FEMALE STUDENTS STREAM CHOICE AND ACADAMIC PERFORMANCE IN TECHNICAL /VOCATIONAL AND PREPARATORY SCHOOLS: THE CASE OF SIDAMA ZONE IN SNNPR

BY

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Acrimony

FEMSA	Female education in mathematics and science in Africa
OECD	Organization for Economic Cooperation and development
TEVT	Technical and vocational education training.
NSF	National Scientific foundation.
MOE	Ministry of education
SNNPR	Southern Nations Nationalities Peoples Region
TIMSS	The third international mathematics and science study.
NCF	Non - conventional fields.
CF	Conventional fields.

Abstract

The purpose of this study was to examine the stream choice and performance of female students in TEVT and preparatory schools of Sidama Zone.

To achieve this objective data were collected from 215 female students and 81 teacher respondents using instruments such as questionnaire, interview document analysis and informal discussion. The data obtained were analyzed through statistical method (percentage and Z-score) and narrative approaches

Findings revealed that parents especially mothers have great influence on daughters field of study choice. School agents-teachers and guidance counselors plays less role than parents in guiding girls in field of study choice. The finding also indicates that the major reason for preference was academic performance and fields potential for future development. Lack of competency in mathematics and science (physical science has strong repercussion on the selection of traditional masculine fields for females.

Regarding achievement pattern result a significant difference is observed between male and female students in preparatory subjects, where as in TVET no significant difference in achievement is seen between the two sexes except in Industrial technology and Construction fields.

As to the factors influencing girls' academic performance, economic problems, domestic works and lack of interest are the major factors identified by female students.

To increase female students enrollment in traditional masculine field studies and enhance their performance in TVET and preparatory intervention strategies such as providing economic and materials incentive, strengthening guidance and counseling services, promoting gender sensitization program are suggested.

Chapter One

Introduction

1.1 Back ground of the study

All Countries of the world and especially the sub-Sahara African countries have come to realize the importance of education for national development. In the development of human resources, it is education, which holds the key to human progress. Hence, education is regarded as the basis for all round development of man, society and nation. There is a high correlation between education and national development in general and human resource development in particular.

With this regard today girls' education is widely recognized as the most effective development investment a country can make. The education of girls enhances economic productivity, reduces fertility rates, lower infant and maternal mortality and improves the health and nutritional status. It promotes sound management of environmental resources and closely linked with the reduction of poverty through women's absorption in the economy as employees and in self- employment. (Edda G. 2000). Therefore, the education of girls has particular significance to Ethiopia where economic and social development is limited by rapid population growth and inadequate development of the human resource base.

These impacts of education can fully be realized when women in a country have equal opportunity and access to education to that of men. However, girls in third world particularly in Ethiopia are subjected to gender discrimination in every walk of their life. They are exposed to gender disparity in economic, social, cultural and legal and do have less access to education and employment (Tirufat ,1998).

In her study of female students' performance and participation in high schools of Addis Ababa Genet (1991) also showed that in Ethiopia the participation and attainments of girls in all educational levels is lower than their male counter parts. And the disparity between the two sexes becomes significant in secondary and tertiary education levels. Female students' drop out and repeaters in class are greater than male students. Many of them concentrated in fields such as secretaries, home economics, nursing and teaching in elementary schools.

The pattern of enrollment in different countries clearly reveals that girls are under represented in science and technical subjects. In Ethiopia, technical fields are male dominated and girls were encouraged to join separate fields of study such as secretarial and specific vocations assigned for women. Where as technical subjects such as industrial arts mechanical drawing electricity were meant for boys.

The findings of the different reports lead to the conclusions that in all countries, even though there is no, discrimination in enrollment in science and technology fields, the percentage of females enrolled is lower than that of men. It is clear that female generally account for significantly higher percentage of enrollments in courses study and training oriented towards commercial and service trades or occupations rather than courses towards industrial and engineering trades and occupations (Hoffman et al, 1999).

Moreover it is common across in almost all countries that not only, the participation of girls in secondary level is low in-terms of number compared to boys, but also the type of courses offered or opted for by them are traditionally accepted feminine courses.

It is believed that gender imbalance in different field of study is a result of a combination of factors such as cultural factors, school factors, home factors, etc.

The cultural factors that arise from gender specific beliefs and bases in a society don't allow females to aspire careers that all perceived as male domain due to being afraid of disapproval from others (Hyde K., 1993).
The school environment such as teachers, peers, learning materials plays vital role in transmitting all forms of beliefs that reinforce gender in equalities in natural science and technical fields. The image of subjects as male domains in school environment affects female's field of study choices (Wolpe A., 1997). This perception of some subjects as male domain in school environment in a form of psychological barrier limits female students' field of study. For instance female perception of mathematics and Science as male domain make them reluctant to study these fields (Betz N., 1997)

Among the school factors particularly teachers have strong powerful influence on the attitude, interest and achievement of students in a given subject. The gender stereotyping of subjects promoted by teachers appears to be a major constraints for females to a given field of study. (Khale S., 1993)

There is no doubt that improving the quality of general education and technical and vocational education is essential in building science and technological capabilities. However, women in the world particularly in developing countries are increasingly deprived from scientific and technological developments. This gender disparity in science and technology are unacceptably high and become a series problem in the society.

Gender disparity in educational attainment is directly related to differences in occupational opportunities (Finn, Rois and dulbers, 1982). Gender inequality in science and technology education hinders females from participating in the

wide range of careers opportunities and excludes them from professions that are better remunerated, and also force them to be concentrated in to low paid, low prestige occupation. (Brydon and syliva, 1989).

In improving the status of women, government has pay special attention to the equal access of girls and women to scientific, technical/vocational educations and training. At present the development of society is possible only when females have equal opportunity of participation in scientific and technological development as their male counter parts (Snyder and Mary, 1995).

Although relative efforts have been made by the government to increase female education opportunities, their enrollment, performance and academic choice in TVET and Secondary education are generally limited in Ethiopia particularly in southern region Sidama Zone.

Currently the gender disparities in science and technology are an acceptably high. Thus we need to address this imbalance proactively so as to have adequate human resources to deal with our problem.

1.2 Statement of the problem

The participation and performance of girls' in all primary, secondary and tertiary education level is lower than that of boys. The gender disparity becomes wider as we go up in educational ladders (Odaga and Heneveld, 1995). For instance in Ethiopia in 2003/04 female students accounted for 42.6% of primary enrolment, 35.3% of secondary enrolment and 19% at tertiary levels, only 35.3% of girls compared to 62.2% of boys attending in secondary schools. The graduate student population at higher educational level consists of 24.96% female and 75.05% males. The dropout rate at both secondary and tertiary levels is higher for females than it is for males. MOE (2003/04)

For variety of reasons, girls' performance is lower than that of boys, especially in crucial areas such as mathematics, science and technical subjects.

Moreover, at secondary levels girls' academic choice is more inclined to art subjects. Poor performance at primary and secondary levels of education with particular reference to science, mathematics and technical subjects hinder girls' entry into and success in higher levels (Edda Gachukia, 2000).

In most secondary education level of Ethiopia, especially in rural areas female student's academic choice is limited to specific area. It is true that girls tend to enroll in education and art subjects and to be under represented in science subjects and mathematics where boys and men dominate (Odaga and Heneveld, 1995). This condition in the future will lead to more gender imbalance in the labor force and brings negative impact on the national capacity building in various sectors. Thus it calls for improvement (Maritila Dalmini et al 2004)

To improve girls' academic performance and achievement and their stream choice it requires a clear understanding of the home and school factors (parents, teachers, curriculum material, distance, school type etc...) that influence and discourage them. Hence, this study is a practical step to examine the current trend of girls' educational performance and participation with the emphasis of stream choice, investigate the in and out of school factors which affect girls' educational achievement and academic choice and finally to indicate the possible solution which may help in alleviating the problems in preparatory education and vocational school in Sidama Zone.

Accordingly, the following research questions were formulated to be answered in the course of study.

1. What is the status of female students' performance in TVET and preparatory schools of Sidama zone?
2. Which streams (area of studies) do female students often prefer to join? Why?
3. What are the factors influencing girls academic performance and placement in stream?

1.3 Significance of the study

As confirmed by different practitioners in the field of education, there is a clear disparity in the participation and achievement in the field of education between the two sexes. For instance, it was also found out that the grade 10 and 12 national examination results for the last five years were also lower than that of boys. In regard to technical and vocational curriculum offering, the study indicated that most girls had enrolled in secretarial and home economics areas; and enrolment was low in areas such as, construction and industrial technology (Atsede and Kebede, 1988)

Information from other developing countries about participation and achievement of female students in secondary education is abundant. In Ethiopia although there are some studies that reflect girls' educational achievement in secondary education it is spare in region. Thus, a survey study of the participation, performance, and academic choice of female students in preparatory and vocational/technical schools in Sidama Zone is adopted to assess the existing state of female students' participation, streaming and achievement in secondary education and the strategies used to encourage girls' participation and performance in school.

In general this study is important for the following reasons.

1. This study would be useful in designing strategies that might help in increasing the balanced participation and achievement of girls' in different fields of secondary and vocational/technical schools.
2. The study can provide ideas to teachers, schools and educational personnel to review their approach and enhance female education.
3. The study can provide information to policy makers, parents and the society at large so that they become fully aware of the reality of schools and the problem of students and make efforts to alleviate the problems.
4. The study can be used as a starting point for further research in the area.

1.4 Delimitation of the study

Basically this research is designing to examine the performance and stream choice of female students in preparatory schools and technical and vocational institutes in sidama zone. The main focus of the study is investigating the status of female students' performance and the factors that influence their achievements. Similarly the other task was to find out the trends of female students field of study choices and the factors that limit their choice.

On the other hand, the study was delimited to the SNNPR particularly Sidama Zone. Here, only government technical/vocational and preparatory schools institute which are found in Awassa, Yirgalem and Alteta Wondo, were included in the study.

1.5 Limitation of the study

One of the limitations of this study was lack of getting enough research works related to the study topics. Thus researcher is forced to use foreign sources (documents) as a reference.

Including lack of adequate data from school list, TVET, man power and time were other constraints that faced the researcher in the course of data gathering.

In addition to this, some teachers were not willing to fill in the questionnaires. In spite of all these limitations the researcher has attempted to complete the study as much as possible and to make it as a stepping-stone for further study.

1.6 Operational definition of terms

Achievement:	Students performance in relation to attainment of objectives.
Stream choice:	Preference of disciplines in education system or careers.
TVET:	An institute where students grasp technical and vocational education and awarded certificate or diploma after their completion.
Preparatory program:	Second cycle of secondary education in which student prepare for higher education.
Non – Conventional Fields:	Traditional male dominated fields such as mathematics, science and technical fields.
Conventional Fields:	Traditional female dominated fields such art, language, home-economics :

Chapter Two

Related literature Review

2.1 The Trends of female student's academic choice

Early schooling serves as one of the major sources of learning and socialization and conveys values regarding career. It is obvious that education creates options. Thus the decisions the individual makes concerning the major areas of study will be one of the most important career decision an individual ever makes (Betz et al 1987:54).

However the educational system has practiced and perpetuated stereotypes and biases that have made educational progress and success in many ways more problematic for females than males (Ibd: 55).Although both females and males are victims of sex discriminations in educational system, females are assumed to be victims to a greater degree than males since it serves to limit and restrict their options and achievement (Kuter and Borgan, 1976).

In the world both females and males have shown disparity in school subjects/field choices. In line with this Finn et al (1982: 118) stated that in all parts of the world boys are directed into mathematics and technical curricula more actively while girls, when their education encouraged, are guided toward language and liberal arts.' A study conducted in ten developed countries between the years 1983-84 on the participation of female students in science fields, of upper secondary schools by Kevees and Kotte (1996:87) revealed that science courses become more masculine in secondary schools where large number of boys taking science and men teaching science increase, with the exception of Italy from 1983-84, the study of biology is preferred by girls rather than boys in western countries including USA, Australia and Japan. While the study of chemistry and physics are dominated by males with the exception of

Hungary. In the United States of America and Australia although women are well represented among secondary biology teachers, teachers of the physical sciences are pre dominantly male. Similarly, in England as reported by Kelly (1985) boys comprise 70-80% and 30-50% of the physics, chemistry and biology candidates respectively, in USA approximately 45% and 35% of university bound high school girls take chemistry and physics courses respectively. Czujko and Bernstein (1989). Likewise in Australia in 1987 the proportion of grade 12 girls who study chemistry and physics was 40% and 27% respectively (De Lacter et al 1987).This situation, therefore, has been able to identify that even in the most developed countries high school girls are less represented in core science courses. According to Betz N. (1997:112), in USA the under representation of female in science ad technology has been a serious problem.

Even though in United State the percentage of women earning degree increased their degrees are still predominantly in the female-dominated fields which provide lower pay and lower status. It may be noted that at the Bachelor's degree level, women are still concentrated in traditional fields of education, fine and applied art, foreign languages health professions, home economics and library science. (Tremain and Haitman, 1981).

Though Europeans have long history of technical/vocational (technological) educations, the share of girls has remained low in relation to boys. During the early 1980s it was reported that in Germany 13% of girls are reported of taking physics compared with 87 percent of boys. White (1984:11) conducted a study and Sweden in 1985 on technical and vocational students choices shown that 93% of boys and 20% of girls opt for wood work and metal work while 7% of boys and 80% of girls opt for sewing and knitting as a result of the per-industrial society's attitude and values towards male and female roles.

In Eastern and Western European countries such as former Yugoslav, Britain, France, former Soviet Union and the Baltic states, the out numbering of women than men in higher education in 1990s has become a striking features due to the fact that male students show preference for vocational and technical trainings rather than pursuing university study in order to gain more quickly the qualification that will allow them to join the world of job. Nevertheless, women in higher education concentrated in subjects that led them toward education and health professions (UNESCO, 2004)

In developing countries similar conditions are observed. There is strong evidence in the literature to support this view. Studies confirmed that there is a strong gender bias in subject choices available for girls and girls are often stream out science and mathematics fields into the traditional female subjects that led them into education, health and administrative support employment (Baden 1993, Beoku Bett and Logan, 1993).

Further more, girls are proportionally smaller in number in technical fields and they study fields that most of-ten prepare them for low economic status jobs. In Kenya females are not only extremely under represented in technical training, but the few who are admitted tend to be offered focusing on the traditional feminine courses such as home economics, Typing, food processing and tailor rather than the pure science and technology courses. This is because girls thought that the non – traditional courses were dirty and involved with heavy manual work. Besides, they were socialized to believed traditional courses which are feminine and led them to socially accepted occupation. (Ngau: 1999)
The situation in Ethiopia is not different from the rest of developing countries. So, the wide spread religious tradition and culture and the existing education culture that favors academic learning more than practical learning inhibiting the promotion of technical vocational training and developing negative attitude among the population in general and females in particular.

