraged me by telling me I could still do marketing after secretarial.

Looking at the accounts given above by the participants regarding parental pressure as a factor on career choices, it seems like there was more pressure exerted on the girls than there was on the boys. Most of this pressure was directed on getting the students to conform to the traditional career expectations for the student’s gender. While the parents may have a role to play in their children’s preparation for their future roles as adults it is important that they stay abreast with the changes in career trends. It is even more important that they discuss the career choices with the students rather than attempting to force the students into the parents’ chosen careers. The interests of the students have to be taken into account all the time and any decisions that run contrary to these interests need to be negotiated with the student with a clear understanding that such decisions are to the benefit of the student.

(ii). Parental literacy level

Some parents could not help their children because they did not understand what different careers required. For example, Okello thought that his parents were not in a position
to assist him in choosing a career because they were not educated. He believed that they did
not know enough about careers so he consulted his uncle instead. My conversation with him
on this factor went as follows.

K.M: Are your parents educated?
Okello: No.
K.M: Did they help you much?
Okello: No. Actually the person who helped me was my uncle who did the same course
in Nairobi University. He was a real encouragement.

Mutune too thought his parents were not in a position to help him choose a career. This
is how he answered my question on this topic.

K.M: Did you discuss your career choice with your parents?
Mutune: No. I thought they were not equipped with the information. They are not
aware.

And Njenga

K.M: Did you consult your parents before making your career choice?
Njenga: I did not consult my parents because they do not understand those things.

It is interesting to note that it is mainly the boys who believed that their parents were
not in a position to help them choose a career. I am not sure that ignoring the parents
completely is the right thing to do. It may have been helpful for the students to listen to ideas
the parents had.

It is also interesting to note that it is mainly girls who were pressured by their parents to
choose ‘gender appropriate careers’. The above accounts however show that the girls did not
always give in to their parents’ wishes. Many of them resisted the pressure exerted on them by
the parents even at the risk of being rejected at home. It would have been better for the parents
to discuss the choices with the students rather than trying to choose for them. This type of
communication is similar to that identified by Bowles and Gintis, (1976) as they argued that in
lower class families’ communication is such that no negotiations take place. Since most of the families where the students come from fit this class, maybe the parents need civic education about careers.

SOCIAL AND CULTURAL EXPECTATIONS

During the interviews, it was also realized that there was pressure exerted on the students by different aspects of the culture they lived in, to choose certain careers and not others. The major pressures the students had to deal with were organized into themes as explained below. How the students dealt with these pressures is explained with each of the themes.

(i). Peer Pressure.

Peer pressure was another factor that affected both the boys and the girls. This is illustrated in the following conversation between Anyonje, and me, which went as follows.

K.M: Did anybody discourage you at all?
Anyonje: Yes, some people would ask me if I actually wanted to be a tailor. They don’t look at you as a designer but as a tailor. You know they degrade it as much as they can.
K.M: They don’t see the technology part of it?
Anyonje: They don’t see the technology part of it. They don’t even see the financial part of it either. They only see the social status part of it, but I don’t consider that myself.

And with Cheptoo as follows

Cheptoo: Men take technical subjects in fact, there is a class in civil engineering department where there is only one woman and in our class there is one man who didn’t take even an hour before he changed his course. He came at 9 am and some minutes to ten he went to another course. The first year class has three men doing design and in our class there is none.
K.M: Why do they run away?
Cheptoo: We don’t understand why. Maybe they just feel out of place.
K.M: Do you girls laugh at them?
Cheptoo: Yes. I think there is some teasing and flattering and I think they just think because people are so good to them, they are teasing them, so they go away.
There was a lot of pressure from other students and the society in general for the students to choose ‘gender appropriate’ programs. Below is Mohamed’s account on this factor.

Mohamed: Yes, I was discouraged because the course I got was in clothing technology. People were telling me that I took a course for women.

K.M: So how did you overcome it?
Mohamed: I was telling them that I did not want a course, which involved Mathematics. In our school, one had to choose from Agriculture, commerce and Home-Science, so I chose Home-Science. ...

K.M: Do they tease you so much here in college?
Mohamed: Yes, in fact the girls really tease me, even some boys, we are three men and people really tease us.

K.M: What is the problem, if you are interested in the course and find that you can do it?
Mohamed: I don’t know, but now I have confidence doing it because I know I can be self-employed, or become a teacher.

Peer pressure was not always about conforming to gender appropriate programs. It was also concerned with the image created by the society about the course. For example, Chemweno narrates how she found out how some people viewed secretarial jobs in the account below.

K.M: Did you get any discouragement?
Chemweno: Yes especially from one boy who was always saying that any girl who misbehaved looked like a secretary. This is so demoralizing.

K.M: Did you ask what a secretary looks like?
Chemweno: I didn’t really ask. But there is a time he came home and I was working so hard to improve my shorthand and then he started talking so badly about secretaries and that really discouraged me. I decided I’ll do it anyway because I wanted to do something in my life. I had been working without any training but I didn’t want to go on like that.

Angaine had a very negative view about secretaries.

Angaine: For me I would not like to have a wife who is a secretary because some of the bosses mistreat their secretaries and because they have powers they can discontinue you from the work if you argue.
These accounts seem to indicate that secretarial career has a bad name in Kenya though there is no proof that the bosses force the secretaries into any unbecoming acts.

(ii). Future Family Role Expectations.

The future family role expectations seemed to play a positive role in encouraging men to get into programs with high earning potential. It seems as though both men and women in this study view the men as the future heads of their families and the breadwinners. This is in line with claims made in some of the studies reviewed for this study that students career aspirations are related to what they perceive to be their future roles in society. For example Kenkel and Gage, (1983) argue that students career aspirations formed as a result of socialization by parents, teachers, peers, and the society at large. In this study, it seems as though the students are aware of these expectations. This came out clearly in my conversation with the students. For example. Anyonje wanted a career that is flexible enough to accommodate family roles.

K.M: What do you think of the person you will end with in life; do you think he would worry if you are an engineer, a designer or something else. Do you think what you've chosen will interfere with your family roles?
Anyonje: If I'm self-employed, I can twist my family life to suit my career, or I can arrange my job hours in such a way that it won't affect my family. It would be so different if I was employed because I would not be able to make my hours flexible.

Cheptoo showed that she was aware of the expectation for ladies to take lower level programs than the men were. According to her prospective husbands would think twice before they decide to marry a girl who has trained for a socially higher career, with better pay than theirs.

K.M: Do you think the men in college would be happy to hear a girl is doing a masculine course, like mechanical engineering?
Cheptoo: No, I don’t think so; they feel degraded especially if a man has taken an easier course than the lady doing mechanical engineering. This gets worse when somebody feels like he’ll marry you then you take a more advanced course than his. Obviously no
man would want the wife bringing home more money than him. They tend to feel inferior. They fear the lady would turn to be the head of the family.

Njeri brings in a new dimension into understanding students’ career choices. She makes us aware that even in the traditionally female careers, there are careers that ladies have to think twice before choosing.

*K.M: What do you think the person who will marry you would prefer you to do?*

Njeri: I know for sure I’ll be rejected for doing secretarial but it doesn’t matter. I’ll go through and over it. Even if I finished secretarial here, I’ll still go to KTTC and train as a teacher. I like teaching.

Although Njeri did not tell us why she would be rejected for choosing secretarial, Atieno gives us an insight into the reputation the secretarial career has in the society, and why secretaries are not prime targets for marriage.

Atieno: Men think secretarial has more to do with relationships than job especially if the boss is young and secretary is young. I really think they hate it. For me I would just stand my ground and if the man thinks I can’t do secretarial he can go. I would not want to feel like I wasted three years. People think it is much easier for secretaries to leave their jobs and stay home as housewives but it’s not as easy as they think. I myself cannot waste 3 years for a man.

Although Atieno seems strong enough to withstand the pressure this reputation has on female students, Njeri seemed to have been affected by it so much that she was planing to change to teaching, a more accepted career, (see her account above).

Judy considered her family roles in her career choice. That is why she chose a career that she thought would not interfere with her duties as a wife.

*K.M: So there are jobs that would interfere?*

Judy: Yes. Like if you work in a factory then you are away from your husband, it will affect. I think, for me, I would not like to work in a factory in the first place and so I would prefer getting capital and get self-employed. It is easier to transfer if maybe your husband is transferring. This is if it is very necessary.
The expectations for the men to be the primary bread winners and the financial heads in the families is very clear from both the female and the male students accounts of the expectations they have on their spouses. The female students seemed to expect their spouses to be more learned and better paid than the wives. Assuming that the men are aware of this expectation, then, it puts a lot of pressure on them to choose higher level careers, and to work very hard to succeed. On the other hand, it tends to put less pressure on the women because it implies that the girls will get married and “the man” will take care of the financial aspects of the family. It seems as though the women do not need to get into high level careers that demand more physical and/or mental strain. This was implied in what Mwanahisha said in our conversation below.

Mwanahisha: I would like to get married to a man who is more learned than I am. I can’t get married to a secretary. I would be proud to say my husband is an accountant.

K.M: But I have seen girls getting married to men who never even finished primary school, what do you think?

Mwanahisha: I think that depends on your reasoning and your choice. I think personal feelings really matter here, but personally I would take time to choose a good man, with a good post and well paid.

And Chebett in the following conversation.

K.M: Would you like somebody like a cateress marrying you?

Chebett: I would not mind so long as he gets more money than I get and about the post, I think love matters here.

It looks like the men are aware of the expectations referred to in my conversation with Mwanahisha and Chebett. They seem to feel that, for their wives to respect them, they must be making more money that the wives. Omino is a good example of the men with this feeling.

Omino: I would not want to marry someone who gets more money than I do or has a higher post than me, because I feel there would be no respect and more so equality.

K.M: Now that you are in clothing, would you marry a girl in engineering, supposing that you really want to marry her?
Omino: It depends, that is hard and I don’t think any girl like that would agree to marry me.

And Mwendwa whose conversation with me went as follows.

Mwendwa: With me, I would like to marry someone earning lesser than me.
KM: Why?
Mwendwa: Because I feel ladies can change you into a housewife and even disrespect you. These ladies are very technical. They can change you into anything they want to.

Female students considered their expected gender roles in the family when they chose their careers. For example Liaka said

Liaka: When you come to working on the engines you are mentally disturbed because you have to tighten here there and one ends up being mentally tired. If one is a lady who has kids she will be disturbed by the children and by the work she is doing so she will have double disturbance.

Menze seems to confirm what Liaka had said. This is how she put it.

Menze: For me I think engineering courses make one very tired. Since we ladies have to go home and do the house things, we want something less tiresome.

But Patricia who was in engineering did not think that engineering needed more energy than the other courses. She thought what the other girls in female dominated careers were saying was a matter of attitude. This is how she put it.

Patricia: But also in clothing technology and food and beverage one also gets tired. For example, when one is preparing a material for clothing technology one stands and moves around and you get tired. For me I think mechanical engineering is the same work as clothing technology only that one uses metal while the other uses fabrics. It is only a matter of attitude.

It seems as though men were expected to match their career choices with the view their prospective spouses had of their ideal husbands. Mumbi did not think she could marry a man
who is a secretary. This is confirmed in the way she answered the question I posed to her about it.

*K.M: Tell me something you ladies. Suppose your boyfriend was doing secretarial would that be okay?*

Mumbi: It would not be okay because secretarial courses are for ladies. He may come to act like a lady.

