

Women in Education: A Study of the Academic Performance and Participation of Female Students in the High Schools of Addis Ababa Region*

Genet Zewdie**

The problem

In many African countries, women's participation in education is low. The enrolment at elementary, secondary and tertiary levels of education is characterised by gender disparity. A large number of female students drop-out of school and repeat in a class. Many of them concentrate in fields, such as, secretarial, home-economics, nursing and teaching in elementary schools.

The pattern of enrolment and participation of Ethiopian women in education is similar to that of many African countries. Statistics reveal that the number of female students enrolled in elementary, secondary and higher education is not equal to that of male students. For example, in 1989/90 academic year, the female students enrolment in primary, secondary and in higher education in Ethiopia accounted for 39%, 39% and 10% respectively (MOE, 1989).

The reason for such low enrolment of women in different levels of education may be attributed to the values and attitudes that the Ethiopian society attaches towards education of women. In most parts of Ethiopia, patriarchal thinking dominates the culture (Allasebu, 1988). Patriarchal thinking enhances the belief that men are superior to women and it also institutes division of labour by gender.

Furthermore, women are given the role of a wife, a mother and a house-keeper while men are given the role of a bread winner, a protector and supporter. Thus, the attitude that education is not necessary for girls and women is eminent in patriarchal societies since it is believed that education has no role of preparing women to be good housewives and mothers (Lglitin, 1976).

Such attitudes have great impact on the values attached to women's education by each group of society that is directly or indirectly involved in educating women.

* A summary of a Research Report Presented to OSSREA, 1991

** Former Asst. Prof., Faculty of Education; Presently, Minister, MOE

Women in Education: A Study of the Academic Performance and Participation of Female Students in the High Schools of Addis Ababa Region*

Genet Zewdie**

The problem

In many African countries, women's participation in education is low. The enrolment at elementary, secondary and tertiary levels of education is characterised by gender disparity. A large number of female students drop-out of school and repeat in a class. Many of them concentrate in fields, such as, secretarial, home-economics, nursing and teaching in elementary schools.

The pattern of enrolment and participation of Ethiopian women in education is similar to that of many African countries. Statistics reveal that the number of female students enrolled in elementary, secondary and higher education is not equal to that of male students. For example, in 1989/90 academic year, the female students enrolment in primary, secondary and in higher education in Ethiopia accounted for 39%, 39% and 10% respectively (MOE, 1989).

The reason for such low enrolment of women in different levels of education may be attributed to the values and attitudes that the Ethiopian society attaches towards education of women. In most parts of Ethiopia, patriarchal thinking dominates the culture (Allasebu, 1988). Patriarchal thinking enhances the belief that men are superior to women and it also institutes division of labour by gender.

Furthermore, women are given the role of a wife, a mother and a house-keeper while men are given the role of a bread winner, a protector and supporter. Thus, the attitude that education is not necessary for girls and women is eminent in patriarchal societies since it is believed that education has no role of preparing women to be good housewives and mothers (Lglitin, 1976).

Such attitudes have great impact on the values attached to women's education by each group of society that is directly or indirectly involved in educating women.

* A summary of a Research Report Presented to OSSREA, 1991

** Former Asst. Prof., Faculty of Education; Presently, Minister, MOE

Parents, teachers, school administrators, educational planners and students of both sexes may generally have accepted the above mentioned values.

Hence, most parents in patriarchal society treat their sons and daughters differently in regard to their future roles, aspirations, expectations, and education. While boys are encouraged in ways that will enable them to achieve, compete and win, girls are discouraged to develop such traits because, they are not necessary for the stereotyped roles of housewives and mothers. Such an encouragement, which the girls are denied is a key factor that helps boys to develop the sense of competitiveness in their educational endeavours (Mocaby, 1963).

Teachers as well as school administrators try to influence female students so that they join home-economics, nursing or secretarial areas on the ground of their usefulness to domestic work (Atsede and Kebede, 1988). The views of the female students in regard to their education were not in any way different from the views of their predecessors. Being brought-up in a patriarchal society, many women have developed a withdrawn attitude about their capacities and potentials in participating in education (McLean, 1967).

The enrolment and academic records of female students in the high schools of Addis Ababa shows that a good number of them repeat in a grade or drop-out, and in most cases fail in the Ethiopian School Leaving Certificate Examination (ESLCE). In 1987/88 academic year, out of 45,186 female students in Addis Ababa high schools, 24.48%, 16.9% and 18.8% repeated in grades 9, 10 and 11 respectively: and 5.7%, 18%, 16.7%, and 22.3% dropped out from grades 9, 10, 11 and 12 respectively. In the same year, out of the total number of Addis Ababa students who joined higher education--degree and diploma levels--the percentage of female students was only 9%.

Thus, the high percentage of drop-outs, repeaters and failures of female students indicate particular problems pertinent to these students that need investigation. The purpose of this research was, therefore, to study the academic performance and participation of female students in the high schools of Addis Ababa Region.

Research Questions

1. Are female students active participants in regard to their academic performance in high schools as measured by their achievements and as perceived by selected high school teachers in Addis Ababa Region?

2. Do cultural beliefs, and attitudes of the society towards women affect high school performance and participation of female students as perceived by the selected high school teachers, female students, and parents in Addis Ababa Region?
3. Are female students capable of learning those subjects that are offered in the high schools as measured by their grades of each subject and perceived by selected high school teachers, and female students in Addis Ababa Region?
4. Do female students show preference of learning towards certain subjects in high schools as perceived by the selected high school teachers and female students in Addis Ababa Region?
5. Do female students in the high schools need special services, provisions, or considerations as perceived by the selected high school teachers, female students, and parents in Addis Ababa Region?

Review of the Literature

Aspects of Girls Enrolment and Participation

The literature shows that African women are under-represented in education where their enrolment ranges from 38% to 50% in primary, 29% to 49% in secondary, and 15% to 28% in tertiary levels of education except in Southern Africa (UNESCO, 1980).

