

**FACTORS AFFECTING EGSECE ACHIEVEMENT OF STUDENTS
IN GOVERNMENT AND NON-GOVERNMENT SCHOOLS OF
ADDIS ABABA**

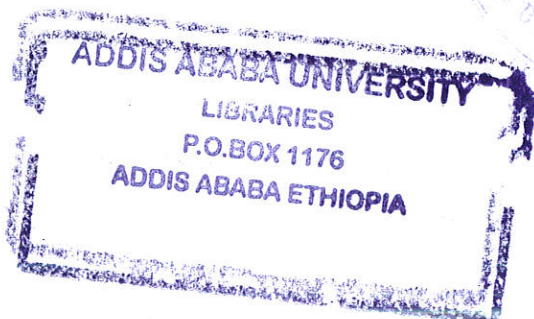
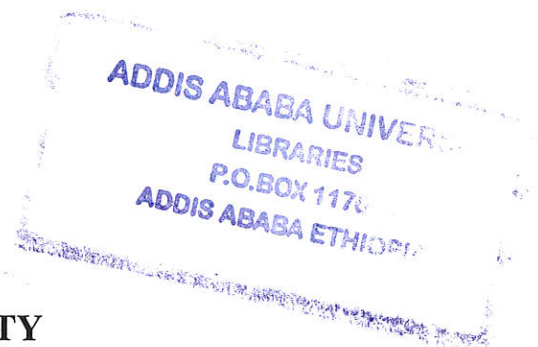
By: Getnet Semaw

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF EDUCATIONAL RESEARCH**

**A Thesis Submitted to the School of Graduate Studies of Addis Ababa
University in Partial Fulfillment of the Requirements for the Degree of
Master of Arts in Educational Research and Development**

February 2009

Addis Ababa



ACKNOWLEDGEMENTS

I take this opportunity to express my sincere gratitude to my research advisor Dr. Desalegn Chalichisa for his sustained direction and continuous encouragement that guided this thesis to its completion.

I wish to thank all my instructors at IER for the best professional relationship I have experienced. I am sincerely grateful for the help I received.

My sincere appreciation goes to Addis Ababa Education Bureau that sponsored me to work for my second degree. I would like to thank principals of the sampled schools, my friends and all the people who directly or indirectly contributed to this effort.

I am eternally indebted to my wife Almaz Aychiluhm and my children Birtukan, Melaku and Betselot who have been most understanding and supportive in my educational endeavor.

Thanks!

Table of Contents

CHAPTER ONE. INTRODUCTION	1
1.1. Background of the Study	1
1.2. Statement of the Problem	4
1.3. Research Questions	5
1.4. Significance of the study	5
1.5. Delimitation of the Problem	6
CHAPTER TWO: REVIEW OF RELATED LITERATURE	8
2.1. History of Education System	8
2.2. The Assessment System	11
2.3. Factors that Contribute to Students' Academic Achievement	14
CHAPTER THREE: METHOD OF THE STUDY	29
3.1. Design of the Study	29
3.2. Variables in the study	29
3.3. Study Area	29
3.4. Population and Sampling	30
3.5. Tools of Data Collections	32
3.6. Pilot testing	33
3.6. Procedure of Data Collection	33
3.7. Data Analysis Techniques	34
CHAPTER FOUR:- PRESENTATION, ANALYSIS and INTERPRETATION OF DATA	36
4.1. Characteristics of the Study Group	36
4.2. EGSECE achievement of Government and non-government secondary schools students	39
4.3. Predicting EGSECE from Factors Affecting Academic Achievement	44

Table of Contents

CHAPTER FIVE: DISCUSSION	48
CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATION	57
6.1. Summary	56
6.2. Conclusion	58
6.3. Recommendations	59
Reference	61
Appendix	

List of Tables

Table 1:	Respondents by Sex and Age	30
Table 2:	Sample Schools with Total and Sample Respondents.	31
Table 3:	Parents educational status by school type	36
Table 4:	Tutors by School type	37
Table 5:	Weekly study hours and School type	38
Table 6:	t-test between each of the independent variables	39
Table 7:	T-test between government and non-government schools by students GPA.	40
Table 8:	A Correlation between grade 10 students GPA and factors that affect GPA in government and non-government schools.	41
Table 9:	Correlation Matrix between the dependent and independent variables	43
Table 10:	Multiple Regression to predict the criterion from the predictor variables.	44
Table 11:	Significance of the model for predicting the criterion from the predictor variables.	45
Table 12:	Beta Coefficients for predicting the criterion from the predictor variables.	46

ABSTRACT

The primary purpose of this study was to compare EGSECE achievement of students in government and non-government schools and examine the relationship of factors that affect EGSECE achievement. Besides it tried to examine the prediction of EGSECE with the six independent factors parental involvement, homework, class size, school facilities, teacher competency, and principal leadership. Five government and five non-government secondary school students were used in this study. A questionnaire was applied to 362 student participants who completed a questionnaire that addressed characteristics analyzed for each group. The 362 participants were randomly chosen to respond to items on parental involvement, homework, class size, school facilities, teacher competency, and principal leadership. Data from the completed questionnaires were reported using descriptive statistics and frequency data. Major findings of the study were that the mean value for each of the independent variables of non-government schools was greater than the government schools, and the t-test computed revealed that there was statistically significant difference on EGSECE achievement between government and non-government schools in favor of non-government schools. Besides, the correlation of the independent variables to the dependent variable was low for both government and non-government schools EGSECE GPA. Parental involvement ($t = 5.39$, $p < 0.01$) and class size ($t = 3.12$, $p < 0.01$) were positive predictors to students' academic achievement for government schools; and none of the predictor variables influence the achievement of EGSECE in non-government schools. The predictor variables account for 13% of the variability in the criterion variable;

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Historically, examinations were given to certify completion of a program at a satisfactory level of achievement, and select candidates for higher education, professional training, and thus, ultimately, for employment. The prospect of the examination affects student's motivation to achieve, influencing the quality of his/her work; the test paper itself legitimizes the school's course of study and shapes what teachers do in the classroom; and the results form part of parents' evaluation of their children's schooling (Eckstein, 1994). While not always conclusive, examinations have powerful influences on individual's success in adult life. They also serve as a gauge of the quality of a nation's educational efforts and its workforce. Taxpayers and politicians use the results to estimate how well national resources have been spent, to measure the status and relative progress of regional, social, or ethnic group relative to another, and to compare their nation's educational level with that of other nations (Eckstein, 1994). This holds true for many countries.

