ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

SOME FACTORS AFFECTING SCHOLASTIC ACHIEVEMENT OF ELEMENTARY SCHOOL PUPILS

SEWNET MAMO

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Sewnet Mamo

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Some factors affecting scholastic achievement of elementary school pupils

BY

SEWNET MAMO

Approval of Board of Examiners

Zelalem Fekadu

Chairman, Department Graduate Committee

Tirussew Teferra

Advisor

Lakew Woldetekle

Examiner

Examiner

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ABSTRACT

The purpose of this study was to assess some of the prominent factors that are supposed to cause disparity in academic performance in eight selected elementary school pupils in Eastern Gojjam region. The study involves 360 randomly selected students.

The results suggested that the exposure of students to urban-rural settings remarkably contributed to academic performance differences which in turn, caused difference in scholastic achievements between them. Moreover, sex, attitude and teachers' expectation were found to affect students achievement where as family educational background was not that much important in academic performance of students.

The practical implications of these results to the policy and practices of education are indicated.

CHAPTER ONE

INTRODUCTION

1.1. BACKGROUND TO THE PROBLEM

Education is important for the development of individuals as well as the society in any given environment. It looks impossible for people to make the best use of the environmental resources for life and society without having proper education in their respective settings. In this respect then, it could be said that education is one of the vital components of life. It is expected to be an instrument to solve the problems the society encounters in general and that of the individuals in particular. In other words, it is the only human and societial problem solving type of education that is required as society and life themselves are full of problems. In line with, Budha in Encyclopedia of Americana, (1975,645) states that "... life is full of pain and sorrow from which escape is possible only through the right kind of education."

In order to produce an intended trained man power, it is usually important to know the background and categories of the learners. Learners, because of various interlocking factors are expected to have differences in academic performance. The major assumptions upon which these seem to be wide spread agreement among social scientists on a typical favorable or unfavorable experience of young people can be ascribed to home or school or community influences. It is obvious that a problem originating in one of these areas may cause poor achievement. The combined effect and the interplay of these factors then, considered to have brought about academic

performance disparities between students of comparable ability.

It is then, on this ground that the study tries to discover and see to what extent these factors influence to cause disparity in academic performance between students.

1.2. STATEMENT OF THE PROBLEM

The primary purpose of conducting this study is to find out the relationship between school factors, home background factors and students characteristics and the achievement levels in basic skills (reading, writing and mathematics) at the elementary school level.

Based on the above purposes, the study attempts to find out answers to the following basic questions.

1. Do male pupils perform better on achievement tests than female students?

2. Do pupils with a high attitude towards school attain a higher standard of achievement than other pupils?

3. Do pupils in urban area attain a higher scholastic achievement than those in rural areas?

4. Do pupils getting educational support perform better than pupils getting only a little support?

5. Do pupils with a higher teacher expectation perform better on achievement tests than pupils with low teacher expectation?

6. Do pupils coming from literate parents perform better than pupils from illiterate parents?

1.3 DEFINITION OF TERMS

According to their usage in this study the following terms are defined in the manner stated below.

Achievement: Refers to pupils scholastic achievement results in amharic (reading, writing) and mathematics on tests constructed by the investigator on the basis of the contents of the text books.

Reading achievement: Refers to performance on the vocabulary and comprehension measures.

Attitude: Refers to students interests in their schools and their teachers.

Teacher expectation: Refers to teachers' estimations of students in regard to their academic abilities.

Family background: Refers to family education and educational support for their children (which actively contributes to the production of results in the interaction of the individual with his families).

School factors: Refers to location of the school (urban-rural) and teachers expectation of their students.

Personal factor: Refers to sex of the pupil and his/her attitude toward school.

1.4 SIGNIFICANCE OF THE STUDY

The study is expected to provide necessary empirical evidence regarding the major factors that may influence pupils learning, there by enabling concerned individuals to be aware of the conditions and take necessary steps to improve the education of pupils.

Therefore, the importance of this study is based on the following reasons.

1. To identify the academic problems of elementary school students in Eastern Gojjam region.

2. To suggest some valuable and possible solutions to the problems.

3. To provide basic information to other researchers who want to study further on the subject matter under study.

2.5 DELIMITATION OF THE STUDY

Scholastic achievement is a very wide concept and related to many factors. Hence, it is difficult to include all components in the area of this study. Therefore, this study concentrates on school factors (location and teacher's expectation about their students), pupils individual characteristics (sex, attitudes of pupils towards school) and pupils home background (family education, family educational support) in relation to students scholastic achievement.

The scope is also limited to grade five pupils since by this time concept and language development of pupils tend to be reasonably established (Rath, 1979). And it is at this very time that the present investigator wants to explore the relative contributions of the variables.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The vast and burgeoning body of research in education has contributed to our understanding of the relationships between a child's environment and his scholastic performance. Over a long period research on individual differences in scholastic performance was centered around the issue of "equality of educational opportunity". Much of the scholarly work in this context was carried out in the developed and affluent nations. More recently, the growing importance of the equality of educational opportunity issue within the broader framework of social and economic equality has generated increased interest in research in the developing or less developed countries. A great deal of the research on equality of educational opportunity focuses on determinants of scholastic performance. It therefore becomes imperative to investigate how and to what extent children's performance in school is influenced by their home and school environment.

2.1. GENDER DIFFERENCES IN ACHIEVEMENT

For nearly a century there has been continuous research into the nature and origin of sex differences, in ability and achievement. Historically, gender differences have been the basis for pervasive differences in how children were treated at school. Until this century, formal education beyond basic skills was designed primarily for males, reflecting the cultural expectation that males, but not females, would need

education in academic subjects as preparation for occupational and social-political roles that they would play in society. Schooling was often segregated by gender, and even for females whose education extended for some years, the content consisted of the fine arts and certain domestic arts believed important as preparation for household management rather than around the science and humanities. This changed drastically as gender segregation waned, although there still is debate about the nature and extent of gender differences in intellectual and personal attributes and their implication for education.

As a result of the women's liberation movement and a host of related social and cultural changes that have occurred since World War II, gender segregation in schooling and in society in general has for the most part disappeared, along with many of the cultural beliefs and practices that accompanied it. Gender roles are no longer as rigid and pervasive as they used to be; although most of us still expect certain differences between males and females and still view certain behavior as masculine while viewing other behavior as feminine (Deaux, 1985) as cited by Good and Brophy 1990.

Some of these gender - role - differentiation beliefs are expressed in relatively direct ways. Beliefs that boys have more aptitude for, interest in, or future occupational need for science and mathematics than girls do, for example, appear to lead a great many parents, teachers, and school counselors to act in ways likely to encourage boys to develop positive learner self-concepts in mathematics and science to continue to take courses in these areas but to discourage girls from doing so (Tyler, 1969). Other gender-role-differentiation

beliefs are expressed much more subtly. Analyses of children's literature and of the stories included in basal readers and literature anthologies at school, for example, have shown that male characters are much more likely than females characters to play a major role in stories to be depicted within career roles, and to be active and decisive rather than passive or ineffectual (Garrett-Schau and Scott, 1984; Stewig and Knipfel, 1975).

Reviews of the voluminous literature on gender differences in intellectual and personal attributes reveal surprisingly little support for our still powerful cultural tendencies to expect sizable gender differences and thus to treat boys and girls differently (Halpern, 1986; Hyde and Linn, 1986; Maccoby and Jacklin, 1974) as cited by Good and Brophy, 1990. In the intellectual sphere, males tend to score higher on tests of visual spatial ability and mathematical ability, and females to score higher on tests of verbal ability. These differences have been consistent but very small, too small to justify the attention and emphasis that often are placed on them. Furthermore, they have become smaller still in recent years, sometimes to the point of disappearing altogether (Good and Brophy, 1990); presumably as a result of recent cultural awareness of sexism and related reduction in gender-differentiated socialization and education.

In the personality domain, males have been found to be more aggressive and females have been found to smile and laugh more (Brophy and Good, 1990). In the classroom, boys are more active and silent than girls and have more of almost every

kind of interaction with the teacher that may be measured (Brophy 1985). In part this is because boys are more prone to misbehave in the classroom than girls, so teachers criticize or punish boys more often and they initiate interactions with them more frequently to give them procedural instructions, check their progress on assignments, or generally monitor and control their activities. However, teachers are also more likely to call on boys than girls during lessons and boys are more likely than girls to call out answers without first being recognized by the teacher and thus to coopt response opportunities for themselves. These patterns are just as likely to appear in classes taught by female teachers as in classes taught by male teachers, so they are due primarily to gender differences between teachers in the ways that they interact with male versus female students (Brophy, 1985).

Other investigators have also reported subtle differences in teacher treatment that might reinforce assertiveness and independence in boys but dependency or inhibition in girls. Grant (1984), for example, suggested that although teachers may have more positive attitudes toward and even higher expectations for girls compared to boys, this apparent advantage can work against the girls' long-run best interests if it is associated only with teacher pressures toward conformity and responsibility but not autonomous achievement striving. Much teacher encouragement and reinforcement directed at girls focus on dress, grooming, manners, and other social role issues, whereas most of the encouragement and reinforcement that teachers direct to boys focuses on their achievement striving and accomplishments.

These subtle differences suggesting teacher tendencies to reinforce assertiveness and achievement striving in boys but to reinforce conformity and responsibility in girls do not appear in every classroom, and some may appear in the classrooms of only a minority of teachers. Still, they are useful as illustrations of pervasive yet subtle differences in ways that teachers may treat boys versus girls. Differential treatment along these lines that is likely to discourage the achievement striving and progress of girls is especially likely to appear in advance courses in science and mathematics. Becker (1981) as cited by Good and Brophy 1990, described the academic environment for boys in such courses as academically and emotionally supportive but described the academic environment for girls as one of benign neglect. This was whether the teachers were male or female.

Becker's study is just one of the many indicating that gender differences in classroom behavioral interaction with gender differences in patterns of motivation and achievement in various subject-matter areas. The latter differences typically favor boys in science classes and favor girls in english classes; in mathematics, achievement-test-score patterns show no differences or even favor girls in the early grades and on tests of number computation but favor boys in the latter grades and on tests of mathematical reasoning (Wilkson and Marrett, 1985).

It is tempting to link these subject-matter achievement differences to gender differences related to intellectual abilities and ascribe them all to genetic influences, but arguments for environmental causes are at least as compelling

as those for genetic causes. For one thing, the gender differences in average scores are very small, where as the individual differences in average scores are very small, whereas the individual differences within each gender are very large. Furthermore, there are exceptions to the typical patterns of average differences were at work. Scores on elementary school reading-comprehension tests, for example, favor girls in Canada and the United States but favor boys in England, Nigeria and Germany (Jhonson, 1976; Preston, 1962) as cited by Good and Brophy 1990. Similarly, although gender differences in mathematics achievement typically favor boys in the Continental United States, they favor girls in Hawii (Brandon, Newton and Hammond, 1987). Along with the previously mentioned finding that gender differences in cognitive ability and achievement test score patterns have been decreasing in recent years, these findings suggest that gender differences in school experiences and out-comes are due at least as much to cultural socialization of children into contrasting gender roles as to innate predispositions. To the extent that we as society begin to expect to see equal achievement from boys and girls in different subject-matter areas, we may begin to see it.

To the extent that we expect gender differences in motivation and achievement in different subject-matter areas, however, such differences are likely to continue. Thus at least until recently American teachers and students tended to view reading as a feminine activity and thus to expect girls to respond more positively to it than boys despite the preponderance of males as a central characteristics in children's literature (Bank, Beddle and Good, 1980). There

are similar tendencies to look on mathematics and science as masculine activities (Eccles, 1987) as cited by Good and Brophy, 1990. These differential expectations can be gender self-fulfilling prophecy effects as several researchers have noted. Leinhardt, Seewald and Engel, (1979) for example, observed in second grade classrooms during individualized reading and mathematics instruction. When teachers circulated around the room they interact with individual students. They found that teachers had more academic contacts and spent more time discussing the subject-matter with girls than with boys during reading instruction but showed the opposite pattern during mathematics instruction. More generally research on gender differences in classes in particular subject areas suggests that girls are relatively more active and likely to interact with the teacher in connection with the subject-matter in reading and language - arts classes but that boys are relatively more active and likely to interact with the teacher concerning subject matter in mathematics and science classes (Wilkinson, and Marrett, 1985).

The notion that motivation (as opposed to ability) is the probable cause of differential academic performance of boys and girls is strengthened by data showing that gender differences in mathematics and reading performance narrow considerably when efforts are made to increase the attractiveness of tasks (Ashir and Markell, 1974, Bleakley, Westerberg and Hopkins, 1988, Christoples and Borden, 1978). For young male it seems especially important to use materials that are appropriately stimulating and action oriented. For young females it is important to use materials that define sex roles more broadly.

2.2 STUDENTS ATTITUDE TOWARDS SCHOOL AND SCHOLASTIC ACHIEVEMENT

School attitudes and study practices have been investigated less widely than other achievement related factors. The direction appears to be consistent, in that underachievers, by and large, hold negative views toward school-oriented activities and either efforts to study are minimal and/or unorganized. To what extent these characteristics represent a cause of poor school performance or an outgrowth of it is difficult to determine.

Dowd (as cited by Raph et al, 1966), studying underachieving college students of high capacity reported that three-fourth of them studied fewer hours per week than the average achievers. The non-achievers also professed disliking their course and professors, but it was not known whether personality factors caused feelings of dissatisfaction or whether these responses were solely an indication of projection after the fact of failure.

Lum(1960) compared three small groups of college sophomores designated as overachievers, underachievers and average achievers. Employment of the Brown Holtzman survey of study habits and attitudes, showed differences among the three groups to be primarily ones of attitudes and motivation rather their recorded study habits. The underachieving subjects reported being more easily discouraged when confronted with long or difficult assignments, being accustomed to exerting only minimum effort in courses not liked and procrastinating more on studying.

A relative decline in scholastic performance on standardized measures among underachievers was reported by Frankel (1974) who found that, where as gifted achievers and underachievers were equally high in verbal and mathematical aptitude upon entering high school, the former group moved further ahead on subsequent tests. The achievers expressed more positive feelings toward school and more interest in science and mathematics devoted more time and used better techniques on study and were more apt to plan college courses in pure science and in liberal arts. These findings in general confirmed by a study of Wilsons (1962) who noted more negative attitude towards school and teachers, low grade point aspirations and less regular homework among high school boys making poor grades than among boys making high grades.

In the portland, Oregon (Raph et al, 1966) study referred to earlier, in which an extensive comparison was made between 49 high and 49 low - achieving gifted boys who were equated in terms of intelligence and socio-economic status, results with reference to educational adjustment showed the high achievers to be more strongly motivated toward school work, less critical of school and teachers and more likely to regard academic achievement as compatible with personal happiness. These higher achievers also possessed superior work habits broader cultural interests and higher vocational aspirations and expected to earn more money as adults.

Roshal previous studies (Coleman et al. 1966) have shown that student attitudes are related to scholastic achievement. In their massive studies of United States schools, Coleman et

al. found that attitude towards school and learning were significant indicators of verbal skills in six graders. Other studies have shown positive but often non significant relationships between grades and achievement scores and attitudes (Jackson and Lahaderne, 1967).

Attitude toward school subject were explored in a group of sixth graders. Significant positive correlations were observed for boys in school studies, arithmetic and reading, and for girls in reading (Neale, et al, 1970)

Despite a widely held belief that favorable attitudes toward school and school subjects contribute to learning, no substantial body of empirical knowledge has been developed to document such a belief. In fact, after a review of research in the area, Jackson and Getzels (1969) concluded that nearly all investigations of subject-matter have found no statistically significant relationship between attitudes toward school and school achievement.