In secondary schools, the two tracks from which students can choose are social (art) and natural science. The majority of female students tend to go to social sciences while in natural science-fields their rate of participation is lower than their male counterparts. These under representation of girls in non – convention field begins at the secondary level. In technical /vocational training institutions female students appear to avoid the technical fields particularly wood work, metal work, machine technology, general mechanics and construction. When they enter in higher institution they appear to avoid natural science fields. In this regard the percentage of female students enrolled in Science and Technology Faculties at Addis Ababa in 2003/04 academic year was at the ratio of 29:9 in biology, 41:2 in Chemistry, 166:10 Mathematics and 24:0 Physics (MOE, 2003/04)

Regarding female participation in science and technical field in Ethiopia Atsede and Kebede (1988), Yelfign, (1995), Trufat, (1998), revealed that most girls had enrolled in secretarial and Home economics area rather than in non-vocational fields such as construction and industrial technology that are male dominated.

2.2. The trends of females' participation in TVET in Ethiopia.

In Ethiopia girls are under represented in technical and vocational- institutes as in all other educational sub – sectors. In technical and vocational education gender based division of labor and low enrollment rate for girls are reflected due to the status that society attributed to women. Atchoarena David, (2002).

The situation is even more pronounced in rural areas where Girls and women are still marginalized in TVET. As depicted in table 1, Girls who continue their schooling in TVET, therefore, choose specialties leading to the job typically occupied by women.

Closer examination of girl's enrollment in TVET reveals a heavy traditional bias for home economics, secretarial and dressing with very few enrollments in the traditionally male oriented technical areas such as building construction, auto

mechanics, wood work and machine technology. As can be seen from table 1, the total number of students enrolled in technical and vocational in 2003/04 was 87158. MOE (2003/04) of this the share of female students was 47.4 percent. The share of TVET enrollment comparing to over all secondary enrollment is 10.70%. In the southern region women account for about 49.3, percent of the TVET trainees of the region. In nation wide as well as the region majority female trainees are concentrated in women's traditional fields of study such as secretarial science, home economies and dressing. For instance, in SNNPR in 2003/04 girls in TVET accounts for about 97.5% of secretarial science, 100% of the textile technology, 97% of the hair dressing, 94.1% of food preparation, 67.8% dress making and 68.2% of Hotel service trainees.

Generally speaking the low proportion of technical and vocational education compared to the general secondary education is due to the low carrying capacity and public attitude towards the training. Moreover, the pupils who enroll in this kind of educations are considered to be those who have failed in general education (Atchoarena ,2002).

As have been observed from the table one, may be some what encouraging that female students have started to join some male dominated fields of study such as drafting, surveying, wood work and machine technology, they are still clearly in the minority.

Today girls in TVET continue to opt of traditionally female oriented occupation even though there is some equal access to male dominated occupations. According to UNESCO, (1996:27) publication some of the major causes of inhibiting girls and women from pursuing technical and vocational centers include societal norms and prejudice, feeling of capability, lack of encouragement, role models, and lack of basic and useful information about job occupation and opportunities.

Table – 1

Technical/vocational educational and training by field of Specialization

	National 2003/04				SNNPR 2003/04				SNNPR 2006			
Occupational	**Male**	**Female**	**%**	**Total**	**Male**	**Female**	**%**	**Total**	**Male**	**Female**	**%**	**Total**
Accounting	6596	8940		15536	254	284	52.8	538	552	461		983
Secretarial science	492	9648		10140	5	377	98.7	382	20	651		671
Information technology	3946	4203		8149	47	153	76.5	200	295	463		758
Textile technology	377	375		752	-	20	100	20	-	-		0
Dress maker	463	966		1429	54	114	67.8	168	25	58		83
Bakery & confectionary maker	98	502		600	10	82	89.1	92	15	27		42
Food preparation	160	847		1007	2	36	49.7	38	0	25		25
House holding	22	222		244	3	11	78.6	14	0	0		0
Hotel service	148	429		577	20	43	68.2	63	18	39		57
Hair dressing	103	510		613	2	68	97.1	70	9	85		94
Drafting	1270	981		2251	59	123	67.5	182	114	96		210
Surveying	1478	736		2214	78	85	52.1	163	172	42		214
Woodwork	1388	241		1629	71	37	34.2	108	163	75		238
Construction	4399	873		4272	123	47	27.6	170	240	62		302
Electricity	4539	1194		5733	559	99	21.6	458	439	94		533
Electricity	2242	665		2907	46	12	20.6	58	102	26		128
Auto mechanics	5562	472		6034	354	22	5.8	376	366	24		390
General mechanics	4248	418		4666	278	59	17.5	337	391	68		459
Machine technology	1073	225		1298	73	56	43.4	129	108	32		140
Clinical nurse					23	36	61.0	59	-	-		-
Total	**45798**	**41360**		**87158**	**2061**	**1764**		**3625**	**3029**	**2328**		**5327**

**Date source: Ministry of Education (MOE) AND SNNP Bureau.

2.3 TVET in the educational system Ethiopia

It is generally accepted that investments in basic education and secondary schooling usually have high return in Sub-Sahara countries.

The primary objective of technical and vocational education is to train a skilled labor force that can adapt to the requirement of the labor market. (Atchoarena D, 2002).

Liberal education alone is not sufficient to the program of nations. It required, besides administrators and clerical officers, a cadre of qualified scientific and technological manpower to take over and develop the nation's productive capacities. Without the capability and capacity to provide the nation with necessary goods and services such as food, housing, health care, transportation and communication the nation becomes chronically dependent on developed nations. In an effort to overcome this situation most African countries have

been taking education reforms, and the introduction and expansion of technical/vocational education had become a common features for most of them. This is due to the increased realization of the importance of technical and vocational education in the national development. Various studies carried out by World Bank and education researchers have shown that investment in TVET is worthwhile no matter what the economic status of the country may be (UNESCO 1996:14)

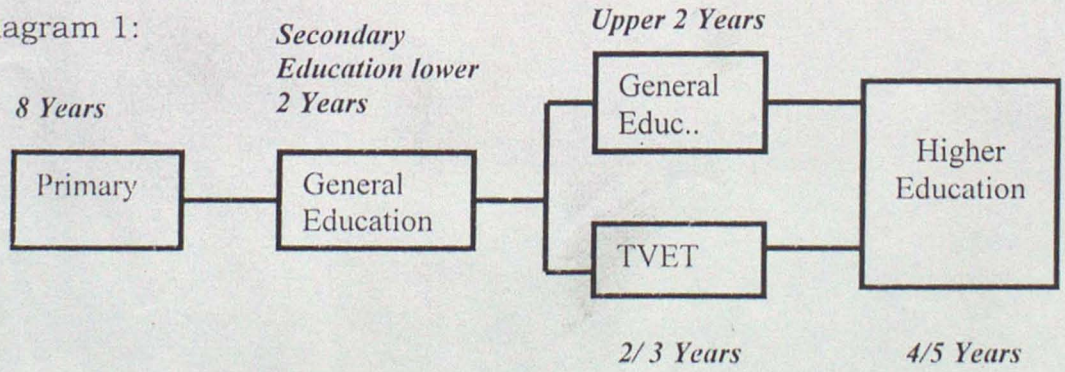
Therefore, a country's technical and vocational training system is a decisive factor in determining the competitor strength and level of development of its economy. The education and training is largely determined by the country's social-cultural, economic, demographic and technological development. (UNESCO, 1996)

The primary objective of technical and vocational education is to provide knowledge and skills in technical and vocational fields in order to meet the national manpower requirements in agriculture, business, industry and other technical services.

In connection to the above objective TVET in Ethiopia forms a separate system that parallels the general education system, with its own institutions, teachers programs etc.

In Ethiopia, pupils may enter the technical education branch at the end of junior secondary schools as shown in diagram 1 secondary education.

Diagram 1:



Source: UNESCO 1996

Requirement for entering technical vocational education is completion of lower secondary education. Concerning certification of technical / vocational education certificates and diplomas are award after the examinations at the end of 10+1 10+2 and 10+3 years respectively. It should be noted that in Ethiopia people who leave school before the prescribed time for choosing technical and vocational streams, short term training will be given at the primary or lower secondary level in order to make young people ready for wage (if they don't want to continue their schooling).

2.4 Female performance in secondary schools

Student's performance can be measured through their achievement and repetition in the national examination, study time or attendance and home work. Regarding achievement of girls in the Ethiopian girls' national examination, MOE (2003/4) reported that in Ethiopia girls' performance in some subjects reveals wider gender gaps in performance than others, notably mathematics in an education system where aggregate achievement for boys is slightly higher than for girls with some regional variation. In 2003/04 only 20% of girls passed grade 10 examinations compared with 53% of boys and 46% and 67% respectively passed the grade 12 examinations (Rose, 2003 cited in UNESCO 2004)

In Ethiopia at all levels of education both in rural and urban areas and more so in rural areas, the participation and performance of female students are much lower than those of boys. (Anbessu and Junge, 1988, Genet 1991)

The drop out rate in both secondary and tertiary levels is also higher for girls than it is for boys. In qualitative terms, it is well established that given equal opportunities, girls perform as well as and sometimes better than boys. For instance the 1996 third international mathematics and science study (TIMSS) revealed that in most countries girls and boys had approximately the same

average mathematics achievement. However, in many instance and for a variety of reasons in Sub-Sahara Africa girls' performance is lower than that of boys, especially in crucial areas such as mathematics, science and technical subjects.(Edda Gachukia, 2000)

Table –2.

Ethiopian General Education certification and higher Education entrance Examination results 2003/04

Grade	Score	Male	%	female	%	Total	%
10	2.0-4.0	97381	45	34461	15	131842	60.9
	Below 2.0	43895	20.3	40559	18.7	84454	39.1
12	100-500	34273	71.2	13397	27.8	47670	99.0
	1	354	0.7	106	0.22	460	1.0

Data source: Ministry of education (MOE 2003/04)

As can be seen from table 2, students who registered for grade 10 and 12 national examinations were 216296 and 48132 repeatedly. The share of girls for both grade were 750201(34.7%) and 13503 (28%) in grade 10 national examination. The number of girls scored above 2.0 point was 34461 (15%) where as in grade 12 examination 13397(27.8%) scored from 100 to 500 points. Thus the participation as well as the performance of girls was lower than boys.

2.5 Factors influencing girls' academic performance

several constraints such as family influence, socio-cultural norms and school environment appear to be relevant for the achievement of female students at school (Acceles 1985, Bitz Nancy, 1997, G. Kelly and Elliot, 1991, Odaga, 1995) particularly the school related factors such as teachers education, teachers training, peer relationship school size, and school facilities would have greater

impacts on students' performance than non-school related factors (Chinapah, 983:42)

2.5.1 Family influence

There are also ways in which family can help or impede the child education. The nature of the family in-terms of size, relationship among members the presence and absence of parents (due to death and divorce), the amount of income earned or generated, educational background and attitudes towards education in one way or the other can influence the academic performance and career of the child especially female.

The influence of family on female students' academic performance will be discussed below under the subtitle of parent' socio-economic status educational background and attitude towards girl's education.

2.5.1.1 Parents socio-economic status

Parent's socio-economic status has notably influence upon their children's education attainment and performance. In this regard (Teshome, 2003:6) states that girls who come from socio-economically well-off families and living in urban areas are much more likely to enter, remain and perform in schools than disadvantaged families. The publication of OECD (1986:37) pointed out that girls who are from lower economic background are engaged in household chores, which consequently affect their academic achievement negatively.

By the same token studies in Ethiopia show that females in rural as well as in Urban areas, have more responsibilities to carry than boys. They take care of younger sister and brothers, engaged in household activities and petty business so as to help their families and satisfy their needs. However, this situation doesn't allow them to have enough time for study and consequently result in

poor performance in school (Zewdie and Barbara, 1991, king and Hills 1993 and Odaga, 1995).

Chervischovoky and Meesok, (1985:21) confirmed that low economic status is one of the major barriers for parents in providing their daughters with the necessary educational materials. In addition to this, the writer revealed that parents of poor economic background prioritize their sons rather than their daughters in providing the limited economic support they have.

2.5.1.2 Parents educational background

Parent's educational background is likely to be one of the factors that affect female students' educational performance. For instance if the head of the family is highly educated his children are likely to receive some encouragement, guidance and even help in academic work. Almost all educated parent's wishes and expected better performance of their daughters. King and Hills (1991:228) also stated that parents who are educated might have a positive attitude about female education or provide a more stimulating environment for education than other parents. Thus, this situation in the school will encourage female students to have a better academic performance. In accordance with this, (Teshome, 2003:6) in his statement expressed that girls from well of families, who live in urban areas and are well educated are more likely to enroll and remain in school longer than those from poor families in rural areas.

Though, the strength and form vary, the impact of father's schooling on girl's education is wide spread. In many social background categories females' advantage is found to be more substantial than do sons only when father's schooling is relatively high. (Kelly and Elliott, 1991:64). Mother's education is also an important factor to pay fees and provide encouragement to her daughters attending schools (Hyde, K. 1993). Moreover, in house holds headed by educated, females are more likely to send their daughters and sons to school

and to show good performance than house holds headed by uneducated females or by males (Chervischovoky and Meesok, 1985)

2.5.1.3 Parents attitude

The negative perceptions to educational value of girls and their role in the society make parents reluctant to invest on girl's education. (Hyde K., 1993). The wish to protect daughters from undesirable influence becomes dominant in areas where the traditional out looks prevail. For instance, the education of girls in northern Nigeria stands in sharp contrast to other parts of the country, which mainly arises from the resistance to the introduction of Christian missionaries and the spread of Western education. Kelly and Elliott, (1991:113).

2.5.2. Societal influence

Several studies (Assie 1994, Akande, 1987, chernichovsky, 1985) have suggested that the enrollment, attainment and performance of girls' education may be affected by the area residence (Urban-rural) the availability of schools in urban areas, the greater wealth of urban families, the more positive attitude of Urban parents towards having girls to attend Western school and greater job opportunity for girls may be relevant in promoting girls' education.