Following the Education and Training Policy (TGE, 1994), the structure of Education in Ethiopia, which was of 6+2+4, has been replaced by the 8+4 structure. The latter offers 8 years of primary education divided into two cycles each having four years duration and four years of secondary education divided into another two cycles each having two years duration. In the context of Ethiopia, it has been felt that the new 8+4 general education structure enables to reduce examination cost associated with the various terminal examinations prepared centrally particularly those of Grades 6 and 8, as well as encourage Higher Education Institutions to set reliable admission examinations appropriate to their requirements. National examinations at grade 8 and

12 date back to the days of Emperor Haile Selassie while examinations at grade 6 were also administered in the past when the system had a 6+4+4 structure (World Bank, 2005). Although grade 8 examinations were regionalized in 1999 they still are used to select students for grade 9. The Ethiopian School Leaving Certificate examination at grade 12 was replaced in 2003 by the Ethiopian Higher Education Qualification Examination (EHEQUE). This examination is used for the selection of students into postsecondary education.

The Ethiopian General Secondary Education Certificate Examination (EGSECE) at grade 10 is a recent phenomenon which was introduced in 2001 to be used as a selection criterion for grade 11 (World Bank, 2005). Based on the achievements attained in EGSECE students are streamed into academic (College preparation) and vocational and technical programs. Those who join the academic fields are expected to sit for EHEQUE after two years of preparation while the others either join the labor market or be self-employed.

In Addis Ababa there are many types of secondary schools. For this study, these schools have been categorized as government and non-government schools. These secondary schools plan and execute their teaching and learning program, which usually includes Amharic, Mathematics, English, physics, chemistry, Biology, Civics, History, and geography, on the basis of the centrally designed curriculum prepared by the Ministry of Education. Controlling and supervision of the implementation of the curriculum is the responsibility of regional education bureaus. The minimum level of qualification to teach in both government and non-government secondary schools is at least a bachelor degree. Certification ensures that a teacher has gone through the training required by the state policy, which includes student teaching and coursework.

There are also some differences between these two types of general secondary schools in areas such as source of finance, class size, time spent by students in school compound, and the day-to-day timetable.

Government schools do not charge tuition. They are funded through the city administration's revenue. Non-government schools generate their income through tuition. The tuition fee they charge varies from one type of school to another depending on the quality of services they provide and the reputations they have in their community.

As opposed to non-government schools, government schools admit children with diverse abilities. To enroll in government schools parents register their children only by filling out the necessary paperwork. Non-government schools are highly selective. They are not obliged to accept every child, and in many non-government schools admission is very competitive.

This study was conceived when the writer was in Addis Ababa Education Bureau since 2006. During his work in the Addis Ababa Education Bureau, the writer got many opportunities to participate in the annual education conferences of the Bureau for many years. The participants of the annual conference include heads of the bureau and sub-city education departments, education experts, representatives of school principals, students, parents' committee members, etc of government and non-government schools. Issues of discussion at the conference mainly include access to and equity of education, quality of education, efficiency whose main component include students' achievement gap between government and non-government schools. The causes for students achievement gap had been raised to be, among many, parental involvement, homework, class size, school facilities, teacher competency,

and principal leadership. These factors developed in the writer a strong desire to undertake a systematic study as factors affecting EGSECE achievement of students in government and non-government schools of Addis Ababa.

1.2. Statement of the Problem

Comparison of student's achievement can be done in terms of many variables of which some of them are parental involvement, homework and tutorial, class size, school facilities, teacher competency and principal's leadership. For instance, parents with higher income and education are more likely to have higher expectations for their children's educational attainment, have knowledge about their children's educational options and involve their children in intellectual activities (Cookson, 1994). These factors have a positive impact on student learning. On the other side, lower socioeconomic status parents have fewer economic resources from which to purchase books and other items to improve academic outcomes of their children (Blau, 1999).

In Addis Ababa, no study has been conducted on the impact of these factors on student achievement in government and non-government secondary schools. In spite of the similarities between these two types of schools such as implementing the centrally designed curriculum, follow the directives and policies of the MOE, duration of study, and students' preparation for the same type of national examination (EGSECE) there are some other factors like source of finance and student admission on which these schools differ. The influence of these other factors on which the two types of schools differ on students' achievement of EGSECE was not yet studied. Hence, in this study an attempt was made to examine the impacts of factors that affect students' EGSECE achievement in government and non-government secondary schools.

1.3. Research Questions

The main purpose of the study was investigating factors affecting EGSECE achievement of students in government and non-government general secondary schools in Addis Ababa.

The specific objectives of the study are:-

- i. Compare EGSECE achievement of students in government and non-government secondary schools of Addis Ababa.
- ii. Examine the relationship of factors that affect students achievement in EGSECE between government and non-government secondary schools of Addis Ababa.
- iii. Examine the prediction of EGSECE with the factors that affect students academic achievement.

Hence the study is expected to answer the following basic questions:-

- i. Is there statistically significant difference between government and non-government secondary schools of Addis Ababa in EGSECE achievement?
- ii. Is there any significant correlation between student academic achievement in EGSECE and parental involvement, homework, class size, school facilities, teachers' competency, and principal leadership?
- iii. To what extent do parental involvement, homework, class size, school facilities, teachers' competency, and principal leadership predict students' achievement in EGSECE?

1.4. Significance of the study

This study is important because it examines the extent to which different types of schools exert influence on the academic achievement of general secondary school students. Thus the findings of the study may help to:-

- i. reveal the extent of differences in academic achievement between government and non-government general secondary school students for parents, Regional Education Bureau, and the schools themselves;
- ii. tries to uncover the factors for such differences;
- iii. provoke both types of schools to share experiences from each other by visiting the better performing schools and arranging a round-table discussion;
- iv. invite further research on the problem.