Some exceptions do exist, Malpass (1963) although found no significant relationship between eight graders, overall attitude toward school and achievement test scores, did find significant relationships between the attitude measure and teacher grades. Murphy and Murphy (1964) reported more favorable attitude toward mathematics in sixth grade students classified as overachievers compared with those classified as underachievers.

In a longitudinal study Anttonen (Neale, 1970) found significant relationships between fifth and sixth graders'

attitudes toward mathematics and mathematics achievement test scores. A pattern similar to that found by Anttonen has also been reported for reading achievement (Ashir and Markell, 1974) significant correlations were obtained between the San Diego country Inventory of reading attitude with word reading paragraph meaning and word study skills.

The arithmetic and reading studies just cited had one element in common that distinguishes them from the research view by Jackson and Getzles, 1969. Each used a measure of attitude toward a specific school subject, while those reviewed by Jackson used an overall measure of satisfaction with school. This difference suggests toward school may have no relationship to achievement, perhaps attitude toward specific subjects do.

A generally favorable home climate understandably influences scholastic achievement positively. Scott-Jones, (1984) in a study of a large group of graduating high school seniors with IQ's above 110, of which half had average or below average marks and half had higher averages, found on the basis of a checklist that the high achievers more frequently lived with both parents and had feelings of happiness toward home, parental attitudes towards friends, and occupation of the parents. Evidence presented by Currie, (1977) suggests, on the basis of a measure of self-disclosure and security obtained from achieving and underachieving college students, that his underachievers showed a lack of emancipation from parents, a finding that might be indicative of certain inadequacies within the family milieu. Wallace, (1974) analysis of projective material on Junior high underachievers

and overachievers showed the environment of the underachievers to contain more elements of threat frustration hostility and unhappiness. Show and Dulton (1970); Using a parental attitude inventory for a comparison of high school academic achievers and underachievers found that parents of the underachievers had significantly stronger negative attitudes towards their underachieving child. Disruption in family structure has also been found to be associated with underachievement by Frankel (1974). Sherman (1980) study of highly intelligent high school pupils revealed that personality of the mother, home discipline, and parental disapproval of the child's chosen companions seemed to contribute to failure. Marjoribanks (1983) found that the parents of the underachievers tended to show indifferent attitudes toward education and were more likely to be overanxious, inconsistent in their feelings toward the child. Homes of this investigator's subject showed conflict, authoritarianism by parents or domination by the child.

For children, the importance of liking and being liked by peers tend to exceed that of doing well in school. Such attitudes have been thought responsible in many instances for poor school achievement. Coleman's (1961) study of nine public high schools of varying size and rural-urban composition supported the hypothesis that in general the peer culture in these schools was not particularly interested in outstanding academic attainment.

On the other hand low class children have been shown to manifest significantly lowered self-esteem as compared to advantaged group (Coleman, 1966). Their lowered-self-esteem

may well be viewed as a manifestation of source of lack of control over the environment. This feeling of inadequacy is related to their failure experiences in school related tasks. Therefore they lack persistence in school-related tasks and poor achievers among the low socio-economic status (SES) group give higher evaluative rating for school subjects in which they are achieving poorly. They also appear to be less sensitive to their success or failure experiences in school-related tasks than the middle class children. Scholastic achievement is also well related with the personality dimension which Kagan (1965) calls impulsivity-reflectivity. Reflectivity refers to the individuals tendency to think over the problem and to consider alternative problem solutions and to delay the response with a view to getting a right answer. On the other hand, children with impulsive or fast tempos try to solve a problem with a little or no delay and ultimately make impulsive and unconsidered responses. The reflective response tendency is related to higher reading achievement, social class and intellectual ability. Lack of reflective response tendency of the low SES children is well related to their failure experiences in academic pursuits. Their ability in advanced learning situations is greatly retarded.

Leshan (1960) as cited by Rath (1979) reports that low SES children are more present-oriented and they have vague and indefinite notions about the future and little sense of pattern and regularity. His findings seem to be consistent with those of Henderson (1966) as cited by Rath (1978) who found that low potential families were more concerned with meeting their daily needs than providing experiences that would have future educational pay-off. Lack of sense of

pattern and regularity may mainly arise out of temporal and spatial disorganization in the low SES homes. Most low class homes don't have a regular meal time where as regular meal times can be taken to present the most basic time ordering event by which one can begin to develop time concepts and a future orientation (Miller 1968). These personal style variables are the real psychological processes operating in them which keep them away from sharing the experience and information with more advanced sections of the society. These basic psycho-dynamic aspects of these groups of persons should be properly handled by the well-intentioned psychologists and educators who should have special training for treating the cognitive deficits.

2.3 LOCATION (URBAN-RURAL) AND PUPILS SCHOLASTIC ACHIEVEMENT

According to Bloom, Davis and Hans (1965) the environmental deprived students of instructional materials have some special difficulties because the school learning environment and materials are so different from the settings which are familiar to them.

In line with this point, Rath et al (1979) have confirmed that environment is an instrument in advancing or retarding cognitive function which induce intellectual development in learners. To strength this point, they extended that regardless of the genetic constitution potentialities of the learning individuals, cognitive development occurs largely in response to variable range of stimulation which requires incorporation, accommodation, adjustment and reconciliation.

In light of this, then it stands to reason to say that environmental deprivation and absurd use of available educational materials influence negatively the intellectual development of students.

It is evident that individual potentialities may not be activated to the desired level and in the intended direction by themselves. Concerning this Freud et al in Rath et al (1979) describe that "If the children remain longer in substandard environmental conditions... their IQs become progressively lower in comparison with the IQs of ... children placed in more favorable environments."

The natural endowments (or hereditary elements) of individual students in these case, require conducive environmental interplay to be manifested and developed. To this effect Freud et al in Rath et al (1979) put that... accumulation of certain socio-cultural environments are frequently associated with below average intellectual function, poor school achievement, low level of aspiration, language disabilities and marginal occupational social adjustment.

In order to enable students realize their abilities, it is advisable to provide them with the necessary help from the environment as well as parents. From this, it may be viewed that students who lack the necessary education related materials from their setting are expected to be in trouble in associating their classroom lessons with real objects outside. This seems to have a significant impact on their academic

performance and assumed to contribute to less achievements. But it so looks relatively better with urban students than rural ones because of their different settings.

In contrast to this point, however, some authorities hesitate if particular exposure to educational related materials might provide city students with more advantage over rural learners. For instance, Gage and David (1979) describe it as follows "No researcher has yet pinpointed the specific experiences that give city children an advantage in the intelligence over farm children. The suspicion has long persisted that hereditary factors could not alone explain much results ..."As can be seen, indirectly they admit the importance of environment for the display of heredity factors when they suggest the suspicion has long persisted in the above question.

Therefore, it is possible to assume that the extent to which students get exposed to education related materials in their respective setting, parental help, and inherent conditions of the children put together interactively influence the learners' academic performance negatively or positively.

The rural settings for students is assumed to be deprived of certain educative elements compared with urban setting. The deprivation may be of nature bound for rural areas tend to be inappropriate for certain kind of modern technological products to be introduce too. The absence of such relevant and necessary materials from the students' setting is assumed to create learning problems even to the extent teachers get

frustrated with them at the classroom level. In this connection Bloom, Davis and Hess (1965) say that since difficulties are often encountered in teaching deprived children... often blame parents and children for classroom difficulties, with this and other factors, the rural students seem to be affected in their academic performance and being polarized to less achievers' individual.

As has been tried to show the deprived conditions of the rural setting, it more tends to lack educational materials. The uneven distribution of essential learning materials is supposed to be the combined effect of nature and people. Students from such environment in practice happen to have their school achievements influenced more negatively. In general the rural setting appears to be unconducive and unencouraging for learning activities because of the missing learning materials which might include magazine, newspapers, journals, films, radio, subject related books etc, which may complement the teaching learning process.

Urban setting is expected to be relatively better interms of possessing learning materials due to combined effects of many factors, which some are considered to be commercial, industrial culture building, political and technological. As a result of these activities the urban students get exposed to settings consisting of better learning materials. In relation to this point Hess and Shipman (1965), Hess and McDevitt, (1984) explained the learning and reinforcing materials contained in urban setting as magazine, newspapers journals, radio, television, subject books, etc that are helpful to the studies of the students. Therefore this group of students are

expected to be relatively advantageous compared with their rural classmates interms of academic performance.

On the other hand family is the basic unit (foundation) of all social institutions and organizations in all case (Aggarwal, 1981) Moreover, he goes on confirming the point by saying that "the child comes to have the first lesson of citizenship on mother's keen and father's kiss". This, by and large, indicates that the importance of families with all desirable social values and norms is unequivocal for the desired type of education of their youngsters. Parents are supposed to have great effects on the overall development of personality traits of the children. Again the underlying concept reflects that education of a child is not the exclusive responsibility of the school. Parents could and should play an important role in shaping the future career of their pupils.

As rural parents are assumed to be farmers with no or little educational background, much is not expected from them to help their youngsters. From this view points then, it appears reasonable to say the educational background of rural parents is thought to be low compared with that of urban parents. The parental educational level lowness of these students, therefore, may contribute to their low academic achievements when compared with that of their urban counterparts.

Overall, it can be concluded that students' family location (rural-urban) has significant relationships with the important personal and family variables which affect the

students educational aspirations. Thus rural family student are at a disadvantage with respect to the variables considered and these may have a negative effect on their overall achievement.

2.4. TEACHER EXPECTATION AND PUPILS SCHOLASTIC ACHIEVEMENT

Teacher expectation are inferences that teachers make about present and future academic achievement and general classroom behavior of students (either the entire class or specific individuals). General expectations include teachers' beliefs about the changeability versus the rigidity of students' abilities, the students' potential to benefit from instruction, the appropriate difficulty of material for the class or for a sub group, and whether the class should be taught as a group or individually. Expectations for individual students may be based on student record information (test data, past grades, comments by previous teachers) knowledge about the family initial contact with the student in the classroom (apparent motivation, attentiveness and contributions to lessons, general work habits). Willis (1972) has shown that contact with students leads to the formation of stable (and largely accurate) differential expectations with in a few days after the school year begins. Her study (described in detail in Brophy and Good, 1974) illustrates that the information of expectations is normal and is inherently neither good nor bad. The critical issues are the accuracy of the expectations and the flexibility with which they are held. Inaccurate expectations will do damage if

teachers not only do not correct them but begin to base instructional decisions on them.

As cited by Good and Brophy (1990) an experiment conducted by Rosenthal and Jacobson (1968), which proved to be one of the most exciting and controversial reports to appear in the history of educational research. These investigators presented data suggesting that teachers' experimentally induced expectations for student performance influenced the students' actual performance.

A test of general ability was given at the beginning of the year, and then randomly selected students were described to their teachers as "late bloomers" who would probably make large gains that year. This information was not actually based on student test performance, so except for expectations that the experimenters created in the teachers' there was no reason to predict improved performance by the "later bloomers". Yet when the same test was readministered at the end of the year, the data indicated that the experimental students did out again their classmates, at least in grades one and two (grades three to six showed no significant differences). Experimental students in grades one and two also out performed their classmates in reading achievement and teachers described them as more likely to succeed in the future, more interesting, happier, and more intellectually curious than students who were not labeled as late bloomers.

This study captured the imagination of general public, but unfortunately, secondary sources describing the findings

made exaggerated claims that went far beyond those made by Rosenthal and Jacobson.

Attempts to replicate Rosenthal and Jacobson's findings using their exact methodology have been unsuccessful and the study remains controversial (Wineburg, 1988) as cited by Good and Brophy 1990. A large body of work, however, by many different investigators using a variety of methods has established that teachers' expectations can and do affect classroom behavior and students achievement (Brophy, 1983, Cooper, 1979).

It has been widely demonstrated that teacher expectations have a significant impact on student performance (Smith, 1979, Cooper, 1979). Three students characteristics that may influence teacher expectations are gender, social class and racial groups. This background information about students is easily obtainable through record cards or file encounters, where as other information may not be available to teachers prior to observing student performance. Further teachers appear to weight student background equally with other sources of information in predicting achievement, even though they realize that background factors are relatively unreliable sources of information

According to Good and Finely studies (as cited by Cooper, 1978) of differential teacher expectation based on student sex have been rare. They reviewed five studies that examined sex differences in teacher expectations, only one of which reported a significant main effect. Instead, student sex was sometimes found to affect teacher expectation in interaction

with other variables, such as the teacher's sex, the subject matter and the school community (urban versus rural). However, these interactions were inconsistent with regard to which gender was favored by teachers. Thus it appears teacher expectation differences based on student sex are either weak or closely tied to the specific situation being predicted.

An equally important question, the extent to which teachers' expectation affect students' actual acquisition of academic material, remains largely unanswered. Several investigators have examined teacher expectancy effects in relation to school grades (Claiborn, 1969) and reported that school grades were not affected by teacher expectations regarding students' performance. Although Meichenboum, Bowers and Rose (1969) (as cited by Dusek and O'connell, 1973) reported a significant relationship between teacher expectations and objective test performance, it is difficult to relate these findings to those of others due to small sample size and the pecularity of the sample (Female adolescent offenders).

In all the above studies teacher bias was manipulated by the investigators. That is teacher expectation has been induced in the teachers and the effects of this induced expectation on performance have been measured. That teachers from their own expectations regarding the potential of the child has most recently been showed by Rist (1970), who reported that kindergarten teachers placed children into groups on the basis of subjective impersions regarding the children's likelihood to succeed in the academic situation. Once placed into one of the three levels in the classroom it

was nearly impossible for a child to change his classification from once of the lower groups into the top group. Moreover, Rist reported that a child's group placement by the kindergarten teacher was subsequently maintained by the students first and second grade teachers. Unfortunately Rist did not systematically examine the effects of teacher expectations on school tests or achievement test performance, leaving unknown the extent to which a teacher's subjective impressions of a child's potential influence the child's academic performance.

Since teachers form expectations regarding students' potential interms of school performance, it seems that a more fruitful approach to investigate teacher expectancies regarding the childs' potential on his performance potential.

The results reported above and the findings of Fleming and Anttonen (1971) and Jose and Cody (1971) as cited by (Dusek and O'connell, 1973) are clear demonstrations that neither biasing statement nor false test scores given to teachers affect children's achievement test performance. However, the results of previous research (Becker, 1952; Brophy and Good, 1970; Meyer and Thompson, 1956) suggest that teachers own expectations of students' performance relate to the way teachers treat different groups of students and may influence students' self-concept and classroom performance (Davidson and Lang, 1960, Staines 1958). Investigations aimed at determining the basis of teachers expectations and the relationship of these bases to students' performance are obviously critical and deserve investigation.

Fuller (1987) in his review research work indicated the level of teacher expectations for higher pupil performance was related to their actual achievement in three independent studies. For instances, the largely survey of third grade students in Thailand found a modest relationship between pupils actual achievement and teachers assessment of their learning ability. This factor remained significant though not strong, when entered into multivariate Model (Fuller and Chantavanich, 1976). Significant effects were also found by researchers in Hong Kong (Stratified sample of 100 low and high achieving students; Row Lau, Lee, Li and Rodel, 1966) and Uganda (540 primary school pupil, Durojaiye, 1974) as cited by Fuller (1987). The magnitude of these studies addressed the problems inherent in assessing the effect of teacher expectations with only cross-sectional evidence.

