

SELF-EFFICACY, ACADEMIC ACHIEVEMENT MOTIVATION
AND STUDY HABITS AS RELATED TO GENERAL
SECONDARY SCHOOL STUDENTS' ACADEMIC
PERFORMANCE: THE CASE OF GENERAL
SECONDARY SCHOOL STUDENTS
IN TIGRAY

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BY

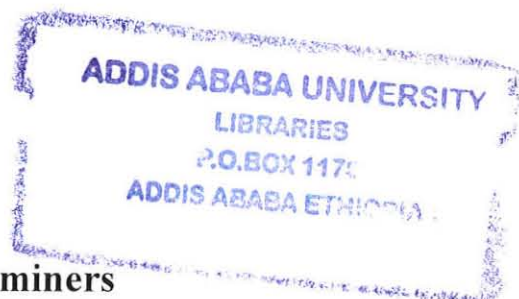
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ABSTRACT

As suggested by different findings, academic performance has been equally influenced by non-cognitive personality factors, as it is so by the cognitive factors. The main intention of this study was to examine the influence of such non-cognitive factors as self-efficacy beliefs, academic achievement motivation, study habits and gender on the academic performance of general high school students. In light of this intention, three high schools in Tigray were selected. Data were gathered using self-efficacy scale, academic achievement motivation inventory and study habits inventors from two hundred and thirty four students in the selected schools. Achievement scores were secured from record offices of each school.

Analysis of variance, multiple and stepwise regression analyses and t-tests were used to analyze the data. ANOVA revealed that students with higher level of the aforementioned variables were found having better academic achievement as compared to students with lower level of the traits. Male students were found having better academic performance score than females.

Multiple regression analysis showed that each independent variable contributed significant "unique" variance to the academic achievement of the students accounting for about 31.14% of the over-all variance. Gender-specific regression analysis indicated that each variable added significant "unique" variance to academic achievement of both males and females explaining for 29.70% and 34.10% of the over-all variance respectively.

The t-tests were used to see whether male and female students have significant mean difference in their level of the variables under study and results revealed that males have higher level of the traits than their female. The t-test computed to examine whether students of the same sex who were categorized under different academic achievement levels have significant difference in the aforementioned variables showed that high achievers in both sexes have significantly higher level of the traits as compare to the low achievers. All these results indicated that males are characterized by high values in all the traits than females.

Based on the implications of these findings to the educational and instructional practices, the researcher recommends that interventions need to be given to students especially female students to increase their academic achievement motivation, self-efficacy beliefs and study habits. Moreover, a further research is recommended on verifying whether the observed difference between males and females is the result of variation in their socialization process.

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ACRONYMS

1. **AA:** Academic Achievement
2. **AAM:** Academic Achievement Motivation
3. **ANOVA:** Analysis Of Variance
4. **SE:** Self - Efficacy
5. **SH:** Study Habits

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Education is viewed as the major instrument of socialization where there is the training of children in the appropriate forms of behavior, skills and particular roles required by all members of the society. The Education and Training Policy of the current education system of Ethiopia declares education to all citizens and one of its aims is to enable every citizen make all rounded participation in the national development by imparting knowledge, ability, skills and attitudes so that they can strengthen their problem-solving capacity (TGE, 1994).

In order to realize this intention, attention was given to the expansion of different levels of educational institutions in the country and attempts were made to encourage equal participation of citizens in schools. Females and ethnic minorities were given more privileges by devising different mechanisms to support them.

But, regardless of these efforts, there are still disparities between students in rural and urban areas and between sex in the realm of school attendance and pass (success). There are many and different reasons for these disparities. The cultural, religious, social and economic backgrounds of the society have their own contribution in facilitating or hindering the admission, attendance and performance at schools. Further, students themselves, their

teachers, counselors and parents attribute academic success or/and failure to factors other than above such as intelligence and aptitude (Alasebu, 1988 and Seyoum, 1986).

Academic success, as measured by ability to pass examination and graduate, is dependent on a number of factors. Cognitive factors such as intellectual ability, constitutes one of the multitude factors that affect students' academic performance (Entwistle, 1972).

Many research works have indicated that these cognitive factors explained about one-half to three fourth of the variability in academic performance (Entwistle, 1972 and Makonnen 1987). This great amount of variability accounted for by the intellectual factors could make responsible bodies to give much attention to these factors in the process of instruction and evaluation.

However, no significant consideration to the contribution of non-cognitive factors on academic performance is mentioned in academic world of Ethiopia. In the viewpoint of the present research, this could be another important reason for the disparities.

Scholars like Makonnen (1987) and Daniel (1992) argue that non- cognitive factors have the power to facilitate or hinder cognitive achievement. Thus, emphasis should be given to these variables in predicting academic performance in schools. Among these non-cognitive or personality factors, self-efficacy belief, academic achievement motivation, study habits, sex, personality types and sex-role orientation contribute a large proportion of the variance in academic achievement of high school students (Entwistle, 1972 and Harre and Lumb, 1983).

According to Bandura (1986), self- efficacy is seen as the generative mechanisms of cognitive self-evaluation through which persons integrate and apply their existing cognitive, behavioral and social skills to the performance of a task. Bandura postulated that people with greater perceived self-efficacy actually do better in many kinds of tasks because a person's sense of self-efficacy influences his or her perceptions, motivations and performance in various ways.

Motivational factors are also important to individuals whenever they achieve something significant as a result of instructional process. Academic Achievement Motivation in this case can lower or heighten the level of academic performance depending on different levels of motivation an individual held. High Academic Achievement Motivation was related to higher academic performance and vice versa (Burger, 1985)

Researchers revealed that the relationship between Academic Achievement Motivation and various school achievements seem evident and it affects the achievement more than any other such non-cognitive factors (Schunk, 1991 and Newman et al, 1988).

Moreover, sex difference is another important source of variation in academic achievement among high school students mediated through the possession of Self-Efficacy. Male students have better self-belief and as a result outshine in their school performance than their female counterpart (Pajares and Miller, 1994).

However, little attention has been given in investigating the proportion of variance accounted for by these non- cognitive factors on the academic performance of students in schools. Though a number of research works (Vrugt, 1994; Newman et al, 1988 and NAEP, 1994) have

examined that there is a strong relationship between non- cognitive variables (such as self-efficacy, locus of control, sex, study habits and academic achievement motivation) and student's academic performance in different cultures, these relationships have been examined in Ethiopia only in some tertiary level institutions like Addis Ababa University and Kottebe College of Teacher Education (Daniel, 1992)

The contribution of personality variables particularly self - efficacy belief, academic achievement motivation and study habits on academic performance of high school students of the country has not been empirically examined. This study aims to fill in this gap by investigating the relationship these variables have with academic achievement of general secondary school students with particular reference to general secondary schools in Tigray.

The researcher is interested on general secondary school students because students at this level are assumed to engage in a stiff academic competition so as to successfully pass the Ethiopian General Secondary Education Certificate Examination (EGSECE) that paves a way to join the higher institutions (colleges and Universities) after two years of education in the preparatory school. Since this is like a turning point in the lives of the students, an understanding of how much and in what manner the above-mentioned non-cognitive variables contribute to academic performance will have useful practical applications.

1.2. Statement of the Problem

As indicated in the background, much attention and emphasis has been given by many researchers to identify the contribution of intellectual endowments in explaining academic

performances of students in different institutions. But, it is not fair to depend only on cognitive variables as predictor of academic performance. This is because a significant segment of the variance in school performance could be accounted for by some other factors such as non-cognitive variables. A number of non-cognitive factors having a bearing upon the performance stated appearing on the scene as early as 1980. Some of the prominent variables are Self-Efficacy, Academic Achievement Motivation and Study habits. These variables dynamically involve themselves with the cognitive and social variables and some how act like the final finishing touches and corrections needed to be given to the preparation of the students moving to examination centers

Hence, this study will attempt to answer the arising research questions listed below:

1. Does the difference in the level of self-efficacy, academic achievement motivation and study habits among the students also indicate a statistically significant difference in academic achievement?
2. How do these independent variables interact to explain the dependent variable?
3. Do Self-Efficacy, Academic Achievement Motivation, Study Habits and Sex separately and/or jointly contribute to the variation in the academic achievement score of general secondary school students?
4. Do male and female students differ significantly on the variables under discussion?
5. Do the intergender and intragender comparisons show significant difference in the different levels of the independent variables between high achievers and low achievers?
6. Do Self-Efficacy, Academic Achievement Motivation and Study Habits separately and/or jointly contribute to a significant variation in the academic achievement scores of male and female students when treated independently?

1.3. Significance of the Study

The study may give valuable suggestions and implications for people involved in the process of instruction. Since individuals' levels of self-efficacy belief and achievement motivation once established are not permanent, changes can be obtained with the appropriate behavioral modifications or interventions being practiced by responsible individuals. Hence, the findings can help teachers, students, counselors, curriculum experts and the pupil's families.

Teachers, for example, are expected to study the behavior of their pupils and encourage the development of appropriate trait, and discourage the inappropriate ones. They can enhance the academic performance of their students via designing relevant educational practices that could positively influence the personality variables under consideration. The outcome of this study is also helpful for students to evaluate their assets and liabilities in respect to these variables that have an important effect on their school performance.

Counselors also could be benefited from the result of this study while they are trying to bring the desired behavioral change in the students they are helping. The findings of this study can support the curriculum experts in introducing the necessary modification in the curriculum materials through which the desired change is transmitted.

Finally, findings of the study may provide information for those who are interested to make investigation in a similar area.

1.4. Delimitation of the Study

The study was confined to three high schools in Tigray and 234 students (126 males and 108 females) were sampled from a total number of 3620 students in these schools of grade nine and ten. Moreover, mainly three factors: Self-Efficacy, Academic Achievement Motivation and Study Habits were considered among the many non-cognitive that could affect students' academic performance. Comparison by grade level and age was not made with the assumption that there is no significant difference among the students.

1.5. Operational Definition of Terms

1. **Self-efficacy:** Self-efficacy refers to an individual's expectancy in his or her capability to organize and execute the behavior needed to successfully complete a task. Self-efficacy beliefs can determine how people feel, think, motivate themselves, and act. (Bandura, 1977 and Schunk, 1991)
2. **Academic Achievement Motivation:** A Possibly intrinsic motive to achieve academically just for the sake of achieving, rather than the achievement being in the service of some other motives which is obtained on the Academic Achievement Motivation Self-Report Inventory.
3. **Academic Achievement:** refers to the average academic performance scores of students in all subjects offered in the three selected general secondary schools
4. **Gender:** refers to being female or male.
5. **Intergender Comparisons:** refers to comparisons between students of different sexes.
6. **Intragender Comparisons:** refers to comparisons between students of the same sex.

7. Study Habits: refers to students' learning tendencies that enable students work privately as indicated on the study habits inventory developed by the researcher. The scores on the inventory represent the students' belief they have about their study habits.

CHAPTER TWO

LITERATURE REVIEW

The literature review is organized under three major sections. The first section deals with the meaning and development of Self-Efficacy, and relationship of self-Efficacy and gender. The second section includes the meaning of Academic Achievement Motivation and factors affecting it, and its relationship with students' academic achievement and their gender. The last section addresses the meaning of Study Habits and their relationships with students' academic achievement and their gender.

2.1. Self-Efficacy

2.1.1. Meaning of Self-Efficacy

Self-efficacy refers to an individual's expectancy in his or her capability to organize and execute the behavior needed to successfully complete a task (Bandura, 1977 and Schunk, 1991). Self-efficacy beliefs can determine how people feel, think, motivate themselves, and act. Self-efficacy beliefs affect choices of persons about whether they will be in similar occupational activities in the future or not. These beliefs not only affect the choice of activities, but also help persons in determining how much will they strive for achievement, how long they will exert themselves against difficulties, and how will they handle troubles and maintain their course (Bandura, 1977 and Pajares, 2002).

In the case of education, self-efficacy is seen to be related with effort, persistence and achievement. Chemers and Garcia (2001), in their work on mathematical problem solving, have shown that children with higher self-efficacy strived for longer periods and used more effective problem solving strategies than lower self-efficacious children.

Bandura (1994) has to say that a person's self-efficacy expectations influence whether a person will attempt a task, how much effort she/he will spend, and how much the person will persevere in pursuing the task in the face of obstacles and difficult experiences, based on experimental studies, which attempted to demonstrate the causal power of self-efficacy beliefs, on levels of performance, task choice, effort, persistence, thought patterns and stress reactions (Bandura, 1986)

A person's self-efficacy influences his or her perceptions, motivations and performances in many different ways. According to Zimbardo (1992), people don't even try to do things when they expect to be ineffective. They avoid situations when they don't feel adequate in carrying out a given task or activity.

According to Pajares (2002), for some scholars the conceptual difference between self-efficacy and self-concept is not always clear. Some researchers use the terms synonymously and others describe self-concept as a generalized form of self-efficacy. Because there is so much confusion around this issue, it is better making to clarify.

According to Pajares (2002), these two constructs represent entirely different self-beliefs.

Pajares has described them as follows:

Self-efficacy is concerned with beliefs of personal capability; they are judgments of one's capabilities to perform given actions. Self-concept on the other hand is measured at a more general level than of specificity and includes the evaluation of such competence and the feelings of self-worth associated with the behaviors in question.

Another important difference according to Bandura (1986) is that self-efficacy judgments are especially sensitive to contextual factors, even to the degree of being quite task and situation specific. Compared to self-efficacy judgment, self-concept judgments are more general and less sensitive to context- they can be domain specific but not task-specific (Pajares, 2002)

Marsh, Walker and Debus (1991), cited in Pajares (2002), saw the distinction between the two constructs as a difference in the source of an individual's judgment. By comparing one's performance with those of others in related areas, an individual develops a judgment of self-concept. Self-efficacy judgments, on the other hand, focus on the specific abilities one possesses needed to accomplish the critical task.

However, Rosenberg and Kapland (1982), cited in Pajares (2002), wrote that because self-perceptions of competence are considered integral components of an individual's self-concept, self-efficacy beliefs are often viewed simply as requisite judgments necessary to the creation of self-concept beliefs.

2.1.2. Relationship among Self-Efficacy, Self-Concept and Academic Achievement

Concerning the relationship among self-efficacy, self-concept and academic performance, there are controversial explanations and research findings. Marsh and his colleagues (1991), cited in Pajares (2002), for instance, compared the direct effect of achievement on the Math exams self-concept and self-efficacy of fifth graders and reported a strong direct effect on self-concept than on self-efficacy.

Chapman and Tunmer (1995), cited in Pajares (2002), on the other hand, found that the reading performance of beginning readers during their first year of schooling had a stronger effect on their subsequent self-efficacy than on their reading self-concept.