While future family role expectations seemed to put pressure on the boys to choose careers that were both prestigious and well paying, the same expectations seemed to force the girls to use different criteria in their career choices. In this respect, most girls seemed to be more concerned with how much time the career would give them to attend to their children and their house chores, and be able to move if their husbands move, rather than the money and the prestige. They saw the house and the children as the sole responsibility of the women. One of the most interesting things here was that both the boys and the girls agreed that the men should have better paying jobs than the women.

(iii). Role Models

Availability of role models was definitely a factor in Angaine’s program choice. This is how he put it.

Angaine: My name is Angaine I went to school at a Boys’ High School and from form one to form four I was taking carpentry and joinery. The teacher who was taking us had a workshop and he used to invite us over to his place to see what he was making. When we were learning he advised us on some institutions we could go to and continue with woodwork. I took one year outside and I was working as a carpenter as well as a joiner. During that time I came to find out many firms dealing with furniture, and I also did some accounting. Afterwards I joined this place.

It was very difficult for girls to find role models in the engineering fields. In the world of work most of the technical positions were held by men (ILO, 1981). Lack of role models may remain a big problem, especially in technical education unless something is done in the
technical teacher training programs. For example, Table 16 provides data on the technology education department in Moi university for the last five years.

**TABLE 16: ENROLMENT IN THE TECHNOLOGY DEPARTMENT, MOI UNIVERSITY.**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Building and Civil engineering</td>
<td>13</td>
<td>0</td>
<td>11</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Electrical engineering</td>
<td>16</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Mechanical engineering</td>
<td>8</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Power mechanics</td>
<td>15</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>2</td>
<td>41</td>
<td>2</td>
<td>46</td>
</tr>
</tbody>
</table>

It should be noted that this is the only degree-offering institution that trains technical teachers for secondary schools in Kenya. It may be important to point out that the lecturers in the Technical Education Department in Moi University are all males. Where then will the female students in high school get the role models from?

**(iv). Tradition**

There is evidence that there is a long established tradition of which careers are for men and which are for women. A study funded by International Labour Organization, established that in developing countries, the few women in the formal sector are secretaries, nurses and teachers, and about 20% are unskilled casual workers. In contrast, in the formal sector, most men are in the high income sectors such as manufacturing and communication technologies (ILO, 1981).
In the field of business, in developing countries, it has been pointed out that women are concentrated in occupations traditionally seen as women’s work. For example, in Nigeria, virtually all the owners of small firms engaged in soap making, food processing, meat selling, and women hair dressing are female (Middleton et al, 1993). Also 62% of the tailoring establishments are female. In contrast, women own none of the metal working, construction, automobile repair, or furniture making enterprises (Middleton et al, 1993).

In my study, a combination of cultural gender expectations and traditions seemed to play a part in pressuring the students to choose gender appropriate programs. This was true in Patricia’s answer to the question posed below.

*K.M:* Did anybody discourage you?
Pattricia: When I got a reply saying I will join this institute and took carpentry most of my friends discouraged me saying that it has never been done by a girl.
*K.M:* Do you still want to challenge them and show them you can do it?
Pattricia: Yes.

And Waiganjo’s answer to a similar question.

*K.M:* Is there any person who discouraged you?
Waiganjo: Yes, my friends really discouraged me especially when I told them this course also included learning how to cook. They strongly felt it was for women, but I told them many chefs are men.

My conversation with Liaka on this subject went as follows.

*K.M:* Why didn’t you go to something like engineering?
Liaka: I had the idea that engineering is for men.
*K.M:* Where did you get the idea that engineering is for men?
Liaka: Well, I had never heard a lady doing something like mechanical engineer and I didn’t want to be the first one to do it as a lady. It has a lot of metallic things and heavy jobs where one requires a lot of energy. Also, ladies don’t look well with oiled overalls and then going under cars and cutting a lot of metals. Also, ladies tend to think that mechanics need a lot of science skills so they fear the science and go for the cheaper courses which don’t have a lot of science. … People always think that ladies are weak and they can’t handle hard jobs like in the engineering and also parents refused and don’t want it. I have a friend who now lives alone because her father always says he doesn’t want her to do mechanical engineer and up to now they are not in good terms.
Unlike the parents who seemed to pressure the girls more than the boys, it seemed like friends and peers pressured both the boys and girls to choose gender appropriate careers. It is not clear why this difference seemed to exist. What was clear is that conforming to ‘gender appropriate careers seemed to have been a big driving force in the students’ career choices. It was only the strongest students who seemed to be able to resist this pressure and choose careers outside their traditional gender careers. This may explain the results in Chapter Four where only 31 girls and 15 boys out of 520 students managed to choose non traditional careers.

WORKPLACE ENVIRONMENT

There were certain aspects of the workplace the students identified as having affected their career choices. Mostly the students found themselves having to consider the application of their training to their future economic goals. In some cases the students had to forgo their own interests in order to choose the programs they saw as having future economic prospects. How these workplace considerations affected the students’ choices is explained in form of themes below.

(i). Chances For Self Employment.

The growth rate in the informal sector in Kenya has been reported to have been steady at 14% in both 1990 and 1991 while that of formal employment was down to 2.3% in 1991 from 3.0% in 1990 (Economic survey 1992). Students who are training with self-employment in mind therefore may be more realistic than those who train with the hopes of formal employment.

Self-employment seemed to guide students like Chebett as can be seen in our conversation below.
K.M: What do you plan to do when you finish?
Chebett: I want to start my own job after I finish my course. I don’t want to be employed.

K.M: Do you think the training you got will help you start your job?
Chebett: Yes because I am doing it at a managerial level.

It was not always lack of employment opportunities that made students consider self-employment. For example, Mutune saw self-employment as giving him an opportunity to stabilize his family without asking his wife to transfer her place of work or change jobs every time he is transferred by his employer. When asked if his choice of career can affect his family roles and relations, he said,

Mutune: It can affect because if, for example, I work in an industry the money would be less. I would like to be a lecturer or self-employed. If I have a wife she will transfer if I transfer sometimes it really affects the family so I would prefer being self-employed.

For Atim, her career choice gave her self-confidence in that she could work as an employee or self-employed. She did not worry about not being able to get a job because she believed that her choice of training would make it possible for her to start her own business. This was clear in the way she answered the question posed to her below.

K.M: Do you think it is hard for you as a girl to get a job or a boy would get one before you?
Atim: I don’t think so because if I lack a job and I have mechanical engineering skills it is easier for me to start my own small business.

Njenga also considered self-employment when he chose to train in electrical engineering. This is how he put it

Njenga: I could have joined a course like secretarial but when you train as a secretary you can not employ yourself as you can do in engineering so I decided against it.
Some students saw self-employment as giving them the freedom to control their financial aspects of live as they wish. Anyonje for example explained what she expected from her training.

*K.M: Did you consider the financial benefits of the course you took?*

**Anyonje:** Yes, because like me, I would not like to be employed. I can't see myself surviving on a salary which is given at the end of the month. I would want to get my own money daily. I'd better be self-employed. I just can't wait for the end of the month.

The students whose accounts are given above seem to fit very well with the government's policy i.e. training for self-employment (Ministry of Technical Training and Applied Research, 1990). This has become a very important career option because, as explained before, the growth in the formal sector of employment has stagnated while that of formal sector is growing at a rate of 14%. Also, the cost of living in the large towns has become too high. As a result, some people choose to start businesses in smaller towns where they can take advantage of the locally available materials and cost of living is lower. This also fits the new government policy of “District Focus for Rural Development”.

(ii). Job Availability

Job availability is closely related to self-employment. They are both directed by the fact that jobs are very rare, in some fields, in Kenya these days so one has to ensure that he or she trains in a field in which jobs are still available or where self-employment is possible. Awinja explains how job availability made her change her career choice. She said;

**Awinja:** After sometime I realized chances of a lady getting a job in the hotel industry were slim so I switched to the institutional management. It would give me a better chance.
Halima was also directed to choose her program by job availability. She explained it as follows.

Halima: I am taking electrical engineering and I did this because nowadays jobs are hard to get and with such a course as electric engineering it is easier to get a job. Also because the world is changing and getting advanced. Due to this, things that deal with electronics are coming up. I also found that even in industries things are changing so I realized it was time to go abreast with the changes.

Musau too considered this factor. His choice was related to what he thought was the direction the country’s development was heading. He wanted to be part of the future workforce. He made his reasons clear in the statement he gives below.

Musau: I read in the media that this country was going to be industrialized by the year 2000. I believed that mechanical engineering is part of industrialization so I joined it.

Njenga believed that engineering jobs were hard so very few people manage to do them. He also believed that because of this fact, there are few people available to take up the jobs in those fields. He wanted to be one of the few in this position. This is what he said.

Njenga: In engineering you have better chances of getting a job because very few people can manage the training involved.

Nyaga chose secretarial because it does not have many men. He believed that as a man he stood a better chance because he was unique in that field. This is what he said,

Nyaga: I also think if I do courses with many men, chances of me getting a job are small unlike when I do a course with less men, here I’m likely to get a job faster.

Availability of jobs either in form of self or wage employment therefore played a major role in the students choice of career programs in that most students felt that some careers had more opportunities than others.
(iii). Employer Preference

There was a serious disagreement between the students as to whether the employers had gender preference when they hired employees. Some students seemed to believe that, in industries, employers prefer men to women when they hire employees. Mohamed was one of those students with this kind of belief. My conversation with him went as follows.

*K.M: So you think employers prefer a certain job for certain people?
Mohamed: Yes, for example us men it doesn’t matter a lot because men can do jobs for ladies, but ladies cannot do all jobs men do. Most of the jobs in industries are given to men especially when it comes to night shifts and overtime. Men can work for long. They are strong. They also consider men are there to stay, unlike women who are on and off work, especially for maternity leaves. I think they prefer men.

Kamwandi did not agree with Mohamed’s argument. When I asked her whether the employers preferred men in all the fields in industry she was quick to say,

Kamwandi: No. In things like design, women have taste and they are more creative in that field than men.

Njeri had mixed feelings about this. She tended to believe that some employers do not have preferences but there are a few who could discriminate against women. Her input in this discussion was,

Njeri: This matters with the type of employers, some believe that anyone can do anything so long as you have qualified for it. Mostly employers however, will look at you and wonder what can this woman do for me. Even if they give you the job, you get low pay.

The students’ view of the workplace environment affected the students choice because the students wanted to be sure that when they finished their training they would be able to get some type of gainful employment. They were therefore forced to look at the workplace globally, that meant looking at the availability of either wage or self-employment in the field,
prestige associated with the career, and employer preferences among others. In the background of all these there were all the pressures explained above, that is pressure from the parents, friend, the peers and the society in general. These pressures seemed to moderate the students’ career choices and try to force them to conform with “gender appropriate” choices. In most cases the students could not resist those pressures so they chose within their gender expectations. In a few cases however, students resisted these pressures effectively and chose careers outside their gender expectations.

COLLEGE CRITERIA FOR ENROLLMENT OF STUDENTS

The third research question, which was qualitative in nature, was as follows:

What criteria do the vocational institutions use when selecting students for admission into different vocational programs?

To answer this question, I interviewed two heads of department from College A, and two from College B. For each college, one Head of Department was from a department offering traditionally female programs while the other was from a department offering traditionally male programs. These interviews were audio taped. These tapes were transcribed, and both the explicit and implicit enrollment criteria used by the colleges identified. These criteria are discussed in the section below.

(i). The Grades The Student Obtained In High School.