2.5. EDUCATIONAL LEVEL OF PARENTS AND PUPILS SCHOLASTIC ACHIEVEMENT

The crucial importance of the home in determining the school performance of children has long been recognized.

Among individual differences, variables used to describe students or even the entire school population, the most important may be scoio-economic status (SES) and social class. The two terms are often used inter-changeably, but they are defined and measured differently. SES is a cold, impersonal statistic compiled for indices such as type of occupation, years of education, size of income, quality of housing and desirability of neighborhood. Social class usually is defined in a more personal way that expresses local prestige and

respectability. Persons are high in social class to the extent that people in their community describe them as respectable, influential or prestigious (Muller and Parcel, 1981).

Both SES and social class are "Proxy" variables that represent a complex of intercorrelated attributes that partially describe people and are useful for making educated guesses about them but do not substitute for detailed information about the individual.

All of the variables mentioned above, along with race, ethnicity and various religious, political, and social customs, tend to correlate together into cluster (Yando, Seitz and Zigler, 1979) as cited by Good and Brophy, 1990. No single SES variable causes all of the others in any simple way, but the educational level of parents is probably the most basic because the other variables lose most of their power for predicting things such as student achievement once the educational level of the parents is statistically controlled (Stevenson et al, 1978) as cited by Good and Brophy 1990.

In any case parental educational level is especially important to teachers because it is linked to parental interest in and attitudes toward education (Laosa, 1982).

Parents who are well educated generally give high value to education and expect their children to become well educated too. They usually show interest in their children's progress and in meeting and collaborating with teachers.

Cookey (1981) in his case study levels of parental education and the use of French in the home were closely related to class background and are almost invariably associated with performance variations. It seems that it is more useful to consider parental education as a sub-cultural factor than as an "independent" cause of enrollment and performance variations. Parental education is both a major determinant of class position and of children's scholastic performance. This is particularly true at the higher level of parental education, where the link between the culture of the home and the culture contained in the school syllabus is most strong.

Miller (1970) however most agree that "social class" as such is too crude variable for explaining differences in achievement associated with one's social background and that it is necessary to identify the particular aspect of "class" which influence achievement? Certain social class as a phenomenon has very little explanatory power and in the more affluent countries it cannot signify purely economic differentiation. Although early research revealed that poverty and other related aspects of lower social class position seemed to prevent children from advancing educationally Burt, (1968) (as cited by Niles 1981), as research progressed, more and more factors, mostly considered to be class related, have been identified. It seems that the influence of family socialization process, family interest and support are more important than pure socio-economic status (SES) factors.

In West today, the growing consensus seems to be that family environment and the kind of support it gives will influence the success or failure of a child. Tomey(as cited by Miller, 1970) reviewed eleven Western studies to demonstrate that in several countries (Britain, United States, Canada, and Australia) about 50 percent of the variance in scholastic attainment is accounted for by home background variables, which consisted largely of "linguistic stimulus and literacy of the home", the extent to which the home provided materials, information and ideas directly relevant to school learning, the parents interest, concern for and encouragement of the child's education, the physical conditions of the home and family size measured by SES. Therefore, when all these separate variables related to SES were accounted for, SES itself accounted for very little. The emphasis seems to be on "a certain cultural capital and a certain ethos", (Kemp, 1971). The strongest support therefore seems to be for a theory concerning the so called process variables, which accordingly, to Kifer, for example differ significantly among the wealthy and impoverished families in the industrialized world Kifer (1973) (as cited by Niles, 1981).

Heyneman (1976) in his review indicated the evidence from Africa is the most deviant from what one would expect given the findings from industrialized societies. Although Silvey (as cited by Heyneman 1976), in a small Uganda study, reports a "Marked tendency for sons of high socio-economic parents to perform well on a test of mental alertness "he later asserts that parental education was not related to scholastic achievement performance" in any meaningful way.

Ample evidence exists from industrial societies which would lead one to suspect that children of lower-socio-economic background might perform less well on tests of academic achievement (Heyneman, 1976). In sum, of all the variables included on studies of scholastic achievement, the attempt to quantify the effects of social privilege as perhaps more consistently correlated with test performance than any other education measure either in or out of school.

Paschal (1984), contrasting an educationally successful group with a matched group of educational failures found that parents of the successful group had more educational advantages than did the parents of the failing group.

These conclusions were confirmed by (Scott-Jones, 1984) who found in a comparative study of levels of achievement in reading, that parents of the underachievers in reading had fewer educational advantages than parents of average achievers.

A few studies reported no differences in respect to education of parents of average achievers and underachievers (Currie, 1977, Wallace, 1974, Blackman and McQuary as cited by Raph et al 1966). Also comparing two small groups of Junior High School students about equal in academic potential but differing sharply in school achievement, Ford (as cited by Raph. et al, 1966) found relatively little difference in the occupational distribution of the fathers of the two groups in the educational backgrounds of either fathers or mothers or in the aspirations toward further schooling. On the other hand

Murphree (Heyneman, 1976) reporting from Rhodesia, finds higher performance from children of illiterate homes than from the children of literate homes.

2.6. FAMILY EDUCATIONAL SUPPORT AND PUPILS SCHOLASTIC ACHIEVEMENT

Lack of encouragement and educational information from the parents to the students could likely cause certain deficiencies in their learning activities. Substantially to this point, (Paschal et al, 1984) have the following to say "A child capacity to prosper academically depends to a considerable extent, on the amount of parental support he receives and the quality of home he is lucky or unlucky to inherit". The proper provision of educational materials and the creation of conducive home situation for the students is thought to be an important help in academic performance.

Traditionally, school attainment level is included within such global constructs as social class and socio-economic status and a great deal of research has focused on social class and socio-economic influences on the parent-child relationship (Laosa, 1982).

Children's cognitive development depends more on the modeling and intellectual stimulation they get from their parents than on the mere presence of material possessions. Parents who provide a rich cognitive environment interact with their children often not just when they need too, frequently at length and in ways likely to stimulate thinking (Hess and Shipman, 1965; Hess and McDevitt, 1984). They label objects

and events, explain causal relationships discuss future activities in advance and accompany discipline with instruction, containing information as well as demands. They also answer children's questions, encourage their explatory efforts and in general, provide them with a rich context of meaning within which to understand and assimilate new experiences. They model intellectual activity and verbal communication in every day activities,. reading newspaper and books for both information and pleasures watching educational as well as purely entertaining television programs and discussing, their content; conversing about daily events at meal time, participating in social and political organizations, and visiting zoos, museums and other educational settings.

Among the numerous studies in the developing countries reviewed, only the results from the 1967 survey in Puerto-Rico showed that parental discussion of homework with children appeared to be substantially related to scholastic performance. This influence was throughout all grades except grade twelve Carnoy(1971) as cited by Fuller, 1987.

Because of the large amount of time in the home environment, it appears that small variations in efficiency of parental support of academic progress or the direct teaching and stimulation in the "curriculum of the home" can have large effects not only on verbal subjects such as reading but science and mathematics as well (Walberg, 1983), as cited by Keith 1986.

In recent longitudinal study of the effects of parental involvement (e.g encouraging school work, listening to children read or participate in learning activities at home, on elementary students achievement Epstein (1984) found significant increase overtime with the greatest gains shown in reading skills. Similarly research has shown positive effect on achievement when parents provide rewards for improvement on daily in class assignments (Witt Hunafin and Martens, 1983). If it appears that parents who take more active role in their child's educational lives seem a likely means of improving academic achievement.

Although it appears that parental involvement is important it seems likely that such involvement has both direct (eg. through participation in learning activities at home) and indirect (e.g. through encouragement of better study habits) effects on students achievement (Witt et al 1983). If so parental influence on home work and television time seems a likely means of improving academic achievement.

CHAPTER THREE

3. DESIGN OF THE STUDY

3.1 SUBJECTS

The target population in this study consists of pupils in grade five of primary education in Eastern Gojjam Region. A list of 347 schools with some 3880 pupils was made available for sampling purposes. The following information was also available about the target population of schools -school districts-rural or urban. Roughly 10 percent of the 1994/95's pupils was sampled. This means roughly a sample size of 388 grade five pupils.

A stratified two stage probability sample of schools and pupils were drawn. In the first stage schools were selected randomly from different strata (region)-rural and urban. The second stage consists of a simple random sampling of pupils within selected schools. In each selected schools some 17-74 pupils were randomly chosen. The product of the two sampling fractions (i.e. that of schools and that of pupils within selected schools) was held constant. Large schools had more chance of selection than small schools, but this counterbalanced, by their being represented in the sample by a smaller proportion of their population of pupils and each member of the target population had a non-zero chance of selection (Peaker, 1975).

Altogether a representative sample of 8 schools with 388 pupils was drawn. The sample was selected to represent the

subjects home province (* half from the urban, half from the rural) and sex (half female, half male). Teachers teaching language and/or mathematics were also taken as another data source.

3.2 INSTRUMENTS

There were three groups of instruments prepared for the data collection.

- Achievement tests used for the assessment of pupils achievement level in amharic and mathematics.
- Instruments for collecting data on pupils background.
- Instruments to get information on teachers expectation about their pupils academic performance in basic skills.

The first group of instruments was mainly meant to assess the achievements of the pupils in certain subjects. It consisted of two kinds of instruments.

These were amharic and mathematics tests. The information collected from the amharic tests was relevant for the investigation of the pupils ability in reading and writing. The tests for the achievement level in amharic had two parts, dictation and passage analysis.

*According to CSD's (Central Statistics Development) urban sector was defined as a locality with 2000 or more inhabitants. Moreover all administrative capitals (region, awraja, wereda and localities in which urban dwellers' association were established) were also considered as urban centers, irrespective of the population size (population and housing census, 1984, P.9).

A. THE ACHIEVEMENT TESTS

I. AMHARIC DICTATION

One dictation test was prepared in amharic. The passage contains about 100 words. The passage was read three times, first at a normal speed, straight through, second broken into phrases, with pauses for subjects to write, third again in phrases, but with much shorter pause for subjects to correct errors.

Dictation as a research tool is still comparatively new, although it has long been used as a class-room exercise, and not many details are known about the specific skills being tested in dictation. Infact it was for this reason the inability to isolate skills in dictation that it was rejected out of hand be testing experts not so language (Lado, 1961, 34; Rivers; 1968, 290-292). However, it is fairly certain that dictation is related to general language proficiency (Oller and Streiff, 1975, Atai, Irvine and Oller; 1974) and it seems likely that subjects employ a psychological strategy of analysis by synthesis (Neisser, 1967) in responding to a dictation test. Further, the surface ability required, namely writing down rapidly what one hears, is one which may be said to be closely related to what students must do in a lecture situation.

ii. AMHARIC COMPREHENSION

Reading achievement consisted short passage comprehension sessions. The passage had about 20 questions. The students

task was to select answer for each question from a list of four options, which were based on information either stated or implied in the preceding passage. The internal consistency for the main study of the amharic reading and writing (K-R-20) were as follows: Reading comprehension .86 and writing .88 (for the pilot .78 and .81 respectively)

iii. MATHEMATICS ACHIEVEMENT

In order to construct the mathematics achievement test, 50 items were written. The first, draft was tried out on 70 students (urban-rural). About 25 percent items with discriminating power below 19 were improved and some were dropped. Based on item analysis, 40 items with discriminating power exceeding 20, were finally selected for draft. This final draft consisted of 40 multiple choice type. The reliability coefficient of the test was found to be .94 (for the pilot it was .88).

B. QUESTIONNAIRE

Data on the three blocks of variables were collected from the two sets of questionnaires, i.e. pupils and teachers questionnaire.

i. PUPIL QUESTIONNAIRE

The pupil questionnaire referred mainly to the pupils personal characteristics, culture related characteristics and academic related characteristics plus such factors as parental contribution to his education, his access

to certain school related needs, his work load, his attitudes and opinions towards schooling.

ii. TEACHER QUESTIONNAIRE

The teacher questionnaire was designed to depict the classroom learning environment of the grade five pupils.

The teacher questionnaire was addressed to language and mathematics teachers and contained a total of 15 items. Information on language and mathematics class teacher includes facts about his personal characteristics, his academic qualification, his experience, the size of his class, the frequency with which different methods of teaching and assessment are used, his expectation to his pupils academic achievement.

The response rate was generally high for these two categories of participants. i.e. pupils and teachers. As is always the case not all items in the questionnaire were answered by the respondents, of the 388 pupils questionnaire (corresponding to the size of the achieved sample of grade five pupils) 360 were filled out properly by students. A very high response rate was achieved for the teacher questionnaire.

Attitude statements were scored on a three point scale 1 to 3 for disagreement to agreement respectively for positive items. Negative items were scored on in the reverse direction. The score for a respondent was determined by adding the scores for all items falling under that attitudinal variable. Similarly for variables such as family support for

children in education were given ordinal scores in order to classify certain groups of pupils. The pupils and teachers questionnaires were administered to both the pilot and the main study samples.

3.3 PROCEDURE

The pilot testing exercise was organized and intended to serve several purposes. First, reported to the respective Regional Education Department and Awraja Education Division and made clear the objectives of the study and the criteria of the sample selection. With the help of the respective Awraja inspectors, the researcher selected three urban and five rural primary schools.

At the sample school level the researcher has to introduce himself and the objective of the study to the director and also to explain what was expected from the school. Then the required data sources were sampled according to the criteria of the sample selection. After the sample was selected then enough time was given for students to study their subjects (amaharic and mathematics). The pupil's was tested for about two days having sufficient rest intervals between the tests.

The amharic reading test was administered. The students were seated at desks. After a short introduction in amharic, explaining why the testing was being done and that results would be confidential, the amharic reading test was administered. The instructions were read aloud by assistants while the students followed along silently. They did the practical test.

Then the amharic dictation was administered. They were given the answer sheet for the amharic test. The students were told what to expect and then the instructions were read while they followed silently. They then heard the first reading of the sentence, the reading was stopped and they were told to get ready to write. The sentence was then read for a second time and during the pauses, students wrote what they heard. The reading was stopped and students were told to listen a third time and correct errors. When the passage was finished, the amharic answer sheets were collected.

Dictation tests were scored by taking one point for the omission of a word, the inclusion of an extra word, or for a misspelling which created a new word. Only one point per word was subtracted, and no negative scores were recorded.

On the other hand all the items in the reading ability and mathematics were of the objective type. In reading and mathematics each item had the same weight.

DATA ANALYSIS

The major dependent variables were amharic reading, writing and mathematics achievement and four factor ANOVA was computed using sex, attitude, location and family educational support. After assigning scores on the attitude scale and family educational support, the scores are dichotomized at the median to determine their levels.

In addition, data gathered through questionnaire items i.e. teacher expectation was analyzed using a Chi-square test. Also two way ANOVA was used for comparing the educational level of fathers.

Finally alpha value of 0.05 was used for all significance tests carried out in the study and this was decided earlier to data collection.

CHAPTER FOUR

RESULTS OF THE STUDY

The data were analyzed in accordance with the research questions by using ANOVA. Besides, a Chi-square test has been employed on categories of responses to the questionnaire items. The findings are presented below.

MATHEMATICS ACHIEVEMENT

ANOVA was computed on mathematics achievement scores using sex, attitude, location and family educational support as independent variables.

Table -1 Means and Standard Deviations by Sex, Attitude, Location and Family Educational Support for Mathematics Achievement.