In many poor families, education of boys is a high priority since it is considered to be a source of security for old age; while education of girls is a low priority. Poverty and unwillingness to bear the educational cost of books, uniforms and other expenses could influence parents' decisions to send their daughters to school. However, the origin of the preference of sending boys to schools is not solely economic but also cultural. Psachropoulos (1985) stated that, in the Middle East and North Africa, religious and socio-cultural traditions such as early marriage and child bearing, unwillingness to allow girls to travel long distances explain the prevalence of low participation of women in education.

Regarding academic achievement of women, a research that analysed O-Level (grades 11 - 12) examination results in Botswana, Zambia and Kenya revealed that girls performed poorer than boys in almost all subjects, specially in physical sciences, biology and mathematics. But girls did better in English literature in all three countries (Duncan, 1989). However, the national examination results taken at the end

of primary level indicated different achievement patterns for the countries mentioned above. While no significant gender differences in achievement was revealed in Botswana, girls in Mauritius scored higher than boys in a study undertaken by Chinapah (1983). In Zambia, girls' examination scores were lower than boys in English, Social Science, Mathematics and Physical Science.

Clark (1976) underscored some possible reasons for the low participation of women in education in Zambia as parental discouragement of girls to attend school, early marriage, domestic responsibilities of girls, early pregnancy and school curriculum geared more favourably to boys than to girls.

Anbessu B. and Junge B., in their study of Ethiopian girls' education in primary schools in Bahir Dar Aweraja (1988), have also revealed gender disparities in achievement especially in subjects like Mathematics and Amharic.

In 1988, Atsede and Kebede (1988) undertook a study to investigate the educational participation of women in Ethiopia and to find if there is a different pattern of girls' and women's education. Sources of the data were national enrolment statistics, promotion, repetition and dropout rates on some randomly selected secondary schools of Addis Ababa and Shoa; the views of teachers, directors, students and women employees.

The findings of the study were as follows: there was discrimination of boys and girls in regard to the curriculum of the elementary school; however, gender differentiation started at junior high school where girls joined the home-economics and commercial streams. It was also found out that the grade 6 and 8 National Examination results for the last 10 years indicated that the performance of girls in Mathematics and Sciences was lower than that of boys. Similarly, the Mathematics and Natural Science results of girls in the Ethiopian School Leaving Certificate Examination for the last six years was also lower than that of boys. In regard to technical 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. Furthermore, the number of female trainees in these areas decreased from year to year.

Tadoro (1985) stated that, according to most studies of school performance, four factors determine a child's capacity to learn. These were: 1) family environment including income and educational level; 2) peer group interaction-type of children

with whom an individual child associates; 3) the child's interest, intelligence and ability; and 4) early nutrition and health.

While these factors affect the performance of students of both sexes, many other studies have delineated factors that affect female students only. Coombs (1985) attributes the underlying causes for gender disparities in education to cultural values of a given society. Debele (1980), in her study of female educational wastage, pointed out that the role of women in a society and the organisation of the schools system as major causes. Generally, women are regarded as intellectually inferior to men in many societies. This perceived inferiority of women served as a pretext for exclusion from playing important roles in the society. Such views also have an impact on the self-image of girls.

The knowledge that there are limited number of job opportunities reserved for women, therefore, affect the female students' occupational aspiration and expectations which, in turn, have a direct bearing on educational achievement. It is, therefore, clear that the selection of a field of specialisation of students, parents and teachers will be influenced by the knowledge of which job is available for women. A positive relationship was found between level of urbanisation (which is an aspect of socio-economic environment) and female student achievement at the primary level (Kann 1981). Debele (1980) has stated that the ratio of girls enrolment in high schools correlates with their families occupational category.

It is observed in the literature that societal values that are reflected in the structure of the school, its administration, the *hidden* curriculum, teachers' behaviour and attitude, and school text books work as influencing agents of academic performance of girls in schools.

Furthermore, official textbooks also transmit gender-related values and attitudes. In Biraimah's analysis of text book illustrations (1980), women constituted only 10% of all people presented in the illustration; even these were depicted as weak and passive, mostly performing household chores.

A similar analysis of elementary school text books was also conducted by the Curriculum Department of the Ministry of Education of Ethiopia (1989) which revealed that no female referred topics were used in science subjects and the proper names in text books were predominantly male. The adjectives used to describe women were fertile, pregnant, breast feeder, pretty while those used to describe males were revolutionary leader, freedom fighter, soldiers etc. Women were mentioned in

scientific professional sphere of activities very sparingly and men frequently (MOE, 1989).

Methods of Data Collection

This survey study used two types of data for the investigation of the state of girls education. The first source is a set of documents that consist of national statistics and school records and the other one is questionnaire responses. The enrolment and participation statistics were analysed in order to investigate the pattern of enrolment trends, drop-out and class repetition of female students in each grade in the high school. School records were used to analyse the performance of female students in each subject offered in the high schools.

Sampling

About 10% of the female students of Addis Ababa high schools, 25% of the high school teachers and 5% of the parents of those female students who participated in the study were included in the survey.

In 1988-89 academic year, the number of high schools in Addis Ababa totalled 32, out of which 19 were government, 5 mission, 7 international community and one public. The schools were selected using cluster and simple random sampling techniques.

In the First stage, names of schools in the five school zones were collected from Addis Ababa Schools' Office, and 2 schools from each zone were selected randomly. In addition, the two Girls' Schools, the two Vocational / Technical Schools, and a school for followers of Islamic faith were selected for their unique characteristics. The schools run by the International Communities were excluded from the study as they don't use the standard curriculum of the Ministry of Education. About 50% or 15 of the high schools in Addis Ababa region were, therefore, included in the study.

In the Second stage, a class list of the female students in grades 9-12 and in 10+1, 10+2, 10+3 of the Vocational/ Technical Schools were collected from each of the schools to make a random selection of participants.

The data on national statistics on drop out, repeaters and enrolment were collected from Addis Ababa Schools' Office, while the data on school records of the female students from the 14 sampled schools.

The school records comprised the grades obtained by the selected female students for each subject offered in high schools for one academic year. Since the school records were collected at the beginning of 1989 -90, the grades were about the previous academic year. Though an attempt was made to include all 15 sampled schools in the collection of the school records, it was not possible to obtain grades of female students from Addis Ketema Secondary School.