The grades students obtained in high school seemed to be the major factor in recruitment of trainees in the colleges. It seemed to be the only official criteria the ministry gave the colleges to use in recruiting students. The guide book produced in 1990 to guide the colleges (8-4-4 Technical Project Program, 1990) did not seem to give any other criteria except the grades. Also, the advertisement for students sent out in 1998 (Kenya Education Directory,
1998 Edition), did not give any other criteria except grades. According to the Heads of Departments I interviewed, these grades were mainly requirements from the examining bodies who had the power to bar students from taking the examinations if they were admitted without the required pre-requisite grades. This was irrespective of how long the students had been in college or how well they did in the college examinations. On this point, my conversation with Mr. Lunge went as follows.

_K.M: Who decides the minimum qualifications for each diploma program you offer? Is it the ministry or the college?_

Lunge: The Kenya National Examinations Council for those courses which are examined by them. So we look at their minimum requirement, but if it is CPA we look at the minimum requirements from Kenya Accountants and Secretaries National Examination Board.

_K.M: What are the grades that you require from high school?_

Lunge: The minimum should be C- average, C- in English, C- in mathematics, and C- in a business subject, a part from CPA (Certified Public Accountants) where it should be C+ average C+ in English and C+ in mathematics as required by K.A.S.N.E.B (Kenya Accountants and Secretaries National Examination Board).

Mr. Kamau, at College A, confirmed that grades determined who was eligible to be recruited and who was not. I put the question below to him and his answer, as can be seen below, pointed to grades.

_K.M: How do you decide who should come?_

Kamau: In our advertisement we specify language a minimum of C-, mathematics C-, and the mean grade should not be less than C. What we have is about six courses that are advertised.

The role of the examining body in deciding the grades to be used in the recruitment exercise, is explained in my discussion with Kamene.

_K.M: Where do you get the required qualification that you specify in the advertisement? Is it gotten from the ministry of education or is it a condition from the National examination council?
Kamene: The examining body regulates the requirements for the people when they reach the point of taking examinations. Like even if the college admits you, you will not be able to take the examination. The ministry guidelines take this into account.

For craft courses both the advertisement placed in the dailies and the interviews I carried out with the heads of department in College B showed that the required grades set out when the project started (Technical Training Project, 1990) were abandoned later. The reason for this abandonment was because students who met those requirements were not available. The advertisement only gave a mean grade of a D plain as the only criteria required by the ministry. Kamene explained the reason for the change as recorded below.

*K.M: Do they have specific subject requirements?*

Kamene: They used to but now they go by the mean grade. The problem is, when we started we were not getting qualified students yet there were so many school leavers out there.

(iii). The Area The Students Came From.

There seemed to be quite a difference in how colleges attempted to balance the different regions of the country. College B seemed to take regional balancing seriously while in College A this factor was played down. First, College A defined regions as provinces. The provinces are very large and very diverse such that the possibility of certain areas whose candidates may be socially, politically or economically disadvantaged may be left out. This is because the candidates applying to College A may have the basic requirement yet many other students in the same province may have higher grades because of the school and family factors identified earlier in this chapter.

Mr. Lunge explained the way College A handles the question of regional representation in the conversation below.
Lunge: We separate them again according to provinces. Once we do it according to provinces if we wanted to take around forty students, we look at how many have applied from each province. Then we use proportion and if we wanted those forty and maybe thirty had applied form Nyanza, sixty from central etc. We admit them proportionately, with the number who applied and are qualified.

After we have done according to provinces we look at the vacancies available. These are distributed according to the proportion of the applicants from each province. So the one with very many applicants will get more and the one with less will get less.

K.M: You don’t balance districts?
Lunge: No, once we have done that, then for every province we go according to the districts.

K.M: In the province, do you use proportions also or you go by the representatives?
Lunge: We try to look at the representatives, because from past experience you may find some provinces may have some districts where nobody has applied while you find other districts with two or more.

K.M: What do you do with districts, which do not have applicants?
Lunge: There is nothing we can do to those ones. We just forget about them. But a district where there is one applicant that one is given priority right away.

There seemed to be some discrepancy between how the business department and the Engineering department handle the question of regional representation. Kamau seemed to suggest that they only consider regions when there is serious discrepancies in the numbers that apply, otherwise they ignore regional representation.

K.M: Do you balance districts or provinces like if you have one applicant from the Coast Province and one hundred from the Eastern Province what do you do?
Kamau: This is applied where we have very many applications from one particular area. But if we found there is even distribution we don’t do that.

College B defines region differently from College A. According to Kamene, College B uses the district as the basic unit for regional representation.

Kamene: When the closing date approaches I am given the applications for my department. I sort them in form of districts and for every district I have a merit order in terms of the mean grades.

K.M: What do you do to districts balancing when you don’t have candidates from some of the districts?
Kamene: It doesn’t matter so much because we always have a lot of students from various districts all over Kenya. In the initial selection we go by districts so any district is represented as long as the students are qualified.
It is encouraging to note that the colleges try to balance the regions of the country when they enroll students, especially College B which goes down to the district level. It is however discouraging to realize that neither the government nor the colleges have any follow up system to address the regional disparity issue in relation to the regions that are under-represented or not represented at all. The colleges consider only the regions which have candidates in the list of qualified applicants.

(iv). Gender.

Although the policy did not imply any preferences for students by gender in any of the programs, my discussions with the Heads of Departments showed gender biases in programs. In the engineering programs the colleges seemed to favour the boys while in secretarial the colleges seemed to favour the girls. This became clear in my conversation with the Heads of Departments. My conversation with Lunge, in College A went as follows.

*K.M: Do you worry about whether it is a boy or a girl?*

Lunge: Yes, what we usually do sometimes in the process of selecting we also give priorities to girls. We look at girls who are qualified, so instead of just grouping them and they are all male maybe there is one girl in a district who is qualified so we take her.

*K.M: Do you do that for each course or you put all the courses together?*

Lunge: That is what we do for each course apart from secretarial where they are all girls.

*K.M: So you don’t get boys in secretarial?*

Lunge: They apply but those ones who apply, they think they are coming to do secretarial work connected to the legal work like law firms and so on. I remember there was a time some were admitted but they never took the chances. So we concentrate on the ladies.

*K.M: Your department is business studies?*

Lunge: Yes.

*K.M: For secretarial you normally give it to girls?*

Lunge: Just girls, apart from the evening classes. That is where occasionally we have boys.

*K.M: Even if a boy applied for secretarial you don’t give him a chance?*
Lunge: We have been trying to admit them but don’t continue because they just come to register and then go away.

K.M: So boys don’t normally report?
Lunge: They don’t report.

K.M: What other courses do you have in your department?
Lunge: We have diploma in accounting, diploma in marketing, diploma in business administration, and diploma in secretarial studies.

K.M: In these other courses like marketing do you find more girls or more boys in them?
Lunge: There are 40% girls in diploma in accounting, and in diploma in business administration.

K.M: So in accounting you get a lot of girls as well?
Lunge: Yes and also in business administration and in secretarial which is mainly girls.

And with Kamau, in College A.

K.M: How about for women and men, because I found some of your classes without women, don’t they apply?
Kamau: That is a problem we have. I think this can be attributed to the attitudes in the society. During the selection we give the women a chance. Even after selecting them they fear and change to business. They are discouraged by their colleagues, and by students from other departments. We try to get them but they don’t come, or they come a few and after a while they run away.

The Heads of Departments attributed this problem to the biases present in the society which seemed to encourage students to choose careers which fitted with the traditional careers for their sex.

(v). Fees

Some students are from areas that are economically disadvantaged and the government has no bursary system for this level of training. Such students therefore end up excluded from the colleges by their poverty and not ability. This is what Kamene referred to below when she said,

Kamene: In almost all cases not all of them turn up because of inconveniences like lack of fees

K.M: How much is the fee per term?
Kamene: It is Ksh. 9,990 and they buy their own books and stationary.
Many parents in Kenya can not raise this amount of money and also support these students and their other children who might be in other levels in the school system. This is more so for the parents from the arid and semi arid areas of the country, who are trying to survive against very harsh conditions.

**SUMMARY**

In summary, we can say that, in regard to question 1, the factors that students considered when they chose their training programs can be divided into four main categories.

1. Factors related to the homes the students came from. The most important of these factors was the choices the parents thought were appropriate for the students as females or males.

2. Factors that related to the schools that the students attended. The most important of these were:

   (i). The grades the students obtained in secondary school. These were very important especially for diploma programs that required specific grades in specific subjects.

   (ii). Career information available in the secondary school they attended. The availability of information varied from school to school. In some schools, the school issued the students with career booklets. In other schools the students had to buy the career booklets or go to the library to look for any career information available there. In very few schools, students had direct information from career masters. The impact this factor had on the students’ program choices therefore, depended on the school the student attended.
3. Students' perceptions of the appropriate training for people of the students' gender. Of major consideration here was the perceived impact the careers chosen would have on their future family role.

4. Students' perceptions of the conditions in the world of work. The major factors that most students considered here included the perceived availability of self and/or wage employment in the careers the programs lead to, and the biases the student perceived the employers had to hiring female or male workers in particular career fields.

In regards to question 3, the only criteria mandated by the government was the pre-requisite grades the students needed to have in order to be admitted into a particular program. However, in practice, in addition to students' grades, the colleges considered the following factors;

(i). The region the student came from.
The colleges tried to balance the programs such that each region was represented. However, College A defined regions as provinces while College B used districts as their category for region.

(ii). Gender.
While there were no official gender requirements for any particular program, the colleges predominantly enrolled males for engineering programs, and predominantly enrolled females for secretarial and food and beverage programs. The colleges reasoned that if they took students for programs that were non-traditional for them as males or females, the students would either move to other programs or drop out of the colleges altogether.
(iii). College fees.

Since the colleges charged high fees for their programs, they tended to admit the students who were able to pay such high fees, thus limiting the access of students from poor families to these programs.
CHAPTER SIX
DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.

INTRODUCTION.

The purpose of this study was to investigate the factors that guided students' choices of career training programs in Kenya. Specifically, the study sought to answer the following questions.

1. What factors influence students' choices of vocational training programs?
2. Are there differences in enrollment patterns between students from mixed sex schools and those from single sex schools?
3. What criteria do the technical institutions use when selecting students for admission into different training programs?

This chapter is divided into four sections. The first section is the discussion of the results. The second section is the conclusions drawn from analyzing the data collected for each question. The third section presents some recommendations for dealing with the problems that the study identified. The fourth section deals with recommendations for further research.

DISCUSSION OF THE RESULTS.

This section discusses the results obtained by analyzing the data used to answer each research question. It is divided into subsections. Each subsection discusses the results dealing with one question only. The heading of each subsection is the research question.

(i). What Factors Influence Students' Choices Of Vocational Training Programs?

Career choice is a very complex exercise, which involves both conscious and unconscious decisions. As I interviewed the students, it became clear that the choices the
students made were moderated by what the students had seen happening in their homes, schools, the community at large, and the world of work. I therefore organized my discussion of the results under those themes.

There were several factors that related to the homes the students came from. First, some of the parents put a lot of pressure for students to choose the programs the parents thought were appropriate for the students. Sometimes, this pressure was so much that the students gave in and chose the programs the parents wanted. In fact, some of the parents went as far as threatening to withdraw financial support for the students if the students did not choose what the parents wanted. Other times, the parents came home with acceptance letters from colleges and told the students when to report for training, without the students' awareness of when and how the choices of colleges or programs were made.

Secondly, the extent to which the parents could advise their children differed from home to home. Some of the students even avoided discussing careers with their parents because they thought the parents, being uneducated, did not know anything about careers. The parents on the other hand felt that they were the ones who should tell the students what to choose. This was expected of parents from lower economic class and limited education, as most of the parents in this study seemed to be.