Religion is usually affecting the participation of girls in schools. It is evident that some parents become reluctant to send their daughters to school in fear of that western education may promote value and behavior for girls which are contrary to cultural norms (Odaga, 1995). Soumare, (1994) in his analysis of factors that limit girls' education argued that religions belief and its impact on their decision does not appear to be a fundamental factors in shaping parents decision to send their daughters to school. However cultural traditions constrain girls' education is such away that it opposes coeducation and the

presence of male teachers in girls school, resistance to sending girls to school away from home, and pressures on girls to marry at an early age (Al-sanabary Nagat, (1993:151)

2.5.3 School environment

The attitude of the teachers, peer groups, and curriculum materials remained to be the major school factors that inhibiting girls from pursuing academic and technical education. In this respect Hyde,K. (1993:119), for instance, had the flowing to describe:

> *"School related factors could be important determinants of whether girls enter and remain in school. The quality of school especially the course offered and the message about set roles conveyed by educational materials and by the teacher, influences how parents as well as students themselves make schooling decisions"*

2.5.3.1 Teachers' attitude

Teacher's attitude is one of the factors that affect female role expectations in school environment. Through a study made on secondary school teachers opinion and value regarding female students' future careers and efficiency of education in Togo Biraimah, K.C, (1980:192) was able to identify that teachers hold little regard for the ability, character or potential of their female students and they often described them in negative terms such as disruptive behavior or "lacks interest in school". In contrast, they described male students as responsible hard working and scholarly. Moreover, teachers believed that boys had much more potential than girls for academic success. Finally, Biraimah pointed out that the secondary school teacher's relegated girls to low status, low paying, less skilled and nurturing occupation.

Many studies have also identified teacher student's interaction as different systematically by sex. Raynal F., (1999:9) expressed this situation as:

> *"Teachers of ten ask boys more questions give them more time, more encouragement and more advice than girls. So that boys learn to express themselves better and to assert themselves and to question authority and the girls to be in habited in their interaction with teachers to take up less space physically and intellectually to be less highly valued."*

Exposure to curriculum materials alone is not sufficient to assure achievement. The academic support and encouragement provided by the teachers and peer group may be waste full to female who face social pressure not to excel in school or career oriented subjects (Kelly and Ellrott 1982:123).

2.5.3.2 Peer groups

Peer group, as one of the school environment may impose pressure on female students' performance and career choice. Members of peer groups spent much of their free time in sharing out different affairs including academic and future careers. The peer group is thus a source of influence for the students especially during adolescence and in urban areas. Such influence may help or impede his/her academic achievement and career choice depending on the values of the group. Datta A., (1987).

2.5.3.3 Curriculum Materials

The school as a reinforcing agent portrays girls as flexible; less intelligent, dependent, submissive and inferior while boys seen as strong, demanding dominating, independent, courageous and responsible than girls. These images are portrayed and reinforced through textbook and other instructional materials. Thus girls and boys grow with the appropriate sex-role (Yelfign, et. al 1995) the secondary school text continues to confront students with sex-role stereotyping in specific subject areas. Men are portrayed as active and having

greater participation in sport while women are seen as passive and spectators in sport and in the broader areas of achievement. In social studies women are rarely mention in historical accounts. (Kelly and Elliott, 1982:115).

2.6 Factors contributing to Female students' Academic Choice

Regarding academic choice many scholars have been able to identify a number of factors influencing individuals' academic choice. These include family environment where parents act as role model and provide idea that shape student's choice, social factors-friends, peer groups and relatives, the school environment and such as the view of teachers and psychological barriers.

2.6.1 Family Environment

Delphy, (1997) suggested that the family environment reproduces gender relations and constitutes a central focus for the transmission of gender norms and identity. The occupational, family roles, expectations and aspirations that parents communicate to their children leave an imprint.

It is in a family where gender roles begin at the early childhood. At their very young age children are likely to learn from their parents how they should act, the type of work and the role they are expected to do and behaved in their future family life. Parents treat their daughter and sons in accordance to the culturally set gender rules. Thus, they encouraged their daughters to be docile and complaints so that girls are expected to play as wife and mother in their future life (Rubbo Ann, 1975:339). The expected familial roles and responsibilities of girls will lead them to the domestic sphere duties such as child care, food preparation and other activities including the fetching of water and fuel, cleaning, and agriculture.

Since girls learn to concentrate in domestic sphere they tend to think of those occupations that are almost the extension of their childhood roles. Thus, they tend to choose occupation closely related to caring like nursing, teaching etc. in line with this Yelfign, (1998:10) suggested that attitude that prevails that girls should be limited to the home and family activities and not to traditional male dominated development activities hinders their participation in science and technical/vocational careers.

On the other hand, boys are encouraged to develop some degree of autonomy and independence from the family (Jacqueline, 1970), the roles expected from boys are out door activities which are considered to be productive tasks and generate income (Finn et. Al. 1982).

Similarly Jacob and Eccels (2000) have theorized that parent's gender typed beliefs and perception may influence their children's career aspirations ultimate choices.

2.6.2 Societal influence

When girls' grow up, they are more and more influenced by culturally set gender roles. Throughout, the world culture treats girls and boys differently from birth on ward. However, as mentioned by Mensh (1998:2).

> *...the gender gap widen at puberty. During adolescence, the world expands for boys and contracts (shrink) for girls. Boys enjoy privileges reserved for men; girls endure new restriction reserved for women. Boys gain autonomy, mobility, opportunity, and power... girls are systematically deprived of these assets*

Mensh expounded that girls beginning the adolescence period are redirected to less life choices and opportunities by cultural conditions imposed by the society. This situation is exhibited by their reluctance to participate in the fields of study that are traditional male dominated.

Society perceptions and attitudes towards gender roles and responsibilities have great impact on girls' educational choice. When children grow they become more and more aware of the traditionally expected roles and behaviors. Hence for boy's success and achievement in the outside world becomes more important while girls tend to avoid such personal qualities as independence, competitive achievement, and self-confidence in male dominated areas (ICRW, 2000). Children subjects and career choice are highly influenced by their exposure to the socially imposed gender norms through out their childhood. Regarding the gender roles that both sex is expected to behave in occupational choices Betz, (1997:112) stated that

> *Math, science and technical fields have always been perceived as male dominated fields. Psychological research has shown us those children as young as $2^{1/2}$ know which jobs are for women and that stereotyping increases with the age of the child. Furthermore, stereotypes are consistent with children, early choices for themselves. In several students, the large majority of girls give a wider range of traditionally male occupation representing the sciences trade and professions. Some girls and young women may avoid careers they perceive as male dominated because they fear disapproval from others.*

2.6.3 School environment

2.6.3.1 Teachers' attitude

As stated by Njamibi, (1998) Gender stereotyping of subject is commonly exercised by teachers as boys are perceived by their teachers to be hard-workers and analytical and are able to deal with most masculine subjects and on the other hand, when girls are perceived by their teachers having feminine nature and incapable of dealing with masculine subjects.

In addition, the classroom teachers may be the most important models in the child's environment. Children may closely model their teacher's behavior. The

teachers' likes and dislikes regarding subject matter may become obvious to the students and result in imitative attitude. Teachers can be negative as well as positive role models (Sprinthall Narman, 1987:237)

2.6.3.2 The role of guidance

Research has shown that the advice given by guidance counselor to clients often tend to encourage young women to stay in traditional roles as wife and mother or to pursue traditionally female dominated careers rather than a broader range of career options.

2.6.3.3 Curriculum materials

Exposure to curriculum materials will develop stereotype sex-role, which will bring impacts on the student's discipline choices and there by put a pressure on their future careers (Obura, A. 1991). As a matter of fact, girls in preparatory and vocational and technical institutes may tend to concentrate in art streams and traditionally female fields of studies which lead them to education, health, secretarial service occupation.

2.6.4 Psychological Barriers

Women are under represented in physical science, technology and mathematics fields of study at the tertiary level. In high school majority girls are enrolled in social science stream than natural sciences.

In adequate mathematics and science course work at secondary level limits women's choices in technical vocational education institutes and tertiary level.

Psychological barriers to the pursuit of scientific and technical careers account for under representation of women to these fields. These barriers to women's choice of science and technology careers can be viewed as gender stereotypes, low self-efficacy or low self-concept perceptions and belief that they wouldn't enjoy. Research on these barriers suggests series negative effects on women's

career choices. Math science and technical fields have always been perceived as male dominated fields. In several studies, the large majority of girls give nurse or teacher as their occupational choice, where as boys give a much wider range of traditionally male occupations representing the sciences and professions.

Gender stereotypes make female students to pursue traditionally female dominated careers rather than a broader range of career options. This is because science and engineering normally thought as a man's field.

Females low self-efficacy with respect to science, mathematics and engineering related fields make them under represented (avoid) in these fields. Self-efficacy or our beliefs about our own competence with respect to specific domains of behavior will influence one's initial choices and the persistence of behavior.

Hackette and Betz, (1981:117) suggested that women and socialization lead to insufficient exposure to sources of information that would lead to the development of strong expectations of efficacy with respect to many traditionally male dominated career fields, particularly those in sciences and technology.

They also found out that expectations of self-efficacy in science were significantly predicators of the career options actually considered, over and above abilities and interest, thus, validating theoretical relationships between efficacy and choice behavior (Betz and Hackett, 1981). In connection to this in their studies, Betz and Hackett reported that women had significantly lower efficiency expectations with respect to math-based and science based career fields in comparison to equal able men.

In addition to self-efficacy, interest appears to be a factor that influences women's career choice. For instance, research on vocational interests in women in USA tends to have higher social interests (67%) than in scientific and technical areas (i.e. 8% and 1% respectively). (Pedigree and Hanson, 1976 in

Betz, 1981). It is a little bit exaggeration to say that the best predicator of individuals' interests is gender. There is no basis to assume that gender differences in interests have a biological basis. The basic interest appears to be in gender role and cultural socialization rather than genetics. (Betz Nancy 1981:120)

Chapter Three

Research Design Methodology

The objective of the study was to assess the performance and stream choice of female students in technical /Vocational and preparatory schools. To this end the research conducted a descriptive survey method, which tries to describe the topic under study .The method, enables researchers to use multiple strategies to obtain the required information as it was stated in Yin, (2003) study.

3.1 Source of Data

The research settings included all the three TVET institutes and preparatory government schools (namely Awassa, Yirgalem and Aleta Wondo institutes and Awassa , Yirgalem and Aleta Wondo preparatory schools) of the Sidama zone. Out of 1292 female students and 251 teachers, a total of 250 female students (108 from TVET and 107 from preparatory schools) and 82 teacher respondents were selected using systematic random sampling method to fell in the questionnaires. An interview also conducted with 6 purposively selected TVET and preparatory female students. The table below shows the details of the subjects of the study.

3.2. Data Collection

3.2.1 Instrument of data collection

To secure the necessary information for the study three types of data gathering tools such as questionnaires, guided interview and document analysis were employed. Each of these instruments was constructed and used as follows.

Questionnaire:

Two types of questionnaires were set for teachers and female students in technical and preparatory schools. The first type of questionnaire was designed for technical- vocational and preparatory school teachers to examine their background, perception and belief towards female students' fields of study choice and performance.

The second type of questionnaire was designed for female students of technical vocational and preparatory schools. This questionnaire included items on their parental educational and occupational background, home and school environment related information that enable the researcher to examine (analyze) the factors (reason) influencing their stream choice and academic and technical /vocational performance.

Before the questionnaires were administered to the actual respondents, a pilot study was conducted in two technical/vocational and preparatory schools to check the relevance of each item and then the necessary rearrangement and modifications were made on some items and those items which were not related to the issue were cancelled from the questionnaires. Then the questionnaires were distributed to 215 students and 82 teachers, out of which 204 and 73 respondents respectively filled in the questionnaire and duly returned the papers.

Interview

Interview was held with six female students to obtain information about home and school factors that influence their stream choice and performance. Besides, informal discussion with four teachers was made focusing on parents and teachers towards girl's education and the major societal problems that

influence the performance and field of study choice of female students in technical/vocational and preparatory schools in Sidama zone.

Document Analysis

Schools document were analyzed to generate information about the distribution of female students with their male counterparts in different fields of studies and in TVET and preparatory schools.

Document analysis was also used to identify female students' academic achievement pattern in relation to their male counter parts. To this end, females and males average scores from 2002-2005 from Rosters were used for the purpose of comparison in technical/vocational and preparatory schools.

3.3 Data Organization and analysis

In the study both quantitative and qualitative approaches were used to analyze the information collected using different instruments from different sources. The information obtained from questionnaires, and document analyses were analyzed using averages and percentages as the main tools of summarizing the data. In the analysis of student's performance, z-test was used to see the differences in performance between male and female students. Regarding the information obtained from interview narrative approach was used.

Table 3: Research settings and number of participants of the study

Types of participants in chi study	Research Instrument used	Industrial technology	Contraction	Textile technology	Services	Business	Natural science	Social science	Total
Female Students	Questionnaire	28	21	-	11	48	46	61	215
	Interview	1				1	2	2	6
Teachers	Questionnaire	15	8	3	7	14	21	14	82
	Interview								
	Informal Discuss	1				1	1	1	4
Grand Total		**45**	**29**	**3**	**18**	**64**	**70**	**78**	**307**

Chapter Four

Presentation, Analysis and Interpretation of the Study

4.1 Distribution of male and female students across field of Specialization and streams

To examine male and female students' field of study choice pattern students' enrollments since 2002 in TVET and preparatory schools have been used. Thus, the information collected is summarized and presented in table 4 and 5 show the data organized for the purpose.

It should be noted that in TVET and preparatory schools the percentage of female students in each field of study (stream) is calculated in relation to the total number of students (male and female). Similarly the percentage of male students in their respective field of study is calculated in the same way for comparison.

As shown in table 4 the total number of female students enrolled in the TVET program of different fields in the last five years has increased from 470 (47.7) in 2002 to 907 (58.1%) in 2006. However, with regard to their field of specialization, they are concentrated in traditional field of studies. For instance, during the last three years the percentage of female students enrolled in fields of secretary, dress making, cook, Bakery, Hotel service, hair dressing and home management, ranges between 73.7% in Bakery and 97.8 in secretary. On the other hand, the number and percentage of female trainees in non-traditional field of studies were very small compared to their male counterparts (6.8% in Auto mechanic to 45% in woodwork).

In 2006 the percentages of females in non-traditional field of studies range between 8% in Auto mechanics and 39.0% in woodwork. Similarly In 2005 and 2006 out of the total female trainees in TVET, 84.2 and 75.6 percentages are found in traditional field of studies respectively.