Comparison of educational achievement between different types of schools has a great advantage. It helps to provide some important information for educational decision making. Decisions can be made concerning :-

- teaching materials, teaching and supporting staff, and other resources necessary in the teaching-learning activities.
- It has a merit in the sense that it encourages a follow-up on how well and how much students learn in schools.
- it may enable the concerned authorities to suggest how the well functioning schools will be further strengthened and how the low performing schools will be supported. Finally, it may indicate ways to suggest on how the less advantageous students will be academically supported .

1.5. Delimitation of the Problem

This study is designed to examine differences in academic achievement between government and non-government secondary school students, and the factors for their differences (if any). Both groups are those who have completed their general secondary education in Addis Ababa Administration.

The factors for such differences could be many and all the factors cannot be treated by this study. Hence, as mentioned earlier, this study focused on parental involvement, homework, class size, school facilities, teachers' competency, and principal leadership as major factors affecting students' achievement of EGSECE.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. History of Education System

A formal system of education within the Ethiopian Orthodox Church began from the moment of the adoption of Christianity at the time of Ezana. The Church established its own schools of learning in the major monasteries such as Yeha and Debre Damo in Tigre (MoI, 1973).

The existence of a written language and the work done by the Orthodox Church and Muslim schools in spreading the skills of reading and writing and enriching the cultural heritage of Ethiopia over many centuries, created a useful foundation for the modern school system (MOI, 1973).

Modern public education began in Ethiopia in 1908 with the establishment of the Minilik School. The ruling elite of the period saw a close link between the country's independence and the presence of Ethiopians capable of communicating with the outside world. From the mid-1940's and throughout the 1950's students were expected to sit for the General School Leaving Certificates Examination from Great Britain. By the mid-1961's the Ethiopian School Leaving Certificate had become the only valid diploma (Tekeste, 1990).

Besides, the education and training offered during these long years had limited positive impact on the lives of the people and national development. The education offered has not enabled to solve the problems of farmers, pastoralist, and change the lives of the overwhelming majority of the people. Moreover, there was never such a clear policy by which to evaluate and accordingly shape the direction of education in Ethiopia (MOE, 2002).

As stated in MOI (1973), in 1946, for the first time, the general examination was administered to students wishing to proceed to grade seven. A major aim of the General Examination was to encourage standardization of the subject matter taught and in the method of teaching, through the distribution of a uniform curriculum studies. From 1949 onward the General Examination was administered to grade 8 candidates and in 1965, the Elementary School Leaving Examination was given at 6th grade level, again reflecting a new school structure.

MOI (1973) document also stated that the National Examination for 8th grade candidates has continued as a Junior Secondary Leaving Examination. It still serves for selection to enter 9th grade. From 1949 onwards, even though the number of secondary schools increased, the number of places in these schools did not match with the rapid increase in the number of students competing for these places. The only means of screening the best students was through the two general examinations. The work of organizing and administering these examinations has increased enormously and is now handled by a separate unit, The Division of Tests and Measurements (MOI, 1973).

The educational system in Ethiopia as stated in TGE (1994) is organized in cycles or levels of formal schooling. The first (Grades 1-4) and second cycle (Grades 5-8) primary education is demarcated by internal (classroom based) examination at the end of each cycle and by a Regional Examination at the end of the second cycle. At the end of the second cycle of primary education all students in all regions are required to take the 8th Grade Regional Examination which is administered by the Regional Educational Bureaus (REBs) in order to ensure the quality of primary education and coverage of the curriculum.

The Ethiopian Education and Training Policy (TGE, 1994) stated that national examinations will be conducted at grade eight and ten to certify completion of primary and general secondary education. This practically means that selection to secondary schools is based on the examination results of grade 8. After attending and completing the first cycle of secondary education students take another national examination - the Ethiopian General Secondary Education Certificate Examination (EGSECE). Based on this national examination students are streamed into academic (College preparation) and vocational and technical schools. Those who join the higher education institutes are expected to take college entrance examination after two years of preparatory secondary education. Those who do not get admission to the preparatory secondary education either enter vocational and technical schools or join the labor market.

There are similarities between government and non-Government Schools. Both government and non-government secondary schools follow the directives of the Addis Ababa Education Bureau. The control and supervision of the implementation of the curriculum and other objectives of the government are also the responsibility of Regional Educational Bureaus. All government and non government schools follow the same national curriculum, which usually includes Amharic, Mathematics, English, Physics, Chemistry, Biology, Civics, History, and Geography. The minimum level of qualification to teach in both government and non-government schools is a bachelor degree. Certification ensures that a teacher has gone through the training required by the state, which includes student teaching and coursework (TGE, 1994).

There are also some differences between these two types of general secondary schools in areas such as source of finance, that is, Government schools cannot charge tuition since they are funded by the

city administration. Non-government schools charge tuition which varies from one type of school to another. Besides, non government schools are selective and schools admission is very competitive (Addis Ababa Education Bureau, ESDP II, 2002).

Church Schools are those which follow the curriculum prepared by the Ministry of Education . Mission Schools are organized by missionary societies at both primary and secondary level and there are a few institutions which offer education at College level. Private schools include organized by local communities to larger schools, usually in urban centers, which charge fees from students. The non-government school system is supervised by the Ministry of Education (MOI, 1973).

2.2. The Assessment System

Learning assessment in the classroom (both by teachers and by students themselves) is an integral component of the teaching-learning process. Much of this kind of assessment is subjective, immediate, and on-going. In addition to ongoing teacher observation, it involves classroom questioning and dialogue, and the marking of homework. It occurs during learning and is designed to assist or improve students' acquisition of knowledge and skills (ADEA, 2003).