At the domain-specific for learning levels of generality, self-concept and self-efficacy beliefs may be empirically similar. In line with this, Shaalvik and Rankin (1996), cited in Pajares (2002), subjected self-concept items and domain-specific self-efficacy items to confirmatory factor analysis and discovered that they loaded on the same factor, leading them to conjecture that the two may be different measures of the same construct.

Research works (Bandura, 1994 and Schunk, 1986, 1989) indicated that a strong sense of efficacy enhances human accomplishment. What people know, the skills they possess, or the attainments they have previously accomplished alone are often poor predictors of subsequent attainments; what matters is the beliefs that they hold about their abilities and about the outcomes of their efforts. These beliefs along with the knowledge of past performance

influence the ways in which they will behave (Pajares, 2002). In sum, it can be stated that how people behave can often be better predicted by their beliefs about their capabilities than by what they are actually capable of accomplishing.

Further, Pajares (2002) has clearly established that people can't accomplish tasks beyond their capabilities simply by believing that they can. Individuals should possess competencies in the first place and self-perceptions of such capabilities help determine what individuals will do with them. Pajares has also asserted that self-efficacy beliefs are critical determinants of how well knowledge and skill are acquired in the first place. This is a relatively unexplored area.

Bandura (1994) asserted that people who remain assured in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook according to Bandura fosters intrinsic interest and deep engrossment in activities. However, people who are not self-efficacious shy away from difficult tasks, which they view as personal threats.

2.1.3. Developing Self-Efficacy

Bandura (1977) has theorized that self-efficacy stems from one's past experience, i.e., from performance accomplishments (where successful performance strengthened efficacy expectations and occasional failure of which resulted in threatened self-efficacy), and by undergoing vicarious experiences by observing others, verbal persuasions, and emotional arousal of individuals. According to Bandura (1994), people's beliefs about efficacy can be

developed by four main sources of influence: Mastery Experiences, Vicarious Experiences, Social persuasions, and physiological states.

Mastery Experience, the interpreted result of purposive performance, is the most influential source of self-efficacy beliefs (Bandura, 1994). Thus, students who perform well on math tests and earn high grades in math classes are likely to develop a strong sense of confidence in their math capabilities. This strong sense of efficacy, in turn, helps to ensure that such students will enroll in subsequent math related classes, approach math tasks with serenity, and increase their efforts when a difficulty arises.

On the other hand, Zimmerman (1989) has indicated that low-test results and poor grades generally weaken students' confidence in their capabilities. As a result, students with low mathematics self-efficacy are more likely to avoid future mathematics classes and tasks, and they may approach the area of mathematics with apprehension.

Concerning successes and efforts made for achieving successes; Bandura (1994) has found that if people had experienced only easy successes in the past, they came to expect quick results and were easily discouraged by failure. But, a resilient sense of efficacy requires experience of overcoming obstacles through perseverant effort.

For Pajares (2002), Bandura's emphasis that one's mastery experiences are the most influential source of self-efficacy information has important implications for the self-enhancement model of academic achievement, which contends that, to increase student achievement in schools,

educational efforts should focus on raising students' feeling of competence leading to mastery experience.

The second source of self-efficacy namely vicarious experience is comparatively weaker to mastery experience. But in the absence of prior experience leading to uncertainties about ones abilities vicarious experiences do produce self-efficacy (Bandura, 1986). And as such vicarious experience or vicarious learning will also found to be playing a role. This line of thinking has been strengthened by the prominent self-efficacy theorist and researcher, Schunk (1991) who has demonstrated that a significant model in one's life can help instill self-beliefs that will influence the course and direction that life will take.

Concerning this, Bandura (1994) has also indicated that seeing people similar to oneself succeed by sustained effort raises observer's beliefs that they too possess the capabilities to master comparable activities and to succeed. By the same token, observing other's fail despite high efforts lowers observers' judgments of their own efficacy and undermines their efforts. Here the role of constructs one-form matters on account of observing others experience (Bandura, 1994).

Schunk (1989) has shown that the impact of modeling on perceived self-efficacy is strongly influenced by perceived similarity to the models. That is, the greater the assumed similarity, the more persuasive are the model's successes and failures. Schunk proposed that, if people see the models as very different from themselves, their perceived self-efficacy is not much influenced by the models' behavior and the results it produces.

Bandura (1994) has shown that a model's failure has a more negative effect on the self-efficacy of observers when observers judge themselves as having comparable ability to the model. Bandura (1986) postulated that just as positive persuasions may work to encourage and empower, negative persuasions might work to defeat and weaken self-efficacy beliefs.

Individuals can also create and develop self-efficacy beliefs as a result of the social persuasion others make on them. According to Pajares (2002):

People who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilize greater effort and sustain it than if they harbor self-doubts and dwell on personal deficiencies when problems arise. To that extent persuasion boosts self-efficacy perception, lead people to try hard enough to succeed and promote development of skills.

Physiological states such as anxiety, stress, arousal, fatigue, and mood states may also affect efficacy beliefs. Schunk (1991) has demonstrated that because individuals have the capacity to alter their own thinking, self-efficacy beliefs born out of such changed thinking can powerfully influence the physiological states themselves. These appear to be a loop. Self-efficacious beliefs leading arousal and aroused feeling bolstering self-efficacious beliefs. The loop can operate in the reverse direction also. Bandura (1986) has the following beautiful paragraph on this:

It is not the sheer intensity of emotional and physical reaction that is important, but rather how they are perceived and interpreted. People who have a high sense of efficacy are likely to view their state of affective arousal as an energizing facilitator of performance, whereas those who are beset by self-doubt regard their arousals as a debilitator. Physiological indicators of efficacy play an especially influential role in health functioning and in athletic and other physical activities.

2.1.4. Self-Efficacy and Academic Achievement

Researches have suggested that self-efficacy beliefs may play a mediational role in relation to cognitive enhancement and that might lead to increased use of cognitive strategies that, in turn, lead to improved performance. Concerning this, Pajares (2002) has demonstrated that:

In schools, the beliefs that students develop about their academic capabilities help determine what they do with the knowledge and skills they possess. Consequently, their academic performances are in large part the result of what students actually come to believe that they have accomplished, are accomplishing, and can accomplish in the future.

Vrugt (1994) stated that people with positive perceived self-efficacy pursue a relatively high level of performance because they don't put off easily while they face difficult tasks. On the other hand, if a person's perceived self-efficacy is negative, he/she pursues a lower level of performance.

Other research works have also revealed that there exists potentially important relationship between self-efficacy beliefs and academic performance in the domain of writing and reading. A study by Shell (1995), which examined self-efficacy in relation to writing achievement of children, indicated that self-efficacy is predictive of writing achievement. In the reading domain, self-efficacy for reading was significantly and positively correlated with reading achievement for elementary and high school students (Schunk 1991, and Shell, 1995).

Attempts made by Pajares and Miller (1994) to examine the relationship of mathematics self-efficacy and mathematics performance among students has found that when prior performance was controlled, students having high self-efficacy have performed better than those with low self-efficacy in mathematics problems. Moreover, an experimental study made by Schunk and Hanson (1989) on the level of perceived self-efficacy of students with arithmetic deficiency has indicated that when self-efficacy perception of the students has improved so did their mathematics achievement.

Pajares and Kranzler (1995) constructed path models that include math self-efficacy, general mental ability, math self-concept, math anxiety, self-efficacy for self-regulation, previous grades in mathematics, and gender and the key finding from this study revealed that the direct effect of mathematics self-efficacy on mathematics performance was as strong as the effect of general mental ability.

Moreover, studies made by Pajares and Miller (1994) using path analysis demonstrated that a model that included self-efficacy accounted for a larger amount of difference in mathematics performance than other factors like mathematics self-concept, perceived usefulness of mathematics, prior experience with mathematics for junior high school students.

Furthermore, Schunk (1991) has demonstrated that students with similar previous performance attainments and cognitive skills may differ in subsequent performance as a result of differing self-efficacy perceptions because these perceptions mediate between prior attainments and academic performances. As a result, such performances are generally better predicted by self-efficacy than by the prior attainments.

In general, research is conclusive enough to suggest that there is ample reason to believe that self-efficacy is a powerful construct in predicting academic performances (Pajares, 2002).

Though many of the research evidences in this area have confirmed significant positive relation between self-efficacy and academic performance of students, some other empirical findings show that self-efficacy beliefs were not predictive of academic performance. For instance, Benson (1989), cited in Pajares and Miller (1994) revealed that mathematics self-efficacy was not predictive of mathematics performance. Similarly, a regression model with mathematics anxiety, American College Test Scores, and prior mathematics experience has indicated that self-efficacy did not contribute significant amount in mathematics performance (Cooper and Robinson, 1991).

Moreover, a similar finding by Norwich (1987) has reported that when the effect of mathematics self-concept and prior mathematics performance were controlled, self-efficacy did not predict mathematics performance of elementary school children.

These two different directions of thinking about the relationship between self-efficacy and academic achievement could be the result of variation in the culture of the subjects, or the methods used by the researchers. Thus, this study will try to see the case in the Ethiopian context.

2.1.5. Self-Efficacy and Gender

Since females in the Ethiopian context encounter repeated failures in classes and get little or no significant encouragement from others specially parents and teachers to strive harder in academic settings, they will develop lower level of self-efficacy than their male counterparts (Genet, 1991).

Research findings by Schunk and Lilly (1984) and Pajares and Miller (1994) have found that female students reported lower self-efficacy expectations than their male counterparts and these lowered efficacy expectation was improved through training. Junge and Dretzke (1995) stated that females' self-efficacy level is lower than their male counterparts for the fact that they think they failed because they lack some internal qualities helpful for success and probably because they are not expected to achieve high status as the males do by their society.

Similarly, other research findings indicated that boys rated themselves more efficacious than girls, and therefore, the poorer performance of women was largely of due to lower judgments of their capabilities. For example, Yalew (1996) has studied gender difference in self-efficacy judgment among high school subjects in the Ethiopian context and results have indicated significant difference between the sexes that favored the boys.

Johnson (1999), cited in Pajares (2002) has argued that boys and girls tend to respond to self-report instruments with a different "mind set". That is, boys and girls may well use a different "metric" when providing confidence judgment that these types of ratings may represent more of a promise to girls than they do to boys.

In line with this Wigfield et al. (1996) as cited in Pajares (2002) has found that boys tend to be more "self-congratulatory" in their responses whereas girls tend to be more modest. In other words, boys are more likely to express confidence in skills they may not possess and to express overconfidence in skills they do possess.

Some researchers have found that girls perform as capably as do boys in varied academic tasks but often report lower self-efficacy, particularly at higher academic levels. Pajares (1996) has revealed that gifted girls were biased toward under confidence, although most students are generally biased toward overconfidence.

Amabile (1996) on the other hand, detected no gender differences in the confidence ratings that students made relative to their confidence to accomplish varied tasks related to the process of writing an essay. In elaborating this idea, Miller (1998) said that, although boys and girls did not differ in their reported confidence to accomplish the writing skills outlined on a writing self-efficacy measure, when asked to directly compare their writing capability with that of boys, girls expressed a greater degree of superiority in their writing relative to boys in their class.

In other words, although girls didn't award them higher numbers than did the boys when asked to provide ratings of their confidence to accomplish the specific writing skills called for on the efficacy measure, it was evident that girls considered themselves better writers than the boys.

According to Pajares (2002), if researchers are to continue to explore gender difference in self-efficacy, they need to address those issues with assessment of self-beliefs that will provide

these sorts of insight because differences in scores on confidence judgments on tasks or domains will not reveal clearly the nature of social and academic comparison.

2.2. Academic Achievement Motivation

The motivation to achieve is a result of social learning conditions and reinforcements which children experience in their day-to-day lives. Achievement motivation could be seen in different contexts and traced to various sources. Research evidences indicated that there are different sources of motivation to achieve, and there is a difference in achievement motivation among various individuals and between sexes.

2.2.1. Meaning of Academic Achievement Motivation

The term motivation to learn is defined by Marshall (1987) as “the meaningfulness, value, and benefits of academic tasks to the learner-regardless of whether or not they are intrinsically interesting”. On the other hand, Ames (1990) notes that motivation to learn is characterized by long-term, quality involvement in learning and commitment to the process of learning.

According to Davidoff (1987), psychologists usually distinguish among motivational terms such as motives, needs, drives and instincts. Motive or motivation, one of these terms, is defined as an internal state that may result from a need, and is pictured as activating, or arousing behavior usually directed towards fulfilling the instigating need (Davidoff, 1987).

On the other hand, Brophy (1986) has described that, motivation to learn is a competence acquired “through general experience but stimulated most directly through modeling,

communication of expectation, and direct instruction or socialization by significant others (especially parents and teachers)".

Student motivation naturally has to do with student's desire to participate in the learning process. But it also concerns the reasons or goals that underlie their involvement or noninvolvement in academic activities. Although students may be equally motivated to perform a task, the sources of their motivation may differ.

The approaches delineated above lead to the question on the nature of intrinsic and extrinsic motivation. Concerning intrinsic and extrinsic motivation, Lepper (1988) has stated that:

A student who is intrinsically motivated undertakes an activity "for its own sake, for the enjoyment it provides, the learning it permits, or the feelings of accomplishment it evokes" An extrinsically motivated student performs "in order to obtain some reward or avoid some punishment external to the activity itself," such as grades, detention, or teacher approval.

Intrinsic motivation is the tendency to engage tasks because one finds them interesting, challenging, involving, and satisfying. Extrinsic motivation, on the other hand, is the tendency to engage tasks because of task-unrelated factors such as promise of rewards and punishments, dictates from superior, surveillance, and competition with peers (Deci and Ryan, 1985).

Intrinsic and extrinsic motivations are both state variables, that can vary across situations and times and can be manipulated experimentally. Thus, although a person's levels of intrinsic and extrinsic motivations fluctuate during daily activities as a function of environmental stimuli

and opportunities, people differ in their average tendencies to be driven by the engagement of work (Lumsden, 1994).

2.2.2 Factors Influencing Students' Achievement Motivation

Once children start school, they begin forming beliefs about their school-related successes and failures (that is, the motive to achieve success and failures). The sources to which children attribute their successes and failures (commonly effort, ability, luck, or level of task difficulty) have important implications for how they approach and cope with learning situations.

Raffini (1993) has explained that the beliefs teachers themselves have about teaching and learning and the nature of the expectations they hold for students also exert a powerful influence. As Stipek (1988) notes, "to a very large degree, students expect to learn if their teachers expect them to learn." School wide goals, policies, and procedures also interact with classroom climate and practices to affirm /alter student's increasingly complex learning-related attitudes & beliefs. (Raffini, 1993)

Developmental changes also comprise one more strand of the motivational web. For example, although young children tend to maintain high expectations for success even in the face of repeated failure, older students do not. And although younger children tend to see effort as uniformly positive, older children view it as a "double-edged sword" (Ames, 1990). To them, failure following high effort appears to carry more negative implication-especially for their self-concept of ability- -than failure that results from minimal or no effort.