Procedures

Different sets of questionnaires were administered to female students, teachers and parents. The questionnaire to the female students consisted 60 questions dealing with the students' family background, educational background, attitude towards school subjects, occupational aspirations, expectations and their views on women's education. There were 34 questions pertaining to background information (teachers' views about female students' school-performance and participation) in the questionnaire distributed to the high school teachers. The questionnaire to parents also contained questions about their attitudes towards their daughters' school performance and participation, and their economic and educational background.

The questionnaires were pilot tested for their clarity and validity by a group of high school students, teachers and parents before they were administered. A total of 2000, 400, and 200 questionnaires were distributed to female students, teachers and parents respectively; and data were collected from 1965 female students, 366 teachers and 167 parents.

Each of the 15 schools were visited 2 to 4 times to distribute, administer and collect the completed questionnaires as well as school records. All sets of questionnaires were prepared in Amharic as expatriate teachers were not included in the study. An oral explanation was given to the students about the purpose of the study. They were assured of the confidentiality of the information they would give. A letter containing similar information also accompanied the questionnaires sent to the teachers and parents.

Data Analysis

Data obtained from the school records were used to compute mean scores obtained by female students for each subjects in order to measure the academic achievement of the female students against the standard score used by the Ministry of Education in rating students' performance.

a. Background Information

Age of Students: According to the Ministry of Education guideline, a child starts primary school at the age of 7, and secondary school at the age of 15--after 8 years of primary schooling. Hence, the average age of students in the secondary school is expected to be between 14 and 18. Age of students who participated in the study is shown in Table 1.

Table 1: Age of female students

Age	No.	Percent
12	6	3
13	62	3
14	270	14
15	508	26
16	505	26
17	396	20
18	22	1
20	3	1
22	1	-

As shown in Table 1, most of the female students in the high schools of Addis Ababa are adolescents within the normal age bracket of high school students. This also indicates that most students must have started elementary school at the appropriate age.

Parental Education: As discussed earlier, the educational background of parents specially mothers has a bearing on the academic achievement and participation of female students. Table 2 indicates that of those respondents who indicated the educational level of their parents. The majority, 470 (24%) stated that their mothers had formal education of only grades 1 - 6. But, most of the fathers of the respondents, 556 (28%) had a level of senior secondary education.

Table 2: Educational Levels of Parents of the Female Students

Level	Mothers		Fathers	
	No.	Percent	No.	Percent
Basic literacy	126	6	40	2
Grades 1-6	470	24	213	11
Grades 7-8	194	10	165	8
Grades 9-12	367	19	556	28
Grades 12 + 1	47	2	46	2
1st degree	44	2	159	2
No response	717	36	786	40

Parental Occupation and Income: Most student respondents didn't indicate the income level of their parents either because they were not willing to reveal or did not know the income of their parents. However, about half of the respondents indicated that the occupation of their parents as shown in Table 3.

Table 3: Parental Occupation

Occupation	Mothers		Fathers	
	No.	Percent	No.	Percent
Homemaker (housewife)	731	37	-	-
Teacher	33	2	30	2
Medical services (physician, nurse, nurse aid)	49	2	43	2
Secretary	155	8	18	1
Merchant	56	3	261	13
Administrator	11	1	48	2
Office worker	128	7	266	14
Driver	-	-	138	7
Engineer	1	-	29	1
Soldier	5	-	95	5
Mechanic	-	-	34	2

Table 3 shows that most of the mothers are housewives (37%) and secretaries (8%) while the fathers are office workers (19%) and merchants (13%).

Academic Stream of the Students: Most of the female students' (60%) were in the academic stream; and about 18% of them were in vocational / technical streams, as shown in Table 4.

Table 4: Educational Stream of the Female Students

Stream	No.	%
Academic	1170	60
Business	128	7
Home-economics	92	5
Technical	113	6

A low enrolment of female students in vocational and technical streams may suggest their poor academic performance in grades 9 and 10, because only those students who perform outstandingly, that is, ranking 1 - 5 in Grade 10 are placed in vocational and technical schools. The placement policy applies only to the three government vocational / technical schools in Addis Ababa.

Despite a remote possibility of joining college, most of the respondents (764 or 39%) stated that they joined the academic streams to prepare themselves for college education. The rest were placed by the school administration and job preparation bodies.

b. Academic Performance

This section will discuss the academic performance of female students using mean scores of individual subjects and the responses given by the female students and teachers to questions related to academic performance.

When comparing the mean score of the female students for each subject offered in high schools with the Ethiopian Ministry of Education's school mark rating, it was found that the mean scores of the female students indicated a mere pass.

Table 5: Ministry of Education Grade Ratings

Grade / Score	Ratings
90 - 100	Excellent
80 - 89	Very Good
60 - 79	Satisfactory
50 - 59	Poor
below 50	Failure

Source: Ministry of Education

As shown in Tables 5 and 6, most of the scores the students in government schools (specially in grades 9 and 10) earned were between 50 and slightly above 60 which are rated as *Poor* according to the Ministry of Education's Rating Scale. Though there is a slight improvement in the scores in grade 11, it still cannot be rated as *Good*.

Table 6: Mean Score of Female Students in Government Schools (grades 9, 10, and 11)

Grade Level	Amh	Eng	Maths	Phy	Che m	Biol.	Hist.	Geog	Pol. Educ.	Phy. Educ.	Gen. Bus.	Agri.	Home econ.
9	63.4	54.8	50.1	57.9	56.1	57.2	57.4	56.3	61.6	61.9	60.3	62.6	60.3
10	66.2	55.8	53.2	56.3	56.1	58.2	57.1	55.1	59.1	64.1	61.4	65.6	62.4
11	68.4	60.8	59.8	69.2	61.9	59.7	61.1	60.4	60.5	64.6	--	--	--

Note: The following schools are not included in the computation for the total subjects.