Table 4.1 Distribution of trainees in Sidama government TVET Institutes from 2002 – 2006

Field of specialization	1994/2002					1995/2003					1996/2004					1997/2005					1998/2006				
	Male		Female			Male		Female			Male		Female			Male		Female			Male		Female		
	No	%	No	%	T	No	%	N	%	T	No	%	N	%	T	No	%	N	%	T	No	%		%	T
Accounting	71	47.7	78	52	149	44	31	96	69	140	58	32	124	68	182	79	32	168	68	247	119	40	176	59.7	295
Secretary	128	49.2	132	51	260	1	0.9	111	99	112	4	2.3	173	98	177	5	2.2	220	98	225	2	0.9	216	99.1	218
TT	-	-	-	-	-	-	-	-	-	-	29	41	41	51	70	74	32	160	68	234	68	55	56	45.2	124
Textile	5	83.3	1	17	6	-	-	10	100	10	9	47	10	53	19	4	15	22	85	26	-	-		-	-
Dress mate	7	58.3	5	42	12	16	59	11	41	27	13	36	23	64	36	10	14	62	86	72	-	-		-	-
Cook	-		36	100	36	1	3.8	25	96	26	2	5.3	36	95	38	3	7.7	36	92	39	-	-	25	100	25
Bakery	4	14.8	23	85	27	8	38	13	62	21	4	13	27	87	31	10	26	28	74	38	-	-		-	-
Hotel service	13	52.4	12	48	25	5	71	2	29	7	6	35	11	65	17	5	13	35	88	40	2	11	16	88.9	18
Home-	-	-	4	100	4	-	-	-	-	-	3	23	10	77	13	2	17	10	83	12	-	-		-	-
Hair dressing	1	11 1	8	89	9	2	5.4	35	95	37	-	-	22	100	22	1	3.7	26	96	27	-	-	25	100	25
Drafting	3	13	20	87	23	21	42	29	58	50	22	27	59	73	81	52	57	40	44	92	40	63		38	64
Surveying	14	53.8	12	46	26	9	43	12	57	21	17	45	21	55	38	23	64	13	36	36	17	63	10	37	27
Wood work	20	66.7	10	33	30	26	72	10	28	36	20	47	23	54	43	33	55	27	45	60	31	61	20	39	51
Constructio n	12	54.5	10	46	22	11	42	15	58	26	22	85	4	15	26	24	86	4	14	28	30	64	17	36	47
Electricity	43	50	43	50	86	64	78	18	22	82	64	88	9	12	73	116	84	22	16	138	101	78	28	22	129
Electronics	32	55.2	26	45	58	37	73	14	28	51	100	78	28	22	128	36	90	4	10	40	53	73	20	27	73
Auto-mechanics	43	74.1	15	26	58	52	100	-	-	52	103	95	6	5.5	109	82	93	6	6.8	88	80	92	7	8	87
General	109	79.6	28	20	137	44	86	7	14	51	93	83	19	17	112	73	80	18	20	91	87	76	28	24	115
Machine	10	58.8	7	41	17	12	75	4	25	16	8	73	3	27	11	22	79	6	21	28	29	71	12	29	41
Total	515		470		985	353		412		765	577		649		1226	654		907		1561	659		680		1339

Source Educational Beereou of SNNPR

This finding is in line with those of Yelfign (1995) Trufat(1998) and Genet(1991) which showed that most girls had enrolled in secretarial and Home economics area rather than in non-traditional fields such as industrial technology and construction which are male dominated.

Even though the majority of female students in TEVT are enrolled in traditional fields of study, some inclination towards male dominated fields such as electricity, drafting, surveying and electronics, has been observed since 2005.

In the case of preparatory schools, the distribution of students across each stream, that is, natural science and social science for the last four years is shown in table 5 below.

Table 5: Distribution of preparatory students by streams from 2003 to 2006 in sample schools.

	Natural Science						**Social Science**						**Grand Total**
	Male		Female		Total		Male		Female		Total		
	No	%	No	%	No	%	No	%	No	%	No	%	
2003	326	35.0	114	12.2	440	47.3	372	40.0	119	12.8	491	52.7	931
2004	419	37.4	138	12.3	557	49.7	410	36.6	154	13.7	564	50.3	1121
2005	526	37.5	177	12.6	703	50.2	422	30.1	276	19.7	698	49.8	1401
2006	578	31.7	217	11.9	795	43.6	634	34.8	395	21.7	1029	56.4	1824
Total	1849	35.0	646	12.2	2495	47.3	1838	34.8	944	17.9	2782	52.7	5277

Source: Educational Bureau of SNNPR

As shown in the table 5 the total enrollment data of female students in natural and social sciences streams for the last four years indicate an in creasing trend. The total number of girls enrolled in preparatory program in the last four years has increased from 233 in 2003 to 612 in 2006. Of the total 1590 female students registered in preparatory program in the last four years 944 (59.4%) were enrolled in social science streams and the rest 646 (40.6%) went to natural science stream.

Table 6: Distribution of Preparatory students by streams in Sidama from (2003 - 2006)

Year	Stream	Sex	Yirgalem		Aleta Wondo	Awassa Ccompre.	Total	
2003	N. Science	M	No	58	18	250	326	35.0
			%	89.2	78.3	71.0	74.1	
		F	No	7	5	102	114	12.2
			%	10.8	21.7	29.0	25.9	
		T		65	23	352	440	47.3
	S. science	M	No	82	63	227	372	40.0
			%	94.3	91.3	67.8	75.8	
		F	No	5	6	108	119	12.8
			%	5.7	8.7	32.2	24.2	
		T		87	69	335	491	52.7
		Grand total						**931**
2004	N. Science	M	No	60	36	323	419	37.4
			%	88.2	90.0	71.9	75.2	
		F	No	8	4	126	138	12.3
			%	11.8	10.0	28.1	24.8	
		T		68	40	449	557	49.7
	S. Science	M	No	64	61	285	410	36.6
			%	92.8	88.4	66.9	72.7	
		F	No	5	8	141	154	13.7
			%	7.2	11.6	33.1	27.3	
		T		69	69	426	564	50.3
		Grand total						**1121**
2005	N. Science	M	No	75	53	398	526	37.5
			%	92.6	94.6	70.3	74.8	
		F	No	6	3	168	177	12.6
			%	7.4	5.4	29.7	25.2	
		T		81	56	566	703	50.2
	S. Science	M	No	91	47	284	422	30.1
			%	91.9	90.4	51.9	60.5	
		F	No	8	5	263	276	19.7
			%	8.1	9.6	48.1	39.5	
		T		99	52	547	698	49.8
		Grand total						**1401**
2006	N. Science	M	No	87	109	382	578	31.7
			%	86.1	87.9	67.0	72.7	
		F	No	14	15	188	217	11.9
			%	13.9	12.1	33.0	27.3	
		T		101	124	570	795	43.6
	S. Science	M	No	112	161	361	634	34.8
			%	80.0	89.0	51.0	61.6	
		F	No	28	20	347	395	21.7
			%	20.0	11.0	49.0	38.4	
		T		140	181	708	1029	56.4
		Grand total						**1824**

Source Educational Bureau of SNNPR

As shown in table 6, during the last four years (2003-2006) out of the total number of preparatory students, girls represent 30.1% comparing to 69.9% male students. In term of streams girls account for about 33.9% and 29.9% in the social and natural science streams respectively

4.2 Respondents' background

Almost an equal number of girls attending TVET and preparatory schools were included in the sample. The questionnaire was distributed to 215 students out of which 204respondents filled in the questionnaire and duly returned the papers. The table below indicates student respondents by sex and age.

Table 7: Sex and age of female student respondents

Educational Program	***Age***									
	16-18		**19-21**		**22-24**		**25 and above**		**Total**	
	No	%	No	%	No	%	No	%	No	%
Preparatory	91	89.2	11	10.8	-	-	-	-	102	50
TVET	33	36.9	51	55.4	16	17.4	2	2.2	102	50
Total	124	60.8	62	30.4	16	7.4	2	1.0	204	100

Female students who filled the questionnaire were 204 (94.9%). All of them properly responded to the items in the questionnaire. As can be seen from the table, majority of the respondents in preparatory 91(89.2%) are aged from 16 to 18 years. Thus most of the respondents seem to be within the appropriate age for secondary second cycle. Regarding the TVET respondents 69 (64.7%) is at the ages 19 and above and seems over aged. Thus, this shows that the majorities of the TVET respondents were either late entries or stayed for sometime.

The background information about the respondent's family residence obtained from the questionnaire is also summarized and presented in the table below.

Table 8: Family residence of the respondents

Educational program	*Residence*					
	Urban		**Rural**		**Total**	
	No	%	No	%	No	%
TVET	75	73.5	27	26.5	102	50
Preparatory	40	39.3	62	60.8	102	50
Total	115	56.4	89	43.6	204	100

More than half of the respondent students families i.e. 115(56.4%) are living in town while the rest 89, (43.6%) of the respondent students' families reside in rural areas. The presence of respondent families in rural area would have an effect on student's academic performance and fields of study choice since it is related to the long distance traveled and lack of information compared to those respondent students' families living in town. In line with this, Teshome (2003:6) states that girls who come from families living in urban area are much more likely to enter, remain and perform in school than rural disadvantaged families.

Table 9: Teacher respondents' qualification

Sex	**Diploma**		**Degree**		**Total**	
	No	%	No	%	No	%
Male	19	21.9	35	47.9	51	69.9
Female	13	17.8	9	12.3	22	30.1
Total	29	39.7	44	60.3	73	100

The total number of Teachers' respondents both in TVET and preparatory schools was 82. However, 73 (89.0%) of them filled the questionnaire and duly returned the papers. Among the teacher respondents, the majority 69.9% of the teachers was male and only 22 (30.1%) were women. One may notably identify that females are under represented in both educational programs regarding the qualification of teacher respondents 44 (60.3%) of them have BA or BSc degree while 29 (39.7%) of the teachers are diploma graduates.

The other background information about the teacher respondents was service years. The secured information is organized and presented below.

Table 10: Service year of teacher respondents

Sex	*Service Year*											
	1-5 year		6-10		11-15		16-20		>21		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
Male	5	6.8	2	2.7	6	8.2	11	15.1	27	37.0	51	69.9
Female	2	2.7	5	6.8	5	6.8	6	8.2	4	5.6	22	30.1
Total	7	9.5	7	9.5	11	15.0	17	23.3	31	42.6	73	100

As it is indicated in table 10, the over whelming majority (66.1%) of teacher respondents has service years greater than 15 years. Those who have service years less than 16 years constitute 34.0% of the teacher respondents. This shows that most of the teacher respondents have adequate experiences that enable them to play great roles in the instructional process.

4.3. Analysis of stream choice

4.3.1 Family environment

Student respondents' families' socio- economic background

The research questionnaire also contains items intended to obtain information regarding the socio economic characteristics of the parents of female students. The rational behind was to identify whether the educational, occupational or economic status of parents had some influence on students' preference in selecting certain field of study. Thus, the response of female students to this item (question) is summarized below.

Table 11: Socio economic and educational status of parents of female students

Educational Status	**PREPARATORY**						**TVET**						**PREP.+ TVET**	
	N.S		S.S		Total		NCF		CF		Total		Grand total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Illiterate	5	5.5	14	13	19	9.5	13	14.6	17	15.6	30	15.2	49	12.3
Read and write only	18	19.8	21	19.4	39	19.6	21	23.6	26	23.9	47	23.7	86	21.7
Primary completed	17	18.7	26	24.1	43	21.6	21	23.6	31	28.4	52	26.3	85	21.4
Secondary completed	22	24.2	24	22.2	46	23.1	14	15.7	19	17.4	33	16.7	79	20.0
College	18	19.8	16	14.8	34	17.1	12	13.5	13	11.9	25	12.6	59	14.9
university	11	12.1	7	6.5	18	9.0	8	9.0	3	2.8	11	5.6	39	9.8
Total	91	100	108	100	199	99.9	89	100	109	100	198	100	397	100
	N.S		**S.S**		**Total**		**NCF**		**CF**		**Total**		**Grand total**	
Occupation	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Government employee	35	41.2	54	50.0	89	46.1	32	33.3	43	41.0	75	37.3	164	41.1
Farmer	3	3.5	4	3.7	7	3.6	8	8.3	9	8.6	17	8.5	24	6.1
Merchant	15	17.6	13	12.0	28	14.5	18	18.8	16	15.2	34	16.9	62	15.7
House wife	25	29.4	26	24.1	51	26.4	27	28.1	28	26.7	55	27.4	106	26.9
Self employee	7	8.2	11	10.2	18	9.3	11	11.5	9	8.6	20	10.0	38	9.6
Total	85	99.9	108	100	193	99.9	96	100	105	100	201	100	394	99.9

As shown in table 11, 76.0% of female students' parents have no educational status beyond secondary level. Only 24.7% of their parents completed college education.

The comparison of TVET & preparatory female students' parents shows that 18.2% of TVET and 26.1% of preparatory female students' parents have college and university levels education. With regard to non conventional field (NCF) and conventional field (CF) of female students' parent education, 77.5% of girls in NCF identified that their parents have no educational status beyond secondary level compared to 85.3% in CF.

The comparison between Natural science and social science female students' parents education shows no significant difference between the two streams in all educational status except college level. Regarding students' parents occupation 46.1% of the Preparatory and 37.3% TVET female students' parents

were government employees. And 26.4% of the Preparatory and 27.4% of the TEVT female students are also identified that their female parents are house wives without job.

In line with this, Stromquist (1991) stated that the family environment (education and occupational status) affects significantly the selection a field of study. The more educated the parents and the higher the status of their occupations the greater is the degree of influence they have up on individual's field of selection. He further argued that the greater the education of the parents and the greater the responsibility and prestige of their occupation and position the more parents will be able not only to offer a positive environment to their children but also to make an impact on them. Parents in such positions are likely to function as powerful role models.

In relation to students' parent background, the questionnaire contains an item to obtain information about family size. Accordingly the responses from the student respondents revealed that the majority, 176 (86.3%) of the students' respondents' family have family size ranging from 5 to 10 members. It is obvious that the greater the family size the smaller the share the individual member receives. Thus, this situation definitely has an influence on the family members schooling.

4.3.2 Reasons for selecting a field of study

Field selection was examined through structured item asking female students to identify reasons in making their decision. In a questionnaire, a total of five reasons were given to the respondents. The response from the respondents are organized and presented in the table below.

Table 12: Reasons given for the choice of field of study

Reasons	Preparatory				TVET				Preparatory		TVET		Grand Total	
	Natural Science		Social Science		NCF		CF		Total		Total			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1-Ample job opportunity	17	41.5	26	43.3	12	28.6	8	14.8	43	42.6	20	20.2	63	31.5
2- It is a field that interests me very much regardless l of occupational potential	18	43.9	27	45.0	8	19.0	16	29.6	45	44.6	24.	24.2	69	34.5
3- The admission criteria for the fields is not difficult	2	4.9	2	3.3	4	9.5	2	3.7	4	4.0	6	6.1	10	5.0
4- my family expects me to enter in the field	3	7.3	5	8.3	4	9.5	3	5.6	8	7.9	7	7.1	15	7.5
5- Based on my academic performance.	1	2.4			14	33.3	28	51.5	1	1	42	42.4	43	21.5

As indicated in the table, the most frequently identified reasons for selecting a field of study by female students in TVET and preparatory schools are based on their interest, academic performance and the field's potential for future employment.

In TVET 42.4% of the students enter to the field based on their academic performance. Similarly 42.6% of the preparatory students indicated a preference for a field because of its potential usefulness for securing a job. Small number of female students in TVET and preparatory announced (declared) that they were in the field because of family expectation i.e. 7 (7.1%) and 8(7.9%) respectively.