Students with an intrinsic orientation also tend to prefer tasks that are moderately challenging, whereas extrinsically oriented students gravitate toward tasks that are low in degrees of difficulty. Extrinsically oriented students are inclined to put forth the minimal amount of effort necessary to get the maximal reward (Lepper, 1988).

It has been systematically found that intrinsic motivation facilitates creativity, while extrinsic motivation hinders it. These relationships were first established on measures of state intrinsic-extrinsic motivation and more recently on measures of trait intrinsic and extrinsic motivations (Deci and Ryan, 1985 and Amabile, 1996).

But another research finding that examined the effects of trait intrinsic and extrinsic motivations in Hong Kong college students indicated that trait intrinsic motivation correlated negatively and trait extrinsic motivation correlated positively with creativity (Siu, 2001).

Children's home environment shapes the initial constellation of attitudes they develop toward learning. Lumsden (1994) noted that when parents nurture their children's natural curiosity about the world by welcoming their questions, encouraging exploration, and familiarizing them with resources that can enlarge their world, they are giving their children the message that learning is worthwhile and frequently fun and satisfying. When children are raised in a home that nurtures a sense of self-worth, competence, autonomy, and self-efficacy, they will be more apt to accept the risks inherent in learning. Conversely, when children do not view themselves as basically competent and able, their freedom to engage in academically challenging pursuits and capacity to tolerate and cope with failure are greatly diminished (Lumsden, 1994).

Although every educational activity cannot, and perhaps should not, be intrinsically motivating, findings suggest that when teachers can capitalize on existing intrinsic motivation, there are several potential benefits. To support motivation to learn, school-level policies and practices should stress “Learning, task mastery, and effort” rather than relative performance and competition (Maehr and Midgley, 1991).

Academic motivation can also be influenced by a number of factors in the process of instruction and students behavior. For example, McCormick and Pressley (1997) postulated that teachers must be aware that academic motivation is influenced by student's beliefs and perceptions as well as by classroom practices. Student's expectations for success and failure and how students explain their performances to themselves influence future performance. Moreover, classroom practices, such as offering rewards and setting goals, also have a considerable impact on student's motivation.

Students' perceptions of intelligence also influence their achievement motivation. According to Dweck and Leggett (1988) a critical determinant of achievement motivation is whether or not a person believes that intelligence is fixed biologically and not affected by environmental variables. Thus, students' views of intelligence influence their persistence on academic tasks.

These all-afore mentioned factors that have direct or indirect impact on the motivation and achievement of students call for mechanism to alleviate the problems and create better motivation in students towards achievement. Motivational researches, therefore, have made many suggestions for increasing student's achievement motivation. Some of these include:

techniques for changing student's perceptions and beliefs, changing classroom tasks and practices, and helping students develop independent learning skills (Stipek, 1993).

Students who can set appropriate and achievable goals could increase their achievement motivation by realizing the goals and sustaining their success. Similarly, students who believe they are capable of reaching a desired goal or of attaining a certain level of performance have a high level of perceived self-efficacy (Bandura, 1986 and Schunk, 1990, 1991).

Self-efficacy plays an important role in goal selection, achievement motivation and in efforts to attain goals. The amounts of efforts students were willing to expend to improve in the task in the future are related to their perceptions of successful improvement in their achievement (Schunk, 1990, 1991).

2.2.3. Academic Achievement Motivation and Academic Achievement

Students hold expectations for their school performance that influence their academic motivation. Most children entering elementary school have high expectation for success; when asked how they will do on a task, most early-elementary school children assume that they will do very well (McCormick and Pressley, 1997). On the other hand, older elementary school children are usually not so optimistic about their school performances, especially after they perform poorly on academic tasks (Wigfield et al., 1991).

Student's motivation is influenced not only by performance expectations, but also by the expectations students give for their own performances. Students frequently explain outcomes

by referring to effort, ability, task factors, luck, and each of these attributions has different motivational consequences (Weiner, 1989). Of these attributions, the effort attribution is most likely to promote behavior leading to future academic success. This is because believes that success and failure are controllable based on the effort one puts on tasks to be mastered.

The other explanatory possibilities-ability, task difficulty, and luck are all out of one's control. Thus, students who attribute their academic performance to the amount of effort they invest would have better possibility of improving their performance as compared to the other attributions (Weiner, 1989).

Reinforcements, such as money and candy can increase the likelihood of behaviors that precede them. However, they also have the potential for undermining performances. Though rewards can increase the likelihood of interest and performance of the task when initial interest in an academic task is low, rewards undermine academic performances when initial interest in the rewarded activity is high and when the reward to perform the behavior is so salient that it seems to be a bribe (Cameron and Pierce, 1994).

A number of researches have been conducted to see whether there is relationship between academic achievement motivation and academic performance. Newman et al (1988) found that the relationship between achievement motivation and various school outcomes seems logical. According to this evidences, outcomes such as grades and academic performance are more likely to be affected by achievement motivation than other outcomes like commitment and assessment.

A consistent body of researches conducted in North America indicates that trait intrinsic motivation facilitates creativity and academic performance, whereas extrinsic motivation hinders creativity but has no effect on academic performance (Siu, 2001).

Myers (1987) found that students with high achievement motivation tend to achieve higher grades and apparently getting good grades is related to personality characteristics of need to achieve. Kammeyer (1987) has indicated that achievement motivation increases as children get rewarded for their efforts and decreases when such reinforcements terminate. As a result, individuals with high need for achievement approaches achievement related activities so as to become more successful than those with low need for achievement.

McClelland (1985) and Weiner (1989) have revealed that individuals who possess high academic achievement motivation have the motive to obtain high academic performance and show the need to manipulate their environment. People of this type are also action oriented, have better planning ability, and have the interest to involve on demanding and challenging tasks. As a result, highly academic motivated individuals tend to obtain superior performance compared to those with low level of academic achievement motivation.

The influence of students' motivation on the academic performance of college students was demonstrated when a correlation analysis to predict academic achievement of college students from achievement motivation was made (Newman et al, 1988 and Daniel, 1992). These findings revealed motivation as a variable contributing to the success in academic tasks. Another study conducted by Lindgreen (1986) on junior and high school students show that

there is significant positive correlation found between achievement motivation and academic performance.

Some other findings, on the other hand, indicate that there is no significant relation between achievement motivation and academic performance. Entwistle (1972) has found a non-significant relationship between achievement motivation scores and school results. A study by Beck (1990) also challenges the direct positive relationship between achievement motivation and academic performance.

2.2.4. Gender Difference in Academic Achievement Motivation

Boys' expectations about their academic performances are often higher than girls' expectations (Wigfield et al., 1991). These sex-based differences in expectations about academic achievement negatively influence girls' willingness to pursue some challenging academic arenas compared with boys' willingness to do so.

In mathematics achievement, for instance, during the early-elementary school years, girls surpass boys. However, reversal of this pattern begins in junior high and continues for the remainder of schooling (Wigfield et al., 1991). High school girls also take fewer mathematics courses than high school boys because they are less confident in their mathematics abilities and are less likely than males to value careers involving mathematics (Dweck, 1986).

Concerning these patterns, Dweck gives the following explanation:

First, high-achieving boys and girls react differently to failure on a task. Girls with high ability are more likely to be devastated by failure than boys with high ability. This affects the girls' subsequent performance, so that later, boys with high ability outperform the girls with high ability on the same task. Second, girls are more likely to prefer tasks they are good at, but boys prefer challenging tasks, i.e. boys attribute their success and failure to the amount of effort where as girls attribute their success and failure to the inborn abilities.

Similarly, Eccles (1989) has explained that parents and teachers have lower expectations and valuation of female performance in mathematics than male. Parents have gender-stereotypic expectation about math achievement and valuation and these are communicated to daughters. Since stereotypes have long been dictating that the pursuit of knowledge is the work of men and is inappropriate for women, both sexes are not rated equally for similar performance. As a result, females tend to consider their effort worthless and undermine their ability and performance in achievement situations no matter how they perform as well as males (Eccles, 1989).

In many cultures, ability and achievement are considered as appropriate for the males only. Females were being labeled as having low scores in achievement motivation, for they have been showing less interest on tasks that are designated by the culture as males' trait. Females' achievement motivation, therefore, appears to be low if studied in situations that are stereotyped as male.

The research made by Wortman and Lottus (1985) on the achievement motivation found that a need for achievement did not predict the behavior of female well enough as it predicted the behavior of males. There was also a perceived difference in the relationship between achievement motivation and academic performance between males and females. A consistent positive relationship between the two variables was found for the males but not for females (McClelland, 1985 and Beck, 1990).

Other studies, however, indicated that girls at college level make better over all grades than boys. Kimball (1989), cited in Hyde (1991) indicated that the school achievement and progress of girls is better than boys regardless of their achievement motivation.

A study by Kahn (1969) as cited in McClelland (1985), conducted on junior secondary school subjects found females to have higher achievement motivation scores than males. Similarly, a study conducted by Lindgreen et al (1986) reported that achievement motivation scores correlated positively with Grade Point Average (GPA) for college samples that indicated statistically significant correlation only for females.

2.3. Study Habits

2.3.1. Meaning of Study Habits

Study habits are learning tendencies that enable students to work privately. Udom (1987) describes study habits as "the adopted way and manner a student plans his/ her private readings, after classroom learning so as to attain mastery of the subject". According to Udom, "good study habits are good asset to learners because these habits assist students to attain

mastery in areas of specialization and consequent excellent performance, while the opposite constitute constraints to learning and achievement leading to failure".

Chistenson (1992) describes that study habits are practices that could facilitate the process of learning by properly managing the learning materials, the time and the situations. These habits develop through continuous practice and appropriate reward attached to each step. Effectiveness of study habits, as mentioned by Heller and Fantuzzo (1993), is based on the level and relevance of planning made. Thus, plans for studying should be prepared based on a careful thought that includes factors like time, place, material, situation and others.

Some people consider that studying is the same as reading. This is because parents and classroom teachers don't give emphasis on teaching students develop study skills through which they can establish appropriate study habits after classroom instruction. Good study habits include all those activities that have to do with learning through planned effort. Thus, not only reading, but also note taking at lectures, preparation of papers, library work, reference work, problem solving, intensive reading and skimming should all be considered as activities during studying (Clark and Starr, 1986). These are techniques that students need to learn before they can become efficient students.

Though study habits and styles differ from one person to another, many of the issues concerning success in school revolve around developing good study habits and styles (Nneji, 2002). Parents, besides teachers, can certainly play a role in providing encouragement, environment and material necessary for successful studying to take place.

Study habits decide what to study (reasonable tasks) and how long or how many (chapters, pages, problems, etc) to study. Good study habits involve proper time management, concentration, listening, note taking, reading and writing skills and preparing for exams (Nneji, 2002).

Concerning time management, an established study routine is very important, especially for younger school age students. For instance, if a child knows that he/she is expected to do his/her study immediately after dinner prior to watching television, he/she will be better able to adjust and ready himself/herself than getting encouraged to study any time he/she pleases. (Davies and Whitney, 1985)

All children need their own place where they can get full concentration. According to Seidler (2004), one must determine where the best place is to study and then set up a study environment. This is because whatever the designated location chosen for the study base is, how a study "headquarters" is set up affects one's ability to stay focused. Study places should be free of disturbances and distractions. An area of high-traffic, interruptions from people passing through, the TV being on and/or having telephone call could be some of the distracters that affect the concentration of students while they are studying (Seidler, 2004). Hence, parents should help their children to avoid disturbances and outside noise as best as possible.

2.3.2. Study Habits and Academic Achievement

Study habits (the students' habits in managing their learning time and materials) are important factors that affect academic performance. Analysis of data from the National Assessment

Educational Progress, NAEP (1994) U.S. history and geography assessments found a real relationship between study habits and academic performance.

A continuous report of NAEP (1994) describes that the knowledge, skills and performance of the American children and youth in a variety of academic subjects have a strong relationship with their study habits. The study made on U.S. History by NAEP (1994) disclosed that high academic performance is positively related to good study habits. The study further explained that students' school performance is improved when they tend to improve their study habits.

Similarly, results from the geography assessment in the NAEP (1994) study revealed that the better the study habits they develop the better students perform academically. The positive relationship between good study habits and performance indicated that high performing students are more likely to discuss their studies with their elders and parents at home almost every day (NAEP, 1994). This practice encourages parents to ensure good study habits for their children and involve themselves in the school activities. /

Another finding by Ikeotuonye and Bashmir (1986) pointed out that poor study habits are the major causes of poor academic performances of high school students and good study habits have positive effects on academic performance.

It is not unusual for students to prefer and experience different study habits. Some students prefer to study every day and others during the weekends. Some students prefer longer, "massed" study time and others prefer shorter, "spaced" study time. Thus, it is a common experience to get students who have different study habits. Some educators, taking these all

variations into consideration, suggest that some of the study habits are superior to others when they are evaluated in terms of student school performance.

A study made by Nneji (2002) on study habits and academic achievement of Nigeria university students revealed that students who preferred to study every day (during the weekdays) early in the morning and late in the afternoon had better academic achievement than those who preferred to study during the weekends and during the evening. This study further indicated that the longer the time students stay studying a material the better academic results they got, considering other variable equal.

2.3.3. Gender Difference in Study Habits

Though it is not uncommon to see students, even of the same gender, that have different study habits, a study made by Nneji (2002) indicated that there is a significant difference in studying habits between male and female students as a group. Male students usually use to study all the time being in-group. According to Nneji (2002), male students tend to study every day early in the morning and late in the afternoon before dinner.

On the other hand, most female students prefer to make their study during weekends, being alone and for short period of time. Regarding this, Udom, (1997) had found that girls mostly prefer to study during weekends staying at home. For Udom, female students prefer to read for themselves, and are not free to ask others and discuss with their friends.

The reasons why male and female students, as a group, had significant difference in their study habits are many and different. One source of variation according to Udom (1997) was

that males and females don't have equal time duration for studying. The spare time females have in daytime is quite different as compared to males. Females are expected to help their mothers in the house in preparing food, caring for children and washing clothes in which the males are not expected to. These expectations are mainly developed from the feeling that education is the work of males, but not females. Females are expected to be good wives.

As Thomas (1992) has mentioned, parents as the result of this expectation, tend to provide ample time and learning materials to their boys than their daughters. The difference in access to time and materials between male and female students creates variation in the preference of their study habits. This difference in study habits as disclosed by Nneji (2002) has an impact on the academic results of male and female students. Usually, males had better academic achievements as compared to their female counterparts.