General Business (G9) - Ayer Tena; Agriculture (G9) - Awolia; (G9) - SOS, Awolia and Ayer Tena; Agriculture (G10) Awolia, Nifasilk, Bole & Ayer Tena; Homeeconomics (G10) - Awolia and SOS; History & Geography (G.11) SOS & Medhanealem; Physical Educational. (G11) - Keftegna 12 & Nifas Silk

The performance of female students in girls' mission schools is shown by the mean scores of each high school subjects in Table 7. The scores by these students are slightly better than those earned by female students in the government schools, and this can be rated only as Satisfactory in accordance with the Scale of the Ministry of Education. But, taking the school environment and the economic background of the family, the female students in these schools could have earned better. Since these schools charge fees, there is a possibility that the students might come from a family of a better economic background compared with that of most of the students in government schools. The school fee is about 450 Birr per academic year, and students are required to wear uniforms which incur extra cost on their parents. These schools have fewer number of students in a class, run full-day as compared to a shift system in government schools. They are also exclusive schools. Deem (1978) stated that girls' performance is better in a single sex school since there is less pressure on girls to conform to gender-stereotyped classroom pressure. A study of schools in Kenya by Eshwarie (1983) has also demonstrated similar findings.

**Table 7: Mean Score of Female Students in Girls' Mission Schools
(in Grades 9, 10, and 11)**

Grade Level	Amh	Eng	Maths	Biol	Chem.	Phy.	Geog	Hist.	Pol. Educ
9	66.5	63	62	72	63.5	67	68.3	68	71.6
10	68.6	66.4	62	73.3	68.5	57.7	68.6	75.6	74.2
11	73.9	64.5	57.5	70.2	68.6	62.6	68.9	70.8	72.6

Note: Biology, Physics, Chemistry and History grades are those of Nazareth and Hiwot Berhan Schools; St. Mary School is not included.

Both groups of students in government and mission schools have earned poor grades in Mathematics compared to other subjects although the majority of the students indicated Mathematics as their First Choice.

**Table 8: Mean Score of Female Students in Vocational / Technical School
(In grade 10 + 2, 10 + 3)**

Grade Level	Amh	Eng.	Maths	Phy.	Chem.	Pol. Educ.	Bk & Acc't	Amh. Typing	Eng. Typing	Econ.
10+2	63.6	55.1	57.4	55.4	55.1	67.8	71	76.7	73.7	63.2
10+3	70.4	63.1	63.7	60.1	55.7	67.5	82.0	75.4	73.4	73.4

Note: Physics and Chemistry for 10 + 2 doesn't include Wingate's.

In vocational / technical education, the female students score to perform satisfactorily in vocational subjects such as Bookkeeping, Type-writing and Economics.

Table 9 shows that English is indicated as the second favored subject despite the fact that the mean score for this subject is also poor. Teachers' opinion in relation to the female students' performance in Mathematics and English reflects the grades that the students have earned in these subjects. About 237 (or 65%) of the teachers in the study indicate that most female students obtain grades below 50 in Mathematics. According to the response of the teachers, subjects in which female students perform poorly are Mathematics, Physics, Chemistry and English in that order.

Table 9: Subject Preference of Female Students

Subjects	First Preference		Second Preference		Third Preference	
	No.	%	No.	%	No.	%
Mathematics	387	20	277	14	280	14
English	334	17	348	18	234	15
Biology	340	17	227	14		
Chemistry	237	12	320	16	298	15

The reason given by the female students for their preference of the subjects as indicated in Table 9 is congruent with their educational aspirations. Most of the female students (1592 or 81% of the respondents) indicate that they like these subjects for their future use. The four favoured subjects (Mathematics, English, Chemistry and Biology) are essential for college preparation. Moreover, Mathematics and English are compulsory subjects for college entrance in Ethiopia. The female students' preference for these subjects may not be due to their interest or aptitude. The preference might be dictated by the perceived usefulness of the subjects. Though many studies have documented a positive relationship between liking a subject and achievement (Duncan, 1988), the case of the female students in Addis Ababa high schools showed a different pattern.

The poor academic performance of the female students is reflected too in the repetition and drop out rates in each grade. According to the respondents 663 (or 34% of them) have repeated once and 108 (or 5%) twice in a class. Teachers' responses have also indicated that female students drop out before completing high schools.

As shown in Table 10, the main causes for female students dropping-out of high school are poor academic performance and pregnancy followed by economic reasons and marriage.

**Table 10: Reasons for Dropping-out from High School
(Teachers' Responses)**

Reasons	No.	%
Marriage	147	40
Poor Performance	261	71
Pregnancy	185	51
Economic reasons	148	40
Employment	31	8

One of the explanations for poor achievement and performance of the female students could be their participation in household chores. As girls, female students are expected to help mothers at home and get trained in duties of mothers and wives. Talking about the twofold burden of work at home and school of African girls, Chabaud (1970: 32) stated:

What chance do lessons and homework stand when girls must help their mother draw water, keep the cabin, the straw hut, or the house, prepare meals, go in search of fuel, do the shopping... etc. In developing countries household duties are in fact a crushing burden.

The responses given to the various questions by female students, teachers and parents indicated that female students in Addis Ababa High Schools confirm the point that they spend much time engaged in household chores. Asked to identify the causes for not doing assignments at home, the majority of the respondents (20%), indicated that they had no time to do their homework since they had to help their mothers at home. Twenty four percent of the teachers also pointed out household chores as a cause for poor attendance in school. Furthermore, only 6% of the parents exempt their daughters from household chores in order to encourage them in their studies. Pregnancy is also indicated by 51% of the teachers as one of the causes for dropping out from high school. In the absence of counselling service and sex education in the schools (81% of the teachers have indicated this fact), students may not have adequate information on how to avoid unwanted pregnancy. According to the

responses of the students, sex-related information can be obtained either from the mass media (36%) or relevant books (32%).

Table 11: Time When Female Students do Household Chores

Time	No.	%
After school	68	41
Absent When Necessary	47	28
On Weekends	23	14
During Vacation	14	8

It can be observed from Table 11 that almost all of out-of-school hours are used for household chores. Twenty eight percent of the parents pointed out that they make their daughters stay at home (at school hours) when their services are urgently needed; whereas 1098 or 56% of the female students also indicated similar views. This implies a poor school attendance rate of these girls. Teachers, too, indicated that the students often become absent from classes for the following reasons; being late (33%); lack of interest in school work (27%); doing household chores (24%).