	Mathematics		
	N	M	SD
SEX			
Female	180	15.54	5.39
Male	180	17.00	5.55
ATTITUDE			
Low	183	14.98	4.99
High	177	16.47	5.73
LOCATION			
Rural	180	17.59	5.50
Urban	180	14.95	5.23
FAMILY EDU'L SUPPORT			
Low	186	17.14	5.62
High	174	15.34	5.27

Table- 2 ANOVA SUMMARY TABLE (MATHEMATICS)

Source of variation	SS	DF	MS	F
Sex	201.02	1	201.02	7.58**
Attitude	620.63	1	620.63	23.41**
Location	320.26	1	320.26	12.08**
Family educational support	357.54	1	357.54	13.49**
S x A	1.58	1	1.58	0.06
S x L	21.23	1	21.23	0.80
S x F	35.00	1	35.00	1.32
A x L	14.07	1	14.07	0.53
A x F	83.30	1	83.30	3.14
L x F	23.88	1	23.88	0.90
S x A x L	6.29	1	6.29	0.24
S x A x F	20.50	1	20.50	0.77
S x L x F	74.43	1	74.43	2.81
A x L x F	37.53	1	37.53	1.42
S x A x L x F	6.85	1	6.85	0.26
Residual	9120.75	344	26.51	-
Total	10944.86	359	-	-

** P<0.01

The results in Table 2 indicated that taking males and females, the test results for mathematics were better for boys. The means of the two sexes differ significantly in favor of the boys (the mean scores were 17.00 and 15.54 respectively).

On the other hand, as it can be seen from the table, subjects with high attitude scores performed better on the

mathematics achievement than those with low attitude scores (the mean scores were 16.47 and 14.98 respectively). Differences in the mean scores of those with high and low attitudes were statistically significant ($F(1,359) = 23.41$, $p<0.01$).

Considering the urban-rural dichotomy, there was a statistically significant mean difference in mathematics in favor of the rural pupils ($F(1,359)=12.08$, $P<0.01$) their mean achievement scores were 17.59 and 14.95.

The study has also attempted to investigate the possible influence of the educational support given by the families on pupils scholastic achievement. The results indicated that pupils who got low educational support from their families achieved better results than those who got high family educational support (their mean achievement scores were 17.14 and 15.34 respectively). The mean difference was statistically significant [$F, (1,359) = 13.49$, $P<0.01$].

4.2 AMHARIC READING ACHIEVEMENT

The other major dependent variable was amharic reading and ANOVA was computed using sex, attitude, location and family educationl support as independent variables. The results of this analysis are presented below.

Table-3: Means and Standard Deviations for Amharic Reading Achievement

	Amharic reading		
	N	M	SD
SEX			
Female	180	18.34	5.01
Male	180	18.08	4.45
ATTITUDE			
Low	183	17.44	4.42
High	177	19.01	4.94
LOCATION			
Rural	180	18.14	4.70
Urban	180	18.28	4.79
FAMILY EDU'L SUPPORT			
Low	186	18.03	4.76
High	174	18.40	4.72

Table- 4 ANOVA SUMMARY TABLE (AMHARIC READING)

Source of variation	SS	DF	MS	F
Sex	4.28	1	4.28	0.19
Attitude	219.81	1	219.81	10.00**
Location	O.44	1	0.44	0.02
Family educational support	6.01	1	6.01	0.27
S x A	45.89	1	45.89	2.09
S x L	10.28	1	10.28	0.47
S x F	0.05	1	0.05	0.00
A x L	6.82	1	6.82	0.31
A x F	69.51	1	69.51	3.16
L x F	77.52	1	77.52	3.53
S x A x L	28.24	1	28.24	1.28
S x A x F	3.88	1	3.88	0.18
S x L x F	5.85	1	5.85	0.27
A x L x F	53.09	1	53.09	2.41
S x A x L x F	8.36	1	8.36	0.38
Residual	7563.82	344	21.99	-
Total	8103.82	359	-	-

** P<0.01

Table 4 shows the results of the analysis of variance. From the table, it can be seen that subjects with high attitude scores performed better on amharic reading achievement than those with low attitude scores, the mean scores were 16.47 and 14.98 respectively and the difference in mean scores was statistically significant [F(1,359 = 10.00 p<0.01]. The other variables (namely sex, location and family educational support) were not statistically significant).

4.3 AMHARIC WRITING ACHIEVEMENT

Here also ANOVA was computed for amharic writing achievement using sex, attitude, location and family educational support as independent variables. The results are shown below.

Table - 5: Means and Standard Deviations for Amharic writing Achievement

	Amharic Writing		
	N	M	SD
SEX			
Female	180	30.04	6.53
Male	180	32.67	5.48
ATTITUDE			
Low	183	30.33	6.36
High	177	32.41	5.79
LOCATION			
Rural	180	31.61	5.93
Urban	180	31.10	6.39
FAMILY EDU'L SUPPORT			
Low	186	31.67	5.71
High	174	31.02	6.61

Table- 6 ANOVA SUMMARY TABLE (Amharic Writing Achievement)

Source of variation	SS	DF	MS	F
Sex	639.41	1	639.41	18.28**
Attitude	388.93	1	388.93	11.12**
Location	1.62	1	1.62	0.05
Family educational support	56.80	1	56.80	1.62
S x A	88.17	1	88.17	2.52
S x L	35.92	1	35.92	1.03
S x F	1.12	1	1.12	0.03
A x L	133.88	1	133.88	3.83
A x F	91.24	1	91.24	2.61
L x F	54.87	1	54.87	1.57
S x A x L	7.21	1	7.21	0.21
S x A x F	5.14	1	5.14	0.15
S x L x F	43.40	1	43.40	1.24
A x L x F	41.35	1	41.35	1.18
S x A x L x F	96.70	1	96.70	2.76
Residual	12030.72	344	34.97	-
Total	13716.49	359	-	-

** P<0.01

From the table it can be seen that the test results in amharic writing was better for boys than for girls (the mean scores were 32.67 and 30.04 respectively). This difference was statistically significant, $F(1,359) = 18.28$, $P<0.01$.

On the other hand, subjects with high attitude scores performed substantially better on the amharic writing than their counterparts with low attitude scores (the mean scores were 32.41 and 30.33, respectively). In contrast, the remaining two variables effect (location and family education support) were not statistically significant.

4.4 TEACHERS' EXPECTATION

School teachers (mathematics and language) were asked to express their opinions about some aspects of their students' scholastic achievement. Chi-square was used to analyze the data.

4.4.1 TEACHERS' EXPECTATION IN STUDENTS ASSESSMENT

Teachers were requested to pass their judgments on the general performance of the class as a whole. The questionnaire consisted of items, which mainly referred to pupils academic achievement each item had about four alternatives. The teachers' task was to select what he feels is right from a list of four options (Boys do better than girls, girls do better than boys, both do equally and none of them do well). Since the two alternatives were not selected by the teachers, they were not included in the analysis.

Table - 7: Teachers' Expectations of Students Assessment (%)

	Boys do Better	Both boys & girls do equally	x^2
Mathematics teachers (n=29)	72	28	20.08**
Language teachers (n=27)	85	15	50.42**

** P<0.01

Both mathematics and language teachers thought that they expect better results in assignments, semester and final examinations from male students than from female students. On the other hand, it is rather surprising that none of the subjects tend to expect girls to do better than boys in assignment, semester and final examination.

4.4.2. TEACHERS' EXPECTATION IN STUDENTS' CLASSROOM PARTICIPATION

In a classroom situation teachers' attitude towards the students in regard to their academic and intellectual abilities and interests is very important in shaping the educational aspirations of children. Here also teachers' were asked to indicate their views about their students' class participation.

Table. 8: Teachers' Expectations of Students Classroom Participation (%)

	Boys do better	Both do equally	X^2
Mathematics teachers (n=29)	83	17	43.04**
Language teachers (n=26)	88	12	59.30**

** P<0.01

Here, language and mathematics teachers did not differ significantly in estimating their students achievement in class participation. Both expect better achievement in classroom participation from boys than girls.

4.5. STUDENTS' OPINION

Students were asked to express their opinion about the subjects taught in the school. This was done through structured questionnaire and the results are presented below.

4.5.1 SUBJECTS STUDENTS LIKED BEST

Various problems relating to their interests in studies and likes and dislikes for the different subject taught in the class were assessed. This is likely to indicate the strength of their motivation in studying a subject. Then the students were asked to state the subject they liked most.

Table. 9: Students Who Liked Mathematics and Language Best (%)

	M(n=113)	F(n=136)	X^2
Mathematics	46	35	1.50
Language	54	65	1.02

As can be seen from the table, more boys than girls seem to like mathematics while more girls than boys prefered language. It should be noted, however, that no statistically significant difference in male female proportions were observed in mathematics and language.

4.5 FAMILY EDUCATIONAL BACKGROUND

To have an insight about educationally stimulating conditions of subjects at home (language and mathematics), students were asked to indicate the educational attainment of their families. The father being the dominant head of the Ethiopian family, Table 10 tries to see the educational level and the tendency of fathers to assist their younger for their education. Two way analysis of variance was used to analyze the data. The results are presented below.

Table. 10 ANOVA SUMMARY TABLE (MATHEMATICS)

Source of Variation	SS	DF	MS	F
Sex	189.23	1	189.23	6.34**
Fathers' Edu'l level	301.63	2	150.82	5.05**
error	10568.97	354	29.86	-

**P<0.01

Table 10 indicates that the gender difference in mathematics was statistically significant and this is a similar result with what was found in the four way ANOVA. On the other hand better result was achieved by children's whose fathers were illiterate (means score = 17.11) than pupils whose fathers had elementary or high school education (mean score was 15.29 and 15.26 respectively). The difference in mathematics achievement favoring children from illiterate fathers was significant. This was confirmed using Scheffee's multiple (pairwise) comparison procedures.

CHAPTER FIVE
DISCUSSION

GENDER DIFFERENCE IN ACHIEVEMENT

The same proportion of boys and girls were included in the sample. The data presented in Table 2 and 6 showed different tendencies in the two subjects. On the whole, the average mean scores for boys were higher than for girls on both mathematics and amharic writing tests. The means of the two sexes differed significantly in favor of the boys. On the other hand, although not significant, a slight mean difference was observed in favor of girls in amharic reading.

However, in some studies that were conducted in developing countries the sex character of children were among the most powerful predictors of scholastic performance. In Uganda, Heyneman (1976) observed that 42 percent of the explained variance in scholastic performance was due to sex difference among pupils. Boys did far better than girls in schools. Contrary to the above finding and those found in Nigeria and England (Johnson,1976; Preston,1962); other researhers have found instances when girls did better than boys in schools, e.g.in Hawaii (Brand, Newton and Hammond, 1987). Thus the present finding is more or less consistent with the research literature.

The reasons for the differences in the subject-specific performance levels of the sexes are not obvious. One could think in terms of biologically based differences in mental abilities between the sexes. It is also possible that different strategies of education or child rearing practices led to different practical experiences or to different kinds of information processing in the two sexes.

Anyway school child's sex character should not be regarded simply as a biological factor. From a socio-psychological as well as from a cultural point of view, the different treatment accorded to children on the bases of their sex, at home and in school, may reveal important dimensions of sexes segregation in terms of school participation and scholastic performance.

Female students' poor perfromance at school could be related to their life style. Most of them do housework: cooking, taking care of their younger brothers and sisters, generally helping their over burdened mothers and training for their future role as wifes and mothers. This leaves them very little time for their study. The type of work that they do and the time they spend on house works needs further research. Beyond poor performance, repeating in a classroom discourages female education as parents prefer their daughters to dropout and get married rather than spend another year.

Likewise in Ethiopia, unequitable distribution of facilites, sex stereotyped education, parental discouragement and early marriage seem directly linked with social values and attitudes and seriously affect, the education of women. Elsewhere, the age-old belief that women are intellectually inferior has been disproved. The world has seen many female scholars, and the debate on the influence of biology on the intellect has been seriously challegned. Many have looked socio-cultural factors for women's low enrollment, participation and performance in education. Tyler(1969) explaining the poor performance of girls in schools, says that "difference in performance at school between boys and girls cannot be put down to sexual differences in aptitude but to social and cultural causes." Eccles (1987) as cited by Good and Brophy 1990, also supports the view that culture and

gender role expectations of society can affect the performance of girls in schools.

In Ethiopia parents, school administrators and educational planners and students of both sexes generally accept patriarchal views regarding women. Most parents prepare their sons and daughters for different roles, aspirations, expectations. The socialization of boys and girls correspond to the role each is expected to assume in society. Their education follow the same pattern. Boys are encouraged in ways that will enable them to achieve, to complete and to win; girls are discouraged to develop these trait as they are not, deemed necessary for the stereotyped roles of housewives and mothers. Such socialization could be one of the key factors that help boys to develop the sense of competitiveness in their educational endeavors while it discourages girls. It has been observed that teachers try to influence female students to join home economics...etc.courses on the ground of their usefulness for domestic life. The opinions expressed regarding the performance of their female students are not only submissive but are also incapable of succeeding in higher education. This negative attitude is also reflected in their interaction with students. Most teachers address questions only to boys. From observations of classroom interaction patterns, it appears that teachers are transmitting both negative and limited perception of their female students academic abilities and potentialities.

Finally socialized by patriarchal thinking, many women have developed a withdrawal view point about their capabilities and potentialities in participating in education. What Becker said about this in 1981(as cited by Good & Brophy 1990) is largely true today. It is my conviction that a young woman shies away from and avoids involvement in activities outside her home because she fears that she cannot achieve

equality with men. As every one knows knowledge cannot be bestowed upon someone. The individual has to actively participate in a learning process to acquire it. Female students also not seem to be keen to do that as a result of the socialization process that many of them have had in their background. That process is an interesting area of future research in Ethiopia.

ATTITUDE DIFFERENCES AND ACHIEVEMENT

An attempt was made to measure pupils attitude towards schooling. Fourteen attitudinal statements about schooling were given and pupils were asked to indicate the degree of agreement with the statements. The response to the statements were scored and the scores were dichotomized as high and low attitude scores. The mean achievement level of the two groups of pupils in the three basic skills were compared. Overall, pupils with high attitude towards schooling had high mean achievement scores in the three areas of basic skills.

Most research findings have shown that student attitudes are related to scholastic achievement. In their studies they found that attitude towards school and learning were significant indicators of verbal skills and arithmetic achievement (Coleman,1966,Fenneman,1974, Neale,1970). The present finding is consistent in the expected direction in that subjects with the high attitude scores as a whole scored higher on the test than those with low attitude scores. In connection with this it maybe added that about 6%, 3% and 3% of the variance in mathematics, reading and writing achievement scores were accounted by attitude and these were the largest contribution relative to the variance accounted for by the other factors. This shows the importance of attitudes in basic skills achievement. Thus students attitude

toward basic skills seem to affect their achievement in the subjects.

However, more important in the analysis of attitude scores was, the examination of gender differences in attitudes. The absence of a statistically significant gender difference in attitudes is consistent with the results of other study (Jackson and Lahaderne,1967).

On the otherhand, the absence of a statistically significant gender difference in attitudes where there was such a difference in achievement seems to suggest that although a favorable attitude is necessary for better result; yet it is not sufficient by itself. In other words, a favorable attitude alone may not result in a good achievement. Thus attitude should be seen along with students' efforts. Nonetheless because of additional responsibilities at home, girls' efforts may not be comparable to that of boys, who appear to assume relatively less responsibilities with their parents.