We can conclude that the relationship of the students and their parents, and the confidence the students had on their parent's ability to help them choose careers, were factors in the students' choices of training programs. The situation did not seem to have changed much since Eshiwani pointed this problem out back in 1983. One wonders whether these studies are taken into consideration by the ministry when policies are formulated.
There were certain factors that related to the schools the students attended. The most noticeable school based factor was the lack of career guidance. Most students said that they did not receive any career guidance at the secondary schools they attended. Others were directed to buy career booklets. Most of those who received guidance, were only guided on how to fill the university entrance forms. It seemed as though the schools were assuming that all the students were heading to the national universities. The reality, however, is that only less than 10% of the students end up in the universities. The idea of the schools helping students fill university entrance forms without making them aware of other programs open to them is quite unfortunate. It may be important here to note that this problem was reported by other studies (Kilonzo, 1981). One would have expected this problem to have caught the eyes of education planers, resulting in the implementation of some corrective measure. Unfortunately, the students who were interviewed for this study indicated that lack of career guidance made some of them drop subjects in form two only to find that these were the subjects they required later for the careers they wanted to go into. Other students indicated that they had stayed home for a long time after finishing high school because they were not aware of the existence of the training facilities they could attend.

Another school based factor that seemed to play a role was the grades the students obtained in the schools they attended. Several aspects of the school the student attended were very important in determining the grades the students obtained in different subjects. One of these aspects is how well the school was equipped to teach the subjects. This is more so in the case of the science subjects. It should be noted here that most of the students who pointed out that their schools were not equipped to teach the sciences or the science based practical subjects
they needed were mainly from girls-only or mixed schools. Students from boys-only schools did not seem to have this problem.

This problem was common in most African countries during the colonial days. It was then inherited by the new African governments after independence (Lee and Lockheed, 1990, Eshiwani, 1984). Students from girls-only schools performed poorly in science subjects, thus they were excluded from the science based programs at post secondary levels. This may be related to the fact that the enrollment records in post primary institutions show a serious under-representation of students from mixed schools. It could also have a bearing on why many students in the interview said that they could not enter the programs they wanted because they did not have the required grades in the required subjects.

In conclusion, we can say that school environment was one of the factors that had an effect on the students choice of technical training program. The most noticeable area of this environment that had profound effect was identified as lack of career guidance. This area needs immediate action.

There were also some factors that related to the environment within the technical training colleges themselves. The major area in this environment that affected students’ choice the most was access to different programs. This access was limited by lack of adequate facilities in the colleges. Many of the students interviewed for this study said that they could not get into the programs they wanted because the programs were full. This problem was more pronounced for girls rather than boys. For girls, this problem is rooted in history. In 1968, the government had issued recruitment guidance to the colleges. These guidelines, under the name “Helping You Choose A Career” had listed 112 programs for boys-only and only 2 for girls-only. The two careers for girls were nursing and secretarial. Although those guidelines are not
there now, this study established that the boys greatly outnumbered the girls in most of the training programs. For example, in the 1997 enrollment in College A, male students were majority in 70% of the training programs.

This is more serious when one notes that the same problem is experienced at the national universities. For example, Economic Survey (1992) showed that in Kenya, women were only about 22% of the university enrolment, and that these women were concentrated in a few non science based programs. Also a 1981 study by I.L.O. reported that the few women in the formal employment sector were secretaries, nurses and teachers, while men where in the high income sectors such as manufacturing and communication technologies. It was also reported that, in 1988, 92.6% of the senior civil servants (salary scale G and above) were men while most women were in job groups A to F (Women’s Bureau/ SIDA, 1993). According to the Women’s Bureau, in 1993, only 8.2% of women civil servants were in job groups H to T, the top most grades of civil service. If the women were not in the universities, in the middle colleges, or the workforce, then where were they? Or more importantly, if this situation has not changed, where are the women now, and what is being done about the problem? It is very difficult for the teachers to convince the girls to work towards the high paying managerial jobs while the students see that women do not have access to those jobs. There is need for role models that the students can look up to, i.e. women in positions of power, like district commissioners, permanent secretaries and/or chief executive officers of large government and private companies.

The students interviewed for this study indicated that they had experienced pressure to conform with what the society saw as appropriate for them as boys or girls. This pressure seemed to be very strong so much that the students tended to conform to it in their
choices. Many of the students seemed to have internalized these expectations to mean that there were different careers for men and for women. So, for them, it was only natural to choose gender appropriate career programs.

Another factor that the students considered very important was the expectations of their potential spouses. The importance of this factor was stressed by both girls and boys. This was a very interesting factor because it seemed to put pressure on the boys to choose careers which, although requiring hard work, were prestigious. This seemed to be based on the expectations that the man is the head of the family. As such he is expected to take care of the family's financial requirements. These expectations are not unique to Kenya. For example, Gaskell (1992) was amazed when the girls in her study made statements like the following.

I never want to make a career. I want to get married and have kids. If you get all involved in a career, I think something happens to the kids. They need their mother, not their father. Women just work on the weekends. With their husbands around, they go out and waitress and get the extra money they need (p. 31).

And, “If I had a job that was really important, I probably wouldn’t be able to raise my own children the way I want” (p. 75).

For boys' careers, Gaskell (1992) found that the girls had different expectations. They told her, “A guy has to go to college to get a job and support a family”(p. 31). However, just because these expectations are not unique to Kenya does not make them right. It means that each country concerned should be aware of this problem and find a way to deal with it. With most countries going through economic hard times, it is important that both men and women be as productive as possible by each of them contributing equally in both domestic and wage related jobs. To do this however, it is necessary to educate both parties to the fact that it is as okay for the mother to work outside that home as it is for the father to do domestic work at
One interesting factor that came out clearly in this study is that the boys resented the girls who had the potential to get more prestigious jobs or to earn more money than them.

With this kind of pressure, boys were bound to choose programs they may not have been able to handle. Thus, a boy who is not good in science and mathematics may still want to get into engineering in order to fit in his expected career bracket. The girls on the other hand wanted careers that gave them time to take care of their homes. They seemed to see the house chores and child care activities as their main responsibilities. One realizes the type of pressure those boys who could not get these higher paying jobs, for whatever reason, ended up with. Also girls who wanted higher level jobs as well as husbands and children were experiencing a lot of pressure because they knew that they were expected to also take care of the children and the house chores, normally without the help of the husbands. The students’ desires to choose careers within their gender expectations therefore were rational decisions given the circumstances. Future family role expectations therefore moderated career choices differently for boys and girls. To change this behaviour, the circumstances have to change. The recommendation section of this study gives some suggestions on the possible type of changes that can address this problem.

Students also considered a number of factors that were workplace related. One of these factors was the availability of either wage or self-employment. Self-employment seems to have become a serious option to students in view of the decrease in available jobs in many fields (Economic Survey, 1992). This may be sending messages to students that self-employment is an important factor to consider when choosing training options. In this study, many students said that they chose their programs on the strength that these programs offered them better chances of self-employment.
Another work related factor that seemed to affect career choices was that some students believed that the industries recruit their workers along gender lines such that for jobs in the trades they prefer men while for office jobs they prefer girls. Given this kind of belief, the students were justified to choose the careers they believed they could get jobs in. Unless some interventions are made by the government to force the industries to some equity system that ensures employment in non-traditional fields for these students, it will be unreasonable to expect the students to have chosen non-traditional forms of training. They were aware that they might not be able to get jobs in those fields.

One very important thing to note here is that not all the students gave in to these pressures. There were those students, both boys and girls, who resisted these pressures effectively and chose what they thought was good for them.

The second question of this study was as follows.

(ii). Are There Differences In Enrollment Patterns Between Students From Mixed Sex Schools And Those From Single Sex Schools?

It should be noted that, in Chapter One, I assumed that students from single sex schools would diversify their careers to include more non-traditional programs. This assumption was made on the basis of arguments presented by previous studies on single and mixed sex schools. For example, Arnot (1983) claimed that, in single sex schools girls perceive that women can hold power and can have more access to the male dominated fields of science and technology.

The results in this study contradicted this assumption as there were no significant differences seen in the choices made by the girls from mixed schools when compared to the choices made by girls from single sex schools. There were, however, significant differences
between boys and girls, irrespective of the type of school they attended. This seems to establish gender as a more powerful factor than type of school attended. These finding support the position of Finn et al (1979). This study pointed out that other factors like exposure to non-traditional curricula, provision of academic support for learning in all disciplines, and availability of female teachers as mentors and role models may be more important in explaining the performance of students than the type of school attended.

As stated earlier, these results should be looked at with the following in mind. First, while 72% of Kenya's secondary schools are mixed, only 134 students out of a sample of 520 students used in this study were from those schools. Secondly, while there were 195 students from girls-only schools compared to 191 students from boys-only, there were only 21 girls from mixed schools as compared to 113 boys from mixed schools. This might mean that mixed schools, though they may not determine the type of careers students choose, may be determining the overall performance of girls as compared to boys such that boys get more access to training programs in general than girls. This is a problem that needs further investigation.

The third research question was as follows.

(iii). What Criteria Do The Vocational Institutions Use When Selecting Students For Admission Into Different Vocational Programs?

In Chapter One, I made the assumption that the government guidelines would require that colleges give students equal opportunities for recruitment irrespective of gender, social status and area of origin. I, however, pointed out that in practice, I expected the colleges to have some gender biases in certain programs due to the biases already instilled in the recruiting personnel by culture and traditional practices. The results in Chapter Five show that, as
expected, the guidelines did not have any biases, but the personnel had biases such that, for some programs, they preferred one sex over the other. For example, in secretarial programs, they preferred females, while for engineering they preferred males. The problem here was that the government policy on college admissions was silent on gender issues. This silence however was detrimental for the girls who did not have as many choices as boys in the programs. The biases of the personnel and the silence of the policy seemed to maintain polarization of program choices along gender lines. The Heads of Departments seemed to believe that it was of no value to recruit students to non-traditional programs because the students would change and go to the traditional programs. The fact is that there are boys who said that they went into traditionally female programs because that is what they realized they were good at, and girls who went to boys' careers for the same reasons. This means that there were exceptions to the assumptions and biases of the Heads of Departments. Maybe more would have joined non-traditional programs if they had the opportunity. If transferring back into the traditional programs was seen as bad by the colleges, then there were other ways of convincing the students to stay, after all the students made the choices in the first place. The main question is, what would have happened if they had stayed in their original programs? Would they qualify? Would they get jobs if they qualified? Answers to these questions may help in getting the students to choose and remain in the non-traditional programs.

Analysis of the government guidelines showed that all that was required for admission was for the students to have obtained the prerequisite grades in specified subjects for the program they wanted to go into. These guidelines were contained in the 1990 government publication "the 8-4-4 Technical Project Program". These requirements were also pointed out to me by the Heads of Departments during my interview with them. According to the Heads of
Departments, these requirements originated from the national examining bodies i.e. Kenya Secretarial and Accountants National Examination Board, and the Kenya National Examination Council. However, although the guidelines gave specific grades in specific subjects as prerequisites for particular programs, for 1996 and 1997 admissions, the craft colleges had abandoned these requirements in favour of a general mean grade. This was because, although there were very many students graduating from high schools, they did not have the required grades to join the colleges. This change may be the reason why we have a higher percentage of girls in the craft programs than in the diploma programs that still retain the demand for specific grades in specific subjects.