Table 12: Activities Female Students Perform

Activities	No.	%
Cooking	63	38
Miscellaneous chores	73	44
Going to the market and/or mills	29	17
Keeping the house	37	22
Baby sitting	9	5
Others (washing clothes, ironing, etc.)	19	11

As shown in Table 12, eighty percent of the parents responded that female students are fully responsible for managing and taking care of the house whenever both parents are away. This implies female students have less time to study; and in most cases they give little attention to it since they get tired as a result of their duties at home. Chabaud (1970) in her book, *The Education and Advancement of Women*, has advised against ignoring the energy-drain caused by household duties, specially, when female students' bodies are already weakened by malnutrition and disease. Another factor which contributes to the poor performance of the female students could be their poor attendance in schools.

c. Participation

This section discusses female students participation in the teaching-learning process inside and outside of the classroom.

About 128 female students (57%) have revealed that their shyness obstruct them from asking questions in class even if they don't understand a point while a teacher is teaching. These students feel comfortable when they depend on a relative or a friend whom they perceive is capable of clarifying a point. Table 13 demonstrates the type of people on whom female students depend for clarification.

Table 13: People Whom Female Students Depend on for Clarification

Individuals	No.	%
Father	311	16
Mother	172	9
Female friend	620	32
Male friend	285	14
Sister	300	15
Brother	561	29
Others	52	3

A large percentage (32%) of the respondents ask a female friend to have a point clarified if necessary. There is, however, a high possibility that these students either get an incorrect or no explanation since the female friend in most cases may have the same academic calibre. The same is true with dependence on relatives and individuals.

Only 24% of the respondents rated their attempt to answer question as either low or non-existent; 18% and 11% respondents respectively indicated that uncertainty and shyness were the main reasons for their lack of attempt to answer questions. But the claimed higher attempt to participate in class is not confirmed by teachers as 53% of the teachers indicated that the female students' participation in class is low because of shyness.

The involvement of female students in school extra-curricular activities such as working by being a member of a committee in sport and others follows the same pattern as their classroom participation. More than half of the female students (58%) indicated that they don't participate in any committee work. Of those who participate, only 3% and 6% work as chairpersons and secretaries respectively. Though 75% did not respond to the question, why they don't participate in committee work, the majority of those who responded pointed out that they were not elected to serve in committees. When they were asked to identify extra-curricular activities in which they participated (music and dancing, literary art, sport etc.), only 1% identified one or the other. Most of the respondents (30%) pointed out that they don't participate in such activities since their parents do not allow them to do so.

Teachers have also acknowledged low participation of female students in extra-curricular activities. The results are shown in Table 14.

Table 14: Rate of Participation in Extra-curricular Activities (Teachers' Responses)

Activities	R A T E S					
	High		Average		Low	
	No.	%	No.	%	No.	%
Sport	58	16	154	42	101	28
Literature	49	13	116	32	132	38
Debate	33	9	68	19	184	50
Music	100	27	83	23	82	22
Art	15	4	69	19	159	43
Theatre	94	26	118	32	74	20

In Table 14, female student participation is low in such activities as debating, literature and art. These activities require individual talent and intellect as compared to music and theatre that are usually performed in a group.

Table 15: Female Students' Activities Outside School

Activities	F R E Q U E N C Y							
	Always		sometimes		Never		Total	
	No.	%	No.	%	No.	%	No.	%
Listening to radio	1072	55*	747	38	27	1	1846	94
Reading newspapers and magazines	442	22	1274	65	101	5	1817	92
Watching T.V.	728	37	771	39	260	13	1759	89
Using public and school libraries	370	19	292	47	558	23	1220	89
Going to see sport and other competition	266	14	863	44	593	30	1722	88
Going to exhibition	76	4	816	44	593	30	1485	81
Visiting museum	89	5	797	41	789	40	1675	86
Going to the movies and theatres	83	4	768	39	821	42	1672	85

These female students were also asked to rate the frequency of participation in certain educational activities outside school. As can be observed from Table 15, the percentage of female students decreases as the activities require them to go out of their houses. Usually, a girl is not supposed to go out of her house unless it is absolutely necessary; and many parents do not perceive the activities mentioned in Table 15 as educational or essential for their daughter's intellectual development. The response of parents as to whether or not they allow, their daughters to go to the movies, theatres, stadium, etc., with their friends is in most cases 'no' (59%).

The most important reasons why parents do not allow their daughter to go to these places are the fear that their daughter will be spoiled (29%) and the belief that such activities are not good enough (22%). Furthermore, the parents indicated that they want their daughters to spend their extra-time in learning cooking, how to do needle work, relax and play with female friends in this order of importance.

d. Self Perception and Ambition of Female Students

Some of the reasons given by female students to their lack of participation in-and-out of school activities demonstrated some degree of low self concept. Lack confidence in answering correctly, being afraid of asking questions in class and shyness, were often indicated as causes for their low participation. Teachers too, have characterised girls as shy and lacking in self-confidence. On the contrary, about 60% of the students pointed out that they make a high effort to win educational competitions. Furthermore, 84% of the students confidently stated that they will pass the Ethiopian School Leaving Certificate Examination and join various colleges despite their low academic performance.

The seriousness of these students' desire to complete high school is further demonstrated by their answers to various marriage-related questions. About 92% of them replied in a negative when asked if they would like to marry before they completed grade 12. Furthermore, 47% of the respondents indicated that they would get married between the ages of 25-30--which is far beyond the age of high school and the traditional age for marriage. However, in comparing the educational status of their future husbands with theirs, the female students have clearly indicated that they prefer to have less educational levels than that of their future husbands level of education as shown in Table 16.

**Table16: Academic Status of Future Husbands
(Students Response)**

Response	No.	%
Higher Educational Status	1520	77
Equal as Mine	229	11
Lower Educational Status	98	5
No Response	123	7
Total	1965	100

The responses indicated in Table 16 illustrate women's perception of their future husbands. Husbands are perceived as supporters, bread winners and superiors, and wives dependants.