It may follow then that boys could receive relatively better results in achievements even if boys and girls have favorable attitudes towards mathematics and language. But this does not mean that favorable attitudes is not that much important. On the contrary, a favorable attitude is a necessary first step condition for better achievement and a student without a favorable attitudes may not in the first place, develop the intrinsic motivation to attend classes let alone exert constant effort to achieve better.

In connection with attitudes, it should be noted that girls' less favorable attitudes as compared to that of boys may not necessarily imply that girls dislike mathematics

and language more than boys do. The analysis of respnses to a questionnaire item used in this study appears to illustrate this point. Regarding the interest of students in learning then they were asked to state the subjects they liked most. More of the female students seem to understand language compared to that of boys. But more of the boys seem to understand mathematics compared to girls. Their ability to understand seem to be related to their likes and dislikes or preferences. Any way among those who reported that they like mathematics and language best, no statistically significant difference was observed in male female proportion.

Besides this, there are many factors that may influence the attitudes of individual pupils towards learning. For instance, the performance in school has a great deal of effect on pupils learning. Success in school is the prime motivation in further learning; conversely, failure to achieve in school has led many pupils to become disinterested in learning and often to school dropouts. The attitude of students towards learning is stated by Wilsons (1962) as follows. "If a student perceived a subject or unit as having particular value for him, he will study to achieve its goals, if he finds little relationship between the subject matter goals and his personal desires, he will respond apathetically or negatively.

From the above point cited, it seems that curriculum adjustment to learners needs is a significant factor of influence upon success of learning in school. This means flexibility in the curriculum of the school is the most effective means for each individual that fits his common needs.

On the other hand elementary school teachers could play the most important role in developing the attitudes of

their students. If instructional time is well spend by the teaching there can be a considerable gain in knowledge, skill and understanding by the learners. But if instruction time is not wisely used by the teacher educational progress is going to be limited and very little achieved. If pupils feel that they were wasting their time, negative attitude may be created which will prevent their full attention towards learning and which may hinder their future effort.

Moreover different age groups in a society have got different interest,plans and programmes should be prepared to satisfy the needs and interests of those particular groups. The expected change of behavior or the development of positive attitude of students towards learning can be facilitated by the teachers. In most situations the teacher exercise a great deal of influence on the personal lives of the learner as well as on what they learn. The negative attitude of teachers cannot act as an obstacle in the way of interesting young people.

LOCATION OF SCHOOLS AND ACHIEVEMENT

There is a significant relationship between family location and students scholastic performance (Akande 1987). The sample was divided into two parts: pupils from urban areas or pupils from rural areas.

The mean for mathematics achievement is better for the pupils from rural areas. The mean differs significantly between the two location in favor of rural pupils. However, in reading and writing no significant difference was observed. The difference in mathematics achievement can also be illustrated if we consider the achievement levels of the best pupils in each location. If we look at the best pupils, those with 16 or more points aggregated (out of maximum of 40) in

the total achievemtnt index there were 116 such pupils from rural areas but only 69 pupils from urban areas. There are more than one and half times high achievers from rural areas than from urban areas. This gives a clear picture of the superiority of rural pupils not only in general but also in the high achievement level in comparison with urban pupils.

Most research findings from the developing countries have shown that schools reinforce regional inequalities in scholastic performance among school children. In many studies the scholastic performance of urban children was much better than that of rural children (Rath et al, 1979, Aggarwal, 1981, craft and Raynor 1967). The present finding was inconsistent with the research literature.

An explanation for this finding probably lies in the various cultural, social and environmental factors. The environment of the learner has great influence on the school activity when he learns. This is to say that the learners residential area has either negative or positive effect on his performance. As indicated above half of the students reside in urban areas and the other half in rural areas. It is clear that most of the schools are established in the urban centers. As we can see students of both urban and rural areas are almost equally affected by the academic problems. Nevertheless we see a slight difference between the two. This slight difference between the two reflects that those who are from urban area are more affected than those who come from rural. One possible reason may be that the urban is full of problems that may affect the academic performance of learners. Specifically the causal factor may be that there are various attention taking distractors in urban area than rural. Therefore, students may not take time to study in the urban area.

On the other hand the response of the majority rural pupils indicated that most of the students' parents were peasants. Students from such family are expected to work with their parents to increase their family's meager income. Their parents may give more attention to domestic activities than the education of their children. The involvement of students in the domestic activity decreases the working efficiency of the learner. Therefore students who come from such family will not attend class regularly. They may miss many classes which will lead to detention or academic failure. This idea goes with that of Robertson (1981). It is surprising that resisting all these obstacles the rural children were better achievers than of urban children.

Furthermore, other potentially influential variables such as text books and supplementary materials, organization of the lesson and sequencing of the materials, the cognitive learning stages of individual pupils and the influence of the entire school environment may have profound effects upon academic achievement (Hough, 1976). In particular the student-teacher ratio and average class size are worth considering. It was observed from the results of the study that student teacher ratio was 100:1 and average class size was 60 for the entire urban school, such crowded classroom condition's reduce the teachers opinions of style of teaching and restricts him to formal lecture methods. Furthermore, these figures are so staggering that such useful activities as the assigning and checking of home work exercises which have been found to have a strong correlation with academic achievement (Meredith, 1984) would not be possible.

Precisely, this shows and asserts the assumption that rural students are in a relatively better setting with regard to their education. To this effect, then the student-teacher

ratio and average class size and others seem to have contributed to such high score of these rural students. In relation to this Hough (1976) asserts that classrooms in which there is large percentage of question asking, students responding and teachers reinforcing have significantly greater achievement than classrooms in which these conditions are present to a lesser extent.

Therefore, it is convincing to say that normal interplay of environmental and inherent factors of the learners increase their academic performance there by creating difference in results between urban and rural groups of respondents.

On the other hand various research findings have shown that female students compete less favorably with male counterparts (Garett. Schau, 1984, Stewing and Knipfel, 1975). However, on looking at Table 2, it is evident that this general finding must be broken down further since it appears that urban female students perform much less favorably in their school work when compared with their rural counterparts. It is evident that the highest percentage of scores corresponds to the rural males and the least to rural females. The indication is that if the rural male and female respondents had enough encouragement and material incentives of their parents, they might have scored even more. Pitiably, the urban female are thrown out of the scale at this juncture.

To Summarize, from the above point cited, it is recognized that the rural parents are farmers with little or no educational background and insufficient incomes that could negatively affect the scholastic achievements of their learning youngesters as opposed to the urban. Despite all the inconveniences encountered by the rural respondents, their academic performance came to be better than that of urban respondents.

The reason for this may be ascribed to the following, rural students had been observed to be more prone and dedicated to their education which is amounted to survival of the fittest. They had also been observed putting much effort in their educational performance viewing success in education would help latter life.

The effect of peer groupings, unwise use of time for recreation, lack of proper guidance, lack of commitment for their education and other interdependent factors on the parts of the urban students seemed to put negative impact to their studies.

In light of this point, then the academic performance of urban-rural respondents when viewed uniformly, looked fair regardless of the existence of differences in their respective environments. Besides, the enrollment of rural females was observed to be less but with relatively better academic performance compared with their urban counterparts, and had contributed to educaional result disparity. The educational implication of this is meant the rural students had made the maximum possible efforts to pursue their studies. Hadn't they made such determination and devotion to their education, they would have been ended in the category of less achievers or failure. On the other hand, the urban respondents had been noted to be partly reluctant to their studies, but few students, who had scored the highest possible points by using their mental abilities that had well interplayed with their immediate environment. It was also portrayed that nearly all the failures that were seen were urban respondents.

PARENTAL EDUCATIONAL SUPPORT AND ACHIEVEMENT

In this study pupils were asked to rate on a three point scale the type of educational support they receive from their parents. Although no significant mean difference was exhibited on reading and writing, a statistically significant difference was observed in mathematics that favored children with low parental educational support.

Parental educational support to school learning and its effect on scholastic performance have been examined in a number of studies (Hess and Shipman, 1965, Hess and McDevitt, 1984). The present finding is inconsistent with those obtained in the literature.

Children pass different stages of development being under the care of their parents. Parents take the responsibility of bringing up their children from early childhood till they get self sufficient to safe guard themselves and carry responsibilities. Hence shooling, which starts at childhood becomes the responsibilty of parents. This being the fact, the attitudes of parents supporting their children towards learning varies from person to person and from community to community. As a result of the existing differences, most students do not get the necessary help from their parents.

According to the information given by the students most of them are from less educated and non educated families. Those who come relatively from educated parents were very few. This indicates that those who come from less educated and non educated families suffer from shortage of necessary materials. The main reason may be that parents may not be aware of the educational value of books and other learning materials. Students who come from such economically weak parents are not

adequately clothed, fed and in such condition the performance of students is likely to be affected.

Parents in general do not highly motivate their children in their studies. This may be a reflection of the parents low education level. Since many parents are uneducated, especially, the mothers the assistance they can offer their children with school work, private tuition for their children, is very low, even though this is a severe economic burden for those who are poor.

However, when we see the results from the study the low educationally supported family children showed that they get low support but they were better achievers than their counterparts. It is really very difficult to explain (say) why it is so. Probably there may be an exaggeration when they are rating the items or else they get better results in their academic performance for their hard work and determination for education.

TEACHERS' EXPECTATION AND ACHIEVEMENT

Teachers were requested to pass their judgments on the academic performance of the class (group) as a whole. The results showed that more of mathematics and language teachers thought that they expect better achievement in assignments, semesters and final examinations from male students than from female students. In regard to estimation of students class participation, the pattern is exactly the same.

In most developing countries, research work indicated the level of teacher expectation for higher pupil performance was related to their actual achievement. For instance, in Thailand it was found a modest relationship between pupils actual achievement and teachers assessment of their learning

ability (Fuller,1987). Significant effect were also found by research in Hongkong(Row Lau, Lee Li and Rodel,1966) and Uganda (Durojaiye,1974) as cited by (Fuller,1987). The present finding is consistent with the research literature.

Increasingly enough, the perception of teachers (language and mathematics) almost exactly reflect their position in class examinations. The teachers do not appear to be biased in favor or against any group. Their estimation of these children is based on their classroom performance. It is rather very surprising that there is such an exact correlation between the two phenomena. The teachers appear to be remarkably impartial and objective in this respect.

The relatively higher results obtained from the subjects related with language instruction (amharic and english) may be attributed to the fact that language instruction is aimed at teaching students how to read, how to speak, how to write and it characteristically involves work in oral and written expression.

In addition since language instruction includes different approaches such as grammar and composition, literacy analysis, speech, drama, debate, free reading and creative writing, the student-teacher interaction is expected to be higher (Willis,1992,Smith,1979, Cooper,1979).

This may have helped the teachers who were teaching language to estimate their students academic performance comparatively better.

Similarly, opportunity for ample drill on fundamental skills and use of varied practice materials centered in solving mathematical problems may have helped the teachers who

were teaching mathematics to know relatively more about their students academic performance.

But in the above context, an important principle of training arises as to whether the teachers should be absolutely impartial and objective in regard to females in the teaching learning situation.

In a mixed classroom situation where children belonging to male and female groups are taught together the attitudes of teachers may have a great influence on the general achievement and behavior of children. In society the girls are normally forced by socializing agencies to conform to the social norm which always act against them. If this general attitude is again reinforced by the teachers in the classroom situation then an irreparable damage is done to the academic achievement of the females. On the other hand, even if these children are inferior in certain subjects (mathematics) the teachers should try to encourage them more and more to come up to the classroom.

The results showed that the possible influence of teachers pedagogical optimism is likely to promote pupils endeavors for better scholastic achievement.

The other variables which might made significant contributions to the variance in the dependent variable were the number of students found in a class and the number of years teachers stayed in teaching (Yeager,1954).

These two variables had influence on the teachers' estimation of their students test performance. Probably, this might be due to the fact that the class size in the selected schools was found relatively to be lesser. From the data it

was found the range of the class size were between 14 and 60 and the average number of students found in a class was about 40.

Yeager (1954) suggested that the average number of pupils per class has to be as follows, kindergarten 28, elementary grades 31, typical classes 10, junior high school 31 and senior high school 28.

The data collected from the sample schools relatively does not contradict the facts given by the scholars mentioned above about the nature of class size. The data showed that the range of the class size in elementary school was between 14 and 60.

Hence it seems that teachers could predict the academic behavior of their students in a better way if they were teaching in classes where there were smaller number of students. In other words, it is difficult for teachers to make a follow up of their students learning behavior in classes where there are large number of students.

On the other hand the number of years teachers stayed in teaching could predict the teachers' knowledge of their students academic behavior better. The finding slightly suggests that if teachers stayed while teaching for a longer period of time they may be able to predict their students test performance only to a certain extent as compared to those with few years of teaching experience.

This shows that teaching experience could not influence the teachers prior knowledge of their students academic performance.

This may agree with the idea which reminds that stress could be given to scholarship, personality, practice teaching record, qualities of leadership and other objective evidence of success than experience in teaching except in key positions of competency through experience become essential (Yeager,1954). Yeager further argued that as teachers become better educated,better selected and more matured there will be a tendency to be away from too great emphasis on the experience requirement. In addition, he stated that, rather than in experience of teaching, more likely teachers will grow rapidly in a stimulating environment and under competent direction.

This may also indicate that, even though teachers serve for many years in the teaching profession, unless and otherwise there is a stimulating environment they may become bored of the profession and inconsequence, their interest and ability to estimate their students test performance will be lessened.

FAMILY EDUCATIONAL BACKGROUND AND ACHIEVEMENT

It was seen in various research studies that the educational level of parents could influence the scholastic achievement of their children but there are also instances in which family education level has nothing to do with achievement. When we come to the present results, the subjects with illiterate families as a whole(mean score=17.11) scored higher on mathematics test than those with elementary or high school background families (mean score 15.29 and 15.26 respectively). Their difference was also significant.

In various research findings it was felt that father's education would affect respondents academic performance

(Wallace,1974, Paschal etal,1984). The present finding is inconsistent with the facts given by the scholars mentioned above.

Most of the rural parents are farmers and with little educational background can hardly provide their learning youngsters with necessary encouragement and incentives for their studies. It is at this juncture that the urban learning youngsters with trading and government employed family looked advantageous over the rural peer group in terms of moral encouragement and material incentives that may be helpful to their studies. It is likely that such variation could create academic achievement differences between and/or among the urban-rural students of equal mental facilities.

Thus, these students are not adequately provided with these important constant constituent of learning activities, which may suggest that they might be less active to support and encourage their learning respondents efficiently and effectively. Thus this might contribute to less academic achievement. This implies that most of the illiterate family students receive less encouragement and other related educational support from their parents which may negatively affect their academic performance.

This was the expectation in the review of literature. However when we come to the results of the study it was confirmed that pupils from illiterate parents (fathers) were the high achievers in mathematics test. Thus it seems that parents (fathers) literacy not to be vital importance for the achievement level in mathematics.

Although pupils with high school and above family educational background are in a better position concerning the possession of educational support which may likely contribute

to their academic achievements. However, this does not guarantee high academic achievement because of other factors associated with it. In certain cases, there even exist possibilities where pupils with illiterate family educational background could achieve better results in their academic performance for their hard work and determination for education. Anyway it is very difficult to explain why it happened.

On the other hand, the educational background of mothers is inferior to that of fathers. Only eleven percent of the mothers have had six years of education. The educational gap between the old and the new generation is a consequence of inferior position of girls and limited educational opportunities open to them.