Suggestions designed to improve teachers' classroom procedures had been proposed by Kellaghan and Greaney (2003) in such a way that assessment should be an integral and frequent aspect of teaching, in which questions that focus on meaningful aspects of learning are used; teachers should develop reasonable, but challenging, expectations for all pupils, using a variety of methods in a variety of situations (e.g., essays, homework, and projects); questions should require students to explore/expand on issues, not just repeat information; the results of assessments, when appropriate, should be communicated to parents and

other interested parties (e.g., other teachers); the use of criterion-referenced tests can enrich teachers' classroom assessment practice.

National examinations are instruments where successful candidates are selected for advanced studies. They are important ways of *quality control* within education systems. The prospect of the examination affects student's motivation to achieve, influencing the quality of his/her work; the test paper itself legitimizes the school's course of study and shapes what teachers do in the classroom; and the results form part of parents' evaluation of their children's schooling (Eckstein, 1994).

Public (external) examinations have played a major role throughout the history of modern education. Most countries operate major examinations which are administered by an agency outside the school. In public examinations, information on student performance is used to make decisions about certification and selection, with selection tending to be the more important function (Kellaghan and Greaney, 1992).

The Ethiopian Secondary School Leaving Examination (ESLCE) was introduced experimentally in 1947. For some years the examination was taken together with the external Ordinary Level General Certificate Examination (GCE) of London University and the results of both examinations were taken into account for college entrance requirements. By 1956 GCE was replaced by ESLCE and the Ministry of Education worked together with subject specialists and representatives of the ESLCE to produce a new curriculum and an examination syllabus more in line with Ethiopian requirements.

Following the New Education and Training Policy after 1994, the 6-2-4 structure of Education in Ethiopia has been replaced by the 8-4. The new structure offers 8 years of primary divided into two cycles each having 4 years duration and 4 years of secondary education divided into

another two cycles each having 2 years duration. In the context of Ethiopia, it has been felt that the new 8-4 general education structure enables to reduce examination cost associated with the various terminal examinations prepared centrally particularly those of Grades 6 and 8 (TGE, 1994).

World Bank (2005) also indicated that the grade 8 examinations were regionalized in 1999 but the results continue to be used for selection to grade 9. The examination at grade 12 were replaced in 2003 by the College Entrance Examination as the mechanism for selection into postsecondary education.

The EGSECE was administered for the first time at a national level to regular students who completed grade 10 by the year 2001 on the basis of the new curriculum designed to general secondary education (grades 9 and 10). The General Secondary Education Certificate Examination included 9 exams on academic subjects (i.e., Amharic, English, Maths, Biology, Chemistry, Physics, Geography, History, and Civics), 4 exams on regional languages (i.e., Tigrigna, Afan Oromo, Harari and Anguak) and 2 others on Geez and French Language (MOE, 2002).

A national assessment may be defined as an exercise designed to describe the level of achievements, not of individual students, but of a whole education system, or a clearly defined part of it (e.g., fourth grade pupils or 11-year olds (Kellaghan and Greaney 1996). While public examinations are a long-standing feature of education systems, national assessments (sometimes called system assessments, assessments of learning outcomes, and less appropriately learning assessments) are relatively new (Kellaghan & Greaney, 1996).

In Ethiopia, the Ethiopian Baseline National Learning Assessment (EBNLA), the Second National Learning Assessment (ESNLA), and the Third National Learning Assessment (ETNLA) were carried out in 2000, 2004, and 2007 respectively. The main purpose of these assessments was to determine the various levels of students' performance at both Grades four and eight (ETNLA, 2007). The mean score for each subject and consecutively their composite score were well below the minimum expected score where the minimum passing mark set by the Education and Training Policy is 50% (TGE, 1994).

Comparing the three National Learning Assessments indicate that Grade 4 mean composite score (Mathematics, English, and Environmental Science) of ETNLA (39.8%) was lower than ESNLA (43.4%) and EBNLA (42.6%). Similarly, Grade 8 mean composite score (Biology, English, Mathematics, Chemistry, and Physics) of ETNLA (35.6%) was found lower than ESNLA (39.7%) and EBNLA (41.1%) (ETNLA, 2007).

2.3. Factors that Contribute to Students' Academic Achievement

Factors related to student achievement are numerous. Some of the factors that contribute to student achievement include parental involvement, homework, class size, school facilities, teacher competency, and instructional leadership which are briefly reviewed next.

Involvement of Parents

Successful parent involvement can be defined as the active, ongoing participation of a parent or primary caregiver in the education of his or her child. The most basic involvement of parents in their child's schooling is provision of basic needs. According to Fuller & Heyneman (1989, p 12), teaching materials and related material inputs that are

linked directly to teaching are related consistently to higher pupil achievement. Lockheed & Verspoor (1991) also report that the availability of textbooks and other instructional materials has a consistently positive effect on student achievement in developing countries. Hallak (1990, p.220) also stated that textbooks are the instructional device par excellence, and central to teaching.

Parents provide school supplies, supervision of activities, and home environments that are learner friendly (Bauch, 1994) and Epstein, 1995). The next type of involvement involves the school's ability to establish a two way channel of communication about the child they share. A bond of ownership is formed between the parent and the school, and parents can become comfortable communicating with the school. When parents are comfortable with the school's expectations, they are willing to communicate with their child's teacher (Fuller & Olsen, 1998). Communication between school and home is the goal of parent involvement. Parents should be aware of their role in the communication partnership, communicating needs of their child in a clear manner (Epstein, 1995).

Parents can also participate in committees, parent-teacher organizations, and other groups involved in decision making for the school. Parents feel a sense of ownership at school when they know they were involved in creating a policy, providing an activity for students, or changing a policy. They also develop knowledge of laws that govern the education of their child (Epstein, et al, 1997).

Parent and community members are important contributors to the education of children (Parson, 1999). Bauch (1994) found that over 80% of parents say they monitor homework.

Students whose parents are involved in their education reap many benefits. These include higher academic achievement and fewer problems in school (Fuller & Olsen, 1998). There is a belief that parent involvement is a stronger indicator in student achievement than socio economic status, parent education, or any other indicator (Fuller & Olsen, 1998). Academically, students have higher test scores, higher graduation rates, more homework completion rates when parents are involved (Fuller & Olsen, 1998). When parents are involved in their child's education, students' academic and social lives show the effects. In short, parents make a difference.