Table 17 indicates the fields which students want to major once they join colleges. These fields are arranged on a rank-order.

Table 17: Areas in Which Female Students want to Major

Rank Order	Areas	No.	%
1	Medicine	473	24
2	Secretarial Science	227	14
3	Others, Accounting, Economics, Administration, Biology, Physics & Mathematics	531	27
4	Undecided	231	12
5	Engineering	97	5
6	Law	94	5
7	Agriculture	9	0
8	Teaching	3	0
	No Response	300	7
	Total	1965	100

Table 17 reveals that the majority of the students want to major in service related areas that are traditionally regarded as 'women's'. The area selection of the students could be based on the fact that most women are employed in these areas. Moreover, they may perceive fields such as Agriculture, Law, Engineering, etc., as inappropriate for women.

e. Teachers' View of the Female Students

Many teachers, both male and female in the study, reported that female students have poor aptitude for Natural Sciences and Mathematics. To a question, where the teachers had to identify three high school subjects in which female students demonstrate a high aptitude, they indicated that commercial subjects, Home Economics and languages were the most appropriate. Most of them stated that female

students have low aptitude in Mathematics, Technical and Natural Science areas. These teacher responses are depicted in Table 18.

Table 18: Teachers' Rating of the Aptitude of Female Students in High School Subjects

Subjects	R A T I N G			
	LOW		HIGH	
	No.	%	No.	%
Natural Sciences	136	37	54	15
Social Sciences	50	14	59	16
Languages	83	23	89	24
Commercial	18	5	100	27
Home economics	22	6	79	22
Technical	189	51	17	5
Mathematics	199	54	17	5

According to the view of the teachers, female students' aptitude are suited to Commercial, Language and Home-economics areas. These areas are known to be women's areas by tradition.

Furthermore, 76% of the teachers believed that female students' capability of learning varies from subject to subject. Thus, more than half the teachers (55%) indicated that female students have a low capability of learning Mathematics. These teachers think that female students are capable of developing skills in Sport, Amharic and Home-economics. Likewise, the teachers perceived that female students do not exert enough effort to win academic and other competitions sponsored by their schools and communities. In this regard, 53% of the teacher respondents rated the efforts that students make to win competitions as low, and 8% as no participation at all. However, these teachers feel that a combination of factors affects participation, achievement, and performance of female students in high schools as shown in Table 19.

Table 19: Factors that Affect Female Education (Teachers' Response)

Factors	Responses	
	No.	%
Parents educational level	254	69
Parents income level	235	64
Parent's attitude towards women	216	59
Female student's self perception	217	59
The cultural level of the female students environment	244	67
Societal attitude towards women	202	55

Even though each of the factors listed in Table 19 have been identified as factors influencing the education of female students by more than half of the teachers, parents' educational level has been more frequently mentioned by the respondents.

Finally, these teachers were asked to put in a ranking order of professions which according to them were appropriate for women. Their responses are shown in Table 20.

**Table 20: Professions that are Appropriate to Women
(Teachers' Response)**

Rank	Professions	Frequency	
		No.	%
1	Nurse	291	79
2	Secretary	277	76
3	Air hostess	215	59
4	Medical doctor	214	58
5	Home economist	201	55
6	Pharmacist (druggist)	200	55
7	Elementary School teacher	172	47
8	Chemist	120	33
9	Secondary School teaching	119	33
10	University Instructor	102	28
11	Administrator	82	22
12	Engineer	79	22
13	Pilot	62	17

It can be inferred from this study that what teachers perceive as 'appropriate' professions for women is consistent with the subjects that they believe female students have high aptitude and capability. These teachers may unconsciously discourage female students who demonstrate aptitude and capabilities in technical and science areas. As discussed elsewhere in this paper, they may also transmit subtle messages about the 'inappropriateness' of certain fields for women.

Parents' View of Female Education

Contrary to traditional view that parents do not want their daughters to have education beyond a certain level, the majority of parent respondents (122 or 73%) in this study have stated that they want their daughters to study as far as the highest level of formal education (3rd degree.) They believed that (99% of the parents') education will enable their daughters to have a better future. Surprisingly, the majority of the parents have indicated that they desire a good job more than a good

marriage to their daughters. This is demonstrated by the responses of the parents to the questions in which they have to prioritise their wishes regarding the future of their daughters. About 90% of the parents responded that they desire their daughters to have a 'good job' and 39% a 'good marriage'.

Even though parents want their daughters to further their education beyond high school, they don't create a conducive situation for their daughters at home.

Table 21: Parental Encouragement

Type of Encouragement	Responses	
	No.	%
Buying educational material	66	40
Verbal encouragement to study hard	49	29
Relieving them from household chores	4	2
Employing tutor	9	5
Others (helping them with homework, etc.)	12	7
No response	24	14

Table 21 indicates the type of encouragement parents give to their daughters. Of course, some provide them with educational materials and some verbal advice, such as, 'do your homework! study! etc.'. But, as shown in Table 21, only 4 parents indicated that they relieve them from household chores. Some of the parents, specially, those who send their daughters to private schools (mission schools) may afford to employ a house maid—hence these families may not require extra service from their daughters. The reason for making their daughters do household chores may arise from the parents' desire to train them for the traditional role of a wife and a mother. Parents may not also fully realise that household chores compete with the attention and time of female students that could have been used for studying.

Summary

This study was undertaken to investigate the academic achievement and participation of female students in the high schools of Addis Ababa Region. School records of one academic year of the participant students were collected. In addition, questionnaires were distributed to female students, high school teachers and parents. Fifteen schools representing about 50 percent of the total secondary schools in Addis Ababa Region participated in the study.

In the analysis of the problem, five major issues were raised. A summary of the findings are given below.