Female education has been a major focus of attention lately. Substantial proportion of the intellectual talent of women has been and is being lost to society as a result of cultural circumstances. It has been repeatedly demonstrated that on average men and women have equal intellectual abilities (Akande,1987). The education of women therefore inevitably result in the harnessing of vast resources of intelligence, initiative, skills and productive work which hitherto have only too often remained unemployed. If women are left in ignorance, society cannot make necessary improvements in the field of child care, the development of hygiene, nutrition, education and so on.

Studies have indicated that education is one of the most important ordering principles governing the characteristics of individuals in modern,large scale, complex societies. The amount of education an individual has received plays a major role in determining his or her occupation and thus income. The level of education individuals have secured is also a

major determinant of status for each sex. Formal education tend to play an important role in the process of social mobility.

Those who can go to school can climb up the social and economic ladder, but those who can't are at a disadvantage and form a new lower class. Furthermore, education and training are among the factors that promote national development and bring about positive changes in the lives of the population.

These facts are disputed, what however needs to be clearly recognized, and accepted is the fact that development is brought about not by educating and training men only but also women.

In all regions of the developing world, women constitute the majority of the illiterate population. This in itself is a handicap to women as individual and thus they cannot contribute their full quota of national development.

CHAPTER SIX
SUMMARY AND CONCLUSION

The basic purpose of this study was to find out the relationship between school factors, home background and students' characteristics and the achievement levels in basic skills at the elementary level in Eastern Gojjam region.

The study involves a randomly selected students from grade five and teachers of the selected schools in 1994/95 academic year.

In the study attempts have been made to provide answers to the following basic questions.

- Do male pupils perform better on achievement tests than female students?
- Do pupils with high (positive) attitude towards school attain a higher achievement than others with low attitude?
- Do pupils in the urban area attain a higher standard of scholastic achievement than those in rural areas?
- Do pupils getting educational support from home perform better than pupils getting only a little support?
- Do pupils with a higher teacher expectation perform better on achievement tests than pupils with low teacher expectation?
- Do pupils coming from litrate parents perform better than pupils from illiterate parents?

In order to deal with these basic questions, the related literature was properly reviewed.

Moreover the following tests were administered

- Mathematics achievement test.
- Amharic reading achievement test.
- Amharic writing achievement test.
- With the help of structured questionnaire the attitude and interests of children in schools and their studies was assessed.
- The estimation of teachers about the abilities of students was also identified.

Based on the data obtained through achievement and the questionnaire distributed analysis was made in relation to the existing literature in the area. Based on the analysis the following major findings were obtained.

- Gender difference played a significant role in the academic achievement of students.
- Students attitude towards basic skills was found to affect their achievement in the subject.
- The overall scholastic achievements of the rural students were found to be better than urban students.
- Students who get low family educational support have got better achievement than high family educational support.
- Family educational background was found to be not vital importance for the achievement level in mathematics.
- In the study we have seen how far the teachers estimation of their student ability are related with the actual performance of students.

Based on the findings the following conclusions are made.

- There are tendencies for boys to be more active and assertive in the classroom than girls and for gender differences in patterns of interest and achievement in various subject-matter areas.

- Students' family location (rural-urban) have significant relationships with the important personal and family variables which affect the students educational aspirations.
- In the estimation of teachers male students are considered as better achievers. It is quite remarkable that the teachers' estimation almost exactly reflects the school achievement of the two groups of children.
- The over populated number of students in urban schools created difficulty on the identification of individual learners on the side of instructors. This signifies the non-existence of closer relationship between the student and their respective teachers. As a result, student participation in the learning process is affected severely.

IMPLICATION OF THE FINDINGS

1. The differential patterns between boys and girls appear to be due mostly to gender differences in the attitudes and classroom behavior of the students themselves rather than to differences in treatment of boys versus girls by teachers. Therefore, if teachers are to counteract such gender differences effectively, it will not be enough for them merely to treat boys and girls in the same ways in the same situation. In addition, it will be necessary consciously to treat them differently, such as calling on boys more often in reading and girls more often in mathematics, to counteract gender differences in rates of volunteering in these subjects. Boys' problems with elementary reading seem to be primarily motivational. Many boys acquire the idea that reading is primarily for

girls and that they will not enjoy it. Relatively few boys, however, construe the problem as one of ability by acquiring the belief that boys lack aptitude for reading. Many girls, however, acquire the notion that they lack aptitude for mathematics. When this is true, it will be necessary to motivate them not only in the sense of developing their interest in and willingness to take courses in these subjects but also in the sense of developing in them the expectation that they can achieve success if they apply reasonable effort.

2. The close relationship between pupils attitude towards schooling and their school achievement is evident. It can be assumed that this not simply a matter of attitude influencing attitude toward schooling. Good scholastic achievement seems also to influence attitude towards schooling. In order to make use of this interaction school administrators and teachers should be aware of the beneficial influence of pupils' positive attitude towards schooling.

3. The importance of teacher expectation was very significantly born out by the given results. The results unequivocally pointed in the same direction showing the beneficial influence of teachers pedagogical optimism. Clearly this pedagogical optimism successfully promotes pupils endeavors for a better scholastic achievement. Teachers training should therefore contribute to the development of this attitude.

4. Crowded classroom conditions reduce the teachers opinions of style of teaching and has its own contribution in minimizing the teaching interest of teachers. In other words, teachers could teach in a better way if they were teaching in classes where there were small number of

students. When the number of students is more than the standard class size it will be very difficult to manage teaching effectively. Therefore a healthy classroom teaching and learning is strongly affected by the large class size. The ministry of education had to find a device in order to balance school enrollment with the available facilities in a school, such as funding schools with additional budget to over come the problem of class size and in order to have enough classrooms which are proportional to the growing number of students. On the other hand the school administration with the cooperation of the community has to construct additional classrooms by mobilizing resources for the improvement of education. Therefore schools must have programmes which facilitate the participation of local people in the work of the school and students involvement in community activities. If this is not possible, in order to reduce the problems related with class size, individuals, capable of investing money on this area have to be allowed, initiated and encouraged to build more private schools. In addition, it is also important to arrange tutorial classes in their convenient times without demanding extra times within the confined school schedules during extra-curricular activities to reinforce them.

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Appendix - A

ADDIS ABABA UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

GRADUATE STUDIES PROGRAMME

ADDIS ABABA

Name _____ Roll Number _____

_____

Questionnaire

For grade five elementary school students

The aim of this questionnaire is to provide necessary empirical evidence regarding the major factors that may influence pupils learning, there by enabling concerned individuals to be aware of the conditions and take necessary steps to improve the education of pupils.

Please answer all the questions frankly and honestly. Your sincere and frank responses will be highly appreciated.

Thank You !

1. Sex _____
2. Age _____
3. With whom you are living?

_____

4. The distance between home and school is

   a) 500 meter or less c) 2 km - 4 km

   b) 500 meter-2 km d) above 4 km

5. What other activities do you perform at home besides regular classes?

   _____

   _____

   _____

6. Before you join to elementary school, where did you attend your preschool education?

   a) Priest school b) Kindergarten

   c) Kuran (Islamic) school

7. Occupation of parents?

   i) Mother's _____

   ii) Father's _____

8. Educational level of parents

   i) Mother's a) Illiterate b) 1-8 c) 9 & above

   ii) Father's a) Illiterate b) 1-8 c) 9 & above

9. The availability of teaching materials.

   a) High b) Medium c) Low

10. Do you like to read in the school?

    a) Yes b) No

11. Which subject you dislike most? (mention only one)

    _____

12. Please write the reasons for dislike?

    _____

13. Which subject you like most? (mention only one)

    _____

14. Please write the reasons for response number 13?

    _____

15. Parents expect better results in language from

a) boys c) both equally

b) girls d) both will not expect better results

16. Parent expect better results in mathematics from

a) boys c) both equally

b) girls d) both will not expect better results

17. Do you read newspapers frequently?

a) yes b) no

18. why do you want to read?

a) To get job b) To acquire knowledge

c) To be a good man d) Parents compel to read)

e) can't say

9. Below are items which have been designed to assess your opinions. Scale values are given besides each item please make "X" for the items that you believe are expressing No, low and high respectively.

		No	Low	High
19.1	Parental interest in checking & supervising school results.			
19.2	Parental support in buying school materials.			
19.3	Parental help in explaining difficult & strange educational concepts during your study time.			
19.4	parental effort in supervising your daily learning activities.			
19.5	Additional educational activities that your parents provide you besides regular classes.			
19.6	The amount of time that your parents provide you for study.			

20. Below are items which have been designed to assess your opinions. Scale values are given besides each item below make "X" for the item that you believe are expressing disagree, undecided and agree respectively.

		Disagree	Undecided	Agree
20.2	Learning is only reading & writing.			
20.2	Classmates think I am not clever.			
20.3	Other days are better than school days.			
20.4	Doing homework is irrelevant			
20.5	Parents compel me to go to school.			
20.6	After graduation I get a good job.			
20.7	Rather than going to school better to play with classmates.			
20.8	Teacher frequently insults me.			
20.9	Teacher does not like me.			
20.10	Teacher does not make me to ask question, to read & answer questions.			
20.11	Teacher does not care about me.			
20.12	Teacher is always humor and patient.			
20.13	Teacher does not ask me questions.			
20.14	Teacher is not volunteer to explain when the subject is not clear.			

Appendix - B

ADDIS ABABA UNIVERSITY
DEPARTMENT OF PSYCHOLOGY
GRADUATE STUDIES PROGRAME
ADDIS ABABA

Teachers' Questionnaire

The aim of this questionnaire is to provide necessary empirical evidence regarding the major factors that may influence pupils learning, there by enabling concerned individuals to be aware of the conditions and take necessary steps to improve the education of pupils.

The respondents, name will not be written in any place in the questionnaire. Please answer all the questions and items frankly and honestly. Your sincere and frank responses will be highly appreciated.

Thank you very much !

1. Sex _____
2. Age _____
3. Your academic qualification _____
4. Years of Service _____
5. The subject you taught _____
6. The subject load per week_____
7. Average number of students in a classroom _____
8. The attitude of students towards your subject
   a) High b) Medium c) Low
9. Your interest toward teaching profession.
   a) High b) Medium c) Low

10. Reasons for "C" responses to item 9.
    a) Exhaustiveness of the task
    b) Low respection of the society
    c) Lack of motivation
    d) All
11. The suitability of school situation for instructional programme is_____
    a) High b) Medium c) Low
12. In assignments, semi-final and semester examination you expect better results from
    a) boys b) girls
    c) both equally d) both I never expect better results
13. In making a classroom discussion, in your subject, you expect better (active) participation from
    a) boys c) both equally
    c) girls d) both I never expect better results
14. In which subject do you think that female students surpass male students?

    _____

15. In which subject do you think that male students surpass female students?

    _____

Appendix - C

ለ5ኛ ክፍል ተማሪዎች የተዘጋጀ የአማርኛ ቋንቋ ፈተና

ስም _____ ፆታ_____ ተራ.ቁ. _____

መመሪያ፤

ሀ. በቅድሚያ የቃል ጽሑፉን በተሰጠህ/ሽ/ ባዶ ወረቀት ላይ ፃፍ/ፊ/

ለ. ከዚህ በታች የቀረበውን ምንባብ በጥሞና አንብበህ/ሽ/ ከተረዳህ/ሽ/ በኋላ በተከታታይ ለቀረቡት ጥያቄዎች ተገቢዎቹን መልሶች በመለየት በተሰጠህ/ሽ/ የመልስ መስጫ ወረቀት ላይ በማጥቆር መልስ/ሽ/።

ም ን ባ ብ

ለማወቅ መመራመር፤ መማር ማግኘት ሲሆን የሰው ልጅም በየእለቱ ከሚያውቀው ከሚሰማው ከሚያደርገው ድርጊት ሁሉ ትምህርት መውሰድ አለበት።

ስለሆነም ትምህርት የእውቀት መሰለል ነው ቢባል ከእውነት የራቀ አይደለም። አያሌ የእውቀት አበቶች እንደሚሉት አንድን ነገር ለመማርና ለማወቅ የራስ ጥረት አስፈላጊ መሆኑንና ተስፋም ሰይቆርጡ ይሆናል ብሎ መሥራትና መድከም ወሰኝነት እንደለው ይናገራሉ። ይሁንና ነገሮችን ከምን እንደመጡ ለምንስ እንደሚያገለግሉ ብንጠይቅና ብንረዳ የሚገኘው ውጤት ሰፊና ውስብስብ እንደሚሆን ነው። ስለሆነም ይህንን ውስብስብ ለማግኘትና ለመፍታት ከላይ እንደተገለጸው ቀደም ተከተሉን ጠብቆ ለማወቅ ተመራምሮ ማግኘት ማንም ሰው ራሱን ወገኑንና ሀገሩን የመርዳት እድሉን ሊዘረጋ ይችላል።

በአጠቃላይ እያንዳንዱ ሰው የራሱን እድል ለመዘርጋት በለው ችሎታና ተሰትፎ ሁኔታዎችን አመቻችቶና አደላድሎ ከስቀመጠ ዓለማውን ከግቡ ሊያደርስ ይችላል። አልፎ አልፎ ሰዎች እንደሚሉት ከሆነ ግን የማንም ሰው እድል ተንጠልጥሎ የተቀመጠ በመሆኑ በታ ሲያገኝ ብቻ ይበጠስና በቦታው ላይ እንደሚያርፍ ይናገራሉ። ነገር ግን በእውቀት ዓለም ውስጥ መሣተፍ እንዳለበት የሚጠቅሱት ሐሰብ የመነመነና የሰሰ በመሆኑ ተቀባይነት አይኖረውም። ይሁንና ሰዎች የራሰቸውን እድል በራሰቸው እንደሚወስኑ የእውቀት ባለቤትነታቸው አኩሪና አስተማማኝ መሆኑን በማስረገጥ ይናገራሉ።

ምንጭ "አዲስ ዘመን ጋዜጣ"