The Heads of Departments also pointed out that the ability for the parents to pay for the students training program was a factor. This situation was more disadvantaging to the girls' education, especially after the introduction of the cost sharing policy which gave the responsibility of building the schools and paying the non teaching employees salaries to the parents. This Policy was recommended by the MacKay report of 1981 and restated in the Kamunge commission of 1988 where it was pointed out that:

The government has increasingly been concerned about the rising cost of education and training and the constraints it has caused the government in its ability to provide adequate financing to other sectors of the economy. As a result, the government has decided, as stated in Session paper No. 1 of 1986 on ‘Economic Management for Renewed Growth’, to reduce the recurrent expenditure on formal education and training ... This will be achieved through increased cost sharing ... This practice should be continued and strengthened as one of the strategies to help achieve the stated government objectives in the financing education and training.

As a result of this policy some parents were forced to choose which of their children they would educate. As argued in Chapter Two, economic, social factors, and tradition made it easier to choose boys over girls. In many cases the girls have to leave school or end up in the
poorly equipped schools (formally harambee secondary schools). This results in limiting the access of girls to the post primary and post secondary education. This problem might be partly responsible to the low representation of girls in the programs in the post secondary institutions found in this study and in other studies (Eshiwani, 1984).

This educational inequality between girls and boys starts at the early levels of education in some regions of the country. For example at primary level, Eshiwani (1983) found that, while it was true that the enrolment in some districts like Kiambu, Muranga, Machakos and Embu was 50% boys and 50% girls, others had very low women enrollment. For example, Turkana had 27%, Samburu had 29%, and Mandera 19% girls. The districts with low primary gender mix were mainly peopled by nomadic tribes whose life style and culture did not encourage education in general, less so girls' education. The interaction of these people with the outside world was limited so they still kept their traditional life styles. On the other hand, the districts with the higher ratios were mainly agricultural in nature and had contacts with the outside world since Colonial days. It was in these same areas where the post secondary facilities were situated. It was also here where the most applicants for these training programs came from. It is therefore not going to be possible to balance developments in these different regions unless a policy is introduced, with the aim of improving the ability of the poorer regions to acquire facilities.

A further implication that came up in the interviews with the Heads of Departments was that, although they tried very hard to balance the enrolment for the areas that had candidates, neither the colleges nor the government had any mechanism to get students from the regions with no applicants
THE MAIN LINK.

Throughout this study, one factor seemed to be moderating all the other factors. This factor was gender. It can be concluded that in most of the cases the students chose their careers on gender lines. The school-related factors of grades, career guidance, and lack of role models can be explained from a gender perspective. For example, while boys schools were equipped to teach science subjects, the girls-only schools were not. The same can be said about family role expectations as a factor. For example, the women students realized that in order to satisfy their desires to have families and to have careers, they needed careers that gave them time to attend to their duties as wives, and mothers. They made these decisions with full knowledge of the expectations their future husbands, children and the society at large had on them in the future. We can not therefore blame them for making choices with these factors in mind. The male students also made their choices with the knowledge that their future wives, children and the society at large expected them to be the bread winners of their families. As such they would be expected to get jobs that would earn them enough money to feed, cloth and house their wives and children, in addition to meeting the children’s school needs. It would then be irrational for the students not to consider these expectations when making their career choices.

The question is what happens when these women, who prepared to be wives with husbands to take care of their financial needs end up as single mothers? Another question is how much is the country losing economically when those women with high economic potential limit their potential in order to fit in some expected category of low productivity?

Even the work place related factors were moderated by gender. Some students believed that the employers discriminate on gender lines when hiring workers for different jobs. In
addition, the students themselves seemed to believe that there are jobs for men and others for women. These beliefs caused some students not to choose certain training programs which they believed belonged to the opposite sex. The views the students had on the school, the society, the home, and the work place pressured them to choose their training programs along gender lines. With pressure bearing on them from all sides, it is unwise to blame the students when they choose their careers on gender lines. Changes require the reduction of the pressures explained above. This reduction can only come with the introduction of changes at home, schools, the work world, and the society at large. Some of the changes that might help reduce these pressures are explained in a later section of this chapter.

CONCLUSION.

This study set out to answer 3 specific questions. These questions were;

1. What factors influence students' choices of vocational training programs?
2. Are there differences in enrollment patterns between students from mixed sex schools and those from single sex schools?
3. What criteria do the vocational institutions use when selecting students for admission into different vocational programs?

In regards to question 1, it can be concluded that the factors that moderated students' choices of training programs included;

1. The careers that the parents wanted the students to choose. In most cases these choices were gender related such that the parents wanted the students to choose careers that were traditional for them as females or males.
2. The careers that the school guided the student to consider. However, very few students considered this factor because most students did not get this guidance.
3. The grades that the students obtained in their K.C.S.E.

4. The students' perception of the careers that are appropriate for them as women or men. The main factor considered here was the students' perception of the effect their chosen careers would have on their future roles as husbands or wives, and as fathers or mothers.

5. The students' perception of the availability of wage and/or self employment in different careers that the colleges trained people for.

6. The students' perception of the gender biases the employers have when hiring workers in different fields.

   In regards to question 2, this study concluded that there were no significant differences in training program choices between students who attended single sex schools and those who attended mixed sex schools. The main finding here was that there was a strong relationship between gender and the programs the students chose, irrespective of the type of school the student attended.

   In regards to question 3, this study concluded that although the official criteria that the colleges were issued with by the government only states the grades the candidates needed to have, the actual criteria that the colleges used included;

   1. The grades the students obtained in high school.

   2. The region the students came from.

   3. The ability for the students' to pay the required college fees.

   4. Gender
RECOMMENDATIONS

This study identified several factors that need attention if recruitment of students into the craft and diploma colleges is to be fair for all the students such that all the students who leave high school have equal chances of enrolling in these programs. As explained earlier, these factors are found in the high schools the students attended, the homes of the students, the society in general, and in the world of work. In this section, I give some suggestions on how I think these factors should be addressed.

IN THE SECONDARY SCHOOLS.

(i). Facilities In The Schools.

Studies reported that girls’ schools in Kenya were not equipped to teach the science subjects. This lack of facilities was attributed to a holdover from the colonial days when girls were not expected to take science subjects. Similarly the boys’ schools were not expected to teach subjects like home science and secretarial studies, which the girls’ schools were teaching. This mentality seems to be persisting even now. However this system makes life very difficult for girls who might have preferred to study one or more of the sciences, and for boys who might have preferred to study home science or secretarial studies. Some of these students end up not doing well in the ‘gender appropriate’ subjects available in the schools they attend. This limits their future contribution to the country’s development and their own personal development. A change is therefore needed to make subjects and careers available to all students irrespective of the school they attend.

Lack of facilities was also a big problem with the former harambee secondary schools, especially those in areas that are economically and socially disadvantaged. The government
should have a policy which controls and oversees the development of those community controlled schools, to make sure that they meet a reasonable standard in both facilities and teaching staff. It is a good first step that the government has made it mandatory for all the schools and colleges to teach a common curriculum. It is, however, alarming to see that this study found only a small percentage of students in both the craft and diploma colleges attended mixed schools, although these schools form 72% of all secondary schools in Kenya. I believe that it is better to have fewer schools with reasonable academic standards than very many schools whose students end up without any qualifications that can enable them to obtain jobs or further studies. The situation is going to be worse now that the Teachers Service Commission has declared that it has no money to employ any more teachers and that the teachers already in service will be redistributed to the schools according to need. This is a policy which could result in the schools in those areas with more political and economic power getting more of the available teachers than the others, thus increasing the imbalance already existing in the country.

It is important now for the government to bring in a policy that assists the areas that are less fortunate to develop their schools, by giving them grants to build facilities, especially for teaching sciences and other practical subjects like electrical engineering and home science. With the government in control, it is easier for facilities to be distributed equally between girls’ only schools, boys’ only schools, and mixed schools. The present policy where the community in which the school stands is expected to develop the school or even initiate more schools, irrespective of its ability to support the schools, needs to be reviewed. The policy should reflect the need to develop the existing schools before establishing others.

This study established that schools do not give students career guidance. They only help the students fill the university forms required by the government. The students were not made aware of the existence of other colleges. In many cases the students were told to buy career booklets and plan their careers from there. It is not reasonable to expect students who are studying for national examinations to go looking for career booklets. Their primary focus at that time is, and should be on their studies. The students also indicated that they were required to select their examination subjects at the end of form two. At this time however, they were not made aware of the subjects required to go into certain careers. It would seem that their choices of subjects were not informed by any practical information on future careers. This situation needs to be addressed now because it has been ignored for too long. There is need for the ministry of education to train teachers specifically for guidance and counseling, especially career guidance. Such teachers should then be distributed so that every school in the country has at least one. In addition, teachers need to be made aware of the problems associated with gender stereotyping of careers.

Efforts should also be made to change the way the teachers relate to students both inside and outside the classroom. For example, the teachers should be made aware of the ways in which their interactions send messages to students on what women can do and what men can do e.g., when apportioning duties in schools like moving tables, sweeping the floor, cooking, helping the technicians to repair machines etc. One may not realize that such simple things carry with them gender messages. Programs should be initiated to sensitize teachers on the messages students get from teachers’ classroom interactions, especially in mixed sex classes.
Even with trained guidance personnel in the schools it is still necessary to have all school personnel aware of the need to give unbiased message to students in all aspects of school life. For this reason, school based seminars are also necessary if this problem students identified as a big drawback in their career choices is to be addressed properly.

(iii). Role Models.

Lack of role models makes the job of career guidance very difficulty. It is not easy to convince students that all jobs are available to them if they see that in real life and in the schools, the jobs are divided along gender lines. Many examples can be pointed out to illustrate this point. First, in Kenya, subjects like mathematics, sciences, and the science based practical subjects, are virtually all taught by male teachers. This situation is not about to change because, as shown in Chapter Five, training teachers for subjects in Moi University is such that almost all the trainees are male. These are the ones who will be teaching technical subjects in high schools. There needs to be an effort by the university or the government to ensure that women have access to this training.

Secondly, for most mixed schools in Kenya, the Headmaster, the deputy, and most of the other people in positions of power are men. Also most Zonal Schools Inspectors, District Education Officers, Provincial Education Officers, and most of the administrators in the Ministry of Education are men. The same is true in other government offices. For example, in public administration, most of the locational chiefs, district officers, district commissioners and provincial commissioners are mainly men. With this kind of situation how do we tell the girls that they can become anything they want to be if they work hard? The government should come up with a policy that ensures equal access to all positions by all people irrespective of gender. One way to do this is for the government to establish a quota system or some other
affirmative action whereby it apportions certain percentages of these positions for men and for women, according to the proportions of each gender in the population. This would go a long way in showing the students (not just telling them) that those positions are available to all.

IN THE HOMES AND IN THE SOCIETY AT LARGE.

Civic education for parents and the society at large is needed to show the people the need and the benefits of educating girls as well as the boys. The reasons for doing so should include the advantages to be gained by both the girls and the country at large. Current evidence suggests that the time when the women could expect to marry a man with enough resources to look after her and the family is long gone. Presently, many girls are ending up as single mothers who need high paying jobs to take care of themselves and their children. Even if the women get married, the economic situation today demands that each member of the family be as productive as possible in order to maintain a reasonable lifestyle for the family. Likewise, the days when families owned large tracts of land on which they could produce enough food to feed the family or to keep animals is long gone. This civic education could be conducted through the public administration, and social services departments, in the form of seminars or public barazas (open air meetings). Public barazas are presently used by chiefs and divisional officers to announce government policies on administration matters. It is only a matter of including gender matters to the agenda. This type of education would include educating parents on the need to apportion duties at home equitably between daughters and sons in order to give the girls equal time to attend to their school work. The present system where the girls are expected to do all the work at home should be discouraged at all costs.
IN THE WORLD OF WORK.