Academic Performance

1. The mean score obtained for all high school subjects by the female students in the government schools ranges between 50 and 60 which is rated as *Poor* according to the grade rating scale of the Ministry of Education.
2. The mean score obtained by female students in mission schools ranges between 60 and 79 and this is a *Satisfactory* rating by the standard of the Ministry of Education.
3. The performance of those female students in vocational/technical schools demonstrates a different pattern. While the mean score obtained by these students for academic subjects, such as English, Maths, Physics and Chemistry ranges between 50 and 60, the score for the vocational subjects ranges between 70 and 80. The grades also improve at 10+3 level.
4. Even though students earned more or less similar grades in all subjects, they earned slightly low grades in Mathematics and high grades in Amharic.
5. Six hundred sixty three (or 34% of the total) student respondents have indicated that they have repeated in a class once; while 108 (or 5%) twice.
6. The majority of the teacher respondents indicated that female students drop-out before completing high schools, because of poor academic performance, pregnancy, economic reasons and marriage.
8. Fifty eight percent of the total teacher respondents said that female students' participation in class is low because of shyness and lack of self confidence.
9. Twenty-four percent of the total student respondents rated their attempt to answer questions in a class as low. Furthermore, 1128, i.e., representing 57% of the total student respondents said that they don't ask questions in a class even when they don't understand a point.

Culture and Female Students

1. Twenty percent of the total female student participants said that they usually do not have time to do their assignments since they spend most of their time doing household chores. Only six percent of the parents indicated that they let their daughters free from household chores in order to attend to their studies.
2. Twenty-four percent of the teachers stated that female students often become absent from school to do household chores. The majority of the student respondents (26%) also pointed out that they become absent from school if these services are required at home. Parents (28%) have also confirmed this view.
3. Teachers as well as student respondents (53% and 57% respectively) pointed out

- that female students are shy to participate actively in the teaching-learning process.
4. It was found out that most female students do not participate in extra-curricular activities, such as, sport, theatre, debate, etc. About 30% of the student respondents stated that their parents do not allow them to participate in such activities.
 5. Most parents (59%) revealed that they don't let their daughters go to public libraries, museums, movies and theatres. These parents believe that such activities are not good for their daughters. Some of them even think (about 30%) that such activities could spoil their daughters. According to these parents, their daughters should spend their extra-time on learning how to cook, doing needle work, and playing with female friends at home.
 6. About 92% of the student participants have stated that they will have to complete high school before marriage; and only 47% of the students want to get married between the ages of 25 and 30. However, 77% of the student respondents indicated that their future husbands' educational status should be higher than theirs.
 7. Despite the fact that their school scores show poor academic performance, 84% percent of the students stated with confidence that they will pass ESLCE, and join colleges. Most of them want to major in service related areas that are traditionally regarded as 'women's' jobs, some of which are secretarial science, medicine, etc. Only 5% of the respondents indicated that they want to study Law and Engineering.
 8. Teachers too listed service related areas such as Nursing, Secretarial Sciences, Air- Hostess, Medical doctor as 'appropriate' professions for women.
 9. According to 202 (or 55%) teacher respondents, societal attitudes towards woman have a negative impact on women's education.

Female Students' Capability of Learning High School Subjects

1. When comparing the mean scores earned by the female students, it was found that there wasn't much difference in the scores of each academic subject. The mean scores for all the subjects ranged between 50 and 60 in the case of government school students; and between 60 and 70 in the case of mission schools. However, the mean scores of vocational subjects of Bookkeeping and Typewriting (both Amharic and English) were slightly higher than the mean scores in academic subjects.
2. Most teachers feel that female students have low aptitude in Mathematics, Natural

Sciences and technical subjects. Commercial subjects, Home-Economics and Languages were indicated by 27%, 22% and 24% of the teachers respectively as subjects in which the female students demonstrate high aptitude.

3. Furthermore, more than half (55%) of the total teacher respondents said females have low ability in learning Mathematics.

Female Students Preferences of High School Subjects

1. The majority of the female students (60%) were enrolled in academic streams. Some 760 (39%) joined this stream to prepare themselves for colleges.
2. While Mathematics and English were rated as First and Second favoured subjects by most of the female students, Biology and Chemistry were rated as Third and Fourth. These subjects are perceived as useful for college preparation by 81% of the student respondents.

Special Service for Female Students

1. Pregnancy was mentioned as one of the main reasons for dropping out of school before completing high schools. About 185 teacher (representing 51% of the total) respondents stated this fact.
2. Moreover, 81% percent of these teachers have also indicated that their schools give neither sex education nor counselling services.
3. About 186 (or 65 % of the students) respondents pointed out that female students need encouragement to participate in different fields.

Conclusions

1. The enrolment percentage of the female students is lower than the enrolment percentage of most African countries at primary and tertiary levels, but higher at secondary level.
2. Examination results of the female students in Government schools indicate that they perform poorly in all high school academic subjects specially in Mathematics. But the performance of those who are in Mission schools rates satisfactory. Probably the environment of the mission schools (the full day classes, smaller number of students in a class, better paid teachers and availability of books, etc.) and the home condition of the students may have contributed to these slight differences in the performance between these groups of students. The

female students performed well in vocational subjects like Bookkeeping and Typewriting.

3. A good number of female students repeat in a class and also drop-out before completion because of poor academic performance and pregnancy.
4. The participation of female students in the teaching-learning process, i.e., asking and answering questions, debating, competing in art and literature and participating in extra curricular activities was found low. This is attributed to their shyness and lack of confidence which is the result of their socialisation. Girls are brought up to be shy, quiet, weak and submissive.
5. Female students were over burdened with household chores, so much so that they become late or absent from school. Moreover, they spend most of their out-of-school time doing household chores which leaves them with little time for their studies. This could be one of the causes for their poor academic performances.
6. Parents want their daughters to spend their extra-time doing household chores at home rather than in participating in educational activities, such as, going to public libraries, sports, theatre, museums, etc. The parents feel that such out-of-school/home activities may spoil their daughters.
7. Parents as well as female students believe that women's life can be improved through education. Both groups want to postpone marriage till the completion of at least high school or till the ages of between 25 and 30. However, their educational aspirations do not go as far as the educational level of their future husbands. They want to marry someone who is more educated than themselves. These students can not perceive themselves achieving equal status with men; they look at men as providers and supporters--stereotyped roles assigned to women by the society.
8. Teachers feel that female students have neither the aptitude nor the capability to learn Natural Science subjects and Mathematics. According to them, female students are good only for Commercial subjects, Home-economics, and Languages. Such views can have a negative effect on the achievement and performance of their students as teachers may indirectly discourage female students to excel in Science and Mathematics.
9. Female students as well as teachers feel that only certain occupations are *appropriate* to women. These occupations accepted as *right* for women, according to these groups, are service related jobs, such as, nursing, secretarial, hostess, etc. It is a clear indication that both groups are influenced by the stereotyped roles assigned to women by the society. This affects the employment pattern of the labour market.
10. Most schools do not have counselling services; they do not also offer sex education in their curriculum. This could have helped in minimising the percentage of unwanted pregnancies of the students thereby enabling them at least

to complete high school. Moreover, female students require counselling services that provide encouragement regarding their school participation and create awareness about their future roles.