1. በምንባቡ መሠረት የእውቀት መሰላል ሲል፤

ሀ. የእውቀት መድረሻ ሐ. የእውቀት መረማመጃ

ለ. የእውቀት መውረጃ መ. ሀ ና ሐ መልስ ናቸው

2. አያሌ የሚለውን ቃል ሊተካ የሚችለው

ሀ. መጠነኛ ለ.ብዙ ሐ. ጥቂት መ. ጠበብ

3. ከእውነት የራቀ ማለት

ሀ. ለእውሸት የቀረበ ሐ. ውሸታም

ለ. ውሸት ያለየው መ. ምሥጢር

4. የእውቀት አባቶች የሚባሉት

ሀ. ምሁራን ለ. ባለባት ሐ. እናትና አባት

5. ተስፋ ሳይቆርጡ የሚለው አባባል የሚገልጸው

ሀ. ሣይሰለቹ ለ. ሳያሰልቁ ሐ. ሳይደክሙ መ. ሳይታገሡ

6. በምንባቡ መሠረት ዕድሉን ሊዘረጋ ሲል_____ ማለቱ ነው።

ሀ. ሊያስፋፋ ለ. ሊበታትን ሐ. ሊገፈትር መ. ሊያደናቅፍ

7. በምንባቡ መሠረት ተንጠልጥሎ የሚለውን ቃል የሚተካው

ሀ. ተያያዘ ለ. ተንዘልዝሎ ሐ. ተሰቅሎ መ. ተቆርጦ

8. የመነመነና የሰሰ ሐሰብ ሲል

ሀ. ጠንካራ ሐ. የሚደገፍ

ለ. የማይደገፍ መ. የተበታተነ ሐሰብ ማለት ነው

9. ለዚህ ምንባብ ርእስ ሊሆን የሚችለው

ሀ. ሰውና እውቀት ለ. ሰውና ድርጊቱ ሐ. ሐሰብና እውቀት

10. በምንባቡ መሠረት አንድን ነገር ለመማር ያለው ቅደም ተከተል

ሀ.ማግኘት፣ መማር፣ መመራመር፤ ማወቅ

ለ. ማወቅ፤ መማር፤ ማግኘት፤ መመራመር

ሐ. ማወቅ፤ መመራመር፤ መማር፤ ማግኘት

መ."ሀ" እና "ሐ" መልስ ሊሆኑ ይችላሉ

11. የራስን እድል በራስ መወሰን የሚለው አባባል

ሀ. እውቆ መሥራት ሐ. አስቀድሞ ማወቅ

ለ.የሚሆነውን መፈጸም መ. በራስ አለመተማመን

12. በምንባቡ መሠረት አኩሪና አስተማማኝ ማለት

ሀ. የታወቀ ሐ. ጥቂት የሚታመን

ለ. ሙሉ በሙሉ የሚያስተማምን መ. ፈጽሞ የማይታመን

13. በምንባቡ ውስጥ በማስረገጥ የሚለውን ቃል የሚተካው

ሀ. በመደባደብ ሐ. በመገረም

ለ. በማምታታት መ. በእርግጠኝነት

14. በእውቀት አለም ውስጥ መሰተፍ እንዳለበት የተሰመረበት ቃል ትርጉም

ሀ. መመኘት ለ. መከፈል ሐ. መወገድ መ. መቅረብ

15. አልፎ አልፎ ሰዎች እንደሚሉት ከሆነ የተሰመረበት ትርጉም

ሀ. በመጠኑ ለ. በየሰምንቱ ሐ. እንዳንዴ መ. በየቀኑ

16. የምንባቡ የመጀመሪያ አንቀጽ የሚናገረው

ሀ. መማር የሚጠቅመው ለማወቅ ብቻ እንደሆነ

ለ. ብልጽግና የሚገኘው ከተፈጥሮ ብቻ እንደሆነ

ሐ. እውቀት የድንቁርና ፀር እንደሆነ

መ. ትምህርት የእውቀት መሰላል እንደሆነ

17. አልፎ አልፎ ለሚለው ቃል ተቃራኒው

ሀ. እንዳንዴ ለ.ዘወትር ሐ. በያመቱ መ. አሰልሶ

18. የምንባቡ ሦስተኛ አንቀጽ የሚያወራው

ሀ. እውቀት ፍሬያማ ሊሆን እንደልቻለ

ለ. ጥለቻ፤ ክፉትና ምቀኝነት ለእድገት ፀር እንደሆኑ

ሐ. ተበብረን መሥራት እንዳለብን

መ. ችሎታችንና ሁኔታዎች ከተመቻቹ ዓለማችን ግብ እንደሚመታ

19. ይበጠስና ለሚለው ቃል ተቃራኒው

ሀ. ይለያይና ለ. ይገናኝና ሐ. ይከፈልና መ. ይበለሽና

20. የምንባቡ ሁለተኛ አንቀጽ የሚናገረው

ሀ. ሥልጣኔ የድንቁርና ፀር እንደሆነ

ለ. አንድ ሰው ሲማር የኑሮ አቋሙን ማሻሻል እንደሚችል

ሐ. የተማረ ሰው ዓለማ እንደሌለው

መ. ሥራን መናቅ ከሰንፍና እንደሚያስቆጥር

የቃል ጽሕፈት

ስም _____ ፆታ _____ ተራ.ቁ._____

1. ሁሉም ህፃናት ከሚንከቧከቧቸው ሰዎች ጋር
2. የሚያቀራርብ ፍቅርን ይሸሉ።
3. ሕፃን ልጅ ከተወለደበት ቀን ጀምሮ
4. ፍቅርን የማሰየት ስሜት አለው።
5. የዚህ ግንኙነት መዳበር ለሕፃኑ
6. ውስጣዊ ስሜት እድገት ይጠቅመዋል።
7. ይህ ለሕፃኑ የወደፊት አለኝታ የማግኘት
8. ልበሙሉነትና በዓለም ላይ ለሚገጥመው ውጣውረድ
9. በአሸናፊነት መወጣት መሠረት ይጥልለታል።
10 ከቤተሰቡ ከሚያገኛቸው ቃላትና ተግባራት
11. ሕፃኑ ብዙ ነገሮችን ይማራል።
12. ወደፊት አለምን እንዴት እንደሚያያትና
13. እንዲሁም ደግሞ ስህተትና ትክክል
14. የሆኑ ነገሮችን ይማራል።
15. ሕፃን ልጅ በጥሩ ቃላት መታነጽን
16. በፈገግታ መደነቅን፤ መስማትን
17. ለእንቅስቃሴና ለድምፅ አፀፋውን
18. እንዲመልስ መበረታታትን ይሸል።
19. ሁሉም ሕፃናት ከሰዎች ጋር
20. መቀላቀልን ይሸሉ።
21. ሰዎች እንዲነኪቸው እንዲያነጋግሯቸው ይፈልጋሉ።
22. እንዲያስቂቸውና መልስ እንዲሰጧቸው ይፈልጋሉ።
23. ትኩረት ያልተሰጣቸው ህፃናት ደስታ አይሰማቸውም።
24. የተተወ ሕፃን የዓለምን ፍለጉት ያጣል።
25. በአእምሮም ሆነ በሰውነት አያድግም።

Appendix - E

GRADE FIVE MATHEMATICS EXAMINATION

NAME_____ SEX_____ ROLL No._____

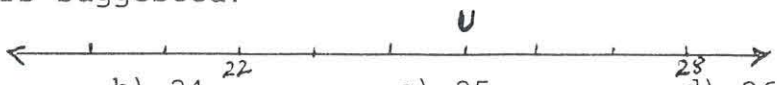
_____

Direction:-

There is only one best answer for each question or statement. Choose the one that best answers the question or statement from the suggested answers.

1. I am the sum of prime numbers and the square of an odd number that exist between 20 and 30. what number am I?
   a) 77 b) 99 c) 104 d) 125
2. We are two prime numbers. Our product is 65 and our sum is 18. Who are we?
   a) 2 & 19 b) 3 & 17 c) 5 & 13 d) 7 & 11
3. Which one of the sets contain even multiples of 3 that are between 10 and 12?
   a) {12} b) {12, 18} c) {2, 3, 7} d) {3, 5, 7}
4. Which of the sets below contains common factors of 30 and 42?
   a) {2, 3} b) {2, 3, 5} c) {2, 3, 7} d) {3,5, 7}
5. Which sets contains common multiples of 4 and 6 that are less than 30?
   a) {4,6} b) {12,14} c) {16,18} d) {16,24}
6. For the statement 31 <n<59 which of the elements of the sets satisfy n?
   a) {31,41,43,47} b) {31,37,41,43,47.53}
   c) {37, 41,43, 47,53} d) {37,41,43,47,53,59}

7. Point "U" on the number line below, represents which of the numbers suggested?



a) 23 b) 24 c) 25 d) 26

8. If X = 5000 + 700 + 30 + 2
   Y = 3000 + 200 + 40 + 8, then X-Y = ?

a) 2484 b) 2594 c) 3494 d) 4494

9. Which of the inequality signs indicated below, is appropriate for the blank space inorder the statement is to be true?

a) = b) > c) < d) ≤

10. Which pairs of numbers of the choices makes the statement U + V = 10 true ?

a) /-2, 8/ b) /-1, 11/
c) /1-1/ d) /5, 4/

11. If a mule is feeding 25 kg. of barely daily, what is the amount of barely that is required of ten mules for a week ?

a) 70 b) 75 c) 250 d) 1750

12. In our school bookstore, there are 2900 mathematics related books, from which 900 are teachers guide and 200 books not to be lent. If the remaining books are likely to be shared among 5400 students on the equal proportion, what will be the number of students that share one book?

a) two b) three c) four d) five

13. Which of the following statement is true ?

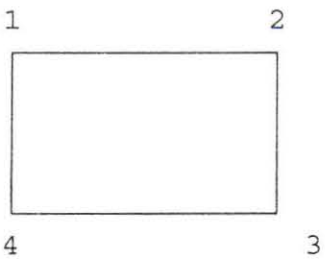
a) $\frac{5}{9} = \frac{5x2}{9x1}$ b) $\frac{7}{6} = \frac{7x1}{9x2}$

c) $\frac{3}{5} = \frac{3x2}{5x2}$ d) $\frac{11}{2} = \frac{11x2}{2x3}$

14. Which one of the following is the opposite of -10 ?

a) -10 b) 0 c) 5 d) 10

15. which one of the following is not an integer ?
    a) -7 b) 1/4 c) 3 d) 9
16. Write "Six million three hundred thousand twenty five" using decimal system.
    a) 630,025 b) 6,000,325
    c) 6,030,025 c) 6,3000,025
17. 8,110 = /8 x 1000/ + /1 x 100/ + /Y/ + /0 x 1/. To make the statement true, what number must be the substitute of Y ?
    a) 0 x 1 b) 1 x 10 c) 8 x 10 d) 1 x 100
18. 147 ÷ /7 x 21/ = ?
    a) 1 b) 49 c) 147 d) 567
19. If /1, 1/ → 1, and /2,2/ → 4 then /39,31/ → ?
    a) 13 b) 36 c) 41 d) 117
20. Which one of the following is not equal to 2/5 ?
    a) 20/25 b) 0.4 c) 40% d) 8/15
21. As it is shown on the diagram, each number represents a point. By connecting one number with the other, How many line segments could be drawn.



    a) 6 b) 5 c) 3 d) 2
22. Alemu, using the numbers 1,2,3 and 4, has drawn right angles quadrilateral. If the distance between the consecutive numbers is equal, what will be the number of folding symmetries that the figure has ?
    a) 2 b) 3 c) 4 d) 5
23. Which of the following is true ?
    a) Two straight lines are parallel
    b) Two parallel straight lines are equal in length.

c) Two parallel straight lines do not meet.

d) Two parallel lines are likely to intersect each other.

24. In order to make the statement 334 x Y = 222 + 111 + Y true, what number must be substituted for Y ?

a) 4 b) 3 c) 2 d) 1

25. One of the following statement is "true" which one is it?

a) 16+/9x10/ = /16+9/x/16x10/ c) 16x/19+10/ = /16x9/+/16x10/

b) 2x/3+4/>/2x3/+/2x4/ d) 2+/3+4/>/2+x/+5

26. What is the prime factorization of 72 ?

a) $2^3 \times 3^3$ b) $2^2 \times 3^3$

c) $2 \times 3^2 \times 4$ d) $2^{3 \times 3} 2$

27. To which of the following is 60 a common multiple ?

a) 2,3,8 b) 3,5,8 c) 4,5,8 d) 4,5,12

28. Which of the following indicated the property of a rectangle?

a) All sides of a rectangle are congruent.

b) All angles of a rectangle are not congruent to each other.

c) The parallel sides of a rectangle are congruent.

d) The adjacent sides of a rectangle are congruent.

29. From the three digit numbers that could be formed using 1,3 and 6, we want to subtract from the largest possible number the smallest possible number; what would be the difference ?

a) 315 b) 450 c) 468 d) 495

30. Rahel and her companion Aster are fifth grade students. According to their study schedule, they together spend 3 hours studying mathematics and 2 hours studying science. After studying for consecutive 12 weeks if they want to change their schedule, how many hours have they spent studying together ?

a) 60 b) 48 c) 36 d) 24

31. A certain book has got 32 lines in each of its pages. If the total number of lines the book contains is 3648. what is the number of pages of the book ?

a) 94 b) 102 c) 109 d) 114

32. One of the following is <u>true</u>; which one is it ?

a) If two rays form a right angle, then they are parallel.

b) If each of two lines, form right angle to the third line, then they are parallel to each other.

c) Rectangle is not a parallelogram.

d) If each of two lines are parallel to the third line, then the two lines form right angle to each other.

33. What number must be the substitute of Y, in order to make 6xYxY=600 true ?

a) 100 b) 50 c) 10 d) 5

34. Which of the following is not a multiple of 2 ?

a) 57 b) 60 c) 74 d) 96

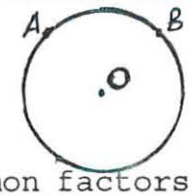
35. To make 2^3 X 3 = Y true, what must be the substitute of Y.

a) 12 b) 15 c) 24 d) 36

36. The GCF and LCM of 10 and 15 respectively are

a) 3 & 30 b) 5 & 30 c) 5 & 60 d) 1 & 60

37. Which one indicates the name of the circle below if the center is O.



a) Circle AO c) circle AB

b) Circle OB d) Circle AOB

38. One of the following sets indicates the common factors of 13 and 31 which are greater than two.

a) { } b) {1} c) {3} d) {3,7}

The height of 60 students, measured in centimeters are indicated below in the table. (Answer questions 39 and 40 based on the information given in the table).

Height in cm.	240	145	150	153	160	162	165
Number of students	4	2	6	11	27	4	6

39. Which of the following indicates many students height ?
    a) 140 b) 145 c) 153 d) 160
40. How many students height are below 160 centimeter ?
    a) 20 b) 23 c) 26 d) 27

Appendix - F

The number of student respondents of each school of the whole sample

Name of the school	Location	Number of Students		Total
		M	F	
Abima elementary school	Urban	37	37	74
Dejene " "	"	18	28	46
Motta " "	"	35	25	60
Wenka " "	Rural	24	32	56
Keranio " "	"	26	23	49
Gengerta " "	"	7	10	17
Dimet Gedel " "	"	24	13	37
Gezamin " "	"	9	12	21
		180	180	360

Note:- 28 students who filled the questionnaire unproperly are not considered.