Osborne (1959) expressed the mutual interest the schools and parents have in each child. Teachers want parents to be involved, parents want to be involved, and students want their parents and teachers to work together (Epstein, 1995). Parents and students can both benefit academically when there is collaboration between home and school. Parents are required to attend meetings and collaborate in learning. This vision of collaboration is seen as critical to a child's success in school (Hiatt-Michael, 2004). Teachers can and should use parent involvement practices to create more understanding of the school environment (Epstein, 1995).

A review of parent involvement research by Van Voorhis (2003) found that parent-child reading activities produce a significant improvement in children's language and reading skills from preschool through high school and finds a strong positive effect on student achievement when parents work with students on homework (Van Voorhis, 2003). Parents go to school and read with their children as well as speak with teachers about reading and reading strategies (Epstein & Salinas, 2004). Some studies show secondary school homework assignments that require

parent-student interaction predict higher levels of reading achievement (Sheldon & Epstein, 2005).

Families of all cultural backgrounds, education, and income levels encourage their children, talk with them about school and keep them focused on learning and homework (Henderson and Mapp, 2002). The continuity of family involvement at home appears to have a positive influence on children as they progress through the complex education system. This suggests that the more families support their children's learning and educational progress, the more their children tend to do well in school and continue their education (Henderson and Mapp, 2002).

Kellaghan, Sloane, Alvarez, and Bloom (1993) concluded that parents from a variety of cultural backgrounds and with different levels of education, income, or occupational status can and do provide stimulating home environments that support and encourage their children's learning. Students having one or two parents in the household are also thought to be important in determining educational achievement and outcomes. Coming from a two-parent family has generally been shown to have a positive effect on educational outcomes and achievement, and occupation (Biblarz and Raftery 1993). Besides, parents' education levels have the largest and most consistent effect on student academic attainment. Students with one or two college-educated parents have higher levels of academic achievement than other students (Grissmer et al., 2000, p. 75).

Homework

Homework is defined as any type of academic work assigned by a teacher to be completed at home. The assignments may be completed during a study hall period, or other class time (Connors, 1992; Cooper, 2001). Secondary school teachers were more likely to use homework to prepare

students for work yet to come and to enrich classroom activities (Muhlenbruck, et al ,2000). Teachers also most frequently cite homework as a method of communication with parents (Carvalho, 2001). Lehr & Osborn (2002) list many reasons for homework assignments. These reasons include communication, practice, reteaching, and preparation. It helps parents know what their child's strengths and weaknesses are academically (Epstein & Voorhis, 2001). Teachers can and should use parent involvement practices to create more understanding of the school environment.

Teachers sometimes use homework as punishment for misbehavior, or do not know how to assign proper homework (Corno, 1996). Epstein & Voorhis (2001) state the misuse of homework as punishment is not a valid purpose. Ascher (1988) states that teachers often blame the parents for their child's low achievement and feel that poor achievement are the result of parents who do not care about academics. Homework is the most common point of intersection between parents, students, and school (Hong & Milgram, 2000).

Parents who feel they matter at each stage of their child's schooling are more likely to provide help, be involved, and affect positive academic gains in student achievement (Swick, 1988). Teachers need to realize that some parents may not be able to help their child complete homework due to the educational level of the parents (Capper, 1993). Parents have academic barriers to helping at home. Parents may also not be aware of the surroundings their children work best in to complete their homework (Hong & Milgram, 2000).

A research by Cooper (1994) showed that homework can have both positive and negative effects. Cooper reported the positive effects of homework included "improved attitude toward school; better study

habits and skills; [and] learning [was] encouraged during leisure time; greater self-discipline; better time organization; [and] more independent problem solving” . Cooper also reported significant negative effects of homework as “loss of interest in academic material; copying [homework] from other students; and [getting] help beyond tutoring” . Research by Brahier (2000) has shown that the positive effects of homework generally outweigh the negative effects. Brahier suggested that teachers follow assessment principles in assigning and evaluating home work effectiveness. The homework assignment should be consistent to the overall teaching strategy and assessment for the course.

A survey conducted by Johnson and Pontius (1989) showed that teachers supported homework as a reinforcement for classroom learning. Where homework counted towards final grades, teachers felt students took it more seriously.

Class Size

Jencks and Phillips reviewed “a substantial number of randomized experiments which suggest that smaller classes raise test scores” (Jencks and Phillips, 1998). Krueger and Whitmore also concluded that students who attend smaller classes in the early grades tend to have higher test scores while they are enrolled in those grades than their counterparts who attend larger classes (Krueger and Whitmore, 2002).

The size of the classroom and the amount of furniture within it directly affect one’s perception of being crowded. Weinstein (1979) stated that nowhere else are large groups of individuals packed so closely together for so many hours, yet expected to perform at peak efficiency on difficult learning tasks and to interact harmoniously (Weinstein, 1979).

Because space within the classroom is limited, only small amounts of learning materials can be used at any one time; thus, space, or the lack of it, restricts the learning opportunities of students. Duncanson (2003) pointed out that “the lack of large spaces that students can self-select to work in forces the teacher to schedule all events in a one-size fits all modality, focus on the delivery of general instruction to all students, and deal with one activity at a time” (Duncanson, 2003).

Crowded classrooms provide students with few opportunities to engage the teacher one on one in meaningful conversation. Conversely, where there are broad areas for student movement and work, students “direct their own learning activities and become independent-minded investigators while working on several inquiry activities at once” (Duncanson, 2003).

Finn and Achilles (2003) reviewed research from ten studies on student behaviors in large- and small-class settings in North Carolina found that “discipline referrals decreased consistently in the two years after small classes were implemented. There was a 26% drop from the first year to the second year and a 50% drop from the second to the third year” (Finn and Achilles, 2003).