The students surveyed in this study argued that the employers have a gender bias when employing people for certain jobs. It should be remembered that after independence, foreign owned industries were reluctant to employ Africans, especially at managerial levels. The government then used policy and industrial levy to force industry to train and employ Africans in these positions. I see a government policy, which uses a combination of negotiations, incentives and a quota system, as a possible solution to the gender imbalance problem. This policy would need to include mandatory training, paid for by the use of industrial levy and/or government grants.

IN THE COLLEGES.

In Chapter Four, analysis of the enrolment records of students in the national polytechnics shows that in College A, women form only 28% of the students. It also shows that the women are concentrated in very few programs. Many reasons for this type of concentration have been identified in the existing literature. What I intend to do here is to make some suggestions on how this problem can be improved. First, the heads of department indicated that they were reluctant to recruit students into non-traditional programs because of the tendency for the students to leave the program. It seems as though the colleges assume that the reasons the students leave are associated with discouragement from other students. There does not, however, seem to be any follow up studies done to see if this is actually the case. There might be a host of other reasons associated with students’ decisions to leave or change a program of study. This type of study is necessary if correct action is to be taken. One of the things that can be done is to provide incentives for those students who choose non traditional programs to remain in them. This could be in form of guaranteed jobs for those who do well.
For students from areas that are disadvantaged by economic and social factors, a bursary system can be used to help them complete their studies. For those areas, which are simply not aware of the existence of these training facilities, there should be a policy put into place for the colleges to advertise their programs to all the areas of the country. This can be done through public barazas or publications sent to the chiefs and social workers to let the public know what is available where and when. This is not such a big task because, in Kenya, there are so many public rallies and barazas in all the regions of the country. Also, there are zonal inspectors of schools who have offices at location levels. These officers can be used to advertise and explain these programs to teachers, students, and parents within their areas of jurisdiction.

**NEED FOR FURTHER RESEARCH.**

Several issues that this study identified could not be investigated exhaustively because of lack of adequate time and funds. One of these issues is the under-representation of students from mixed schools in the technical training colleges. Of the 520 students surveyed in this study, only 134 came from mixed schools. This is in spite of the fact that mixed schools constitute about 72% of all the high schools in Kenya. It is important to investigate all the aspects of life and learning in the mixed schools to try and identify those factors which seem to limit the students access to further studies. This problem seems to be more pronounced for girls because, of the 134 students who came from mixed schools, only 21 were girls. From single sex schools however, the gender mix was more balanced i.e. 195 girls and 191 boys. This implies that there is something in the mixed schools that disadvantages students, especially girls. One aspect that needs attention is the distribution of teaching facilities among the three types of schools, i.e., boys-only, girls-only, and mixed sex schools. Whatever it is, it should be addressed in policy, and corrected because the mixed schools may be graduating
many students, especially girls, out of the school system into the society, without any access to further education or reasonable jobs.

Another aspect that needs investigation is the differences among schools in different geographical and administrative regions of the country. The fact is that some regions have a greater economic and/or political advantage over others. Since school facilities are provided by the community, some areas are more able to provide better facilities for their schools thus creating regional disparities. It is necessary to see how large these disparities are and how they can be reduced. To investigate regional disparities, it is very important to define regions properly, (i.e. a region should not be larger than one district). If the regions are too large (e.g. a province), many differences will be undetectable.

In addition to the school related research, there is a need for a comprehensive study that encompasses the global aspects of gender inequality. Of special interest should be gender equity in the world of work. There is need to find out how jobs are distributed between men and women both in private and public spheres. Most importantly, the study should establish the ratios of women to men in the managerial levels of employment. Such research would be useful in formulating a policy to reduce the inequalities that may be still existing in the country. If there is equitable job opportunities for both girls and boys who graduate from the school system, it would be easier for schools to convince students to aspire for any jobs their abilities can allow them to reach. It is clear in this study that gender relations and the lack of policies to guide them are the root causes of the polarization of students’ program choices along gender lines.
REFERENCES


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INTERVIEW WITH HEADS OF DEPARTMENT

Lunge And Kamau (Interviewed individually).

After reading the orienting statement to the participants as stated in Chapter Three, the conversation proceeded as follows.

Lunge:

*K.M.* What I need to know is how students come here. The way you recruit them, whether you advertise, then short list, and then interview. How do you end up saying this is my list of the students who are going to report?

Lunge: For all admissions in College A full time, selection is done under the chairmanship of the deputy principal. At the time of selection every department, like mechanical, you are given days of doing the selection so we go there. The deputy head of the department also goes and some staff members will help us in the selection process. We first identify qualified students from the unqualified ones. We separate them again according to provinces. Once we do it according to provinces if we wanted to take around forty students, we look at how many have applied from each province. Then we use proportion and if we wanted those forty and maybe thirty had applied form Nyanza, sixty from central etc. We admit them proportionately, with the number who applied and are qualified.

*K.M.* So first of all you receive all the applications?

Lunge: Yes.

*K.M.* Then you short list according to qualifications?

Lunge: Exactly. That is done during the day of selection, qualified and unqualified. The ones who are not qualified are put aside, then we put them according to provinces. After we have done according to provinces we look at the vacancies available. These are distributed according to the proportion of the applicants from each province. So the one with very many applicants will get more and the one with less will get less.

*K.M.* Do you balance districts?

Lunge: No, once we have done that, then for every province we go according to the districts.

*K.M.* In the province, do you use proportions also or you go by the representatives?
Lunge: We try to look at the representatives, because from past experience you may find some provinces may have some districts where nobody has applied while you find other districts with two or more.

K.M: *What do you do with districts, which do not have applicants?*

Lunge: There is nothing we can do to those ones. We just forget about them. But a district where there is one applicant that one is given priorities right away.

K.M: *Do you worry whether it is a boy or a girl?*

Lunge: Yes, what we usually do sometimes in the process of selecting we also give priorities to girls. We look at girls, who are qualified, so instead of just grouping them and they are all male maybe there is one girl in a district who is qualified so we take her.

K.M: *Do you do that for each course or you put all the courses together?*

Lunge: That is what we do for each course apart from secretarial where they are all girls.

K.M: *So you don’t get boys in secretarial?*

Lunge: They apply but those who apply, think they are coming to do secretarial work connected to the legal work like law firms and so on. I remember there was a time some were admitted but they never took the chances. So we concentrate on the ladies.

K.M: *Your department is business studies?*

Lunge: Yes.

K.M: *For secretarial you normally give it to girls, right?*

Lunge: Yes, just girls, apart from the evening classes, were, occasionally we have boys.

K.M: *Even if a boy applied for secretarial you don’t give him a chance?*

Lunge: We have been trying to admit them but don’t continue because they just come to register and then go away.

K.M: *So boys don’t normally report?*

Lunge: They don’t report.

K.M: *What other courses do you have in your department?*

Lunge: We have diploma in accounting, diploma in marketing, diploma in business administration, and diploma in secretarial studies.

K.M: *In these other courses like marketing do you find more girls or more boys in them?*
Lunge: There are forty percent girls in diploma in accounting, and in diploma in business administration.

K.M: So in accounting you get a lot of girls as well?

Lunge: Yes and also in business administration and in secretarial which is mainly for girls.

K.M: So admission is directed by the advertisement. Who decides the minimum qualifications? Is it the ministry or the college?

Lunge: The Kenya National Exams Council for those courses which are examined by them. So we look at their minimum requirement, but if it is CPA we look at the minimum requirements from K.A. S. N. E. B.

K.M: How about interests, do you have interviews?

Lunge: No. We used to do that a long time ago. Because there are students who apply and then once they are admitted you find out that they don’t report because they have changed their minds we admit from the applications and then replace those who do not report.

K.M: How do students perform in the courses that are mixed?

Lunge: Their pass ratios are the same, because you see their age requirements are the same. In most cases they perform almost the same way. The performance is the same. Like marketing when it was started it had very few people but now there are so many people interested in doing it. The same happens with diploma in accounting. You know many people are used to diploma in business administration and some come to these courses with the aim of going for further studies. After passing the diploma course they continue to the degree level.

K.M: What are the grades that you require from high school?

Lunge: Minimum should be C- average, then C- in English, C- in mathematics and C- in a business subject (not officially required by the ministry or the examining bodies), a part from CPA where it should be C+ average C+ in English and C+ in mathematics (required by K.S.N.E.B).

Kamau:

K.M: What I need from you is how you actually get the student. How do you choose them?

Kamau: What we normally do is we advertise the courses that we are going to recruit the students for. We advertise a little bit earlier, then we do the selection and send the invitation letters.

K.M: How do you decide who should come?
Kamau: In our advertisement we specify a minimum of C- for language, mathematics C-, and the mean grade should not be less than C. What we have is about six courses that are advertised.

*K.M.* Do you balance districts or provinces like if you have one applicant from the Coast Province and one hundred from the Eastern Province what do you do?

Kamau: This is applied where we have very many applications from one particular area. But if we found there is even distribution we don’t do that.

*K.M.* How about for women and men, because I found some of your classes without women don’t they apply?

Kamau: That is a problem we have. I think this can be attributed to the attitudes in the society. During the selection we give the women a chance. Even after selecting them they fear and change to business. They are discouraged by their colleagues, and by students from other departments. We try to get them but they don’t come, or they come a few and after a while they run away.

Thank you Kamau I may come to you again for clarification of points if I find that necessary.

**Kamene, And Malkia (They Preferred To Be Interviewed Together).**

After reading the orienting statement as stated in Chapter Three to the participants, The conversation went as follows.

*K.M.* How do you recruit for the different programs in your college?

Kamene: We advertise in the local dailies and the interested students apply to the institute direct to the principle. The advertisement specifies the minimum grades that you require. There is nothing that says that this is for men and this is for ladies. After that we receive the application. When the closing date approaches I am given the applications for my department. I sort them in form of districts and for every district I have a merit order in terms of the mean grades. I come up with the list which, I present to the selection committee. The selection committee meeting is chaired by the principal. We choose the best according to how one is qualified and then we send letters to those who have been selected. In almost all cases not all of them turn up because of inconveniences like lack of fees. After we admit those who report, if the classes are not full we go for a second selection from the ones who were left out in the list of the qualified candidates. We mostly go for those who gave interest.

*K.M.* Do you ever consider gender, like this is for girls and this for boys, or you merit according to application?

Malkia: Yes we merit them according to the application, it doesn’t matter whether it is a boy or a girl.
K.M: Where do you get the required qualification that you specify in the advertisement? Is it gotten from the ministry of education or is it a condition from the National examination council?

Malkia: The examining body regulates the requirements for the people when they reach the point of taking examinations. Even if the college admits you, you will not be able to take the examination. The ministry guidelines take this into account.

K.M: Do they have specific subject requirements?

Kamene: They used to but now they go by the mean grade. The problem is, when we started we were not getting qualified students yet there were so many school leavers out there.

K.M: What do you do to districts balancing when you don’t have candidates from some of the districts?

Malkia: It doesn’t matter so much because we always have a lot of students from various districts all over Kenya. In the initial selection, we go by districts so any district is represented as long as the students are qualified.

K.M: Are you interested in knowing where the student was in high school?

Kamene: We don’t ask a lot of questions about that. They indicate the school in the admission forms, but we do not care about that.