There is a similar practice even in the Ethiopian context. When we see school enrollment, there is a great disparity between the genders. Boys have got better chance of schooling than girls as compared to their total figures. Studies made by Alasebu (1988) and Seyoum (1986) revealed that there was a low female enrollment, high female repeaters and dropouts as compared to their male counterpart. Some of the reasons, as included in the studies, are the expectation of the society that girls are academically poor, shy, and fond of jewelery and have low motivation. But boys are defined as clever, motivated, self-confident and active.

Generally, these evidences indicated that there is a possible significant difference in study habits between male and female students. This variation in turn paves a possibility for academic differences between the two sexes.

2.4. Summary of the Review

The literature review addressed three main issues and their relationships with other important factors that have direct or/and indirect impact students' school performance.

The first section touches the meaning of self-efficacy, sources of self-efficacy, and its relationship with students' performance and gender. Self-efficacy is believed as an individual's expectancy in his or her capability to organize and execute the behavior needed to successfully complete a task. Self-efficacy beliefs help in determining how much will individuals strive for achievement, how long they will exert themselves against difficulties and how will they handle troubles and maintain their course (Bandura, 1977, 1986 and Pajares, 2002).

According to Bandura (1986), people's belief about efficacy can be developed by four main sources of influence: Mastery Experiences, Vicarious Experiences, Social persuasions, and physiological states. A significant relationship is found between self-efficacy and academic performance (Vrugt, 1994; Shell, 1995; Schunk, 1991; Pajares and Miller, 1994). Moreover, males were found superior in self-efficacy beliefs as compared to females.

The second section of the review deals with the meaning of academic achievement motivation, and the relationship it has with academic performance and gender. Factors that could affect academic achievement motivation are also treated under this section. In most literature that addressed this issue, academic achievement motivation is found having a significant relationship with students' academic performance (Siu, 2001; McClelland, 1985; Weiner, 1989; Lindgreen, 1986). Concerning the relationship between gender and academic

achievement motivation, literatures revealed that males have better motivation than females (Dweck, 1986; Wigfield et al., 1991; Eccles, 1989).

The last section deals with the meaning of study habits, their effects on academic performance and gender difference in study habits. Study habits, according to Udom (1987), are learning tendencies that enable students to work privately. Udom describes them as "the adopted way and manner a student plans his/ her private readings, after classroom learning so as to attain mastery of the subject".

Chistenson (1992) describes that study habits are practices that could facilitate the process of learning by properly managing the learning materials, the time and the situations. It is found that high academic performance is positively related to good study habits. It is further explained that students' school performance is improved when they tend to improve their study habits (NAEP, 1994; Ikeotuonye and Bashmir, 1986). Similar to other variables in the study, a study made by Nneji (2002) indicated that there is a significant difference in studying habits between male and female students as a group. Male students usually have better study habits as compared to female students.

Generally, all independent variables are found having significant relationship with students' academic performance. In all cases, male students were found having better traits in these variables as compared to female students.

CHAPTER THREE

DESIGN OF THE STUDY

3.1. Sampling Procedures

Three high schools were purposefully selected from the fifteen high schools in Tigray that include the general secondary school students namely: Queen Sheba Comprehensive Secondary School, Axum Comprehensive Secondary School and Enticho Senior Secondary School. The researcher has selected these schools for two main reasons. First, he had a better access to these schools that he observed problem raised in the research. The Second minor reason is that the research assistants were found in these schools.

There were a total of 3620 students (1908 males and 1712 females) in grades nine and ten in the aforementioned schools. Since the focus of the study was on general secondary school students, the samples were all from grades nine and ten.

Using cluster sampling technique, a total of six sections- three sections from grade nine and three sections from grade ten were selected out of a total 52 sections. Within the selected grades, there were 139 students (78 males and 61 females) from grade nine and 120 students (69 males and 51 females) from grade ten. Thus, a total of 259 students were used as a sample of the study. Out of these student participants, the responses of 25 respondents (9 students from grade nine and 16 students from grade ten) were excluded from the analyses because 21 of them have failed to respond to the questionnaires appropriately and the academic results of

the rest 4 students were not completed. Therefore, the final analyses were done based on the responses of 234 students (126 males and 108 females).

3.2. Variables

Independent Variables

- **Self-Efficacy Scores:** were classified into high and low on the basis of their mean score.
- **Academic Achievement Motivation Scores:** were classified as high and low based on their mean score.
- **Study Habit Scores:** were classified as good and poor on the basis of their mean.
- **Gender:** is naturally labeled as male and female.

Dependent Variable

- **Academic Achievement Scores:** Scores obtained from the average scores on all subjects given in grades nine and ten.

In gender-specific analyses, Self-efficacy, Academic Achievement Motivation, Study Habits and Academic Achievement scores were used as dependent variables. Sex in this case served as independent variable.

3.3. Instruments

Three self-report questionnaires were administered to gather information concerning the independent variables under consideration, namely: a) Self-efficacy Scale, b) Academic Achievement Motivation Inventory and c) Study Habits Inventory.

All the instruments were presented in Tigrigna, with the consultation of language experts regarding the agreement on both forward and backward translations. The questionnaires were translated into Tigrigna and then back to English. Translation was made mainly to avoid language barrier and facilitate the process while the respondents were responding to the questionnaires.

3.3.1. Academic Self-Efficacy Scale

The Self-Efficacy Scale has been constructed by the present researcher adapting the items from Pintrich and DeGroot (1990) and Roeser et al (1996). The scale has a total of 15 items and was formerly used to measure academic self-efficacy beliefs of high school students. The items in this scale were scored on five point likert scales varying from “Very true of me” with a score of 5 to “Not true of me” with a score of 1. All the items were positively stated. The minimum and maximum scores were 15 and 75 respectively.

The Academic Self-Efficacy Scales of Pintrich and DeGroot (1990) that contained nine items and Roeser et al (1996) that contained six items were administered for pilot test. The pilot study was conducted on 60 students (34 males and 26 females) of Enticho Senior Secondary School. The reliability of the scale was obtained using Split-half method, which is about .80 a result that is almost congruent with the result of Pintrich and DeGroot (1990) that is .89 and that of Roeser et al (1996) that is .86. As a result, 15 items were used to collect the Self-Efficacy belief of the students.

3.3.2. Academic Achievement Motivation Inventory

An Academic Achievement Motivation Self-Report Inventory adapted from Daniel's (1992) research study was utilized to obtain the academic achievement motivation of the respondents. This instrument was chosen for it was developed and used in the Ethiopian context.

The original inventory had consisted 25 items, but one of these items was excluded for it was not appropriate to apply on general secondary school students. Thus, for the final study, 24 items with five point likert scales that has a range of scores between 24 (minimum) and 120 (maximum) were used. The items represented high or low academic achievement motivation. The Split-half reliability of the instrument obtained during pilot study was about .75, which was actually greater than the reliability obtained by Daniel (1992), which was .71. Therefore, the final draft of the instrument has 24 items and .75 reliability coefficients.

3.3.3. Study Habits Inventory

The instrument included items that are related to time management, concentration, listening, note taking, reading and writing skills and how to prepare for exams. In developing the inventory, the first draft of the items, which contained of 67 items collected from various sources, was written by the author. This draft was given to three experts (two education experts and one language expert) to judge the appropriateness and relevance of the items to measure the study habits of general secondary school students. The experts were expected to evaluate and indicate whether a given item reflects good or poor study habit. The experts

worked independently, and their comments were used to write the second draft of the inventory.

In doing so, items that had at least two-third agreements by the experts as good or poor study habits were retained in the inventory, and others were rejected because they reflected neither good nor poor study habits. As a result, out of the 67 items 37 were retained.

These 37 items were scored on five points likert scale that vary from “Very true of me” with a score of 5 to “Not at all true of me” with a score of score 1. The minimum and maximum possible scores of the total items were 37 and 185 respectively.

Finally, the second draft was administered to the respondents selected for pilot study. The calculated split-half and KR-20 reliability coefficients are .73 and .78 respectively. Based on this, the final draft having 37 items was developed and used to collect the study habits of the students under consideration.

3.4. Data Gathering Procedures

The three Tigrigna version instruments were administered on the 259 students in two different sessions (each had 60 minutes duration) with the help of the research assistants. The Self-Efficacy Inventory and the Academic Achievement Motivation Inventory were presented the first day while the Study Habits Scale was administered the next day. The researcher and the research assistants, in addition to the directions given on the questionnaires, briefed the students orally concerning the purpose of the study and on how they were supposed to respond to the questionnaires.

The students' academic results were obtained from each school's record office. For grade nine students, only their first semester results of the 1996 E.C academic year were considered. For grade ten students, an average of three semester's (1995 E.C through 1996 E.C first semester) academic performance of each student in all subjects was considered.

3.5. Methods of Data Analyses

The responses obtained from the students and their academic performances were analyzed using SPSS/PC+. Responses both to the Self-Efficacy and Academic Achievement Motivation Scales were categorized into either high or low in the traits based on the mean score. That is, those who scored above the mean score in either the Self-Efficacy or Academic Achievement Motivation were grouped as possessing higher value of each trait and low for those who have scores below the mean score. Similarly, responses to the Study Habits Inventory were labeled as good if they were above the mean score and poor if they were below the mean score.

To examine the independent and interactive effect of any combination of the predictor variables in explaining the criterion variable, a four-way Analysis of Variance was employed. The t-tests were applied to see whether there could be any significant difference between males and females and within the same sex in all these variables and their different levels.

Multiple and stepwise regression analyses were done for total students and for both male and female students independently to indicate the combined and independent effect of the predictor variables on the criterion variable. Test of significance for all cases were performed using alpha .05 level of significance.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents the results of statistical analyses and discussions. The first section of this chapter deals with the results obtained from the instruments and their statistical analyses. The second section presents the discussion that attempts to see whether the research questions raised are satisfactorily answered.

4.1. Results

Table number 1, 2, and 3 present basic descriptive statistics of the variables under study that are important for further analyses.

Table1: Descriptive statistics that involve the means, standard deviations, median and range of the variables in the study

Variables	Mean ($\bar{X}$)	Standard Deviation (S.D)	Median	Range of Scores	
				Maximum	Minimum
AA	65.31	10.739	65	93	44
SE	54.35	9.489	55	72	29
AAM	90.95	15.731	98	115	54
SH	110.23	18.064	108	161	75

The data in table 2, were used to carry out mean difference tests (t-tests) to find out whether there were statistically significant sex difference in the predictor variables

Table 2: Number of cases mean and standard deviation for the males' (126) and female's (108) scores on the variables considered

Variable	Sex	$\bar{X}$	S.D
AA	Male	68.37	10.371
	Female	61.75	10.084
SE	Male	57.03	8.434
	Female	51.23	9.731
AAM	Male	94.87	13.557
	Female	86.38	16.882
SH	Male	114.64	18.007
	Female	105.07	16.792

Responses collected from the subjects regarding the variables under discussion were categorized into two levels based on the mean score of the academic achievement. This classification is employed to carry out the analysis of variance.

Table 3: Means and standard deviations in academic achievement of students in the different levels of the independent variables (N=234)

Variables	Levels	$\bar{X}$	S.D	N
SE	High	72.764	8.256	122
	Low	60.811	10.786	112
AAM	High	70.629	7.801	143
	Low	57.484	9.152	91
SH	Good	72.477	7.386	107
	Poor	59.724	9.180	127
Gender	Male	68.365	10.371	126
	Female	56.350	10.084	108

The above data represent the distribution of the respondents into the various categories of each predictor variable on the basis of their responses.

In order to see whether the differences observed above are statistically significant or not, the inferential statistics that involved Four-Way Analysis Of Variance is employed.

Table 4: Analysis of Variance. (ANOVA) Summary Table

Source	SS	df	MS	F
AAM (A)	615.393	1	615.393	10.036*
SH (B)	520.885	1	520.885	8.495*
Gender (C)	246.194	1	246.194	4.151*
SE (D)	244.841	1	244.841	3.993*
AxB	4.994	1	4.994	0.081
AxC	11.204	1	11.204	.183
AxD	70.400	1	70.400	1.148
BxC	3.989	1	3.989	.065
BxD	48.574	1	48.574	.792
CxD	89.328	1	89.328	1.457
AxBxC	.705	1	.705	.011
AxBxD	28.401	1	28.401	.463
AxCxD	177.905	1	177.905	2.901
BxCxD	16.123	1	16.123	.263
AxBxCxD	.501	1	.501	.008
Explained	13502.902	15	900.193	14.680
Residual	13367.324	218	61.318	
Total	26870.2262	233	115.323	

* $P < 0.05$

As can be seen from the above ANOVA table, individual's academic achievement motivation, study habits, sex and self-efficacy do have significant effects independently. But, none of the interaction between (or among) the independent variables is found to be significant.

The difference in academic achievement scores between individuals with high and low academic achievement motivation is statistically significant. The mean academic achievement score of individuals with higher level of academic achievement motivation ($\bar{X}=70.629$) is significantly higher than the mean academic achievement score of individuals classified in the lower level of this trait ($\bar{X}=57.484$) ($F_{1,218} = 3.84 < 10.036$; $P < .05$).

Similarly, students with good level of study habits have mean academic achievement score ($\bar{X} = 72.477$), which is significantly better than the mean score for the students labeled as those who have poor study habits ($\bar{X}=59.724$) ($F_{1,218} = 3.84 < 8.495$; $P < .05$). A statistically significant difference is also observed in mean academic achievement scores between the sexes. That is, the mean academic achievement score for male students ($\bar{X} = 68.365$) is statistically higher than the mean for the females ($\bar{X}=56.350$) ($F_{1,218} = 3.84 < 4.151$; $P < .05$).

Moreover, the mean academic achievement score for students with higher level of self-efficacy ($\bar{X} = 72.764$) is significantly better than students with low level of self-efficacy ($\bar{X} = 60.811$) ($F_{1,218} = 3.84 < 3.993$; $P < .05$).

Since ANOVA does not indicate the amount of the variation contributed by each variable, a multiple regression analysis is carried out in order to see the relative contribution of each trait in the prediction of the students' academic achievement scores.

Table 5: ANOVA Table for the Multiple Regressions

Source	SS	df	Ms	F	R ²
Regression	18786.210	3	6262.070	178.163*	.3114
Residual	8084.016	230	35.148		
Total	26870.226	233			

*P < 0.05

This ANOVA table for multiple regressions revealed that all the independent variables combined together has significant contribution for the prediction of the students' academic achievement scores. In order to know the relative contribution of each predictor variable to the prediction of academic achievement scores of students, it is important to test each of the variables independently.