In line with this, an expert from SNNPR bureau confirmed "students are assigned to the various fields of TVET on the basis of their previous academic performance and the order of field of interest they formerly identified".

4.3.4 Teachers response on the factors that influence girls' field of study choice.

Teachers were asked about what they think of the actors influencing girls' field choice. Results are summarized and presented below.

Table 13: Rank order of Teachers' response on factors that affect girl's stream choice

Statement	***Response***		
	No	%	rank
1. Lack of employment opportunity	33	46.5	1
2. Unable to interpret in practice	9	12.7	6
3. Lack of interest	16	22.5	3
4. Due to peer influence	14	19.7	5
5. Not appropriate for female	28	39.4	2
6. Parents influence	12	16.9	4
7. Fields are difficult	9	12.7	6
Total	**121**		

As indicated in table 13, respondent teachers identified that lack of employment opportunity appropriateness for their gender and lack of interest as the most important factors affecting girls' stream choice. This finding, especially lack of employment opportunity, is in line with the findings obtained from student respondents. Regarding stream choice, one TVET female student, for instance, has the following to suggest:

> *"The reason for joining my current field of study was because of my low academic achievement in national examination and lack of alternatives to proceed in preparatory and other educational programs"*

Furthermore, one of the teachers from TVET institutes describes the factor that influence girls stream choice in relation to their personality when he says:

> *'Females are kin for their personality. They want to dress well, be clean and jolly all the time. Hence, female personalities limit their preference towards the different field of studies and make them not to participate on fields that need much energy, ups and downs'*

4.3.5 The role of significant persons in shaping field of study choice.

A wide range of persons influences student's decision on their field of study choice. Students were asked to rate the influence of significant persons upon their decision on choice of field of study. The information obtained about the role of significant persons is presented in the table below.

Table 14: Female students view regarding influential persons

Significant persons	**Preparatory**			**TVET**		
	High	Medium	Low	High	Medium	Low
Father	35.3	12.7	4.7	19.3	14.7	10.0
Mother	38.0	12.0	4.0	20.7	14.0	11.3
Teachers	22.0	15.3	4.7	16.0	15.3	4.7
School counselor	2.7	2.7	16.7	2.7	2.7	19.3
Peer	23.3	10.7	8.0	18.0	6.0	14.0
Relatives	31.3	9.3	6.0	16.7	8.7	14.7

According to table 14, the most influential persons in shaping the students field choice include mothers, fathers and relatives. Among these parents are the most influential persons in shaping the students' field of choice. Although 87% of the respondents reported that their field of study choice was made by themselves, the data suggest that their decision was influenced by wide range of persons. The second most influential persons are relatives and peers. School counselors are the least influential which consist 2.7% of TVET and preparatory students.

4.3.4 Female students' academic subject performance during their 9th and 10th grades.

Female students were asked to identify the academic subjects which were difficult and they scored unsatisfactory grade during their 1st cycle secondary education. In responding this question 93.1% of the students reported that they scored lower grades in some subjects. The remaining 6.9% of the students showed that they had no problem in their grades.

Table 15: Female students' response towards their previous academic subjects' performance.

Subjects	*Response*									
	Preparatory				**TVET**				Total	
	Natural Science		Social Science		NCF		CF			
	No	%	No	%	No	%	No	%	No	%
English	1	1	4	5	3	2.9	10	9.7	18	8.8
Math	6	5.9	19	18.4	19	27.2	28	27.2	72	35.3
Physics Chemistry	11	10.9	42	41.6	7	6.8	29	28.2	89	43.6
Art (History, Geography)	13	12.9	5	4.9	3	2.9	6	5.8	25	12.3

As can be indicated in table 15, 43.7% and 35.3% of the female students had scored lower marks (grades) in science (excluding Biology) and mathematics respectively during their stay in first cycle secondary school. These findings may reflect that lack of competency in mathematics and science has strong repercussions on the selection of traditional masculine fields for girls. Thus a great number of female students are attracted to traditional feminism courses such as social science subjects in preparatory and home economics, secretarial science, food preparation, when they are in TVET.

Regarding the negative messages that conveyed to women concerning field of study, female students were asked to identify the reasons that preclude them not to stay at their current field of study. The information obtained is summarized below.

Table 16: Female students' response on the reason given to dissuade (Discourage) from their current field of study.

Reasons	***Preparatory + TVET***									
	Natural science		**Social science**		**NCF**		**CF**		**Bole**	
	No	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
1. Field for men	7	17.5	4	14.3	8	25.0	6	10.7	25	17.6
2.Girlscannot do it	9	22.5	-		7	21.9	5	8.9	21	14.8
3. low salary	-		5	14.9	-		-		5	3.5
4. No job opportunity	11	27.5	8	28.6	10	31.3	14	25.0	43	30.3
5. Too difficult	10	25.0	4	14.3	5	15.6	8	14.3	27	19.0
6. No status in profession	3	7.5	7	25.0	2	6.3	9	16.1	21	14.8
Total	**40**		**28**		**32**		**56**		**142**	

According the data presented in the table, 30.3% of negative messages conveyed to girls not to stay at their current field of study are related to the reason that field selected may lead to no employment. The second and the third identified as reasons that preclude female students not to stay at their selected field of study are related to too difficult (19%) and fields for men (17.6 %) respectively. Of course these negative messages conveyed to girls not to stay at their fields of studies are caused due to lack of better understanding about their selected field of study. In connection to this, 35% of the respondents reported that no specific preparation was taken prior to their field selection.

4.3.5: Female students' likes and dislikes regarding selected fields.

The respondents were asked to rank the features of their fields they liked or dislike. Table 17 presents the like and dislike of respondents' response in their field.

Table 17: Respondents likes and dislikes about their field of study.

Likes	*Preparatory*						*TVET*					
	Natural science		**Social science**		**Total**		**NCF**		**CF**		**Total**	
	No	%	No	%	No	%	No	%	No	%	No	%
1. The discipline has great interest to me	24	34.8	28	31.5	52	32.9	56	46.7	39	47.6	95	47.0
2. The field requires math and science	24	34.8	1	1.1	25	15.8	20	16.7	10	12.2	30	14.9
3. The discipline requires verbal skills (English)	4	5.8	19	21.3	23	14.6	6	5	12	14.6	18	8.9
4. Offers many possibilities for finding job	6	8.7	18	20.2	24	15.2	13	10.8	11	13.4	24	11.9
5. The field is not dominated by one sex	11	15.9	23	25.8	34	21.5	25	20.8	10	12.2	35	17.3

Dislikes	*Preparatory*						*TVET*					
	Natural science		**Social science**		**Natural science**		**Social science**		**Natural science**		**Social science**	
	No	%	No	%	No	%	No	%	No	%	No	%
1. the course work is very difficult	19	33.3	30	34.9	49	34.3	15	14.7	14	13.7	39	27.1
2. Offers few possibilities for a job	8	14.0	18	20.9	26	18.2	21	20.6	18	17.6	29	20.1
3. The field requires math (science skill)	8	14.0	17	19.8	25	17.5	12	11.8	13	12.7	25	17.4
4. The field is dominated as appropriate by one sex	7	12.3	6	7	13	9.1	13	12.7	14	13.7	27	18.8
5. The field is not accepted as appropriate by the society	13	22.8	15	17.4	28	19.6	15	18	9	8.8	24	16.7
6. There is nothing dislike about my field.	2	3.5			2	1.4						

As shown in the table 30.7% the respondents identified that math and science requirement of their discipline being one of the most attractive features. The great majority 147 (72.1%) find to like the field of the study because of the discipline's great interest to them. The absence of dominancy by one sex is the other features of the field that 38.8% of the respondents like. This suggests that female students are sensitive to the gender composition of their fields. In terms of what they like best about their field, the majority 51.5% of female students in non-traditional field like their fields because they require math and science where as, 30.2% of the girls in social science and traditionally female dominated fields like their field because they require English skill. In preparatory and TVET 61.4% women (females) identified that the difficulty of the course work is the features that they dislike in the field. This situation may

suggest that the majority of female students are not interested in a field where the courses are difficult and need maximum effort.

4.3.6:Role models in field selection

Role model is a person who is usually marked on as a model and whom students like to follow. The role model requires a tendency on the part of an individual to be inspired and to share some features in common. Thus, role model can be considered as one of the factors that influence individual's field selection. In the research questionnaire, there was an item which requests the female respondents to indicate whether or not an individual has a role model and mention its sex type. The information obtained is then summarized below.

Table 18: Female students' response on the presence and type of role model

	TVET						**Preparatory**						**Total**			
	Yes				**No**		**Yes**				**No**					
	Male		Female				Male		Female				Yes		No	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
The presence of an individual whom you considered as a role model to follow	43	21	40	19.6	19	9.3	18	8.8	48	23.5	36	17.6	149	73	55	27

As presented in table 18, the majority, 73% TVET and preparatory female students report having role model in their fields. Among the respondents' role models 88 (59.1%) are male and 61 (40.9%) are females. In connection to this, female students most likely reflect a tendency to reflect in an individual to be inspired by those with whom they shares some features in common. Though role model is not a decisive factor for an individual to select a particular field of study, the role model may help students stay in their selected field. Girls in the TVET have more role models than the preparatory school students. In preparatory schools females tend to have more female role models than TVET students. This finding may support the importance of like-sex role models for staying in a field.

The choice of stream is the result of a long process of social experience. However, female students reported that specific preparation took place prior to the selection or streams of field of study. 67.5% of the students, who prepared for their choice, tend to prepare by talking to their teachers, senior students, in their selected fields.

4.3.7. Gender stereotyping of subjects

To investigate the gender biased view about the technical and vocational fields and natural and social science streams different items in the questionnaire were given to respondent teachers and female students. The rating scale range between strongly disagree and strongly agree and the information is summarized and presented in tables 19 and 20 below.

Table 19: Female respondents view on school subjects.

Statement	Strongly agree		Agree		Moderately agree		Disagree		Strongly disagree	
	No	%	No	%	No	%	No	%	No	%
1.Female students can score equal marks as their male partners in natural science and technical fields	137	68.8	46	23.1	3	1.5	11	5.5	2	1
2. Female students succeed in social science fields rather than natural sciences and technical fields	44	26.7	36	21.8	2	1.2	62	37.6	21	12.7
3. It would be easier for female students to become secretary and nurse rather than engineer.	50	34.7	36	25.0	2	1.4	26	18.1	30	20.8

As can be seen from the table above, 91.9% of female students agree and strongly agree that male and female can score equal grade in natural science and technical fields. On the other hand, 48.5% of the respondents ("strongly agree" 26.7 and agree 21. 8) identified that girls become successful in social sciences rather than natural science and technical fields. Moreover over 70% of the respondents agree in the idea and suggested that it would be easier for female students to become secretary and nurse rather than engineer. This shows that gender stereotyping perception of subjects is reflected as male domain and female domain.

Table 20: teachers' View on females' field of enrollment

Statement	Strongly agree		Agree		Moderately agree		Disagree		Strongly disagree	
	No	%	No	%	No	%	No	%	No	%
1. Female students will perform and succeed in any field as their male partners.	31	48.5	30	46.9	3	4.7	-	-	-	-
2. Technical training fields are difficult for girls and women	3	1.6	7	11.5	4	6.6	41	67.2	8	13.1
3. Girls are more productive in vocational fields than technical areas	5	7.7	27	41.5	4	6.2	26	40.0	3	4.6
4. Female students become successful when they are enrolled in social science fields rather than natural fields.	6	9	22	32.8	3	4.5	32	47.8	4	6.0

The result in table 20 conveys that the majority of respondents (48.4%) strongly agree and 46.9% agree) identified that girls and women have equal ability to perform and succeed in any field as their male partners. While, 4.7% of the respondents disagree on the females' equal performance and achievement in any field of study in TVET and preparatory programs. On the other hand, 13.1% of the respondents agreed and strongly agreed on that technical training fields are difficult for girls. According to 49.5% the respondents' response females are more productive in vocational fields than technical fields. Moreover 41.8 % of the respondent teachers identified that female students work equally in

social science rather than natural science streams. In this regard, the information gathered provides evidence that indicate gender stereotyping of subjects exist among respondent teachers and students. Accordingly, significant number of respondents revealed that technical fields in TVET and natural science subjects in preparatory are difficult areas for females to pursue their studies. This is most likely an indication of gender stereotyping perception that divides subjects in to male domain (physical science and technical fields) and female domain (social science and vocational fields). This finding indicates the common stereotype that girls fit for social sciences and vocational fields and males are to natural science and technical fields.

This finding is in line with the finding of Betz,(1997) and Karin and Hyde, 1993) that stated gender stereotyped perception is the major factor that hinders female students participation in traditional male dominated fields. As a result, this means that more females are attracted towards social science and vocational fields in preparatory and TVET rather than to natural science and technical field in preparatory and TVET.

4.3.8. Instructors view towards girls' activities during instruction

Girl's behavior during class room interaction was obtained through an item in instructor's questionnaire. Teachers were asked a question to provide information about girl's behavior in the class room. The information obtained is given below.

Table 21: Teachers' perception towards girls' class activities during teaching –learning process.

Activities	Educational Program	High		Medium		Low	
		No	%	No	%	No	%
1. regularly attend the class	TVET	24	58.5	8	19.5	9	22
	Pre.	10	38.5	10	38.5	6	23.1
Total		34	50.7	18	26.3	15	22.4
2.They ask question and give answer	TVET	7	23.3	7	23.3	16	53.3
	Pre.	3	9.1	11	33.3	19	57.6
Total		10	15.9	18	28.6	35	55.6
3. They have done their class work and assignment	TVET	6	19.4	10	32.3	15	48.4
	Pre.	5	15.6	11	34.4	16	50.0
Total		11	17.5	21	33.3	31	49.2
4. They participate actively	TVET	8	25.0	9	28.1	15	46.9
	Pre.	6	18.1	10	30.3	17	51.5
Total		14	21.5	19	29.2	32	49.2
5. They feel more independent in class room	TVET	7	21.9	11	34.4	14	43.8
	Pre.	9	30.0	9	30.0	12	40.0
Total		16	25.8	20	32.3	26	41.9
6. They have self-confidence	TVET	8	27.6	8	27.6	13	44.8
	Pre.	8	22.2	10	27.8	18	50.0
Total		16	24.6	18	27.7	31	47.7
7. They have self-efficacy	TVET	9	27.6	9	31.0	12	41.4
	Pre.	8	27.3	8	24.2	16	48.5
Total		17	27.4	17	27.4	28	45.2

As it is mirrored in the above table 50.7% of respondent teachers rated that female students regularly attend the class. Whereas 49.2% and 55.6% of the instructors pointed out that female students don't do home work, ask questions and give answer respectively. More over 47.7% and 45.2% respondent teachers indicated that female students lack self-confidence and self-efficacy respectively. Thus, this behavior most likely lead female student to poor performance and insufficient exposure to sources of information about traditionally male dominated career fields.