Appendix - G

The number of teacher respondents of each school of the whole sample

Name of the school	Location	Number of teachers		Total
		M	F	
Abima elementary school	Urban	4	6	10
Dejene " "	"	4	5	9
Motta " "	"	7	4	11
Wenka " "	Rural	3	6	9
Keranio " "	"	2	3	5
Gengerta " "	"	1	2	3
Dimet Gedel " "	"	5	2	7
Gezamin " "	"	2	1	3
		27	29	56

Appendix - H

Distribution of Amharic writing, reading and mathematics achievement by attitude, family educational support, sex, location and family educational background

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5	S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
1	39	24	28	42	7	2	1	1	21	40	20	21	38	14	2	2	2
2	38	26	32	40	12	1	1	1	22	36	28	25	42	10	2	2	1
3	38	26	29	40	15	1	1	1	23	38	14	18	41	16	1	2	1
4	39	16	28	40	15	1	1	1	24	38	20	16	30	15	1	2	1
5	38	14	23	38	11	1	1	1	25	36	28	21	37	18	2	2	1
6	38	28	22	38	11	1	1	1	26	35	18	20	39	18	2	2	2
7	36	14	16	38	17	2	2	1	27	38	24	23	38	17	2	2	3
8	38	22	28	39	16	2	1	2	28	38	24	22	40	14	1	2	2
9	38	16	24	37	8	2	1	1	29	36	22	19	38	18	1	2	1
10	38	20	18	38	17	2	1	1	30	39	28	20	36	16	2	2	1
11	35	24	16	37	10	1	1	1	31	37	22	19	41	17	2	2	1
12	38	30	21	38	15	1	1	2	32	36	22	26	35	16	1	2	1
13	36	8	12	30	13	2	1	1	33	38	20	12	34	15	2	1	1
14	36	22	17	36	12	2	1	1	34	36	18	19	32	11	2	1	1
15	38	22	31	40	13	1	1	1	35	38	32	29	40	18	1	1	1
16	37	24	27	37	8	2	1	1	36	32	16	19	34	14	1	1	2
17	37	20	25	37	10	2	1	1	37	36	20	24	40	18	1	1	2
18	37	22	19	39	10	2	1	1	38	33	16	16	40	13	1	1	1
19	38	18	25	40	12	2	1	1	39	38	16	28	28	9	2	1	1
20	39	22	22	39	17	1	1	2	40	34	22	17	35	12	1	1	1

Note:- In the data presented above In-dependent variables

S.N = serial number

Dependent variable

Y_1 = writing achievement

Y_2 =reading achievement

Y_3 = mathematics achievement

X_1 = Attitude (is coded 1 for low and 2 for high)

X_2 = Family educational support (1 for low & 2 for high)

X_3 = sex (iscoded 1 for female & 2 for male)

X_4 = location (1 for rural &2 for urban)

X_5 = family educational background (is coded 1 for ille trate, 2 for 1-8 grades & 3 for 9 & above grades)

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
41	36	18	17	39	18	2	1	1
42	35	22	25	38	12	2	1	1
43	39	24	20	36	16	2	1	1
44	31	20	17	40	17	1	1	1
45	38	20	25	40	12	2	2	2
46	37	22	23	36	10	2	2	1
47	39	14	19	38	15	2	2	2
48	37	18	22	37	17	1	2	1
49	37	24	14	36	15	1	2	2
50	36	14	11	38	14	1	2	1
51	39	30	21	40	12	1	2	1
52	38	18	18	40	18	2	2	2
53	39	20	13	39	16	2	2	1
54	38	26	30	40	11	2	2	1
55	38	20	13	36	17	1	2	2
56	39	26	18	36	18	1	2	3
57	35	24	25	41	18	1	2	1
58	29	14	8	38	14	1	2	1
59	38	14	27	40	17	2	1	1
60	33	28	18	37	10	1	1	1
61	37	16	17	22	15	2	1	3
62	30	20	11	38	7	2	1	1
63	37	22	22	42	9	2	1	1
64	37	12	12	37	17	2	1	2
65	34	14	12	38	18	1	1	1
66	36	18	23	37	11	1	1	1
67	31	22	11	30	14	1	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
68	38	26	20	34	10	2	1	1
69	39	26	20	39	12	2	1	1
70	38	24	15	35	16	2	1	1
71	38	14	24	39	13	2	1	1
72	37	20	24	36	11	2	1	1
73	35	26	17	33	11	1	1	1
74	38	24	17	36	11	1	1	1
75	32	14	13	40	17	1	1	1
76	39	30	10	37	17	2	2	2
77	38	18	27	31	12	2	2	2
78	37	14	23	42	17	2	2	1
79	37	22	31	42	12	2	2	2
80	37	24	19	36	12	2	2	3
81	37	22	20	39	16	2	2	1
82	37	8	20	34	14	2	2	1
83	37	30	24	38	16	1	2	1
84	36	18	14	41	13	1	2	1
85	38	22	14	36	16	1	2	1
86	36	14	13	40	16	1	2	1
87	32	32	21	38	10	1	2	1
88	35	16	10	39	18	2	2	1
89	32	14	15	39	16	2	2	2
90	37	20	19	37	8	2	2	1
91	38	20	24	32	13	2	2	1
92	35	20	13	32	18	1	2	2
93	38	18	15	20	17	2	1	1
94	36	16	17	34	10	2	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
95	37	18	12	39	10	2	1	1
96	36	18	15	34	11	2	1	1
97	36	18	16	36	14	1	1	1
98	37	18	20	36	12	2	1	1
99	38	18	21	35	6	2	1	1
100	36	20	10	37	12	1	1	1
101	37	12	24	36	9	2	1	1
102	38	18	8	22	12	2	1	1
103	34	18	16	38	9	2	1	1
104	38	6	9	33	14	2	1	1
105	36	24	26	34	12	2	1	1
106	34	18	6	40	12	1	1	1
107	38	18	14	32	14	1	1	1
108	37	22	11	39	15	1	1	1
109	32	16	16	36	14	1	1	1
110	36	24	17	39	11	2	2	1
111	36	18	21	35	10	2	2	1
112	36	20	16	36	15	2	2	1
113	37	18	18	41	17	2	2	1
114	36	16	16	34	15	2	2	1
115	36	22	11	35	16	2	2	1
116	34	14	16	39	18	2	2	3
117	32	16	23	41	15	2	2	2
118	33	22	12	39	10	1	2	1
119	36	16	19	40	16	2	2	2
120	32	16	11	21	18	2	2	1
121	36	20	13	35	17	2	2	2

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
122	36	24	20	37	14	1	2	2
123	30	10	20	40	16	2	1	1
124	37	16	15	35	13	2	1	1
125	36	20	24	32	14	2	1	1
126	36	18	24	38	11	2	1	1
127	35	12	16	40	11	2	1	1
128	34	14	17	27	10	1	1	1
129	36	22	19	32	12	1	1	3
130	32	20	15	36	11	2	1	1
131	34	12	15	37	12	2	2	1
132	35	24	15	36	12	2	2	1
133	36	20	21	39	17	2	2	1
134	36	10	14	42	18	2	2	3
135	32	18	12	34	16	2	2	2
136	29	22	11	39	8	1	2	1
137	31	18	16	36	18	1	2	2
138	28	18	13	40	17	2	2	2
139	36	18	14	32	16	2	2	1
140	33	22	11	27	16	2	2	3
141	36	24	15	31	15	1	2	1
142	32	12	16	28	16	1	2	2
143	36	6	13	40	15	1	2	2
144	34	26	20	38	15	2	1	1
145	31	16	16	38	10	2	1	1
146	32	20	19	33	12	2	1	1
147	36	12	23	36	10	2	1	1
148	36	20	19	40	14	1	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
149	32	16	13	32	12	2	1	1
150	32	12	24	30	10	1	1	1
151	33	18	28	38	14	1	1	1
152	32	22	21	40	11	1	1	1
153	25	22	11	40	11	1	1	1
154	29	10	12	38	14	2	1	1
155	30	24	20	37	17	2	1	1
156	32	10	14	18	14	1	1	1
157	33	18	23	34	16	2	2	1
158	35	20	13	33	15	2	2	1
159	35	20	20	38	16	2	2	1
160	33	20	16	35	16	1	2	1
161	34	18	19	37	15	1	2	1
162	35	14	11	34	13	1	2	1
163	35	12	16	38	16	1	2	1
164	36	16	15	33	12	2	2	1
165	35	20	14	39	18	2	2	1
166	34	14	18	38	8	1	1	3
167	30	26	18	37	11	1	1	1
168	34	16	23	34	10	2	1	1
169	33	14	11	39	11	2	1	1
170	33	16	23	37	11	2	1	1
171	33	14	21	36	9	2	1	1
172	27	16	14	32	14	2	1	1
173	34	22	19	40	13	1	1	1
174	32	20	14	40	12	1	1	1
175	34	24	18	30	11	2	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
176	35	20	18	35	16	2	1	1
177	32	18	12	28	17	2	1	1
178	34	14	21	35	13	2	1	1
179	32	20	17	38	9	1	1	1
180	31	12	11	37	12	1	1	1
181	33	16	17	28	11	1	1	1
182	37	24	22	39	17	1	1	1
183	28	22	13	38	11	2	2	2
184	35	22	23	42	15	2	2	1
185	32	22	15	41	13	1	2	1
186	28	18	12	41	10	1	2	1
187	32	14	10	40	18	1	2	3
188	33	24	13	34	13	1	2	1
189	34	14	12	32	18	1	2	1
190	32	16	9	34	17	1	2	1
191	34	22	12	30	13	2	2	1
192	35	14	11	40	18	2	2	3
193	33	16	9	31	15	2	2	1
194	32	20	9	24	18	2	2	1
195	27	14	13	32	15	2	2	1
196	32	20	9	38	16	2	2	1
197	25	14	15	36	18	1	2	3
198	36	12	10	40	18	1	2	2
199	30	16	15	19	16	1	2	2
200	37	24	25	41	18	1	2	3
201	26	18	16	35	14	2	1	2
202	30	16	19	36	11	2	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
203	28	20	12	42	16	1	1	1
204	30	18	14	29	15	2	1	1
205	36	12	26	34	12	1	1	1
206	36	16	20	32	12	1	1	1
207	33	18	13	36	12	1	1	1
208	29	14	16	25	14	1	1	1
209	35	20	21	35	16	2	1	1
210	30	8	11	30	14	1	1	1
211	33	20	13	36	14	2	1	1
212	34	20	16	31	11	1	1	1
213	31	22	19	40	9	1	1	1
214	31	16	16	34	12	2	2	3
215	34	24	25	38	18	2	2	1
216	36	20	18	37	10	2	2	1
217	34	20	10	38	14	1	2	1
218	30	8	14	30	14	2	2	1
219	35	24	19	38	18	1	2	1
220	34	18	19	40	17	1	2	1
221	32	16	15	34	14	2	2	2
222	33	22	12	36	13	2	2	1
223	34	24	8	36	18	2	2	1
224	29	18	12	38	18	1	2	3
225	34	22	16	37	12	1	1	1
226	27	14	21	29	12	1	1	1
227	34	22	29	41	13	2	1	1
228	33	14	18	40	17	1	1	2
229	29	18	20	37	14	2	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
230	30	16	13	41	11	2	1	1
231	30	18	21	35	11	1	1	1
232	28	26	24	34	16	2	2	1
233	28	14	10	26	13	2	2	2
234	35	12	12	35	15	2	2	1
235	30	20	8	32	16	1	2	1
236	32	12	11	38	13	1	2	1
237	34	22	15	42	18	1	2	2
238	33	16	8	42	17	2	2	3
239	27	20	15	38	15	2	2	1
240	35	18	17	24	18	2	2	1
241	33	14	10	30	10	1	2	1
242	32	18	19	42	16	1	1	1
243	28	20	15	33	13	1	1	1
244	28	22	12	38	13	1	1	1
245	34	20	21	37	15	2	1	1
246	34	20	16	36	14	1	1	1
247	32	20	11	37	13	2	2	1
248	32	22	12	39	18	1	2	1
249	30	14	11	29	17	1	2	1
250	35	24	22	38	18	2	2	3
251	30	12	17	39	16	1	2	2
252	25	14	17	29	13	1	2	1
253	32	20	10	22	14	1	2	1
254	32	22	15	41	18	1	2	2
255	32	28	22	39	11	1	1	1
256	33	26	25	30	10	2	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
257	32	14	10	29	15	1	1	1
258	26	18	13	36	12	2	1	1
259	31	22	30	38	18	2	1	1
260	24	10	5	31	12	1	1	1
261	30	20	16	36	11	1	1	1
262	32	12	13	37	17	1	1	1
263	32	20	16	34	18	2	2	2
264	29	16	14	33	14	2	2	1
265	30	16	14	40	18	2	2	1
266	30	18	7	30	16	1	2	1
267	32	16	8	20	17	1	2	1
268	27	28	19	36	16	1	2	2
269	26	14	17	34	12	2	1	1
270	28	12	7	40	10	1	1	1
271	27	12	12	30	13	2	2	1
272	26	20	12	40	17	2	2	2
273	23	22	17	40	17	1	2	1
274	31	16	7	40	16	1	2	1
275	32	14	9	34	18	1	2	2
276	26	20	14	28	17	2	1	2
277	26	18	17	38	14	1	1	1
278	30	26	25	40	11	2	1	1
279	29	26	13	38	15	1	1	1
280	26	20	20	23	17	1	1	1
281	31	18	15	42	16	1	2	1
282	32	14	7	33	18	1	2	1
283	20	22	15	36	13	1	2	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
284	29	18	22	41	14	2	1	1
285	27	22	19	36	14	2	1	1
286	29	16	14	20	14	1	1	1
287	22	20	20	36	16	1	2	1
288	30	18	11	38	16	2	2	1
289	26	16	13	40	16	1	2	1
290	29	12	10	31	17	2	2	2
291	28	16	6	22	14	2	2	1
292	21	12	12	39	15	2	2	2
293	20	16	8	36	14	2	1	2
294	31	14	12	38	10	2	1	1
295	27	18	8	34	16	2	1	1
296	21	22	11	35	12	1	1	1
297	33	18	16	38	17	1	2	1
298	28	14	11	25	10	2	1	1
299	29	22	13	34	18	1	1	1
300	31	14	11	31	9	1	1	1
301	28	18	8	29	18	1	2	1
302	26	20	15	25	16	2	2	1
303	28	16	16	30	14	1	2	3
304	26	12	16	40	9	1	1	1
305	25	12	12	28	10	2	1	1
306	28	12	16	31	11	1	1	1
307	22	14	19	24	14	1	2	1
308	24	10	5	26	14	1	2	2
309	24	14	28	31	12	1	2	1
310	26	22	18	35	18	1	2	3

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
311	28	16	11	28	18	2	2	1
312	26	14	10	19	17	1	2	1
313	19	22	7	24	18	1	2	1
314	24	18	12	28	13	1	2	1
315	28	14	14	41	11	1	1	1
316	26	12	11	41	13	2	1	1
317	19	16	7	30	15	2	2	1
318	24	20	14	36	15	2	2	1
319	26	12	13	26	15	1	2	2
320	23	10	15	37	12	2	1	1
321	24	16	19	32	13	1	1	1
322	27	16	7	24	9	2	1	1
323	20	14	12	40	18	1	2	1
324	10	18	4	32	15	1	2	1
325	27	14	18	34	13	1	1	1
326	25	16	8	25	18	1	2	1
327	24	16	18	37	10	2	1	1
328	28	10	11	34	16	1	1	1
329	29	6	19	31	17	2	2	1
330	33	14	14	27	12	2	1	1
331	19	14	13	36	18	1	2	3
332	24	26	20	39	15	1	1	3
333	26	18	18	31	8	1	1	1
334	22	14	17	34	15	2	1	1
335	18	20	12	40	18	1	2	3
336	16	20	19	31	8	2	1	1
337	19	8	21	32	13	1	1	1

S.N	Y1	Y2	Y3	X1	X2	X3	X4	X5
338	19	18	9	26	18	1	2	2
339	21	18	19	42	16	1	1	1
340	19	24	13	36	18	1	2	1
341	20	20	13	40	18	1	2	2
342	20	12	9	37	16	2	2	2
343	20	14	13	37	17	2	2	1
344	21	16	19	38	12	1	1	3
345	16	4	8	27	17	1	2	1
346	13	14	9	32	18	2	2	1
347	17	18	12	24	18	1	2	1
348	18	22	13	31	9	1	1	1
349	14	16	10	32	14	1	2	1
350	16	22	14	34	18	1	2	1
351	15	16	12	40	11	1	1	1
352	18	18	9	24	17	1	1	1
353	13	16	12	41	11	2	1	1
354	12	16	8	21	18	1	2	1
355	14	16	12	38	17	2	1	2
356	19	14	11	26	18	1	2	1
357	18	14	19	37	17	1	1	2
358	16	12	14	28	18	2	2	3
359	12	14	25	39	13	1	1	1
360	12	14	11	40	10	1	1	1

DECLARATION

I, the under signed, declare that this thesis is my original work and has not been presented for a degree in any other university.

Name: SEWNET MAMO

Signature: _____

Place: Addis Ababa University, Addis Ababa

Date of submission: June, 1995