Table 6: t-test results for the Multiple Regression Analysis

Variables	B	SEB	Beta	t
SE	.496	.078	.438	6.379*
AAM	.430	.056	.630	7.651*
SH	.348	.046	.585	7.626*
Gender	.320	.041	.528	7.480*

*P < 0.05

Constant = 14.781

The multiple regression analysis indicated that self-efficacy belief; academic achievement motivation, study habits and sex have significant contribution to the prediction of students' academic achievement. All of them together added significantly to the prediction of academic achievement, which accounts for about 31.14% of the variance in academic achievement.

The regression equation is:

$$Y' = 14.781 + .496X_1 + .430X_2 + .348X_3 + .320X_4$$

Where:

Y' = Predicted Academic Achievement Score

X₁ = Self-efficacy Score

X₂ = Academic Achievement Motivation Score

X₃ = Study Habits Score

X₄ = Gender

Table 7: Summary of results of Stepwise Regression Analysis

Step	Variables	R	R ²	AR ²	Changing in R ²	F
1	SH	.480	.2304	.230	-	161.23*
2	SE	.512	.2621	.2618	.0318	58.08*
3	AAM	.538	.2894	.2891	.0273	40.69*
4	Gender	.558	.3114	.3110	.0219	24.26*

*P < 0.05

As it can be seen from the step wise regression analysis and the regression equation, the variable study habits has entered first into the stepwise regression with a contribution of .230

(accounting 23% of the variance in AA), followed by self-efficacy belief which contributed .0318(accounting about 3.18% of the variation in academic achievement). Academic achievement motivation and sex have an independent contribution of 0.0273 and 0.0219 that accounted 2.73% and 2.19% respectively to the variation in academic achievement.

The significant correlation obtained between the criterion variable and four of the predictor variables serve as an indication that these variables are significant contributors to the prediction of academic achievement. When compared, the trait study habit has contributed a little more than two-third of the variation accounted for by the total predictor variables included.

Table 8: t-tests in the predictor variables between males and females

Variables	Gender				t-tests
	Males (N = 126)		Females (N = 108)		
	$\overline{X}$	S.D	$\overline{X}$	S.D	
SE	57.03	8.885	51.23	9.731	4.885*
AAM	94.87	13.557	86.38	16.882	4.262*
SH	114.64	18.007	105.07	16.792	4.180*

*P < 0.05

The t-tests result indicates that the mean scores of the predictor variables for male students are significantly higher than that of female students. That is, the mean scores of self-efficacy,

academic achievement motivation and study habits for male students are higher than that of female students ($t = 4.885$, $P < .05$; $t = 4.262$, $P < .05$ and $t = 4.180$, $P < .05$) respectively.

Table 9: Intergender comparison on predictor variables as labeled based on their academic achievement

Variables	Levels	Gender						t-tests
		Males (N =126)			Females (N = 108)			
		N	$\bar{X}$	S.D	N	$\bar{X}$	S.D	
SE	High	72	59.47	8.829	43	58.21	7.431	.819
	Low	54	53.78	6.669	65	46.62	8.229	5.240*
AAM	High	72	100.76	9.797	43	99.95	7.609	.300
	Low	54	87.00	13.950	65	77.40	15.258	3.580*
SH	Good	72	123.81	15.634	43	119.26	10.470	1.866*
	Poor	54	102.43	13.085	65	95.69	11.307	2.974*

* $P < 0 .05$

A comparison in the predictor variables is made between high achiever males and females, and low achiever males and females based on mean scores in academic achievement. Results showed that there are no significant difference in self-efficacy and academic achievement motivation between high achiever males and females ($t = .819$, $P > .05$ and $t = .300$, $P > .05$) respectively. On the other hand, the differences sought in self-efficacy and academic achievement motivation between low achiever males and females is highly significant in favor of males ($t = 5.24$, $P < .05$ and $t = 3.58$, $P = .05$) respectively.

Statistically significant differences are also found in students' study habits between high achiever males and females ($t = 1.866$, $P < .05$) and low achiever males and low achiever females ($t = 2.974$, $P < .05$). In both cases they are in favor of male students.

Table 10: Intragender comparison on predictor variables as labeled based on mean academic achievement

Variables	Levels	Gender					
		Males (N = 126)			Females (N = 108)		
		N	$\bar{X}$	S.D	N	$\bar{X}$	S.D
SE	High	72	59.47	8.829	43	58.21	7.431
	Low	54	53.79	6.669	65	46.62	8.229
	<i>t-tests</i>	4.114*			7.599*		
AAM	High	72	100.76	9.797	43	99.95	7.609
	Low	54	87.00	13.950	65	77.40	15.258
	<i>t-tests</i>	6.193*			10.158*		
SH	Good	72	123.81	15.634	43	119.26	10.470
	Poor	54	102.43	13.085	65	95.69	11.307
	<i>t-tests</i>	8.344*			11.091*		

* $P < 0.05$

The intragender comparison made on the levels of self-efficacy, academic achievement motivation and study habits indicated that there are statistically significant differences in these

traits between the high achievers and low achievers within the same sex. A statistically significant difference is observed in self-efficacy between high achiever males and low achiever males ($t = 4.114$, $P < .05$). High achiever males do have a significant difference in academic achievement motivation than low achiever males ($t = 6.193$, $P < .05$). Similarly, high achiever and low achiever females do have a statistically significant difference in self-efficacy ($t = 7.599$, $P < .05$) and academic achievement motivation ($t = 10.158$, $P < .05$). A significant difference is also observed in study habits between high achiever and low achiever males ($t = 8.344$, $P < .05$) and high achiever and low achiever females ($t = 11.091$, $P < .05$). In all cases, the results are in favor of high achiever students.

An attempt is made to see the relationship between the predictor variables and the criterion variables for males and females independently as a group. The inter correlations among the variables (AA, SE, AAM and SH) show the strength of relationship among these variables.

Table 11: Intercorrelation matrix among academic achievement, self-efficacy, academic achievement motivation and study habits for the males (126) and females (108)

Step	Variables	1	2	3	4
1	AA	-	.283*	.376*	.423*
2	SE	.364*	-	.424*	.385*
3	AAM	.453*	.458*	-	.435*
4	SH	.434*	.446*	.484*	-

* $P < 0.05$

In table 11, the upper and lower diagonals represent the inter correlation for males and for females respectively. The academic achievements of both sexes are positively and significantly related to their self-efficacy scores, academic achievement motivation scores and study habits scores. Moreover, every independent variable, as can be seen from table 11, is significantly correlated with each other. Thus, partial correlations were carried out to identify the strength of relationship between each of the independent variable and the academic achievement scores by controlling the effects that could occur as the result of their interaction.

Partial correlation results indicated that self-efficacy positively and significantly correlated with academic achievement scores of both sexes ($r = .194$; $p < .05$ and $r = .202$; $p < .05$) respectively. Academic achievement motivation and study habits have a significant positive correlation with academic achievement scores of both sexes.

In order to see the combined contribution of the predictor variables to the prediction of the academic achievement for both sexes, a multiple regression analyses were conducted.

Table 12: A t-test for the variables in multiple regressions for males

Variables	B	SEB	Beta	t
SH	.419	.063	.727	6.697*
SE	.502	.110	.371	4.355*
AAM	.369	.086	.483	4.281*

*P < 0.05

Constant = 25.337

The regression equation is:

$$Y' = 25.337 + .419X_1 + .502X_2 + .369X_3$$

Where:

Y' = Predicted Academic Achievements Score

X_1 = Study Habits Score

X_2 = Self-efficacy Score

X_3 = Academic Achievement Motivation Score

Table 13: A t-test for the variables in Multiple Regressions for Females:

Variables	B	SEB	Beta	t
AAM	.433	0.067	.726	6.455*
SH	.269	0.064	.448	4.228*
SE	.322	.099	.311	3.242*

* $P < 0.05$

Constant = 12.565

The regression equation for female students is:

$$Y' = 12.565 + .433 X_1 + .269 X_2 + .322 X_3$$

Where:

Y' = Predicated Academic Achievement Score

X_1 = Academic Achievement Motivation Score

X_2 = Study Habits Score

X_3 = Self-efficacy Score

From the regression analyses it is revealed that a model involving study habits, self-efficacy and academic achievement motivation on academic achievement was statistically significant for both males and females that account for about 29.70% and 34.10% respectively of the variances in academic achievement scores.

To examine the independent contribution of each predictor variable (SE, AAM and SH) on the variation of the academic achievement score for both males and females, stepwise multiple regression analyses were carried out.

Table 14: Summary table of stepwise regression analysis for the variables in the regression for males (N=126)

Step	Variables	R	R ²	AR ²	Increase in R ²	F
1	SH	.423	.179	.174	-	125.308*
2	SE	.502	.252	.248	.073	22.826*
3	AAM	.545	.297	.293	.045	18.327*

*P < 0.05

Table 15: Summary table of stepwise regression analysis for females (N=108).

Step	Variables	R	R ²	AR ²	Increase in R ²	F
1	AAM	.453	.205	.201	-	288.798*
2	SH	.550	.303	.298	0.098	10.252*
3	S-E	.584	.341	.337	.038	10.508*

*P < 0.05

The results of stepwise regression analyses indicated that all the variables entered into the regression added statistically significant contribution to the predication of academic achievement for both the males and females. For males, SH (the first variable entered to the model), SE and AAM added statistically significant contribution to the prediction of AA which accounted for about 17.90%, 7.30% and 4.50% of the variance respectively.

For females, AAM (the first variable entered to the model), SH and SE added statistically significant contribution to the prediction of the academic achievement which accounted for about 20.50%, 9.80% and 3.80% of the variance respectively.

From the regression analyses for the sex-subgroup, it became clear that the students' study habit had the best contribution to the males' academic achievement. AAM, which is the greatest contributor to the prediction of females' academic achievement, was the least contributor to the males' academic achievement.

4.2. Discussion

This discussion section attempts to relate the results of the analyses with the research questions forwarded at the beginning. Thus, it is necessary to restate the questions once again for the sake of easy reference.

1. Does the difference in the level of self-efficacy, academic achievement motivation and study habits among the students also indicate a statistically significant difference in academic achievement?
2. How do these independent variables interact to explain the dependent variable?

3. Do Self-Efficacy, Academic Achievement Motivation, Study Habits and Sex separately and/or jointly contribute to the variation in the academic achievement score of general secondary school students?
4. Do male and female students differ significantly on the variables under discussion?
5. Do the intergender and intragender comparisons show significant difference in the different levels of the independent variables between high achievers and low achievers?
6. Do Self-Efficacy, Academic Achievement Motivation and Study Habits separately and/or jointly contribute to a significant variation in the academic achievement scores of male and female students when treated independently?

4.2.1. Self-efficacy and Academic Achievement

Results of the Analysis of variance indicted that there exists a statistically significant difference on the mean academic achievement scores of students with different levels of self-efficacy belief. The difference showed that students with high self-efficacy belief have higher academic scores and vice versa.

The multiple and stepwise regression analyses results have indicated that self-efficacy belief has a significant contribution to the prediction of students' academic achievement. The proportion of variance accounted for by self-efficacy belief on high school students academic achievement was the second largest-next to study habits.

The result of this study is in agreement with various studies. Bandura (1982,1986) postulated that individuals with high self-efficacy actually do better on many kinds of tasks. Bandura and

Schunk (1991) and Bandura (1986) have confirmed that self-efficacy beliefs influence level of performance, task choice, effort, persistence, thought patterns and stress reactions.

Concerning the influence of self-efficacy on individual's academic performance, Vrugt (1994) has stated that people whose perceived self-efficacy is positive will pursue a relatively high level of performance. Vrugt added that these people would not be put off easily, seek new situations and also persevere in the case of difficult tasks.

On the other hand, individuals with a negative perceived self-efficacy will pursue a lower level of academic performance because doubts and uncertainty during the performance of a task undermine the individual's concentration. (Vrugt, 1994)

4.2.2. Academic Achievement Motivation and Academic Achievement

Statistically significant difference on the mean academic achievement scores of students with different levels of academic achievement motivation is obtained from the ANOVA. Students with higher level of academic achievement motivation scored significantly higher academically. Results of multiple and stepwise regression analyses also indicated that academic achievement motivation added significantly to the prediction of academic scores of students.

As compared to the other variables in the study, the proportion of variance accounted for by academic achievement motivation on academic achievement of general secondary school students was the third largest (refer to table 7). This could be due to the reason that students

with high level of need to achieve approach achievement related activities with the expectation that they will perform better as compared with those who have lower level of the need to achieve (McClelland, 1985 and Weiner, 1989)

The result of this study is also in agreement with many research works, which demonstrated significant and positive relationship between academic achievement motivation and academic performance. Crooks (1988) and Lindgreen et al (1986) noted that motivational factors are crucial whenever a person achieves any thing of significant as a result of instruction. Academic motivation can lower or heighten the level of academic performance depending on various levels of motivation held by an individual (Crooks, 1988).

As many studies confirmed, higher academic performance was related to high academic achievement motivation for the reason that enhanced motivation was associated with greater persistence at tasks despite adverse situations and correspondingly greater likelihood that one succeed in achieving one's goals (Burger, 1985 and Dweck, 1980).

Studies by Weiner (1992) and Cooper (1983) revealed that students who possess high academic achievement motivation have the motive to obtain high standard of performance and show the drive to manipulate their environment. The reasons are that they are action oriented, have better planning ability and have an inclination to embark on challenging and demanding tasks (Newman, 1988, McClelland, 1996 and Weiner, 1992).

4.2.3. Study Habits and Academic Achievement

Results of the ANOVA have indicated a statistically significant difference on the mean academic achievement scores of students with different levels of study habits, that is, individuals with good study habits scoring significantly higher and students with poor study habits scoring lower academic achievement.

The multiple and stepwise regression analyses indicated that study habits do have the highest contribution to the prediction of the students' academic achievement, as compared to other variables in this study.

The result of this study supports the findings of other researchers (Nneji, 2002, NAEP, 1994 and Ikeotuonye and Bashmir, 1986). NAEP (1994) has shown that there is a positive relationship between good study habits and school performance. This document revealed that students, who properly manage their time, select suitable place and situation, and those who prefer group discussion as a study technique will have a good mastery of the subject matter and achieve good results.

Similarly, Ikeotuonye and Bashmir (1986) indicated that one of the major sources for poor academic achievement is poor study habit. Thus, students with good study habits achieve academically higher scores as compared to those with poor study habits.

4.2.4. Gender and Academic Achievement

Statistically significant difference on the mean academic achievement scores is observed between males and females. This indicated that male students possess higher mean academic achievement score than females (refer to table 4). Moreover, the multiple and stepwise regression analyses showed that gender significantly contributed to the variation of academic performance.