4.4. Factors influencing female performance

Knowing the factors influencing performance of female students in preparatory and TVET is important for the concerned body and to address the problem of female students in their education. There are several factors that impede the academic performance of female students. Thus, female students were asked to indicate items that they believe as factors for their achievement.

Knowing the facilities that influence female students in TVET and preparatory program is an important step in addressing problems that girls face in education.

Table 22: Female students' response towards the factors influencing Their performance (achievements)

Factors	*Response*					
	TVET		**Preparatory**		**Total**	
	No	**%**	**No**	**%**	**No**	**%**
1. Economic	36	17.6	34	16.7	70	34.3
2. Lack interest	19	9.3	35	17.2	54	26.5
3. Domestic work	37	18.1	29	14.2	66	32.4
4. Distance from house to school	19	9.3	23	11.3	42	20.6
5. Inable to understand what the teachers teach	15	7.4	6	2.9	21	10.3
6. Language problem	30	14.7	15	7.4	45	22.1
7. Lack of encouragement from parent and teachers	16	7.8	13	6.4	29	14.2
8. Nothing affect my performance	15	7.4	29	14.2	44	21.6

As it is portrayed in table 22, respondent students indicated that economic problems, domestic work and lack of interest, in their order of importance, are the most influencing factors that impede girls' academic performance. These findings are in line with the findings of OECD (1986) which suggests that girls who are from lower economic background are engaged in house hold chores, which consequently affect their academic achievement negatively.

Teachers were also asked to indicate factors that affect female performance. The response secured from them summarized and presented below.

Table 23: Teachers' response on factors that influence girls' performance.

Statement	***High***	***Medium***	***Low***
1. Lack of sufficient time for study	70.5	19.7	9.8
2. Lack of interest for schooling	22.1	14.7	63.2
3. Economic problems	63.8	15.5	20.7
4. Cultural factors	57.4	27.8	14.8
5. Natural weakness	14.6	34.1	51.2

As it is depicted on the table – respondent teachers indicated that lack of sufficient time for study, cultural factors and economic problems are the main factors that impose obstacle on girls' performance in school.

4.5 Performance

To find out whether there is a significant difference in academic and technical/vocational performance between male and female students in technical and preparatory schools, Tests were taken in their average scores. Male and female students' average scores was taken from all grades 11 natural and social science streams of preparatory sample schools. In the same way students' achievement scores were taken from the samples technical/vocational

institutes. All the average grades of 10^{+1} and 10^{+2} programs' male and female students score were taken from master sheets for comparison.

4.5.1: Comparison of means and Z- score for average results between male and female students in preparatory and TVET.

Here the Z score has been applied in order to check whether or not there exists a significant difference between the average performance of male and female students. The hypothesis used for the statistical analysis was "there is no difference in achievement between male and female students" and the level of significance used to reject the Null hypothesis was 0.05. The result of the statistical analysis is shown in the following tables.

Table 24: Comparison of means and z-test for their achievement in 11^{th} grade between male and female students

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam score (11^{th} grade)	N	Mean	S.D	N	Mean	S.D	16.180	1.65	Ho rejected
	1000	69.736	8.53	633	63.84	6.2			

As can be seen from table 24, the calculated Z is greater than Z-tabulated. In this case the Null hypothesis is rejected. This statistical analysis shows that there is a significant difference between the performance of male and female preparatory students. Therefore, the mean difference and Z-calculated can reflect that the achievement of male students is higher (grater) than female students

4.5.2 Comparison of means and Z-test for the achievement of male and female students in natural science stream.

Table 25: Summary table for the achievement of students in natural Science

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam score 11th grade	N	Mean	S.D	N	Mean	S.D	11.05	1.65	Ho rejected
	456	70.081	8.673	261	63.784	6.53			

As it is depicted in table 25 the mean average scores, Z-calculated and Z-tabulated for of female and male students in natural science show that there is a significant difference in the achievement between male and female students. Z-calculated is greater than Z-tabulated and the Null hypothesis is rejected. Thus there is a significant difference between the achievement of male and female students in natural science stream.

4.5.3 Comparison of male and female student's achievement in social sciences.

Table 26: Summary table for the achievement of students in social Science.

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam score 11th grade for natural science	N	Mean	S.D	N	Mean	S.D	11.6	1.65	Ho rejected
	544	69.32	8.33	372	63.911	5.754			

As it is portrayed in table 26 the Null hypothesis is rejected and there is a significant difference between the achievement of male and female students in social science. Hence, the average test score for male was higher than female students in social sciences. This shows that male students achieve better than female in social science.

Table 27: Comparison between female in natural science fields and female in social science fields

Variable	Female in natural science			Female in social science			Z calculated	Z tabulated	Remark
Exam score	N	Mean	S.D	N	Mean	S.D			
11th grade for both natural science and social science	261	63.7819	6.5311	372	63.91	5.754	0.254	1.65	Accept Ho

As it is shown in table 27 the Null hypothesis is accepted. So there is no significant difference in the achievement of females in both natural and social science fields.

4.2.4 Comparison of means and Z-score for male and female achievement in TVET.

Similarly female and male student's achievement in technical/vocational education was calculated based on the average scores of the students and Z-test to find whether there is a significant difference in their performance. Then the result from statistical analysis is summarized and presented in table 28 below

Table 28: comparison of Female and male student's achievement in technical/ vocational education

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam ave. score in TVET	N	Mean	S.D	N	Mean	S.D			
	454	78.733	6.60	642	78.53	6.62	0.49	1.58	Accept Ho

As it is observed from table 28, since calculated Z (0.49) is less than Z-tabulated (1.58) then the Null hypothesis is accepted. Therefore there is no significant difference between male and female students achievement in TVET.

Table 29: Summary table for the achievement of male and female Students' in industrial technology fields.

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam ave. score industrial technology	N	Mean	S.D	N	Mean	S.D	3.88	1.58	Reject Ho
	275	78.3114	6.51	71	74.91	6.63			

As it is indicated in table 29 there is a significant difference between male and female students test score in industrial technology. The average mean score for male is greater than female. Hence, male students are better in achievement than females in industrial technology.

Table 3o: Summary table for male and female students' achievement in Business field of study.

Variable	Male			Female			Z calculated	Z tabulated	Remark
average score in Business	N	Mean	S.D	N	Mean	S.D	0.455	1.58	Accept Ho
	105	78.825	7.03	448	79.169	6.781			

There is no significant difference between the average test score of male and females in business field of studies as it is shown in table 30

Table 31: Comparison of mean and Z test for male and female students' Achievement in services field of studies.

Variable	Male			Female			Z calculated	Z tabulated	Remark
Average score in service	N	Mean	S.D	N	Mean	S.D	3.56	1.56	Reject Ho
	16	82.15	4.43	89	77.77	5.08			

As portrayed in table 31 in statistical analyses for the achievement of male and females in service fields. The Null hypothesis is rejected for there is significant difference between males and females. It is rejected since Z- calculated 3.56 are

greater than Z- tabulated that is 1.58. Therefore, males' average score is greater than females' average score in service giving field of studies.

Table 32: comparison of means and Z-test for male and females Achievement in construction field of studies

Variable	Male			Female			Z calculated	Z tabulated	Remark
Exam	N	Mean	S.D	N	Mean	S.D			
average score in construction	58	81.18	5.680	34	77.195	5.014	3.50	1.58	Reject Ho

As shown in table 32, the statistical analysis rejected the Null hypothesis and there is a significant difference between male and female students' in tests score. Therefore, in construction fields' males' average test score exceeds females' average test scores.

Generally, the above findings show that there is a significant difference between male and female average score in all fields of studies in TVET with the exception of business field of studies. Therefore, from the statistical analysis one can safely conclude male students achieved better than female student in all field of studies in TVET except business.

Chapter Five

Summary, Conclusion and Recommendation

5.1 Summary

The target of the study was to investigate the performance and stream choice of female students in the technical/ vocational training and preparatory schools in Sidama zone. Here female students' achievement in different streams as compared to their male counter parts and the reasons (factors) that contribute to performance and stream choice in TVET and preparatory schools were given emphasis in the study. Questionnaire and document analysis instruments were used for data collection under the descriptive survey approach for the study.
To examine the gender disparity in different fields of TVET and preparatory schools, over all enrollment data since 2003/04 has been collected and analyzed.

Gender biased perception that exists both at family and school environment influence females' performance and stream choice in TVET and preparatory were also dealt with. For the purpose of investigation gender related factors that influence female students' field of study choice and performance, were also examined. In addition to this, the performance of female students compared to male counterparts in preparatory and TVET was analyzed based on students' scores since 2003.

Female student in TVET and preparatory schools are concentrated in traditional field of studies. How ever, Female enrollment pattern in TVET and preparatory shows us that. They are inclined towards male dominated fields since 2005.

As far as the reasons for stream choice is concerned female students in TVET and preparatory identified that home and school environment, academic performance and perception on subjects as the major factors that influence their choice of field of study.

Home environment that includes parents' educational status and occupation has significant role in field selection and performance of female students. Among significant persons that play a role on females' field selection parents mothers are the most influential persons.

The major factors (reasons), which attract female students' field selection in the TVET and preparatory are, associated with job opportunity and interest to the field.

Regarding to the school factors, their influence on female students' field selection is not strong

Concerning the achievement of girls it is found out that females students should significant difference from their male counter parts in natural and social science streams as well as in TVET fields i.e. male students performance is better than female students in stream of natural and social science streams of preparatory and fields of TVET except business

2. Conclusion

AS to the main outcomes of the study, they are stated briefly here under:

1. Data gathered from TVET institutes make it clear that female students' enrollment in different fields for the last five years has increased from 470 (47.0%) in 2002 to 680 (50.8%) in 2006. With regard to female students' field of specialization, they are concentrating on traditional fields of studies. THE findings clearly demonstrated that the percentage of females in traditional female dominated fields ranges between 73.7% in bakery and 97.8 in secretary science. Where as technical areas are male dominated fields and their percentage vary from 8%, in auto-mechanics

to 39% in woodwork. Even though the great majority of female students has attracted to traditional field of studies, inclinations towards male dominated fields such as surveying, drafting and electricity have been observed in TVET since 2005.In the case of preparatory female students' enrollment has shown an increasing trend. OF the total 1590 females enrolled during the last four years, 944 (59.4%) were enrolled in social science stream and the remaining 646 (40.6 %) went to natural science stream. The finding is in agreement with existing literature (Keeve and Kotte, 1996, Betz 1997) that shows more females are attracted towards social science stream than to natural sciences.

2. Several reasons have been identified for female students' choice of field of study. The major factors (reason) that influence girls' choice of field of study in TVET and preparatory schools include home environment, students' academic preparation performance and their perception on subjects. Competence in mathematics and science has negative impact on the selection of traditional male dominated fields. Lack of competency in mathematics and science has strong repercussion on the selection of traditional field for women. The great majority female respondents indicated the presence of math and science subjects in their fields of studies doesn't create favorable condition to select the field

3. Home environment play vital role in the selection of a particular field of study and performance. It is assumed that the educational status and occupation or position of parents will have an impact on their children. The more educated the parents and the higher the status of their occupations, the greater the degree of influence they have upon the individual's field of section. The finding of the study shows that 76.8% of preparatory and 82.1% TVET female students' parents completed collage education. Regarding students' parents' occupation 26.4% of the TVET and 27.4% of the preparatory female students also identified that their

female parents are housewife without job. Therefore, this female student's' parents education and occupation status may have influence on their field of study and to be attracted to social science in preparatory and traditional female dominated fields in TVET.

4. Most of the students' reasons in field selection are associated with job opportunities and interest to the field. Job opportunity was rated 31.5% and great interest to the field became 34.5%. There are the major reasons given by TVET and preparatory students in their pervious academic performance in grade 10 national examination were the primary reason to join TVET program. Therefore, 21.5% of female respondents report that joined TVET program due to poor academic performance and lack of other alterative.

5. The effect of school factor in field selection is not strong.65.1% of teachers and counselors reported that they didn't give advice for female students during field selection. School counselors despite formal responsibilities in field of study, guidance actually have little influence on field of study choices.

6. Students' decision on their field selection is influenced by a number of home and school agents such as parents, siblings, peers, teachers and school counselors. The most influential persons are parents, especially mothers.38% and 35.3% of the respondents reported that their mothers and fathers influence their decision on field selection respectively. The second most influential persons are relatives and peers. The school agents such as teachers and school counselors are the least influential groups.

7. Female students' likes and dislikes about their field of study show that 72.1% of them like the field of their choice because of the great interest

they have to the discipline. In non-traditional fields, 51.5% of female students like fields because they require math and science fields. Where as in traditional field of studies 35.9% girls like their field because they require English skills. On the other hand 61.4% of the respondents reported that the difficulty of the course work is the feature them made that to dislike in their fields.

8. One of the perceptions that exist among TVET , and preparatory teachers and female students is the classification of field in accordance to gender .Natural science and technical fields are considered as male domain where as social science and vocational field are female domain .The finding on teachers perception towards females field of study indicates that 41.8% suggested that technical fields are difficult for girls where as 49.2% revealed that girls are more productive in vocational fields than technical .

9. As to classroom activities the evidence indicates that females are less active and lack confidence and efficiency.

10. Regarding the achievement of female students, it is found out that female's in natural science and social science streams as well as in TVET fields except business showed significant difference from their male counterparts. The factors influencing performance found out to be domestic chore, economic problems, lack of interest and language problems. They are the major factors contributing to female's poor performance in TVET and preparatory school.

5.3 Recommendation

Gender disparity in TEVET and Preparatory programs related to the choice of traditional masculine field areas is a serious problem. At secondary level female students face constrains to participate in male dominated fields in addition to poor performance with special reference to science, mathematics and technical subjects. There are also family influence and lack of guidance in the choice of subjects. Thus, this problem calls for immediate intervention at least to reduce the existing gap between female and male enrollment in traditional male dominated fields. Since the problem attracts little or no attention in the research area, the following suggestions are given.

- To intervene the gender disparity in traditional male dominated fields, research has to be conducted to identify the root causes of the problem.
- Parents are recognized as legally responsible and most influencing and enduring teachers for their daughters Therefore they have to provided with significant information through different methods to encourage their daughters to take up traditional male dominated fields
- Guidance and counseling teachers need to be given more skills in guiding girls how to develop their aptitude from the time they enter secondary schools.
- Counseling and advising service should be provided to female students to reinforce their self-confidence and self-efficacy perception towards traditional male dominated fields.
- Make students to view math and science as tools rather than theoretical systems by integrating math and science with other subjects.
- Teacher training institutes and colleges should examine their courses and programs and identify gender sensitive contents and approaches so as to reduce gender biased perception in the school environment.