A review of teacher responses regarding the most important differences between large and small classes in the California showed that “easier class discipline emerged as the fourth most important difference, with 20% of all teachers listing this in their responses” (Finn and Achilles, 2003).

The research on class size by Wang (2000) suggests that teachers of smaller classes confront fewer discipline problems, cover subject matter in more depth, have more one-to-one contact with students, and keep

better track of student progress. School principals also report that smaller classes have allowed them to establish and maintain better relationships with students, parents and families (Brophy, 2000).

On the other hand, Eric Hanushek believes that educational inputs, including class size, are not associated with higher performance (Hanushek 1999). According to Hanushek (1999), only fifteen percent find statistically significant effects showing that lower student/teacher ratios increased performance, while an almost equal number (thirteen percent) report that lower student/ teacher ratios reduced test scores.

In a number of publications, Greenwald, Hedges, and Laine have attacked Hanushek's methodology and findings. They argue that, based on their analysis of a larger set of production functions than Hanushek used, a broad range of school inputs are positively related to student outcomes, and that the magnitude of the effects are sufficiently large to suggest that moderate increases in spending may be associated with significant increases in achievement (Greenwald, Hedges, and Laine 1996).

Similarly, Krueger (2000) argues that Hanushek's findings are based on a faulty methodology. According to Krueger, Hanushek's reported findings are derived by weighting all the studies included in his database equally, thus placing a disproportionate weight on a small number of studies that use small samples and mis-specified models.

Johnson (2000) finds no effect of class size on 1998 NAEP reading scores, other things being equal. While many studies use student/teacher ratios, Johnson uses class size, and he compares students' performance in classes that have both more and less than twenty students and finds no difference. However, Johnson notes that the range of class sizes in his database may not be sufficient.

School Facilities

It is quite known that clean, quiet, safe, comfortable, and healthy environments are an important component of successful teaching and learning. On this account, the literature indicates that some of structural features of schools that impact student achievement include indoor air quality, lighting, and facilities that support the delivery of curricular programmes like libraries , etc.

Poor indoor air quality (IAQ) makes teachers and students sick—and sick students and teachers can't perform as well as healthy ones (EPA 2000). Poor IAQ has been associated with increased student absenteeism. For example, Smedje and Norback (1999) found a positive relationship between airborne bacteria and mold and asthma in children, which in turn increased absentee rates.

According to Fuller & Heyneman (1989, p 12), teaching materials and related material inputs that are linked directly to teaching are related consistently to higher pupil achievement, after controlling for the influence of family background. Lockheed & Verspoor (1991) also report that the availability of textbooks and other instructional materials has a consistently positive effect on student achievement in developing countries. They recommend the provision of good textbooks and teacher guides as a "promising avenue" for policy-makers. More generally, Hallak (1990, p.220) states that textbooks are the instructional device par excellence, and central to teaching.

Bowers and Burkett (1989) studied differences in achievement between secondary students in two buildings, one built in 1939 and one built in 1983. In this study, all other building variables were consistent between the two schools. Bowers and Burkett's (1989) study revealed that the students in the modern building scored significantly higher in reading,

language and mathematics than their counterparts in the older building. The age of a building can influence many of the individual factors used in evaluating the condition of an educational facility (Earthman & Lemasters, 1996). Earthman and Lemasters (1996) noted that in each case of their study, age of the building had significant impact on student achievement and behavior. Furthermore, the study indicated that age was a surrogate for other variables of building condition such as lighting, temperature control, proper lighting, sound control, support facilities, laboratory condition and aesthetic values (Earthman & Lemasters, 1996). McGuffey's (1982) study correlated student achievement with better building quality, newer school buildings, better lighting, better thermal comfort and air quality, and more advanced laboratories and libraries.

Haycock (1995) presents that schools with good libraries perform significantly better on tests and in knowledge and use of reference materials than students in schools with minimal or no library service. Similarly Baughman (2000) found a strong correlation between school libraries and student achievement. Mean scores were higher in schools that had school library programs at all levels as opposed to schools that do not have such programs. The study showed that 'the highest achieving students attend schools with good school libraries' (Baughman, 2000)

School climate refers to the atmosphere created by staff and student behavior in the school. It has been determined that a positive school climate can yield positive educational outcomes for students and school staff. Conversely, a negative school climate can be a deterrent to effective instruction and student learning (Freiberg, 1998). Other school climate research suggests that a positive school climate can increase student achievement levels and reduce disruptive behavior (McEvoy & Welker, 2000). Research has also shown that students that have a positive view

of their school's climate are more motivated and display higher achievement than those that are not as satisfied with the climate of their school (Hoy, Smith & Sweetland, 2002).

Teacher Competency

It is agreeable that the central tasks of teaching include planning for instruction, managing instruction (including the learning environment), and assessing student learning and each of these tasks depend on the quality of teachers (Feiman-Nemser, 2001).

Teacher educational level would seem to have a positive effect on student achievement. Goldhaber and Brewer (1999) analyzed the impact of teacher degrees on student achievement and found that having advanced degree in math and science for math and science teachers appears to be associated with increased student learning from the 8th to the 10th grade. Similarly, in 1986 Hanushek reviewed 109 previous studies and found a statistically significant of teacher experience on student achievement.

Curricular factors are also important in shaping student performance. The number and type of tests students are given, or the frequency of student assessment was also found to have an impact on student performance (Weglinsky, 2000). Thus, the study found that teacher-training aspects were important as well as curricular aspects that determine the emphasis, teaching methods, and assessment tools employed in schools (Weglinsky, 2000).]

Charles & O'Quinn (2001) states that good teachers in subsequent grades boost achievement. They also found that providing one-on-one tutoring gave students the necessary support to help them catch up and learn the necessary study skills required to learn on their own.

As Darling-Hammond, L.(1999) indicated teacher quality characteristics such as certification status and degree in the field to be taught are very significantly and positively correlated with student outcomes. Characteristics such as education level show positive but less strong relationships with education outcomes. In all cases, the proportion of well-qualified teachers is by far the most important determinant of student achievement: it is highly significant in all equations for both subject areas in all years and at all grade levels. If the teacher is ineffective, students under that teacher's tutelage will achieve inadequate progress academically (Wright et al. 1997).