The result indicating females perform lower than males academically is inline with a number of research works. Findings undertaken on gender difference in academic performance in the Ethiopian context also reported superior academic performance of male students as compared to their female counterparts (Genet, 1991; Markos, 1996 and Nema and Wagner 1993). However, this finding contradicts with the one conducted by Kimball (1989) as cited in Hyde (1991) which suggested that girls get better and consistent grades at high schools as compared to boys.

Many and different reasons could be given as to why males surpass females in their academic performance. The subordinate position given to the female in the world of education could be one reason. Concerning this, Almaz and Barbara (1990) stated that in the case of Ethiopia, the value that members of the society give to the education of females is very much lower than males and this belief could make females not to be equally competent to that of males.

This widely accepted and practical belief might have influenced the attitude of people who directly or indirectly involved in the process of instruction like teachers, counselors, parents and even female students themselves. Students interpret the praise, criticism and interaction of

teachers to the male students as more important for boys, than for girls to succeed at school (Anbesu, 1991). Anbesu further disclosed that the text materials used in Ethiopia schools are transmitting sex-role stereotyping to students that could encourage stereotypic thinking on both sexes.

In this study, an investigation was also made to see the combined predictive power of study habits, self-efficacy, academic achievement motivation and sex on academic achievement of the students.

The multiple regression model used to examine the combined effect of these predictor variables on academic performance of students revealed that all variables combined together accounted for about 31.14% of the explained variance in academic performance (see table 7).

Each independent variable has an independent significant contribution to the explained variation in students' academic achievement. Relative to other variables in the study, study habits has the highest contribution to the prediction of the academic achievement of general secondary school students followed by self-efficacy belief and academic achievement motivation (see table7).

4.2.5. Gender Differences in Predictor Variables

As it can be seen from the analyses section, the computed t-test value indicated that males had higher self-efficacy belief than their female counterpart. This implies that males are more self-efficacious than females in task oriented activities. Concerning this, Pajares and Miller (1994) have reported a consistent finding that asserted sex difference in mathematics self-efficacy among college students in western cultures that favor males. A study conducted by Yalew (1996) on Ethiopian high school students indicated that males had higher self-efficacy as compared to females.

The present study also indicated that males and females were significantly different in their academic achievement motivation scores. That is, males had higher academic achievement motivation scores than females. This finding is consistent with Dweck (1986), which indicated that males' academic motivation is higher than that of females for the very reason that males attribute their success and failure to the amount of effort whereas girls attribute their success and failure to inborn abilities. Another finding by McClelland (1985) and Beck (1991) found that males have higher scores on need to achieve while females respond in a more complex ways.

Regarding study habits it has been shown that the study habits of males are superior. This is because the amount of time available, the material support provided and even the parents' expectation of their children put the male children on better position. Boys usually are provided with better access to all of the inputs needed for effective studying (Nneji, 2002).

Females' lower academic performance, poor study habits, lower motivation and lower self-efficacy beliefs in Ethiopia may be attributed to the subordinate position females are given in the existing Ethiopian society (Almaz, 1991; Anbesu, 1991 and Alassebu, 1988). Regarding academic achievement, Nema and Wagner (1993) have pointed out that the need of males to be active is usually encouraged while females are culturally reinforced to be shy and reserved both at home and school. According to Almaz and Barbara (1990), the widely held belief that males should be superior to females in intellectual activities is related to the cultural inhibitions against females' achievement.

4.2.6. Intergender Comparison on the Levels of Independent Variables Based on their Academic Achievement

Mean difference comparisons (t-tests) were computed between male and female students who have similar level of beliefs in the predictor variables as categorized based on the students' grand mean scores of academic achievement.

Results revealed that both high achiever males and females do not show statistically significant difference in their self-efficacy beliefs and academic achievement motivation scores. But, significant differences are observed in self-efficacy beliefs and academic achievement motivation scores between low achiever males and females, which is in favors of male students.

A statistically significant difference is observed in students study habits between high achiever males and females, and low achiever males and females in both cases that favor male students.

These results, particularly the result related to self-efficacy belief, are consistent with the result found by Yalew (1996). He showed that significant differences were not obtained between females and males who were successful in their academic performance ($t= 1.620$, $P>.05$). Similarly, the difference sought between failure males and females was highly significant in favor of males ($t= 2.964$, $P< .01$).

Concerning academic achievement motivation, the result of this study is somewhat consistent with Lindgreen (1976) who reported that there was no significant difference in academic achievement motivation between male and female students. Similarly, Torki (1985) reported that the correlation between academic motivation score and GPA for females and males follow the same trend.

The results concerning study habits are in agreement with the findings by Udom (1997) and Thomas (1992) that conformed the existence of statistically significant difference in study habits between male and female students. Then, one reason for this variation according to Udom (1997) is the difference in the amount of time duration for study between males and females. Males usually have ample study time as compared to their female counterparts.

Another reason is the parents' expectation of their children (Thomas, 1992). Thomas has disclosed that parents expect their daughters to be good wives rather than encouraging them involve in the work of education. This is also true in the Ethiopian context as revealed by Alasebu (1988) and Seyoum (1986) that indicated girls in the Ethiopian society are poor academically for the very reason that they are considered as shy, fond of jewellery and less motivated towards education.

4.2.7. Intragender Comparison on the Level of Independent Variables Based on their Academic Achievement

The intragender comparison made on the levels of self-efficacy belief, academic achievement motivation and study habits indicated the existence of statistically significant difference in these traits between the high achievers and low achievers within the same gender.

A statistically significant difference is observed in the different levels of self-efficacy belief between high achiever and low achiever males, and between high achiever and low achiever females. In both cases the results are in favor of the high achievers (see table 10). This study is in agreement with some research findings (Yalew, 1996 and Schunk, 1992). Yalew (1996) has stated that when intragender comparison was made on the level of self-efficacy, successful males and females had higher feeling of self-efficacy than those same gender students who judged their performance as failure. This study is also consistent with Schunk (1992) who conformed that those individuals who have a high sense of self-efficacy for accomplishing a task get better results than those who don't feel efficacious.

Similarly, there is a statistically significant mean difference in academic achievement motivation between high achiever and low achiever males, and between high achiever and low achiever females (see table 10). This finding is consistent with Myers (1987), who indicated that students with high achievement motivation tend to achieve higher grades than those with less academic motivation. McClelland (1985) and Weiner (1989, 1992) have also revealed that highly academic motivated individuals tend to obtain superior academic performance

compared to those with low level of academic achievement motivation who don't have the traits mentioned.

When the comparison was made on the status of study habits, high achiever males and females were found having good study habits than low achieve males and females (see table 10). The result conformed that, in both cases, high achiever students do have good study habits as compared to low achievers. The result of this study supports the finding from the geography assessment in the NAEP (1994), which asserted that the better the study habits students, develop, the better they perform academically. Another finding by Ikeotuonye and Bashmir (1986) pointed that poor study habits are the major causes of poor academic performances for high school students and good study habits have positive effect on their academic performance.

4.2.8. The Relationship Between the Independent Variables and the Dependent Variable for Gender-Subgroups

The Intercorrelation matrix held among AA, SE, and AAM and SH for males and females revealed that each of them has a positive and significant relationship to all variables in the study. The relationship between each predictor variable and academic performance of both males and females was also positive and significant even after the interaction effects of the predictor variables were partial out (see table 11).

There was significant and positive relationship between study habits and academic performance of both males and females even when the effect of other variables in the study

was taken into account. Multiple and stepwise regression analyses indicated that study habits accounted for the significantly explained variance in academic achievement both for males and females (see tables 14 and 15). Here, we can see that the magnitude of coefficient of determination for males is nearly about twice as large as that of their female counterparts.

This result is consistent with many findings related to difference in study habits between the sexes (Alasebu, 1988; Nneji, 2002 and Udom, 1997). The expectation of parents from their children, for instance, is quite different regarding the sexes. According to Alasebu (1988), females are expected by their parents to be good wives, not to be competent enough in the area of management, engineering, education or other social affairs like the males. As a result, female students will not be provided by enough study time, materials and other related supports. So, one reason for the difference in academic achievement of males and females could be the difference in the effectiveness of study habits they experienced.

The sex-specific analyses indicated that self-efficacy belief was significantly and positively related to academic achievements of both males and females. Multiple and stepwise regression analyses in this case revealed that self-efficacy alone significantly added to the prediction of the academic achievement for both males and females of the explained variance (see tables 14 and 15). Still the magnitude of coefficient of determination for males is about twice as large as that of females.

One reason why female students have less self-efficacy belief as compared to their male counterpart could be that though females may have competent skills as males, they probably not able to perceive self-efficacy in performing academic tasks (Nema and Wagner, 1993).

A significant positive relationship was observed between academic achievement motivation and academic performance for males and females. Results from multiple and stepwise regression analyses showed that academic achievement motivation has a significant contribution to predict the academic performance for both male and female students.

A different observation from the previous discussions is that the magnitude of coefficient of determination for females is about five times as large as their male counterparts (see tables 14 and 15). This result is consistent with Lindgreen et al's (1986) finding in secondary school students that indicated females to have higher academic achievement motivation scores than males.

To examine the combined effect of the predictor variables on the criterion variable, a multiple and stepwise regression analyses were conducted for both male and female students separately. The results revealed that all these variables in combination added significantly to the prediction of academic performance of both sexes. The model, which involved three of the variables (SH, SE and AAM) accounted for about 29.70% and 34.10% of the variance in academic performance for males and females respectively (see tables 14 and 15).

When we examined the "unique" variance accounted for by every of the variable under discussion for males versus females, study habits accounted for the most significant variance in academic achievement of males. The academic achievement motivation, which is the least contributor to the males' academic performance, has accounted the most significant variance in females' academic achievement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

One objective of this study was to investigate the effect of self-efficacy beliefs, academic achievement motivation and study habits on the academic performance of general secondary school students. Another objective of the study was to find out the relative contribution of each of these variables to the variation of students' academic performance.

Two hundred thirty-four students (126 males and 108 females) were used from three general secondary schools, namely: Queen Sheba Comprehensive Secondary School, Axum Comprehensive Secondary School and Enticho Senior Secondary School.

Data were obtained using the self-administered questionnaires: Self-efficacy Scale, Academic Achievement Motivation Inventory and Study Habits Inventory. The first two questionnaires were adapted from previous studies, where as the third instrument was developed by the researcher. All questionnaires, which were in English, were translated to Tigrigna (the subjects' native language) with the consultation of language experts. The translated versions were translated back into English and thus faithful translation into Tigrigna was conformed. Students' academic achievement scores were secured from the record office of each school.

The Analysis of Variance, the multiple and stepwise regression analyses and t-tests were employed to analyze the data. ANOVA was used to see whether there was a significant

difference in the mean academic achievement between students who had different levels of the traits under discussion. Multiple and stepwise regression analyses were used to see the combined and relative contribution of the variables to the variance in the academic achievement of the students.

Gender-specific analyses were also performed to see whether there was a significant difference in academic achievement, self-efficacy, academic achievement motivation and study habits between males and females as a group.

The ANOVA indicated that there is a statistically significant difference in mean academic achievement between students with different levels of the independent variables in the study.

Students with higher level of academic achievement motivation have higher mean academic achievement score than those with lower level of academic achievement motivation. Similarly, students with higher level of self-efficacy belief were found to have higher mean academic achievement score than students with lower level of self-efficacy belief. Students with good study habits, as compared to those with poor study habits, have higher mean academic achievement score. There was also a significant difference observed in mean academic achievement scores between male and female students having different levels in the value of the traits under discussion.

The multiple regression analysis technique employed to see the relative contribution of the variables under study on the academic achievement of students has indicated that all of them have contributed significantly to the prediction of one's academic performance. The stepwise

regression analysis has arranged each variable in terms of its contribution to the regression and was found that study habit, self-efficacy, academic achievement motivation, and the gender have contributed .2304, .0317, .0273 and .0220 respectively to the multiple coefficient of determination ($R^2 = .3114$)

Regarding the gender-specific analyses, significant mean differences were observed in all the variables (AA, SE, AAM and SH) between male and female students. Intergender comparisons were made to see whether there were significant differences in the different levels of the independent variables between high achiever males and females, and between low achiever males and females. The result indicated that there were no significant mean differences in self-efficacy belief and academic achievement motivation between high achiever males and females. But, in all the rest possible comparisons, statistically significant differences were observed between high achiever males and females, and between low achiever males and females, which favored males.

The intragender comparisons showed that there was a statistically significant difference in the different levels of each independent variable between high achiever and low achiever males, and between high achiever and low achiever females.

The correlations between the predictor variables (SE, AAM and SH) and criterion variable (AA) as well as the correlations among the predictor variables were statistically significant for both males and females. Even after the interaction effects among the predictor variables were controlled, it was found that each predictor variable has significant correlation with the criterion variable.

The multiple regression analyses for gender-subgroup showed that all variables together have contributed to the prediction of variance in academic achievement for males accounting for 29.70% and for females accounting for 34.10% of the variance.

The stepwise regression analyses for both cases have arranged the variables in terms of their relative contribution. Based on this, the stepwise regression analysis for males has arranged SH, SE and AAM that contributed .1790, .0730 and .0450 respectively to the multiple coefficient of determination ($R^2 = .2970$)

Similarly, for females, AAM (which entered first to the regression equation), SH and SE have contributed .2050, .0980 and .0380 respectively to the multiple coefficient of determination ($R^2 = .3410$).

5.2. Conclusion

Based on the analyses, the discussions and findings of the study, the following conclusions are made:

1. The result from the Analysis of Variance has revealed that there is statistically significant differences in students' mean academic achievement score with different levels of self-efficacy, academic achievement motivation, study habits and gender. The interaction between (or among) the independent variables, however, was found non-significant.

2. Multiple regression analysis involving self-efficacy belief, academic achievement motivation, study habits and gender showed that each of them separately and jointly are very much closely related to the academic performance of general secondary school students. They jointly and separately add significantly to the prediction of the students' academic achievement.
3. The mean difference test indicated that male students were found having significantly higher mean scores in academic achievement, higher self-efficacy belief, higher academic achievement motivation and good study habits as compared to female students.
4. The t-test computations for students with different sexes revealed that there is no significant difference in mean self-efficacy score and academic achievement motivation score between high achiever males and females. But, significant differences are observed in the other entire group of computations.
5. The result from the intragender comparisons revealed the existence of statistically significant difference in all the independent variables between both high achiever males and low achiever males, and between high achiever females and low achiever females.
6. The intercorrelation matrix held among all variables (AA, SE, AAM, and SH) for both males and females disclosed positive relationships among each of them and between the independent variables and the dependent variable.
7. The gender specific analyses have also shown that all the variables involved in the analysis separately and jointly have significant contribution to the students' academic achievement both for males and females.