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በአዲስ አበባ ዩኒቨርሲቲ

የሥነ ትምህርት ኮሌጅ

የመምህራን ት/እና ሥርዓተ ትምህርት ጥናት ት/ክፍል

በሲዳማ ዞን በቴክኒክ ሙያና በከፍተኛ 2ኛ ደረጃ ት/ቤት በሚማሩ ሴት ተማሪዎች የሚሞላ መጠይቅ፡፡

የዚህ መጠይቅ ዓላማ በሲዳማ ዞን በቴክኒክ ሙያና በከፍተኛ 2ኛ ደረጃ ት/ቤት የሴት ተማሪዎች የትምህርት ክንዋኔ /አፈፃፀም/ የትምህርት ዘርፍ አመራረጥ ምን እንደሚመስልና በምርጫም ሆነ በውጤታቸው ላይ ተጽኖ ሊያደርጉ የሚችሉ ሁኔታዎች ምን እንደሆኑ በመመርመርና ለማወቅ ለሚረዳ ጥናት መረጃ ለመሰብሰብ የተዘጋጀ ሲሆን መረጃውም የሚውለው በቀጥታ ለጥናቱ ሥራ ብቻ መሆኑን ላረጋግጥ እወዳለሁ፡፡ ስለሆነም ለጥናቱ ተክክለኛና እውነተኛ መረጃ ለመስጠት ስለተባበራችሁኝ በቅድሚያ አመሰግናለሁ፡፡

በዚህ መጠይቅ ላይ ስም መግለጽ አያስፈልግም፡፡

<u>መመሪያ</u>፡- ከዚህ በታች ለቀረቡት ጥያቄዎች በባዶ ቦታዎች ላይ በመፃፍ ወይም ደግሞ "✓" ምልክት በማድረግ መልሱን አመልክቱ፡፡

አጠቃላይ መረጃ

አድራሻ/የመጣሽበት ት/ቤት /_____

1. የቦታው ሁኔታ ከተማ ☐ የገጠር ከተ ☐ ገጠር ☐
2. እድሜ ☐
3. ፆታ ☐ ሴ ☐ ወ

የቤተሰብ (የወላጅ) ሁኔታ

1. የቤተሰብ መኖሪያ ከተማ☐ ገጠር ☐ የገጠር ከተማ☐
2. የቤተሰቦችሽ አባል ቁጥር_____

3.የቤተሰቦችሽ የትምህርት ደረጃ በሚከተለው ሠንጠረዥ ውስጥ ✓ ምልክት በማድረግ ግለጪ

	አባት	እናት
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College ያጠናቀቁ		
ዩኒቨርሲቲ ያጠናቀቁ		

4. የቤተሰቦችህ የሥራ ዓይነት ከተዘረዘሩት ውስጥ አመልክቱ

የሥራ ዓይነት	አባት	እናት
የመንግስት ተቀጣሪ		
ገበሬ		
ነጋዴ		
የቤት እመቤት /የሥራ የለውም/		
በግል የሚሠራ		

5. የቤተሰቦሽ አማካኝ የወር ገቢ በግምት ምን ያህል ይሆናል_____

ከመማር ማስተማር ጋር የተዛመደ መረጃ

6. አሁን በመማር ላይ ያለሽበት የትምህርትዘርፍ /በጽሑፍ ይገለጽ/ _____

7. ለወደፊቱ በዛሬው ምርጫሽ ለመግፋት ያለሽ ቁርጠኝነት ምን ያህል ነው?

በጣም ጠንካራ☐ በመጠኑ ጠንካ☐ ልለውጠው እች☐ሁ

8. ዛሬ እየተማርሽበት ያለው የትምህርት ዘርፍ ላይ ዝንባሌ ያደረብሽ ከመቼ ጀምሮ ነው?

በመጽሐፍ ይገለጽ_____

9. ዛሬ መርጠሽ /ህ/ እየተማርሽበተ /ክበት/ ያለውን የትምህርት ዘርፍ እንዴት ማወቅ ቻልሽ /ክ/ ?

በጽሁፍ ይገለጽ_____

10. ዛሬ መርጠሽ እየተማርሽበት ያለውን የትምህርት ዘርፍ ለምን መረጥሽ?

ሀ. የተሻለ ሥራ የማግኘት እድል ስላለው ☐

ለ. ወደፊት ከማንም የማያጋጭና የማያነካካ በመሆኑ☐

ሐ. ሥራ የማስገኘት እድሉ ሰፋም ጠበበም እኔ ትምህርቱን ሰለምወደው ብቻ መረጥኩት ☐

መ.ወደዚህ የትምህርት ዘርፍ ለመግባት ችግር ስላልነበረበት /ሰፊ/ እድል ስለነበረው ☐

ሠ. ቤተሰብ ይህን የትምህርት ዘርፍ እንድመርጥ ስላደረገኝ☐

ረ. በነጥቤ ምክንያት ተመድቤ☐

ሌላ ምክንያት ካለ ይገለጽ _____

11. አሁን ከምትማሪበት የትምህርት ዘርፍ ውጪ በከፍተኛ ትምህርት ሌላ ትምህርት የመማር ፍላጐት አለሽ?

አዎ አለኝ☐ የለኝም ☐

12. ከላይ ለተጠቀሰው ጥያቄ መልስሽ አዎ ከሆነ ለምን ካሁኑ ያንን በከፍተኛ ትምህርት ልትቀጥይበት የምታስቢውን ትምህርት አልመረጥሽም?

_____

13. ከፍተኛ ትምህርት ተቋማት /ዩኒቨርሲቲዎች/ ገብቶ የመማር እድሉ ቢገኝና ነፃ

ምርጫ ቢኖር ለመማር የምትፈልጊው የትምህርት ዘርፍ ምንድ ነው?____

_____

14. ዛሬ አንቺ እየተማርሽው ያለ የትምህርት ዘርፍን ባለሽበት ከተማ /አገር/ እንዴት አርገሽ ትገልጭዋለሽ?

- ስዙ ሴቶች የሚማሁበት /የሚመርጡት/ የትምህርት ዘርፍ ☐
- ብዙ ወንዶች የሚማሁበት /የሚመርጡት/ የትምህርት ዘርፍ☐
- ወንድና ሴቶች እኩል በሆነ ሰሜት የሚማሁበት /የሚመርጡት/ የትምህርት ዘርፍ
- ስለ ገ☐ ብዙም አላውቅም☐

15. በአካባቢሽ ዛሬ እየተማረሽበት ባለው የት/ዘርፍ/ ተመርቀው ሥራ የያዙ ሴቶች አሉን?

- በጣም ብዙ ሴቶች አለ☐ . በጣም ጥቂት ሴቶች ብቻ አሉ ☐
- ብዙ ሴቶች አለ☐ - መኖር አለመኖራቸውን አላውቅም ☐

16. ዛሬ የምትማሪውን የትምህርት ዘርፍ ለመምረጥ ውሳኔው ሙሉ በሙሉ የራስሽ ነው ወይስ የሌሎች ተጽእኖ አለበት?

- ውሳኔው ሙሉ በሙሉ የራሴ ነው ☐
- በሌሎች ተገፋፍቼ ነው ልመርጠው የወሰንኩት ☐

17. ከታች የተጠቀሱት ሰዎች የዛሬውን የትምህርት ዘርፍ ምርጫሽን ለመወሰን ምን ያህል ጠቀሜታ ነበራቸው?

	በጣም ከፍተኛ	ከፍተኛ	ዝቅተኛ	በጣምዝቅተኛ
አባት	☐	☐	☐	☐
እናት	☐	☐	☐	☐
መ/ር(መ/ራን)	☐	☐	☐	☐
የተማሪ አማካሪዎች /ካውንስል	☐	☐	☐	☐
ታላቅ ወንድም /እህት/	☐	☐	☐	☐
የፅድሚ እኩዮች	☐	☐	☐	☐

18. የመረጥሽውን የትምህርት ዘርፍ /መስክ/ ያጣጣለ /ያናናቀ/ ሰው አለ?

የለም ☐ አለ ☐

ካለ ማን _____

19. ለማጣጣል ምክንያት ሆኖ የቀረበው ምንድነው?_____

20. ከትምህርት ዘርፍ /ሰትሪም/ ምርጫው ቀደም ብሎ ለምረጫው ይረዳሽ ዘንድ ቅድመ ዝግጂት አድርገሽ ነበር? ከሚከተሉት በየትኛው ረገድ?

- የትምህርቱን ይዘት በተመለከተ መምህራን አነጋገሬአለሁ ☐
- የትምህርቱን ክብደትና ቅለት አስመልክቶ ከኔ በፊት እዛ የገቡትን ጠይቃለሁ ☐
- በዘርፉ ሰላለው የሥራ እድል ከኔ የተሻሉ ናቸው ብዬ የመረጥኳቸውን አነጋግሬ አለሁ:: ☐
- ዘርፉ ሰላለው የሥራ እድል ለማወቅ ክፍት የሥራ ቦታ ማስታወቂያዎችን አንብቤ አለሁ ☐
- የተለየ ዝግጅት አላደረኩም ☐

21. ዛሬ ያለሽበትን የትምህርት ዘርፍ /ስትሪም/ በተመለከተ የሚያስደስትሽ የቱ ነው? (በጣም ከሚያስደስቱሽ መሀል ሶስቱን በደረጃ /ምረጭ /1ኛ, 2ኛ, 3ኛ በማለት)

- ትምህርቱን ራሱ በጣም የምወደው በመሆኑ ☐
- ዝንባሌዬ በመሆኑ በጣም እወደዋለሁ ☐
- የት/ርት ዘርፍ ብዙ የሂሣብና የሳይንስ ችሎታ ስለሚጠይቅ እወደዋለሁ ☐
- የት/ዘርፉ የእንግሊዘኛ ቋንቋ ችሎታ ስለሚጠይቅ እወደዋለሁ ☐
- የት/ርት ዘርፉ ሥራ የማስገኘት እድሉ ሰፊ በመሆኑ እወደዋለሁ ☐
- የት/ዘርፉ ለሁሉም ጾታ የሚመች /ተጽእኖ የማያሳድር/ በመሆኑ እወደዋለሁ ☐

22. በት/ርት ዘርፉ በጣም የማትወጂው የቱን ነው /ሶስቱን በቅደም ተከተል ዛፊ /1ኛ/ 2ኛ/ 3ኛ/

- ኮርሶቹ አስቸጋሪ መሆናቸውን ☐
- የሂሣብና የሳይንስ ችሎታን የሚጠይቅ መሆኑን ☐
- የእንግሊዝኛ ቋንቋ ችሎታን ስለሚጠይቅ ☐
- የሥራ እድሉ ጠባብ መሆኑ የማያስደስተኝ ነው ☐
- ለአንድ ጾታ ብቻ የተመቸ መሆኑ /ለሁለቱም ጾታዎች በኩል የማይመች መሆኑ ☐
- በህብረተሰቡ ግምት ለኔ ጾታ የማይሆን ተደርጐ መቆጠሩና በዚህም ተቀባይነት የሚያሳጣኝ መሆኑ:: ☐

23. ዛሬ መርጠሽ እየተማርሽ ባለው የትምህርት ዘርፍ ካንቺ በፊት በጣም የምታውቂው እና ምሳሌ የሆነሽ ሰው አለን?

አዎ አለ ☐ ☐ የለም

24. ካለ ጸታው ምንድነው ?

ወንድ ☐ ሴት☐

25. በአንቺ አመለካከት የዛሬው የትምህርት ዘርፍ ጠቃሚ ገጽታው ምንድ ነው /የቱ ነው/

- ሰፊ የሥራ እድል ያለው መሆኑ☐
- ጥሩ ደሞዝ ማግኘቱ ☐
- የራስ አለቃ ለመሆን ማስቻሉ ☐
- በትምህርቱ ገፍቶ ለመማር /በከፍተኛ ትምህርት ለመቀጠል/ ከፍተኛ የትምህርት እድል ያለው መሆኑ ☐
- ሌሎችን ለመርዳት አጋጣሚን የሚፈጠር መሆኑ ☐
- በዘርፉ በሥራ ሲሰማሩ ለማደግ የሚያስችል መሆኑ☐

26 ቤተሰቦችህ ለትምህርት ምን ያህል ድጋፍ ያደርጉልሻል

ከፍተኛ ☐ መሀከለኛ ☐ ዝቅተኛ☐ ቤተሰብ የለኝም ☐

27 የቴክኒክና ሞያ ሰልጣኝ ከሆንሽ ወደ ተቋሙ የገባሽው ከሚከተሉት ውስጥ በየትኛው ምክንያት ነው?

የ10ኛ ክፍል ብሔራዊ ፈተና ውጤትህ ወደ ፕሪፓራቶሪ /11ኛ ክፍል/ ለመግባት በቂ ስላልሆነ

☐ ለረጅም ዓመት የሚያስተምህር ዘመድ ባለመኖሩና በትንሽ ዓመት ውስጥ በቴክኒክና ሙያ ስልጠና ሥራ ለመያዝ

☐ ለቴክኒክና ሙያ ስልጠና ያለኝ ፍላጎት ከፍተኛ በመሆኑ

☐ በቤተሰቦቼ ምክርና ግፊት ነው

ሌላ ካለ ይገለጽ _____

28. አሁን ያለሽበት የትምህርት ወይም የሥልጠና ዘርፍ የገባሽው በራስሽ ፍላጐት ከሆነ ለዚህ ፍላጐትሽ መንስኤ ይሆናሉ ያልሽውን ከሚከተሉት ውስጥ የትኛው እንደሆነ አመልክቺ

☐ የሥራ እድል በሰፊው በመኖሩ

☐ በዚህ ሥራ የተሳካለት ሰው በማየትሽ

☐ ተቋሙ ውስጥ ከመግባትሽ በፊት በዚህ ሙያ ልምዱ በማካበትሽ

☐ ለሴት ልጅ የሚስማማ የስልጠና ዘርፍ በመሆኑ

☐ በዘርፉ ለመሰልጠን ከፍተኛ ፍላጐት ስላለሽ /ህ/

29 9ኛ እና 10ኛ ክፍል በነበርሽበት ወቅት አጥጋቢ ውጤት የማታመጭባቸው የት/ዓይነቶች ነበሩ? ☐ ነበሩ ☐ አልነበሩም

30. በተራ ቁጥር 32 ጥያቄ መልስሽ ነበሩ ከሆነ የትምህርት ወይም የት/ዓይነቶ ይገለጽ

_____

31 ብዙ ሴቶች የተፈጥሮ ሳይንስና የቴክኒክ ትምህርት ዘርፎችን አይመርጡም ለምን ይመስልሻል?