K.M: As you can see here in this list of secretarial diploma, most of the girls are from girls’ schools. In electrical engineering diploma you have a lot of boys from single sex schools while in electrical craft the number of students from mixed schools is higher. It seems as though in higher courses you have students from boys-only or girls-only schools and for the lower courses you have a higher number of students from the mixed schools. What, do you think is the cause of these courses being like this?

Malkia: Maybe the contributing factor is how the K.C.S.E was performed because when you look at the results when they are received, you can see schools of single sex are the ones which have passed well.

K.M: Why do you think mixed schools are doing worse than single sex schools?

Malkia: May be, they have different interests as they mix with each other. For instant, some schools which were mixed, when they were separated, their academic performance improved a lot. Also, when you look at many mixed schools you find that the girls’ performance is low compared to the boys.

K.M: There has been a few arguments in other countries, I don’t know whether it happened here. They say that in traditionally female subjects, teachers tend to ask questions to the girls, and in male subjects, like mathematics and sciences, teachers tend to ask more questions to the boys. The other thing they are saying is that in a mixed school, boys are the ones who do a lot of talking and girls keep quiet so the men tend to dominate the discussion in mixed schools.
They also claim that teachers expect more from boys than from girls. Do you think that happens in colleges?

Kamene: I think it is different in colleges. There, it is not a question of a teacher teaches and the learner listens. They have to show in practice what they know and courses are more skill oriented than in high schools where girls often keep quiet. Here one is supposed to know whether everyone has understood. For example when you have a girl in your course which is male dominated, they would want to see that this girl is on the same level like the boys although there is a little bit of teasing.

K.M: In Secretarial how do men behave there? Are they comfortable?

Malkia: I find them very comfortable and the girls really help the men where they have slight problems, right now the class has already got one man where girls like him a lot. When we are short-listing and we see a man in Secretarial we give him an opportunity.

K.M: How much is the fee per term?

Kamene: It is Ksh.9,990. They also buy their own books and stationary. Once the students apply we consider them as students and not like boys or girls.

K.M: When you train boys for Secretarial, do you think they have hardship in getting jobs or have advantage or disadvantage?

Malkia: They get jobs although there are some people who say that they prefer women. I think when advertising we should also have interviews so as to ensure that there are men doing Secretarial and there are women doing mechanics. The problem we have is that career guidance is not given in high schools. The students don't know much about courses. May be they are discouraged by teachers saying that this course is for a person with high marks and this is for the one with low marks. Traditionally, many tribes look at courses saying that this are particularly for men and this for women. Many parents have come here complaining that we have given their daughters courses for men and men have been given courses for girls. They don't understand that a girl may do better if she gets a job like mechanical engineer at a higher level. The community around us some times refuses to offer jobs to some girls saying or fearing they might be lazy or weak and they say that girls should be married. One thing I have noticed is like the Kikuyu community is more enlightened in terms of choice of courses. When you go to institutes and even schools in central province you will find very many girls doing practical courses.

K.M: So it is mainly a cultural thing?

Malkia: Yes it is a cultural thing.

K. M: Thank you very much for taking your time to assist me in this study. I may come back to you if I need clarification on any information you gave me in this interview.
GROUP INTERVIEWS WITH STUDENTS.

Before starting the discussion with the participants, I read to them the orienting statement quoted in Chapter Three. Then the discussion went on as follows.

*K.M:* *At this point, can you explain to me the things that you think students consider when they select training programs?*

Mutune: There are so many factors to consider. Men will first think of the money. You see, as an African man, you are expected to take care of your family. So you need a career that will give you enough money for that. These days, people go for careers where you can employ yourself because jobs are not there.

Njoki: I think career choices depend on your background for example if you used to be in a mixed school, men look at you doing things they do and others they can't do and really feel challenged. In some cases those girls who choose to take the hard subjects and are doing well are misunderstood. Even parents sometimes are to blame. For example, if a boy tells his parents he want's to stitch, they will laugh and tell him he is a boy. It really depends on background. But, parents nowadays have changed. Some will go with what you choose to do. Girls who take engineering courses are doing so well even men who do like hair in salons or sell in boutiques, they do it so well. In fact ladies prefer men to do their hair.

*K.M:* *Did any of you have any discouragement from your parents on the program you chose?*

Cheptoo: Yeah, I got discouraged by my dad. He felt so bad that I wanted to do secretarial but my sister was O.K. My mum she was like I do nursing. My dad went to the extent of telling me he'll get me out of secretarial and take me to Kenya Medical Training College but I overcame all that.

Mwende: My mum is about 30 years and I tend to think during their time parents were so strict like dictators. But after we were born our parents softened somehow. Still, when it comes to choosing a career, the parents are the ones who do it for us. You cannot just do it. About 90% of them do it. I know even in your research you have noticed my mother or my father told me and not I chose for myself.

*K.M:* *Is that more likely with educated or uneducated parents?*

I think all of them, they feel you owe them that, but most likely it is with educated parents and you are compelled to do what they feel is good for you. You have no choice but do it.

*K.M:* *What do you think the person who will marry you would prefer you to do?*

Mwende: I know for sure I'll be rejected for doing secretarial but it doesn't matter. I'll go through and over it. Even if I finished secretarial here, I'll still go to KTTC and train as a teacher. I like teaching.
Atieno: Men think secretarial has more to do with relationships than job especially if the boss is young and the secretary is young. I really think they hate it. For me I would just stand my ground and if the man thinks I can’t do secretarial he can go. I would not want to feel like I wasted three years. People think it is much easier for secretaries to leave their jobs and stay home as housewives but it’s not as easy as they think. I myself cannot waste 3 yeas for a man.

Njeri: My mom did that too. When she got babies she dropped the job as a secretary to be a housewife. I cannot do that, you feel you wasted time and effort.

K.M: Do you think bosses, I mean men bosses approach secretaries?

Yes, in most cases its true men are men, not only secretaries even in other workers. It is there even in journalism. If you refuse what your boss wants you to do, then your story won’t appear and things like that. It is actually everywhere in every field. That’s all.

K.M: Do you think employers have any preferences?

Njeri: This matters with the type of employers, some believe that anyone can do anything so long as you have qualified for it. Mostly employers however, will look at you and wonder what can this woman do for me. Even if they give you the job, you get a low pay.

K.M: So you think employers prefer a certain job for certain people?

Mohamed: Yes, for example for us men it doesn’t matter a lot because men can do jobs for ladies, but ladies cannot do all jobs men do. Most of the jobs in industries are given to men especially when it comes to night shifts and overtime. Men can work for long. They are strong. They also consider men are there to stay, unlike women who are on and off work, especially for maternity leaves. I think they prefer men.

K.M: For all jobs?

Kamwandi: No. Not in all jobs. In things like design, women have taste and they are more creative in that field than men so the employers would prefer women.

K.M: Do you think your career will have any effect on your family life or anything like that?

Mwende: It can affect especially if you work in different places but like me I want to become a teacher and for a teacher as long as you are married, you can be transferred to another place.

K.M: So there are jobs that would interfere?

Mwende: Yes. Like if you work in a factory then you are away from your husband, it will affect. I think, for me, I would not like to work in a factory in the first place and so I would prefer getting capital and get self-employed. It is easier to transfer if maybe your husband is transferring.
Mutune: It can affect because if for example I work in an industry the money would be less. I would like to be a lecturer or self-employed. If I have a wife she will transfer if I transfer. Sometimes it really affects the family so I would prefer being self-employed.

K.M.: Does it matter if you marry an engineer or secretary?

Mwanahisha: I would like to get married to a man who is more learned than I am. I can’t get married to a secretary. I would be proud to say my husband is an accountant.

K.M.: But I have seen girls getting married to men who never even finished primary school, what do you think?

Njeri: I think that depends on your reasoning and your choice. I think personal feelings really matter here, but personally I would take time to choose a good man, with a good post and well paid.

Chebett: For me, I would not mind so long as he gets more money than I get and about the post, I think love matters here.

K.M.: This is for you men. What career would you like your wife to have?

Omino: I would not want to marry someone who gets more money than I do or has a higher post than me, because I feel there would be no respect and more so equality.

K.M.: Let me ask you Omino. Now that you are in clothing, would you marry a girl in engineering, supposing that you really want to marry her?

It depends, that is hard and I don’t think any girl like that would agree to marry me.

K.M.: Where do you think that idea comes from?

Kasu: I think it is a thing people have in them, like a belief or something. I would personally say that there should be no courses for men and others for women.

Mwendwa: With me, I would like to marry someone earning less than me.

K.M.: Why?

Because I feel ladies can change you into a housewife and even disrespect you. These ladies are very technical. They can change you into anything they want to.

K.M.: But there are places where men don’t work and women work, what do you think of that.

Mohamed: I think that depends on the character. You may find a tough lady who cannot consider you are building the family together if you are not working.

With many young people, nothing can work out without money when starting up a family.

K.M.: What would you have done if you went to the university?
Awinja: I would have done home economics because there they have interest design and home management.

K.M: Would you do electrical engineering?

Awinja: No, I wouldn’t because my interest was home economics.

K.M: Why do you think boys don’t normally do courses like secretarial?

Awinja: I think they are teased by the girls, and even by other boys who are in engineering courses.

K.M: Do you think it is good to tease them?

Awinja: No, actually to them it is more advantageous because it is a challenge. The problem is with them. They look down on courses to do with food and beverage or clothing and tend to think it is like the way you do home-science in primary school, as in the way teachers cut materials for us to practice stitches. Another thing is the way ladies are taken to tailoring school when they are unable to continue with school. This makes boys really undermine these courses.

K.M: Do students coming from High School also believe that these courses are for ladies?

Awinja: Yes and it is not only clothing technology or food and beverage. Even courses like secretarial. This course (secretarial) is looked at like it is for boastful or talkative ladies. This is what men believe. Even some girls believe that.

K.M: Thank you very much for taking time to come for the discursion. Next time we meet individually, I will be interested in finding out how you personally chose the program you are doing. Please try to recall the steps you took in this exercise.
INDIVIDUAL INTERVIEWS WITH STUDENTS.

Cheptoo- Clothing Diploma.

K.M.: As I explained before, I would like you to explain to me how you chose the course you are in. This information is useful for others who will need to choose careers in the future. Can you please, tell me how you chose your program?

Cheptoo: I can't say that there is something that made me have interest in whatever I am doing. I was in a Girls High School where there was home-science. Art was introduced, that is fine art, when I was in form four. Actually it was introduced in form one. I wanted to do it, that is fine art, but I didn't take it because I was in form four. I asked teachers about it because of design. I like design, but then I did not know what type of design I would have been good in. I was confused as whether to take clothing design or architectural design or maybe landscaping. After school, I simply sat down and thought about it. I was wondering what to do because there are many types of design. I did away with architectural design because I knew I couldn't do it.

K.M.: Why?

Cheptoo: Because I know I'm not so accurate and I know I just can't. I know I'm creative but I knew I had no accuracy. It was easy to pick up clothing because it was easier than all the other types of design. At least I could make dresses. I decided to look for a college so I went to Evelynn's school of design. I was to be admitted but the fees were so high. We decided with my parents. They said I could choose anything I want.

K.M.: What do your parents do?

Cheptoo: My dad is a teacher and my mother is a nurse. My mum wanted me to be a nurse, but I told her I'm not interested in nursing. She even took me for a nursing interview by force. I actually passed the interview, but when I was called, I was in Nairobi and I had left home. When I came to Nairobi I decided to do design in College A somebody told me they did design.