The instructional practices of teachers in classrooms, as measured by experience, qualifications, ability, have large and consistent effects on academic achievement (Whitehurst, 2002). Quantitative analyses indicate that measures of teacher preparation and certification are by far the strongest correlates of student achievement (Darling-Hammond, 1999).

Principals Leadership

The leadership of the principal is an important aspect of moving towards a learning community that in turn will restructure schools for improved student outcomes.

Azumi and Madhere (1983) found that schools with principals who controlled teachers through a system of feedback and socialization had more teacher conformity and higher student achievement when compared to schools where programming and sanctions are used to control teachers.

The Chester and Beaudin (1996) study found that schools that offer opportunities for teachers to reflect on teaching and learning can create

more positive changes than schools where such opportunities are limited. The study showed that new teachers that were observed five times in a semester had higher self-efficacy beliefs than those teachers that were not observed by the principal. In addition to observing the teachers, frequency of feedback, and the focus of the feedback are as important as the brief observations. Without the feedback, teachers feel a sense of uncertainty because the supervisor is not validating or improving the teachers' instructional practices (Chester and Beaudin, 1996)

Heck, Larsen, & Marcoulides (1990) found that school governance, instructional organization, and school climate affected student achievement directly and these variables differed between the high-achieving and low-achieving schools.

Besides, administrative and instructional supervision and support play an important role in improving what goes on in schools and in classrooms. Supervision and support that schools and teachers typically receive from inspectors and pedagogical advisors are insufficient and ineffective. This is particularly the case in most Sub-Saharan African countries (Mosisili, 1999).

Andrews and Soder (1987) conducted a study to investigate interactions between principals and teachers in terms of the principal as a resources provider, instructional resource, a communicator, and a visible presence. They further stated that a principal has a visible presence in classrooms, department meetings, and talks with staff and students throughout each day.

Andrews et al. (1986) investigated that children who have attended schools that were administered by principals who were strong

instructional leaders have significantly greater increases in reading and mathematics than children who have attended schools where principals were not strong instructional leaders.

Teddlie, Kirby & Stringfield (1989) conducted a study investigating differences at the classroom level in effective and ineffective schools. The principal in the effective school was described by one observer as "having her finger on the pulse of the school" (Teddlie et al., 1989).

National Association of Elementary School Principals (2001) defined instructional leadership as facilitators, guiding and encouraging an educational environment in which administrators and teachers work collaboratively to diagnose and solve the problems facing their schools.

In the same way, effective principals have also been said to display eight common effective traits: (a) recognizing teaching and learning as the main business of the school, (b) communicating the school's mission clearly and consistently to all stakeholders, (c) fostering standards for teaching and learning that are attainable, (d) providing clear goals and monitoring the progress of students toward meeting them, (e) spending time in classrooms and listening to teachers, (f) promoting an atmosphere of trust and sharing, (g) building an effective staff and making professional development a top priority and (h) not tolerating ineffective teachers (Osgood and Keys, 1998).

Sammons, Hillman & Mortimore (1995) stated that one of the most fundamental responsibilities of a school principal is to provide a safe and orderly educational environment that include (a) the setting and communication of behavioral standards, (b) implementing effective processes to ensure that behavioral policies are applied consistently for all students, (c) assuring that discipline is used consistently and fairly

and (d) dispersing the responsibility for discipline throughout the school, among others (Sammons, Hillman & Mortimore, 1995).

Teddlie and Reynolds (2000) found that high-performing principals monitor classroom-level expectations to ensure alignment with the high expectations of the school. They further suggest that effective principals: (a) expect staff to work at understanding school conditions and issues before they start work, (b) expect high levels of participation in professional development activities, (c) expect high-quality instructional practice, (d) expect staff to prioritize student achievement as the primary goal, and (e) expect staff focus time management towards instructional priorities (Teddlie & Reynolds, 2000).

In managing the work structure of the school, principals do not affect the academic achievement of individual students in the same manner that teachers do, that is, through direct classroom instruction. Principals may impact teaching and classroom practices, however, through school decisions made about, for example, formulating school goals, setting and communicating expectations, allocating necessary resources, supervising teachers' performance and through promoting a positive, orderly environment of learning (Hallinger and Leithwood, 1994).

Heck et al. (1990) found that principals in higher achieving schools spent more time than their counterparts in low producing schools in direct classroom supervision and in working with teachers to coordinate the school's instructional program. Brewer (1993) found higher academic gains in high schools where principals framed educational goals and held high academic goals. Leithwood (1994) reinforced the importance of coordinating the school's goals with its curriculum and, by that, achieving school outcomes.

CHAPTER THREE

METHOD OF THE STUDY

3.1. Design of the Study

The design of the study was descriptive. The survey method was used to collect information related to factors affecting EGSECE. Correlation and regression analysis were used to identify the most contributing factors to students achievement of EGSECE.

3.2. Variables in the Study

The dependent variable of the study was students academic achievement scores as measured by Grade Point Average (GPA) in EGSECE. The GPA of sample school students was obtained from the archives of the respected sample schools based on their Identification Card Number that was given to them when they sat for EGSECE .

The independent variables of the study were parental involvement, homework, class size, teacher competency, school facilities, and principal instructional leadership ability.

3.3. Study Area

This study was conducted in Addis Ababa city. It was restricted to secondary school students who took the Ethiopian General Secondary Education Certificate Examination in 1998 and 1999 E.C. and who are currently attending the Preparatory Program (grade 11 and grade 12). By then, there were 10 government and 23 non government schools. Accordingly, out of the 10 government schools 5 (50%) and from the 23 non-government schools 5 (21.7%) were chosen to balance the number of the comparison group. Hence, the sample for this study were from the selected government and non-government secondary schools in Addis Ababa City Administration. The target sample schools were Abiyot Kirs,

Bole, Medhanialalem, Wondirad, Yektit 12, Adey Abeba, Assay, Kidist Selassie, Lucy Academy, and Magic Carpet. These sample schools, which were selected using lottery system, operate under the same curriculum and language of instruction.