⑧ To sum up, the findings of this study are in line with the evidences found by other researchers in the field, particularly by western researchers. The findings have important practical implication to the educational institutions specifically general high school education of Ethiopia. The contributions of the non-cognitive factors on the academic performances observed between male and female students call for suitable intervention strategies on the part of teachers, counselors, school administrators and curriculum designers.

The importance of study habits, self-efficacy beliefs and academic achievement motivation are critical for the high scores in academic subjects. Cognitive factors like intelligence and aptitude are fundamentally needed for academic achievement. However, these qualities by themselves are not sufficient. Thus the aforementioned factors provide the critical finishing touch needed for high academic achievement. In this respect their importance is never overstated.

5.3. Recommendations

Based on the findings of this study and others related findings, the following short-term and long term recommendations are made:

Short-Term recommendations

1. High school teachers need to give due attention to the contribution of the non-cognitive variables such as those mentioned in this study so as to devote much of their time and effort in promoting students' high self-efficacy, academic achievement motivation and good study habits. In doing so, teachers need to equally encourage students in the class

regardless of their sex. While they are assigning assignments and class works, while they are motivating students, and during school evaluations, teachers should realize that female students are equally entertained like their male counterparts and be gender sensitive in classroom management.

2. The female students were found to be lower to boys on all the three non-cognitive measures of the study. This may be due to the sex stereotyping in socialization. Thus, female students should be given assertiveness training so as to promote fair completion with their male counterparts in any respect. In doing so, mass media, (Radio, TV and newspapers), different associations (female' associations, Teachers' associations and others), parents, teachers and society in general should create a link in realizing the issue.

Long Term Recommendations

1. Suitable interventions need to be given to students to increase their academic achievement motivation, self-efficacious beliefs and study habits. A mass country level movement operating at high schools will bring tremendous improvement in academic achievement and personality development of the students. Therefore, governmental and non-governmental organizations that work around education should direct their efforts accordingly. Moreover, a school guidance program of such a kind will bring out the strivings in every student channeling them in the direction of high academic achievement.
2. High schools as an institution should organize special programs focused on mechanisms of solving problems of female students in collaboration with the community and other concerned organizations, which have an interest in strengthening female education.

3. Parents need to develop similar expectation for both sexes concerning their education. They should have to avoid sex stereotyping while treating their children and should be provided teaching materials, enough time, and freedom to study (in group and privately, inside or/and outside their homes) equally.
4. Females themselves need to be assertive in securing their rights. They should have to fight against any illegal treatment and restrictions imposed. They should maintain their success both in school and social life by actively involving in all rounded activities.

Generally, all responsible bodies that directly or indirectly involve in the process of child socialization like parents, teachers, counselors, school administrators, curriculum experts, governmental and non-governmental organizations need to work jointly and independently for the betterment of female education and their achievement.

Recommendations for further research

1. The present study mainly dealt with three non-cognitive factors that only account 31.14% of the variance in academic achievement. Thus, a factorial approach to pinpoint the factor loadings of the non-cognitive variables included in the present study and other variables like socio-economic status, nutritional conditions, mental and health status, and personality variations will be very useful.
2. In this study, the variables were measured using self-report type questionnaires. The weakness of such an approach is well documented in research. So, more than one way of corroborating measures are needed for further confirmations of the findings.

3. Statistically significant differences were observed between male and female students and these differences are assumed as a result of variations in their socialization process. Hence, the assumption about difference in socialization for males and females need to be empirically tested.
4. Self-efficacy, study habit connections need to be further probed to find out whether there is a seminal construct providing the under grid for both of them.
5. The comparison made between high achiever and low achiever students for both sexes independently revealed a significant difference in their beliefs in the independent variables under discussion that favors high achievers. Thus, a further research could be conducted to test whether teaching (training) low achiever students the traits of high achiever students can really improve their traits
6. The present study has considered only general secondary school students and includes less number of samples. Therefore, a further comprehensive study that includes elementary and secondary school students shall be conducted.

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APPENDICES

Appendix I

Academic Self-Efficacy Scale

Direction:

Please read each statement carefully. Based on the extent to which an item explains your behavior, choose one of the following options.

- Very True of Me (VT) (5)
- True of Me (T) (4)
- Some What True of Me (ST) (3)
- Not True of Me (NT) (2)
- Not at All True of Me (NAT) (1)

And then mark “X” under your choice on the basis of what you believe in your academic work in school. There is no **right** or **wrong** answers. It is simply a measure of your belief regarding the behavior explained in each item. Answer all items **truthfully** and do not spend too much time over questions.

Thank you in advance.

No.	Items	Response Categories				
		1	2	3	4	5
1	I am certain I can master the Skills taught in this class this year.					
2	I can do even the hardest class academic work if I try.					
3	If I have enough time, I can do a good job on all my class work.					
4	I can do almost all the academic work in this class if I don't give up.					
5	Even if the academic work in this class is hard, I can lean it.					
6	I am certain I can figure out how to do the most difficult academic work in this class.					
7	Compared with other students in this class, I expect to do well.					

8	I am certain I can understand the idea taught in this class.					
9	I expect to do very well in this class.					
10	Compared with others in this class, I think I am a good student.					
11	I am sure I can do an excellent job on problems and tasks assigned in the courses I am taking.					
12	I think I will receive a good grade in the courses I am taking.					
13	My study skills are excellent compared with others in this class.					
14	Compared with other students in this class, I think I know a great deal about the course I am taking.					
15	I know that I will be able to learn the material for the courses I am taking.					

Name of the school _____ Section _____

Roll Number _____ Sex _____

Appendix II

Academic Achievement Motivation Inventory

Direction:

Please read each statement carefully. Based on the extent to which an item explains your behavior, choose one of the following options.

Strongly Agree	(SA)	(5)
Agree	(A)	(4)
Undecided	(UND)	(3)
Disagree	(DA)	(2)
Strongly Disagree	(SDA)	(1)

And then mark "X" under your choice on the basis of what you believe in your academic work in school. There is no right or *wrong* answers. It is simply a measure on your belief regarding the behavior explained in each item. Answer all items **truthfully** and do not spend too much time over questions.

Thank you in advance

No.	Items	Response Categories				
		1	2	3	4	5
1	I often do Something just to prove to myself that I can do it					
2*	I like to select my friends from among those who have lower ability than mine					
3	I regard myself as a more consistent and hard worker in my classroom assignments than other students in my class					
4	I usually start performing homework and assignments as early as possible					
5	To prepare myself a long time for an important task is necessary to succeed					
6*	I am not so strongly future oriented in any of my academic work					
7	While in schools, I usually feel the time is going too fast					

8	If I am given lower marks than other students, it makes me unhappy					
9*	Other interests such as sports, hobbies, etc prevent me from obtaining an excellent mark instead of making efforts in my school work					
10	Students should be more concerned about success in school than avoiding feelings of failure					
11*	I believe that my parents expect of my performance as more important than that what I expect for myself					
12*	I feel that my instructors think that I misbehave too much in the class					
13*	The future is too uncertain for a person to make serious plans					
14*	If I failed several times consecutively, I would stop trying as harder next time					
15	Even though the probability of question included in the test from outside is so little, I would like to read all related subjects from outside					
16*	Failure in doing something discourages me from trying as hard as possible the next time					
17*	If I have not attained my goals and have not done a task well, I usually give up					
18*	I give attention to those activities which involve chance factors					
19	If an assignment is given by my instructor, I usually set my heart on doing my best and making favorable impression					
20*	I prefer to register in c course in which no grades are to be given					
21*	If I was called from my homework to watch television or listen to the radio, then after words I would find it difficult to begin again					
22	I have a very strong desire to excel academically					
23	I usually enjoy the challenge of difficult problems					
24*	Since the future is uncertain, there is no reason to try to do things in hurry					

*Low Academic Achievement Motivation Items (to be reversed while scoring)

Name of the school _____ Section _____

Roll Number _____ Sex _____

Appendix III

Study Habits Inventory

Direction:

Keeping in mind that the purpose of this inventory is to find out about your own study habits, consider each statement below and then indicate how it applies to you by marking "X" under your choice on the basis of your believe of your study habits.

Very True of Me	(VT)	(5)
True of Me	(T)	(4)
Some what True of Me	(ST)	(3)
Not True of Me	(NT)	(2)
Not at All True of Me	(NAT)	(1)

There is no *Right* or *Wrong* answers. It is simply a measure of your belief regarding the behavior explained in each item. Answer all items truthfully and do not spend too much time over questions.

Thank you in advance.

No.	Items	Response Categories				
		1	2	3	4	5
1	I take enough time to plan my study.					
2*	I usually spend hours cramming the night before an exam.					
3	I need to plan my time for studying different subjects.					
4	I give a quick reading to the entire topic first and then start mastering each point.					
5*	I find it difficult to concentrate on what is taught in the class.					
6	I need to improve my reading speed.					
7	I go to a test usually with lot of confidence.					
8*	I don't know how to pick out what is important in the text.					

9	I am able to take notes in the class without many mistakes.					
10	I need to improve my time management.					
11*	I fail to review my class notes within 24 hours of the time I took them.					
12*	I usually write my papers the night before they are due.					
13*	I study enough for my exams but don't feel confident before going to the exam.					
14	I need to improve how I am preparing for and taking tests.					
15*	I often find myself getting lost in the details of reading and have trouble identifying the main ideas.					
16*	I can't sit and study for long periods of time without becoming tired or distracting.					
17	If I read for more time, then I will have no anxiety in taking the exams.					
18*	When I get to the end of the chapter, I can't remember what I've just read.					
19	I need to improve my note taking.					
20*	If I spend, as much time on my social activities as I want to, I don't have enough time left to study, or when I study enough, I don't have time for social life.					
21	I often wish that I could read faster.					
22*	I am not usually mentally prepared to hear the date of exams.					
23	I need to improve my reading comprehension.					
24*	When my teachers assign papers, I feel too much of work due to backlog.					
25*	I can't seem to organize my thoughts into a paper that makes sense					
26	I spend too much time studying for what I am learning.					
27*	I lose a lot of points on tests even if I think I know the material well.					
28*	My class notes are sometimes difficult to understand later.					
29*	I can't keep up with my reading assignments, and then I have to cram the night before a test.					

30	I need to improve my concentration when I am studying.					
31*	I often study in a haphazard, disorganized way shortly before the test.					
32	I usually study for more than 3 hours per day.					
33	I study late night and get up early in the morning.					
34	I study the portion taught every day, and revise for myself.					
35	I often read books other than my class books.					
36	I usually read newspapers, and attend radio news.					
37	I usually think of the application of what I study to the real life.					

*Low Poor study Items (to be reversed while scoring)

Name of the school _____ Section _____

Roll Number _____ Sex _____

Appendix IV

መአከቢ ሓበሬታ አካዳሚያዊ ዓርሰ-እምነት

መምርሒ

ሕድሕድ ሓሳብ ብጥንቃቄ ድሕሪ ምንባብ ባህሪኻህን ዝገልፅ ሓሳብ ካብዎም ቀጺሎም ዝቐረቡ መማረሶታት ሓደ ምረሶ/ባ።

ንዓይ አዝዩ ሓቂ እዩ	(አሓ)	(5)
ንዓይ ሓቂ እዩ	(ሓ)	(4)
ንዓይ ዳርጋ ሓቂ እዩ	(ዳሓ)	(3)
ንዓይ ሓቂ አይኮነን	(ሓአ)	(2)
ንዓይ ፈጺሙ ሓቂ አይኮነን	(ፈሓአ)	(1)

አብዚ ትኽክል ወይ ጌጋ ዝሃበል ሓሳብ ስለዘይህሉ ንዓይ ይገልፀኒ እዩ እትብሉ (ልዩ) ሓሳብ ጊዜ እንተይወሰድካ/ኪ ብቐንዕና መልስኻህን ሃብ/ቢ።

ተ. ቁ.	ዝርዝር ተግባራት	መማረቢ መልስታት				
		1	2	3	4	5
1	አብዚ ዓመት አብ ክፍለይ ዝመሃርኩም ክእለታት ከምዝመልኮም ርግፀኛ እዩ					
2	እንድሕር ፈቲነ ዋላ ከበድቲ አካዳሚያዊ ዕዮታት ክሰርሖም እኽእል እዩ					
3	እኹል ግዜ እንድሕር ሃሊኡኒ ኩሎም ክፍሊ ዕዮታት ብፅቡቕ ክሰርሖም እኽእል እዩ					
4	ባዕለይ እንተዘይሓዲገዮ ዳርጋ ኩሎም አብዚ ክፍሊ ዝወሃቡ አካዳሚያዊ ዕዮታት ክሰርሖም እኽእል እዩ					
5	አብዚ ክፍሊ ዘሎ አካዳሚያዊ ዕዮ ዋላኳ ከቢድ ይኹንምበር ክሰርሖ እኽእል እዩ					
6	አብዚ ክፍሊ ዘለው አዝዮም ከበድቲ አካድያሚያዊ ዕዮታት ብኸመይ ክሰርሖ ከምዝኽእሉ ክርኢ ከምዝኽእል ርግፀኛ እዩ					
7	ምስ ካልኣት ናይዚ ክፍሊ ተምሃሮ እንትነፃፀር ዝበለፀ ክሰርሖ እኽኖል እዩ					
8	አብ ክፍሊ ዝተመሃርክዎ ሓሳብ ክርድኦ ከምዝኽእል ርግፀኛ እዩ					
9	አብዚ ክፍሊ ፅቡቕ ክሰርሖ እፅበ					

10	አብዚ ክፈሊ ምስ ካልኣት ተምሃሮ እንትነፃፀር ንፋፅ ተምሃራይ እዩ ኢሉ እሓስብ					
11	አብቶም ዝመሃሮም ዘለኹ ዓይነታት ትምህርቲ ፅቡቕ ውፅኢት ክረክብ እዩ ኢሉ እሓስብ					
12	አብቶም ዝመሃሮም ዘለኹ ዓይነታት ትምህርቲ ዝህልው ዕዮታትን ንጥፈታትን ኣዝዩ ዝበለፀ ከምዝሰርሕ ርግፀኛ እዩ					
13	አብዚ ክፈሊ ምስ ዘለው ተምሃሮ እንትነፃፀር ክእለት ኣፀናንዓይ ኣዝዩ ዝበለፀ እዩ					
14	አብዚ ክፈሊ ምስ ዘለው ተምሃሮ እንትነፃፀር ብዛዕባ ዝመሃሮም ዘለኹ ዓይነታት ትምህርቲ ብዙሕ እፈልጥ እዩ ኢሉ እሓስብ					
15	አብቶም ዝመሃሮም ዘለኹ ዓይነታት ትምህርቲ ዘለው ትሕዝቶታት ክፈልጦም ከምዝኸእል እኣምን					