K.M.: How did you know clothing design existed?

Cheptoo: Actually I didn't know clothing technology would have anything to do with design so I had to come to this place. In school we had not been told that there was something like College A. I applied from some information I got on the newspaper and I got an acceptance letter two weeks later.

K.M.: Are you happy with your choice?

Cheptoo: Yes I am happy with my decision, but there are other courses that I could have done apart from nursing or teaching. My dad wanted me to be a teacher.

K.M.: Does he teach at high school level?
Yes, he does teach a high school, but he is a bit flexible because he told me that if I preferred either teaching or whatever it is okay.

K.M: So you believe some parents are not flexible enough?

Cheptoo: Yes. Another girl told me that her mother forced her to take a career she didn’t want. Yes some people get forced for instance our neighbor got an A in his final exam and he was called to do medicine though he wanted to do aviation but his dad forced him to do medicine. So he told his dad he would go for his sake and after the six years of doing medicine, he committed suicide, probably because he felt he had wasted the time he could have done something else, it was a case of depression. Having a career chosen for us bothers us so much because you don’t want to go against your parent’s wishes or they would take you as an outcast. At times we have to go without fees and even accommodation if necessary. Right now I know of so many people here in college who have chosen careers against their parents wish. Many of them end up doing what they want to do, but they are not given enough co-operations at home. They are not comfortable.

K.M: Do you think they give you their decisions considering what is good for you?

Cheptoo: No, they are mostly after social status, they want that recognition like, my daughter is a nurse, doctor.

K.M: Why are they after that?

Cheptoo: I think they are mostly after the recognition because I don’t think if I started working as a nurse I would earn more than 15,000 but if I start my own job, I would make that money in two weeks. But I really wonder why a parent would not understand that. I also feel parent’s fear that if we start our jobs we will not make it or the job will collapse. There are some parents who are encouraging and you find that some have been civil servants. Like my dad is a civil servant, but he hates what he is doing. He likes teaching but he hates how they are treated. So when he heard I was not going to be a civil servant he was very pleased. My mum, even if I say I want to do nursing now, she would be very happy. I know she hates what I am doing because whenever I tell her we design and we model, she thinks of beauty contests and it puts her off. She has to understand we model in the clothes we design. It is so discouraging when I go home maybe my designs won or I got a trophy then she asks me, what are you actually doing in college? She often tells me that she hates my course. She thinks design is only making yourself beautiful. She doesn’t consider the fact that I am also learning how to make my own source of income, because we could have a boutique for our own clothes. It is business. She has an attitude in the fact that we are more open-minded. We think of the outcome of our courses and they do not seem to realize.

K.M: So you think communication is the problem here?

Cheptoo: I think so because even our colleagues laugh at our choices and at this point one gets stressed nearly to the point of dropping your course. Imagine you are in a group of five friends and then they do statistics or mathematics, you are put in a position where you feel like you are doing nothing because they say you will become a tailor. In Kenya nowadays people will say a designer is tailor, they do not take things as they are.
K.M.: Suppose you go home today and tell your father that you met a girl who is doing mechanical engineering, what would be his reaction? Or you just tell him you are doing mechanical engineering?

Cheptoo: He would be so proud of me and I am sure my mum would walk so tall. But, I would also say they are proud of me now. We live at Mumias. Sometimes I take contracts from Mumias Sugar Factory for designing dust coats, uniforms. But regardless of that, if I can tell him I am now doing mechanical engineering he would get so happy because he tells me that no man is better than me.

K.M.: Do you think the men in college would be happy to hear a girl is doing a masculine course, like mechanical engineering?

Cheptoo: No, I don’t think so; they feel degraded especially if a man has taken an easier course than the lady doing mechanical engineering. This gets worse when somebody feels like he’ll marry you then you take a more advanced course than his. Obviously no man would want the wife bringing home more money than him. They tend to feel inferior. They fear the lady would turn to be the head of the family.

K.M.: Do you really think the man would think of that?

Cheptoo: Yes, I know he would worry from the beginning of the whole affair. I have my boyfriend who is taking accounts. He took time to understand my course and when he understood what exactly I am doing he was asking why I chose tailoring. In fact he insisted I do accounts. He even looked for forms for me to apply for accounts course, but I just said no.

K.M.: So there is lack of information on what exactly design is?

Cheptoo: Yes. In fact some people say cutting and tailoring instead of clothing and textiles. The other reason is that I think there are careers for men and others for ladies. You will find that in girl’s schools they don’t have courses like engineering. You will only find these courses in either boy’s schools or mixed schools. So the problems come from high school because we do not have all the subjects offered the same way in both girls and boys schools. There is no way someone who has a base in a certain course can be the same as someone who has just started the course in college.

K.M.: Are you saying that girl’s schools differ in curriculum with boy’s school?

Cheptoo: In a way, yes because in our high school they only had Agriculture, office practice and French, there was nothing like engineering. In each class there were supposed to be 15, students meaning out of 3 streams there would be 45 students so I ended up doing office practice. I did not have other option. For some students to do home-science, their parents had to bribe so that their daughters could go to the home-science class. Career choice is like it is based on a certain traditions like when a girl is born, she helps with the house chores and what boys will do is make metal and wire cars. In fact if I would give birth to a girl right now and she starts pushing wire cars around, I would beat her. I feel that a girl should be given as may opportunities as a boy is given. You will never give birth to a baby boy when he grows he starts cooking. Whether things are changing that will never happen. But these days, women
are daring because they want to show men they are also capable and they want to be recognized. These days you will find many girls doing courses like mechanical engineering, aviation, and you will also find men doing secretarial.

*K.M.*: *Here in the polytechnic?*

Cheptoo: No. In this polytechnic there is none.

*K.M.*: *It is funny you are so conservative. In K.T.T.C, I met male teachers teaching secretarial studies. In fact, there were only two ladies teaching secretarial compared to six men.*

Cheptoo: Here in the polytechnic there are only women teachers teaching secretarial and courses like fashion and design. When you come to mechanics there is only one lady who teaches material and not subjects like structures. I think the division is natural or due to attitude.

*K.M.*: *So here in the polytechnic it is very clear?*

Cheptoo: Yes. Men take technical subjects in fact, there is a class in civil engineering department where there is only one woman and in our class there is one man who didn’t take even an hour before he changed his course. He came at 9 am and some minutes to ten he went to another course. The first year class has three men doing design and in our class there is none.

*K.M.*: *Why do they run away?*

Cheptoo: We don’t understand why. Maybe they just feel out of place.

*K.M.*: *Do you girls laugh at them?*

Cheptoo: Yes. I think there is some teasing and flattering and I think they just think because people are so good to them, they are teasing them, so they go away.

*K.M.*: *Anything else you want to add?*

Cheptoo: Yes. I think there should be no barriers between what women do and what men do, especially now when many people are getting educated. I think we should be more flexible.

**Musau- Mechanical Diploma.**

*K.M.*: *How did you choose the career you are training for?*

Musau: I am pursuing a course in Mechanical engineering, production option. My ambition when I was in school was to do accounting, being inspired by my father who is an accountant. It was not my wish to do mechanical engineering but after school I found a friend who was doing mechanical engineering at College C. He advised me to do mechanical and I went by his
advice. I also read in the media that this country was going to be industrialized by the year 2000. I believed that mechanical engineering is part of industrialization so I joined it.

*K.M.:* Did you discuss your choice with your parents?

Musau: No, I never discussed with them. I chose on my own.

*K.M.:* Why?

Musau: They had said the choice was up to me.

*K.M.:* Did you have career guidance in secondary school?

Musau: No we did not. No body guided me. It was me and my friends. I just chose on my own.

*K.M.:* Did you consider other careers like secretarial or food and beverages?

Musau: I had no idea about them.

*K.M.:* Did you know about other engineering courses besides mechanical?

Musau: I had no idea. I thought there was only one course, mechanical. I did not know about electrical or automotive engineering.

*K.M.:* Do you have ladies in your class?

Musau: Yes. We are 28 and two are ladies.

*K.M.:* What do you think about them being in engineering?

Musau: I find that ok. They are quite comfortable.

*K.M.:* How about men doing a secretarial course?

Musau: I find it odd because it is women who do that course and it is not good to change.

*K.M.:* Any reason why it is odd?

Musau: I have no particular reason but it is odd.
Menze-Food& Beverage Craft.

K.M: Can you tell us how you chose the career you are training for and whether you ever considered any other career besides this one?

Menze: Actually this career was not the one I always thought of doing, but I don’t regret much because it is almost similar with the one I wanted in my life. I did my form four in 1991 and for the following five years I was still at home. I was interested in nursing. For those five years I tried a lot of nursing interviews but did not succeed. I wasn’t given a positive answer. It was last year but one when I heard about College B. I thought technical colleges offer courses which involve very hard work which I thought they were for men. My uncle gave me a newspaper which had an advertisement of this institute and the courses they were offering so I decided I would do better in accounts. So he advised me to apply but I was late to apply because people had already joined. My uncle wrote to the principal a letter and told me to go with it. After that I was admitted and told that the only chance I had was to do food and beverage. When I told my uncle he said it wasn’t bad because I would change the course later. When I told my sisters they said it was better to do food and beverage rather than accounting. Although it was expensive they told me to take it and they were the ones paying my fees.

K.M: Why didn’t you like the course in the beginning?

Menze: You know when I was in school I didn’t do any home science skills so I thought it might be hard for me.

K.M: What did your parents say about the course you are taking.

Menze: Because of being home for those five years they didn’t say anything. They encouraged me to continue with the course.

K.M: How had your high school prepared you for career choice?

Menze: Our school supplied us with career booklets from which we could get information about careers. I only considered what I could do at university. I did not think about other colleges. Nobody told us about these other colleges. We thought they were for those who fail. I did not think about failing so I did not consider these colleges.

K.M: Do you think that if you had the information you have now, about careers, you would have stayed home for five years?

Menze: No. There are so many courses I could have done. I think I would be working by now.
Angaine- Carpentry Craft.

K.M: Please explain what led you to doing this course. How did you make your career decision?

Angaine: My name is Angaine I went to school in a Boys High School. From form one to form four I was taking carpentry and joinery and the teacher who was taking us had a workshop. He used to invite us over to his place to see what he was making. Also when we were learning he advised us on some institutions we could go to and continue with woodwork. I took one year outside school. I was working as a carpenter as well as a plainer. During that time I came to find out many firms dealing with furniture, and I also did some accounting. Afterwards I joined this place.

K.M: How did your parents and friends take it?

Angaine: My parents had nothing but my friends were asking why I chose to do carpentry. They thought it was like the “jua kali” people, the way they carry their tools and assemble them out in the sun to start working. I tried to explain to them but they did not seem to understand so I just ignored them. Actually my brother is a wood polisher and I used to go over his place of work and admire his work. I think he really encouraged me. I was always interested in carpentry when I was in school and after form four I looked for somewhere I could take a course that would one day make me a very good carpenter.

K.M: Besides the carpentry teacher, how did the school you went to help you choose the course you took?

Angaine: Teachers used to talk to us but not very much.

K.M: Did you have a career guidance teacher?

Angaine: Yes.

K.M: What did he do?

Angaine: We were given career booklets and told to discuss with our parents.

K.M: So you didn’t discuss with them in length about careers?

Angaine: We talked a little, but after we talked with our parents on careers. We also consulted our teachers in case of problems with the career books.

K.M: Did your grades affect your decisions?

Angaine: No, I always did well so I was not so worried, I always knew I could make it to carpentry.