Recommendations

1. The Ministry of Education and concerned authorities should make every effort to increase the enrolment of female students so that more girls can benefit from education.
2. Parents should be advised that household chores take up much of the students' time and also wear them down. Therefore, in as much as possible, the chores should be distributed to members of the family including boys. Boys can be taught to do such chores as washing and ironing, baby sitting, going to market, and mills, etc.
3. Teachers' attitudes towards female education have effects on achievement and performance of women; therefore, teacher training institutions and colleges should create awareness in would-be teachers about the importance of female education.
4. Schools should start offering family education which includes sex education in their curriculum not only as a unit in one of the high school subjects but as an independent subject.
5. The counselling offices that are being established in high schools must pay special attention to the problems of female students and set-up programmes whereby these students will be encouraged to participate in all school activities, develop self confidence, and learn different roles that a woman can play in a society.
6. Employers as well as employment agencies should be aware of the employment pattern of the labour market which influences occupational choices of female students; therefore, they should adopt non-discriminatory practices by encouraging women to be employed in 'men's' jobs.
7. The Ministry of Education and concerned institutions can utilise the mass media, particularly the radio, to create awareness in the society about the adverse effects of certain cultural beliefs on educational achievement and participation of female students.
8. A further research covering wider population that includes female students in the rural area must be undertaken by institutions such as OSSREA and CERTWID.

REFERENCES

- Allasebu Gebresellasi (1988). *A situation of Women in Ethiopia - A Review Report to the U.N. Inter-Agency group on W.I.D.* April, 1988.
- Anbessu Biazen and B. Junge (1988). **Problems in Primary School Participation and Performance in Bahir Dar Awraja.** Addis Ababa: UNICEF/ Ministry of Education.
- Atsede Wendimagednehu and Kebede Tiku (1988). *Participation of Ethiopian Women in Education.* Paper Presented to World Bank.
- Biraimah, K. C. (1980). *Different Knowledge for Different Folks: Knowledge Distribution in a Togolese Secondary School,* In Philip C. Altbock, Robert F. Arnove and Gail P. Kelly (Eds.) **Comparative Education.** New York: Macmillan Publishing Co.
- Bisaria, S. (1985). *Identification and Elimination of Sex Stereotypes in and from Education programs and School Textbooks.* (Mimeographed) Paris UNESCO.
- Chabaud, J. (1970). *The Education and Advancement of Women.* UNESCO. Paris.
- Chinapah, V. (1983). *Participation and Performance in Primary Schooling, A Study of Equality of Educational Opportunity.* Mauritius Stockholm, Institute of International Education (IIEP).
- Clark, S. (1983). *The Position of Women in Education and Employment in Zambia, Some Problems Worthy of Further Research* (Mimeographed): in *Women and Development of Zambia, An Annotated Bibliography.*
- Deble' Isabelle. (1980). *The School Education of Girls.* Paris. UNESCO.
- Dupont, B. (1981). *Unequal Education, A Study of Sex differences in Secondary School Curricula.* Paris. UNESCO.
- _____. (1988). *School Dropout in Botswana.* Institute of International Education, Stockholm.
- CSA. (9184). **Ethiopian 1984 Population and Housing Census: Preliminary Report.** Vol. a, Number 2.
- Heyneman, S. P. (1976). *A brief note on the Relationship between Socio-economic Status and test performance among Ugandan Primary School Children.* **Comparative Education Review.** 20: 42-47.

- Hirut Imiru. (1986). *Education, Training and Employment Needs in Ethiopia*. Paper presented for the OSSREA Workshop on 'Women and Development', Nazereth.
- Husen, T. (1977). *Pupil, Teachers and School in Botswana: A National Evaluation Survey of Primary and Secondary Education*, Report of the National Commission on Education, Vol.2, Gaborone.
- Jaarsma, Ria, (1987). *A long Way: A study on Some Activities Implemented in the Netherlands to Promote Equality of Opportunity for Girls and Women in Scientific, Technical and Vocational Education*. (Mimeographed). UNESCO.
- Kann, Villa. (1981). *Career Development in Changing Society: The Case of Botswana*. Stockholm: Institute of International Education.
- Liglitin, L. B. (1976). *The Patriarchal Heritage*. In Lymme B. Liglitzin and Ruth Ross, Ed. **Women in the World**. Senta Barbara: Clio Books.
- Mclean, H. (1967). *Psychological Role for Women in Public Affairs*. In **Education of Women for Social and Political Leadership**. Dallas. Southern Methodist University Press.
- Ministry of Education. (1989). *Basic Educational Statistics*.
- _____. (1989). *Gender Analysis of primary school Textbooks*. Addis Ababa, (Unpublished).
- Psachoropoulos, G. (1989). **Education for Development: An Analysis of Investment choice**. World Bank: Oxford University Press.
- Seyoum Teferra. (1986). *The Education of Women in Ethiopia: A Missing Piece in the Development Puzzle*. **The Ethiopian Journal of Education**. Institute of Educational Research.
- Simmon, J. and L. A. (1980). *Factor which promote School Achievement in Developing Countries: Review of Research*. in Jhon Simman's (ed) **The Education Dilemma; Policy Issues for Developing Countries in the 1980s**. Oxford: Pergammon Press.
- Skinner, C. E. (1984). **Educational Psychology** (2nd ed.). New Delhi Prentice -Hall of India.
- Todaro, M. P. (1985). **The Economic Development in the Third World**. (3rd ed). Longman.