ሽም ቤት ትምህርቲ _____ ክፍሊ _____
 ተራ ቁፅሪ _____ ፆታ _____

Appendix V

መአከቢ ሓበሬታ አካዳሚያዊ ውፅኢታዊነት

መምርሒ

ሕድሕድ ሓሳብ ብጥንቃቄ ድሕሪ ምንባብ ብኸመይ መልክዕ ምሳኻ/ኸ ከምዝስማማዕ ብምንፅፃር ካብዞም ቀዲሎም ዝቐረቡ መማረዕታት ሓደ ምረፅ/ባ።

አዝዩ እስማማዕ	(አእ)	(5)
እስማማዕ	(እ)	(4)
ምውሳኔ ይኸብደኒ እዩ	(ምይ)	(3)
አይስማማዕን	(አ)	(2)
ፈፂመ አይስማማዕን	(ፈአ)	(1)

አብዚ ትኽክል ወይ ጌጋ ዝሃበል ሓሳብ ስለዘይህሉ ብዛዕባይ አዝዩ ዝገልፅ እዩ እትብሉ (ልዩ) ሓሳብ ብምልክት «X» ተጠቂምካ/ኸ መልስኻ/ኸ ሃብ/ቢ።

ተ. ቁ	ዝርዝር ተግባራት	መማረቢ መልስታት				
		1	2	3	4	5
1	መብዛሕትኡ ጊዜ ክሰርሖ ዝኸእል ምክኒይ ንምርግጋዕ ዝኾነ ነገር እሰርሖ					
2*	መሓዙተይ ክኾነኒ ዝመርዖም ካብ መንጎ እቶም ብዓቕሚ ካባይ ዝተሓቱ እዮም					
3	ኣብ ክፍለይ ካብ ዘለው ካልኣት ተምሃሮ ኣብ ዕዮታት ክፍሊ ንባዕለይ ህርኩት እዩ ኢል እኣምን					
4	መብዛሕትኡ ጊዜ ዝወሃቡኒ ዕዮታት ገዛ ብገንኡ ምስራሕ እጅምር					
5	ኣብ ጠቓሚ ስራሕ ብሉፅ ውፅኢት ንምርካብ ንዓረኽ ጊዜ ምድላው የድሊ					
6*	ኣብ ዝኾነ ይኸን አካዳሚያዊ ዕዮይ አዝዩ መፃኢ ተኮር አይኮንኩን					
7	ኣብ እዋን ትምህርቲ ጊዜ ቀልጢፋ ዝከይድ መሲሉ ይስመዐኒ					
8	ካብ ናይ ካልኣት ተምሃሮ ዝተሓተ ማርኪ እተተዋሂቡኒ ሓዘን ይስመዐኒ					
9*	ከም ስፖርትን ካልኣት መዘናግታትን ትምህርተይ ጠንኪረ ክሰርሖ ክንዲ ዝሕግዙኒ አዝዮ ዕቡቕ ውፂኢት ንኸየምፅእ ይግግቱኒ					
10	ተምሃሮ ኣብ ክንዲ ስሚዕታት ድኽመት ብዛዕባ ዕቡቕ ውፂኢት					

	ትምህርቶችም ከግድሱ ይግባሉ					
11*	ብዛዕባ ስረሓይ ኣነ ካብብዕብዮ ንላዕሊ ወለደይ ብዝበለፀ ኣገዳሲ እዮ ኢሉም ከምዝኣምኑ ይስመዐኒ					
12*	መምህራንይ ኣነ ኣብ ክፍሊ ኣዝዩ ከምዝርብሽ ገይሮም ዝሓስቡኒ ይመስለኒ					
13*	መፃኢ እዋን ስለዘየተኣማምን ኣገዳሲ ትልሚ ምትላም ኣይከ ኣልን					
14*	ንብዙሕ ጊዜ ብተኸታታሊ እንተወዲቐኹም ኣብ ቀፃሊ እዋን ኣበርቲፀ ንምስራሕ ምፍታን ክገድፎ ይግባሉ					
15	ኣብ ፈተና ዕድል ምህላው ዘይተምሃርናዮም ሕቶታት ትሑት ዋላ እኳ እንተኾነ ዘይተምሃርክዎም ተዛመድቲ ሓሳባት ከንብብ እፎቱ					
16*	ገለ ነገራት ኣብ ምስራሕ ዚጋጥም ዘይምዕዋት ኣብ ቀፃሊ ጊዜ ብዝተኸኣለኒ መጠን ንክይፍትን ተስፋ የቁርፀኒ					
17*	ዕላማይ ሽትኡ እንተዘይወቂዑን ሓደ ስራሕ ዕቡቕ እንተዘይሰራሕን መብዛሕትኡ እዋን ኣቋርፆ					
18*	ብግምት ክስርሑ ኣብ ዝኸለሉ ስራሕትታት ትኹረት እገብር					
19	ብመምህራይ ሓደ ዕዮ እንድሕር ተዋኒቡ መብዛሕትኡ ጊዜ ዕቡቕ ሰራሕ ዝሓሸ ስሚዒት ንምፍጣር ዝኸለሉ ኩሉ እገብር					
20*	ብዙሕ ፃዕሪ ንዘይሓቱ ዓይነታት ትምህርቲ ጊዜ ሂበ ከፅንዕ እመርፅ					
21*	ኣብ ዘፅንዕሉ ጊዜ ካልኦት ስራሕትታት ንክሰርሕ እንድሕር ተኣዚዘ ብድሕሪኡ ተመሊሰ መፅናዕተይ ንምጀማር የፀግመለይ					
22	ብትምህርተይ ብለዕ ንክኸውን ኣዝዩ ብርቱዕ ድሌት ኣለኒ					
23	መብዛሕትኡ እዋን ከበድቲ ዕዮታት ምስራሕ የሕጉሰኒ					
24*	መፃኢ ጊዜ ዘጠራጥር ስለዝኾነ ነገራት ሃሊፅካ ንምስራሕ ዘገድድ ዓይነት ምክንያት ኣይህሉን					

ሽም ቤት ትምህርቲ _____ ክፍሊ _____
 ተራ ቁፅሪ _____ ያታ _____

Appendix VI

መአከቢ ሐበሬታ ልምዲ አፀናንዓ

መምርሒ

ዕላማ እዚ መአከቢ ሐበሬታ ልምዲ አፀናንዓ ናይ ሕድሕድ ተምሃንይ ውልቃዊ ልምዲ አፀናንዓ ንምፍላጥ እዩ። ስለዚ እዞም ዝስዕቡ ብዛዕባ ልምዲ አፀናንዓ ዝገልፁ ምሉእ ሓሳባት ንውልቅኻ/ኪ ከመይ ከምዝገልፁኻ/ኪ ምልከት «X» ብምጥቃም ካብ እዞም ዝስዕቡ መማረቦታት ሓዲእም መሪሖ/ኪ አመልክት/ቲ።

- ንዓይ አዝዩ ሓቂ እዩ (አሓ) (5)
- ንዓይ ሓቂ እዩ (ሓ) (4)
- ንዓይ ዳርጋ ሓቂ እዩ (ዳሓ) (3)
- ንዓይ ሓቂ አይኮነን (ሓአ) (2)
- ንዓይ ፈጊሙ ሓቂ አይኮነን (ፈሓአ) (1)

ኣብዚ ትኽክል ወይ ጌጋ ዝበሃል መልሲ ስለዘይህሉ ንዓይ ብዝበለፀ ይገልፀኒ እዩ እትብሉ (ልዩ) ሓሰብ ብዙሕ ግዜ እንተይወሰድካ/ኪ ብቐንዕና መልስኻ/ኪ ሃብ/ቢ።

ተ.ቁ	ዝርዝር ተግባራት	መማረቢ መልስታት				
		1	2	3	4	5
1	ትልሚ አፀናንዓ ንምድላው እኹል ግዜ እጥቀም					
*2	ዝበዝሕ እዋን ኣብድሮ መዓልቲ ፈተና ሓሳባት ብቐንዕና ንምሓዝ ብዙሕ ሰዓታት አፅንዕ					
3	ዝበዝሕ እዋን ዝተፈለለዩ ዓይነታት ትምህርቲ ንምፅናዕ ትልሚ አፀናንዓ ንምድላው ግዜ ክህልወኒ እደሊ					
4	ኣብ እዋን መፅናዕቲ መጀመርታ ነቲ ጠቐላላ ሓሳብ ብቅልጡፍ ድሕሪ ምንባብ ንሕድሕድ ሓሳብ ክመልኽ እፍትን					
*5	ኣብ ክፍሊ ዝወሃብ ትምህርቲ ብምሉእ አቓልቦ ንምክትታል የሸግረኒ					
6	ቀልጢፍካ ናይ ምንባብ ክእለት ከማዕብል እደሊ					
7	መብዛሕትኡ እዋን ብመሉእ ዓርሰ እምነት ናብ ፈተና እኣቲ					
*8	ቀንዲ ሓሳብ ሓደ ፅሑፍ ከመይ ከምዝርከብ አይፈልጥን					
9	ኣብ ክፍሊ መምህር ዘምህር ትምህርቲ ብዘይ ምንም ጌጋ መዘክር ምወሳድ እኽእል					
10	አጠቓቕማ ግዜ ከመሓይሽ እደሊ					

*11	ዝሓዝከዎ መዘክር ኣብ ውሽጢ 24 ሰዓታት ምኽላስ የፀግመለይ					
*12	ዝበዝሐ እዋን ክሰርሖም ዝወሃቡኒ ዕዮታት ጽሑፍ ኣብድሮ መረከቢ መዓልቱ እየ ዘዳልዎም					
*13	ዋላኪ ፈተና ንምፍታን እኹል ግዘ ወሲዶ እንተፅናዕኹ ቅድሚኛ ናብ ፈተና ምእታወይ ዓርሰ እምነት ኣሕዲረ ኣይፈልጥን					
14	ክእለት ፈተና ምድላውን ምውሳድን ከመሓይሽ እደሊ					
*15	ዝበዝሐ እዋን ደቀኞቲ ሓሳባት ኣብ ምንባብ ስለዘድህብ ቀንዲ ሓሳባት ንምርካብ የፀግመለይ					
*16	ከይደኸመኒ ወይ ከይተመናጉኹ ንነዊሕ ግዘ ከፅንዕ ኣይክእልን					
17	ንውሕ ንዝበለ ግዘ እንተንቢበ ፈተና ንምውሳድ ኣይጭንቓን					
*18	ሓደ ምዕራፍ ኣንቢበ ንምውዳእ እንትቃረብ ዘንበብኩዎ ክዝክር ኣይክእልን					
19	ኣተሓሕዞ /ኣወሳስዳ/ መዘክረይ ከማዕብል እደሊ					
*20	መብዛሕትኡ እዋን ኣብ ማሕበራዊ ዝኾኑ ስራሕቲ ግዘ እንተ ኣጥፊእ ንመፅንዒ ዝኸውን ግዘ ይሓፅረኒ ወይ ድማ ብዙሕ ሰዓት ኣብ መፅናዕቲ እንተሕሊፈ ንማሕበራዊ ስራሕቲ ዝኸውን ግዘ ይሓፅረኒ					
21	መብዛሕትኡ እዋን ቀልጢፈ ምንባብ ንኸኸእል እምነ።					
*22	መዓልቲ ፈተናታት መዓዝ ከምዝኾኑ ንምፍላጥ ድልዊ ኣይኮንኩን					
23	ኣንቢበ ናይ ምርዳእ ክእለተይ ከማዕብል እደሊ					
*24	መምህራንይ ናይ ዕሑፍ ስራሕቲ እንትህቡኒ ኣዝየ ትህኽት ይስመዐኒ።					
*25	ሓሳባተይ ጠሚረ ትርጉም ብዝህብ መልክፁ ኣብ ወረቀት ምስፋር ዝኸእል መሲሉ ኣይስመዐንን					
26	ዝመሃሮ ትምህርቲ ኣብ ምፅናዕ ብዙሕ ግዘ የሕልፍ					
*27	ዋላኪ ሓደ መምሃሪ ዕሑፍ መሊኸዮ እየ ኢሉ እንተሓሰበኩ ፈተና እንትፍተን ግና ብዙሓት ነጥብታት እጋገ					
*28	ሓደ ሓደ እዋን ኣብ ክፍሊ ዝወስዶም መዘክር ደሓር ንምርድእም የፀግመለይ					
*29	ዝወሃቡኒ ዕዮታት ንባብ ብእዋኑ ስለዘይሰርሕ ኣብድሮ መዓልቲ ፈተና ክሽምድድ እግደድ					
30	ናይ መፅናዕቲ እዋን ኣቓልበይ ከማሓይሽ እደሊ					
*31	ዝበዝሐ ግዘ ኣፀናንዓይ ብሃበ ተረኽበን መልክዕ ብዘይብሉን መገዲ ኣብድሮ መዓልቲ ፈተና እየ					

32	ዝበዝሕ እዋን ኣብ መዓልቲ ካብ 3 ሰዓት ንላዕሊ ኣፅንዕ					
33	ዝበዝሕ እዋን ለይቲ እንዳፅናዕኹ ነዊሕ ፀኒሖ ብፅባሒቱ ድማ ኣንጊህ እትስእ					
34	በቢመዓልቱ ዝተምሃርክዎ ኣፅንዕን እኸልስን					
35	ዝበዝሕ እዋን ካብ መምሃሪ መዓሕፍቲ ብተወሰኹ ካልኣት ተወሰኸቲ መዓሕፍቲ ኣንብብ					
36	ዝበዝሕ ግዘ ጋዜጣ ኣንብብን ዜና ፊደላ እክታተልን					
37	መብዛሕትኡ እዋን ዝመሃሮም ነገራት ኣብ ወድዓዊ ሂወት ዝህልዎም ረብሓ /ግደ/ እኣስብ					

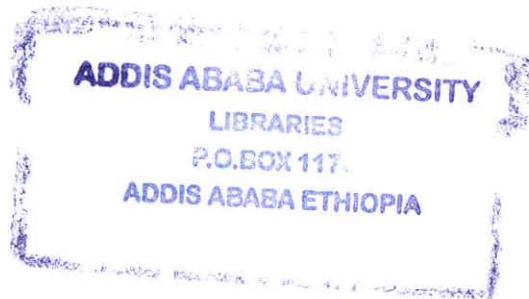
ሽም ቤት ትምህርቲ _____ ክፍሊ _____
 ተራ ቁፅሪ _____ ያታ _____

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the thesis have been duly acknowledged.

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