☐ ከወንድ እኩል መሥራትና ውጤት ማምጣት ስለማይችሉ

☐ በተለምዶ ወደ ሳይንስና ሂሳብ ሴቶች ስለማይገቡ

☐ ሴቶች በተፈጥሮ ሳይንስና በቴክኒክ ሙያ የመስራት ችሎታ የላቸውም የሚል እምነት ስላላቸው

☐ የት/ዘርፍ ወይም ትምህርቶቹ ከሴቶች ይልቅ ለወንዶች ጠቃሚ ስለሆነ

32 ከላይ የጠቀሽዉው አጥጋቢ ውጤት የማተመጭባቸው የት/ዓይነቶች ሆኑ በሌሎቹም የበለጠ ውጤት እንዳታመጪ ምክንያት የሆኑሽ ችግሮች ምንድ ናቸው?

☐ ከባድ ስለሆኑ አይገቡኝም

☐ ፍላጎት ስላልነበረኝ አልከታተላቸውም ነበር

☐ ቤተሰቦቼን በሥራ ስለምረዳ ለጥናት በቂ ጊዜ ስላልነበረኝ

☐ ሌላ ካለ ይገለጽ _____

33. ከሚከተሉት ምክንያቶች በትምህርትሽ ውጤት ላይ ተጽዕኖ ያደረጉብሽ በቅደም ተከተል አመልክቺ (1ኛ 2ኛ 3ኛ በማለት)

☐ ትምህርት ስለምጠላ

☐ መምህራን የሚያስረዱኝ ስለማይገባኝ

☐ ትምህርቱ የሚሰጥበት ቋንቋ ስለማይገባኝ

☐ ት/ቤቱና መኖሪያ ቤቱ ሩቅ ስለሆነ

☐ በቤት ውስጥ ሥራ ምክንያት የማጥኛ ጊዜ ስለሚያንሰኝ

☐ ቤተሰቦቼም ሆነ መምህራኖቼ ስለማያበታቱኝ

3.4 ከሚከተሉት ሃሳቦች ላይ የአንቺ አመለካከት ምን ይመስላል?

ክንውን	እስማማለሁ	አልስማማም	በከፊል እስማማለሁ
1. ሴት ተማሪዎች በተፈጥሮ ሳይንስም ሆነ በቴክኒክ ዘርፍ ከወንዶች እኩል ውጤት ማምጣት ይቻላል			
2. በሴቶች ከተፈጥሮ ሳይንስ በቴክኒክ ዘርፍ ይልቅ፣ በቋንቋ በሶሻል ሳይንስ ት/ዘርፍ			
3. ሰቶች አሌትሪሽያን ግንበኛ ወይም መካኒክ አናፂ ከመሆን ይልቅ ነርስ ሐኪም ፀሐፊ (Secretary) መሆን ይቀላቸዋል ይመርጣሉ፡፡			

በአዲስ አበባ ዩኒቨርሲቲ

የሥነ ኮሌጅ

የመምህራን ትምህርትና ሥርዓተ ትም/ጥናት ትም/ክፍል

በሲዳማ ዞን በቴክኒክ ሙያና ከፍተኛ 2ኛ ደረጃ ት/ቤት በሚያስተምሩ መምህራን የሚሞላ መጠይቅ

ይህ መጠይቅ በሲዳማ ዞን በቴክኒክ ሙያና በከፍተኛ 2ኛ ደረጃ ትምህርት ቤት የሴት ተማሪዎች የትምህርት ክንዋኔ፣ የትምህርት ዘርፍ አመራረጥ ምን እንደሚመስልና በምረጫውም ሆነ በውጤታቸው ላይ ተጽእኖ ሊያደርጉ የሚችሉ ሁኔታዎች ምን እንደሆኑ ለመመርመርና ለማወቅ ለሚረዳ ጥናት መረጃ ለመሰብሰብ የተዘጋጀ ሲሆን መረጃውም የሚውለው በቀጥታ ለጥናቱ ሥራ ብቻ መሆኑን አረጋግጣለሁ፡፡ ስለሆነም እርሶም ለጥናቱ ትክክለኛና እውነተኛ መረጃ እንደሚሰጡኝ በመተማመን ላደረጉልኝ ትብብር በቅድሚያ አመሰግናለሁ፡፡
በዚህ መጠይቅ ላይ ስም መግለጽ አያስፈልግም፡፡

<u>መመሪያ</u>፡- ከዚህ በታች ለቀረቡት ጥያቄዎች በባዶ ቦታዎች ላይ በመፃፍ ወይም ደግሞ '✓' ምልክት በማድረግ መልሱን ያመልክቱ፡፡

1. አጠቃላይ መረጃ

1.1 የት/ቤቱ ስም_____ዞን___ወረዳ_____ ከተማ_____

1.2 ፆታ ወንድ ☐ ሴት ☐

1.3 የትምህርት ደረጃ ☐ ዲኘሎ☐ የመጀመሪያ ዲግሪ☐
ሁለተኛ ድግሪ ☐

በማስተማር ሥራ ላይ ያገለገሉበት ዓመት_____

1.4 የሚያስተምሩበት የክፍል ደረጃ_____

1.5 የሚያስተምሩበት የሙያ ወይም የት/ዓይነት_____

1.6 የሚያስተምሩት የክፍለ ጊዜ ብዛት_____

2 ከመማር ማስተማር ጋር የተዛመደ መረጃ

2.1 ከሴትና ከወንድ ተማሪዎች ማንን ማስተማር ይመርጣሉ?

ሴት ተማሪዎችን ☐ ወንድ ተማሪዎች☐ ሁለቱንም☐

2.2 ለምን? _____

2.3 እርሶ በሚያስተምሩበት የትምህርት ወይም የሙያ ዓይነት ሴት ተማሪዎች ከወንድ ተማሪዎች ጋር ሲነፃፀሩ የትምህርት አፈፃፀማቸው /ክንዋኔአቸው/

በጣም ከፍተኛ ነው☐ መካከለኛ ☐ ከፍተኛ☐

በጣም ዝቅተኛ ነው☐ ዝቅተኛ ☐

2.4 ለጥያቄ ተራ ቁጥር 2.3 ምላሽዎ 'ዝቅተኛ' ወይም 'በጣም ዝቅተኛ' ከሆነ ለዚህ ምክንያቶች ናቸው የሚሏቸውን በቅደም ተከተል (1ኛ እስከ 5ኛ በመመደብ) ያመልክቱ፡፡

☐ ሴት ተማሪዎች በቤት ውስጥ ሥራ መጠመድና በቂ የጥናት ጊዜ ስሌላቸው

☐ ሴት ተማሪዎች በተፈጥሮ ደከም ስለሚሉ

☐ ሴት ተማሪዎች በክፍል ውስጥ የመጠየቅና የመመለስ ተሳትፎ ስሌላቸው ነው

☐ የመማር ፍላጐት ስለሌላቸው

☐ የኢኮኖሚ ችግር ሰላለባቸው

2.5 በተቋሙ ውስጥ ሴት በብዛት መርጠው እየተማሩ ያሉበት የትምህርት ዘርፍ ካለ ምክንያታቸው ከሚከተሉት የትኞቹ እንደሆኑ በቅደም ተከተል አመልክቱ?

1ኛ, 2ኛ, 3ኛ.... በማለት/

☐ ከአቅምና ችሎታቸው ጋር ስለሚመጣጠን

☐ ልጅ ከመውለድና ማሳደግ ከሆነው ተፈጥሮ አቸው ጋር በመዛመዱ

☐ በህብረተሰቡ ውስጥ የሴት የሥራ ድርሻ ሆኖ በመወሰዱ

☐ በቤተሰብ ምክር

☐ በጓደኛ ምክር

☐ በመምህራን ምክር

☐ ለቤት ተማሪዎች አመቺ የት/ዘርፍ በመሆናቸው

ሌላ ካለ ይገለጽ_____

2.6 በተቋሙ በሴት ተማሪዎች የትምህርት ወይም የሥልጠና ዘርፍ ምረጫ ላይ የመምህራን የምክር አገልግሎት ተሳትፎ ምን ያህል ነው ብለው ይገምታሉ?

በጣም ከፍተኛ ☐ ከፍተኛ☐ ዝቅተኛ☐ በጣም ዝቅተኛ☐

2.7 በተቋሙ ውስጥ ሴት ተማሪዎች በየትኛው የትምህርት ዘርፍ ወይም የቴክኒክ ሙያ ሥልጠና ዘርፍ ቢሰማሩ ውጤታማ ይሆናሉ ብለው ያምናሉ?

☐ በቴክኒክ ሥልጠና /በአውቶ መካኒክስ ፤ ጀነራል መካኒክስ፤ የእንጨትና የብረት ሥራ፤ ግንባታ፤ ኤሌክትሪሲቲ የመሣሠሉት/

☐ በሙያ ሥልጠና ፤ ሴክሬትሪያል፤ የልብስ ቅድ፤ የፀጉር ሥራ፤ የሆቴል መስተንግዶ፤ አካውንቲንግ የመሣሠሉት/

☐ በቴክኒክና ሙያ ሥልጠና

☐ በተፈጥሮ ሳይንስ ዘርፍ

☐ በህብረተሰብ ሣይንስ ዘርፍ

2.8 ከላይ በጥያቄ ቁጥር 2.7 ያለውን የትምህርት ዘርፍ ቢመርጡ መጨታማ ይሆናሉ ብለው እንዲያምኑ /እንዲገምቱ/ ያደረጉ ምክንያት ከታች ከተዘረዘሩት መህል የትኛው ነው ብለው ይገምታሉ?

☐ በህብረተሰቡ ውስጥ ሴቶች ማከናወን ከሚጠበቅባቸው የሥራ ድርሻ አኳያ ተስማሚ የሆነ በመሆኑ

☐ ከሴት ተማሪዎች ተፈጥሮና አቅም ጋር ስለሚጣጣም

☐ ወደፊት በሥራ አለም በዘርፉ ደህና ክፍያ ማግኘት ይችሉበታል ብለው ስለገመቱ በመሆኑ

☐ ወደፊት በስራ አለም ሲሰማሩ ከቤት ውጭ ለረጅም ግዜ የማያቆያቸው በመሆኑ

ሌላ ካለ ይግለጹ_____

2.9 በትምህርት ዘርፍ ምርጫ ወቅት ለሴት ተማሪዎች ምክር ለግሰዋል?

☐ ለግሻለሁ ☐ አለገስኩም

2.10 በተራ ቁጥር 2.9 መልስ ለግሻለሁ ከሆነ በምን አይነት ሁኔታ

☐ ፍላጐታቸውን ዝንባሌአቸውንና በማየት

☐ የሚከብዳቸው የትምህርት ዘርፍ እንዳለ በማመልከት

☐ ሴት ተማሪዎች ሊያጠኑት /ሊሰለጥኑበት/ የማይገባ የትምህርት ወይም የስልጠና ዘርፍ እንዳለ በማመልከት

ሌላ ካለ ይገለጽ___ _____

2.11 ሴት ተማሪዎች አንዳንድ የትምህርት ዘርፍ ወይም የሥልጠና ዘርፍ ላለመምረጥ ምክንያት ናቸው የሚሏቸውን በቅደም ተከተል አስቀምጧቸው

- ☐ የሥራ እድል ሥለማይኖራቸው
- ☐ በተግባር መተርጉም ስለማይመቻቸው
- ☐ ፍላጐት ስለሌላቸው
- ☐ በጓደኛ ተጽኖ
- ☐ ለሴት አመቺ አይሆንም በማለት
- ☐ በቤተሰብ ተጽእኖ
- ☐ የትምህርት ዘርፎቹ ብዙውን ግዜ ለሴት ተማሪዎች አስቸጋሪ በመሆናቸው
- ሌላ ካለ ይገለጽ_____

2.12 በሚከተሉት ነጥቦች ላይ የርሶ አመለካከት ምን ይመሰላል? ለምን

	እስማማለሁ	እንደሁኖታው	አልስማማም	በከፊል እስማማለሁ
ሀ. ሴት ተማሪዎች በማንኛውም የትምህርትም ሆነ የሥልጠና ዘርፍ ቢሰማሩ ከወንድ ተማሪዎች እኩል ውጤታማ ይሆናሉ				
ለ. የቴክኒክ ሥልጠና ዘርፍ ለሴት ተማሪዎች አስቸጋሪ ነው				
ሐ. ከቴክኒክ ሥልጠና ይልቅ ሴት ተማሪዎች በሙያ /vocational/ ዘርፍ ቢሰማሩ ውጤታማ ይሆናሉ				
መ. ከተፈጥሮ ሣይንስ ይልቅ ሴት ተማሪዎች በሕብረተሰብ ሳይንስ ትምህርት ዘርፍ ቢሰማሩ ውጤታማ ይሆናሉ				

2.13 .በሚከተሉት ሃሣቦች ላይ የእርሶ አመለካከት ምን ይመስላል?

	ከፍተኛ	መሐከለኛ	ዝቅተኛ	በጣም ከፍተኛ	በጣም ዝቅተኛ
ሀ. ፍላጐትና እውቀት አንዱን የት/ዘርፍ ለመምረጥ ተጽእኖ ያደርጋል					
ለ. ሴት ተማሪዎች በቤተሰብ በጓደኛና በአስተማሪ ግፊት አማካኝነት የሚያጠኑትን የትምህርት ወይም የሥልጠና ዘርፍ ይመርጣሉ					
ሐ. የስነ ልቦና ተጽእኖዎች በምርጫ ላይ ጫና ያሳድራሉ (ለምሣሌ ትምህርቱን አልቻለውም ብሎ በመፍራት)					
መ. የህብረተሰቡ ባሕል ሴቶች ሊማተፉ የሚችሉባቸውን የሥራ መስክ በመለየቱ የተነሣ ለሴት ተማሪዎች የተምህርትና የሙያ ዘርፍ ምርጫ ላይ ተጽእኖ ይኖረዋል					

4-በክፍል ውስጥ የመማር ማስተማር ሂደት የሴት ተማሪዎች ተሳትፎ /እንቅስቃሴ/ ምን ያህል እንደሆነ ያመልክቱ፡፡

	ከፍተኛ	መሐከለኛ	ዝቅተኛ		
ሀ. ዘወትር በክፍል ውስጥ ይገኛሉ					
ለ. ጥያቄ ይጠይቃሉ መልስም ይመልሳሉ					
ሐ. የክፍል ወይም የቤት ሥራ ይሠራሉ					
መ. በክፍል ውስጥ በንቃት ይሣተፋሉ					
ሠ. በክፍል ውስጥ ነፃነት ይሰማቸዋል					
ረ. በራስ መተማመን አላቸው /Self-confidence/					
ሸ. ብቃት አላቸው / Self-Efficacy/					