3.4. Population and Sampling

The composition of the number of respondents by sex and age is disaggregated and illustrated on table 1.

Table 1: Respondents by Sex and Age

Item		Respondents			
		Government		Non-government	
		School Students		School Students	
		No.	%	No.	%
Sex	Male	160	54.2	34	50.7
	Female	135	45.8	33	49.3
	total	295	100.0	67	100
Age	14-16	31	10.5	7	10.4
	17-19	243	82.4	57	85.1
	20 and above	21	7.1	3	4.5
	Total	295	100.0	67	100.0

As shown in table 1, among students of government schools 160 (54.2%) were male and 135 (45.8%) were female. Similarly, among students of non-government schools 34 (50.7%) were male and 33 (49.3%) were female. Sex wise, in both groups, the number of female respondents was less than the male respondents.

Concerning the age composition of student respondents in government schools, 31 (10.5%) were between 14-16 years, 243 (82.4%) were between 17-19 years, and the remaining 21 (7.1%) were 20 and above years old. Correspondingly, the age composition of student respondents in non-government schools, 7 (10.4%) were between 14-16 years, 57 (85.1%) were between 17-19 years, and the remaining 3 (4.5%) were 20 and above years old. This shows that the majority of student respondents were between 17-19 years old for both government and non-government schools.

The participants of this study were students of grade 11 and grade 12 of the sample schools.

Table 2: Sample Schools with Total and Sample Respondents.

Sample Schools	Type	Grade 11			Sample size			Grade 12			Sample size		
		M	F	T	M	F	T	M	F	T	M	F	T
Abiyot Kirs	Gov.	601	440	1041	19	12	31	520	625	1145	17	16	33
Bole	Gov.	497	363	860	16	14	28	546	601	1147	18	20	38
Medhanealem	Gov.	741	454	1195	22	15	39	559	532	1091	18	16	34
Wondirad	Gov.	298	232	530	9	6	15	233	277	510	8	12	20
Yekatit 12	Gov.	427	296	723	14	13	27	456	642	1098	15	15	30
Adey Abeba	Ngov	76	83	159	3	3	6	89	87	176	3	3	6
AAssay	Ngov	75	86	161	3	3	6	82	80	162	3	3	6
K/Selassie	Ngov	90	104	194	4	4	8	135	143	278	6	4	10
Lucy Acd.	Ngov	23	17	40	2	1	3	20	29	49	1	2	3
Magic Carpet	Ngov	119	129	248	5	4	9	145	175	320	6	4	10
Total		2947	2204	5151	97	75	172	2785	3191	5976	95	95	190

The total population of the study was 11127. The sample size was determined in line with Krejcie and Morgan (1970) sampling technique which suggests that 10000 population could be represented with 370 participants, and 15000 population could be represented with 375 participants. Therefore the method of sample selection that suggested by Krejcie and Morgan was applied to draw the sample of this study. From the total of 11127 students 372 were taken as a sample of this study.

Due to the difference in school size, proportional stratified sampling was applied to select students as a sample of study from each sample school. Based on the student list, 304 participants from 9340 government school students and 68 participants from 1787 non-government school students were selected proportionally.

3.5. Tools of Data Collections

A questionnaire which was divided into three sections was developed. Part I include: - school, sex, age, grade 8 regional examination achievement, and Student Identification Number. Part II, consisting of general information questions, dealt with information on the marital status and educational background of parents; the monthly tuition fee parents pay and whether tutorial is provided. Part III dealt with items that could be summarized into the six independent factors: parent support to their children, homework, class size, school facilities, teacher quality, and principal instructional leadership.

All the items that dealt with the independent factors were prepared on Likert-type five point scales to which respondents were required to indicate how often each of the statement items had occurred. The five-point rating scales used were Always (5), Often (4), Sometimes (3), Rarely (2), and Never (1).

3.6. Pilot Testing

Pilot testing was conducted on a total of 50 students at Menilik II secondary school. The instruments which assessed in the pilot try out generally constructed to measure the relationships and the impacts of parental involvement, homework, class size, school facilities, teacher competency, and principal leadership.

Students were told how to give response to the questionnaire that was provided to them. Vague questions, which were raised by the students, were made clearer during the pilot distribution. The numbers of male and female participants were nearly proportional. During the pilot try out the total of 50 students completed the questionnaire appropriately. Finally, the responses of the participants were entered to SPSS version 12 to compute item intercorrelation and Cronbach-Alpha in order to evaluate the scales and their reliability. The measure was found to be reliable with Alpha 0.86 (38 items).

3.7. Procedure of Data Collection

At the very initial level, the total number of grade 11 and 12 students was collected from the principal of each school through telephone. Based on the collected data, the size of the target population was known. Then the sample size for each school was set proportionally using the target student population of each school. Subsequently, discussion was conducted with principals of each school as to how documents would be obtained and how and when the questionnaires should be distributed to students.

Students EGSECE GPA data were obtained from the archives of each school and the list of students that are currently learning was obtained from the roster. The roster was arranged according to section in ascending order. Then the selected list was registered and handed to the

principal (in some of the schools it was the deputy principal or the unit leader) and the principal or the unit leader posted their names and announced their presence in the hall or room being ready to fill in the questionnaire.

Before the students start filling in the questionnaire, the purpose of the study was explained by the researcher and oral instructions were also given. The questionnaire was administered in their respective schools during regular class periods. They were told not to discuss on the items as the response of one student may be influenced by the other.

The questionnaire was administered to 372 students. The analysis was made using 362 students. Ten questionnaires were discarded because the respondents gave incomplete or inappropriate information.

Besides, the respondent's GPA in EGSECE was collected by the assistants of the researcher. The data collection process was accomplished by the researcher in collaboration with his assistants. There were ten assistants (one for each school). All these assistants were primary school teachers with diploma qualification. In particular, they were involved as guides for students that were selected to fill in the questionnaire. They were also made to answer any vague question that would be raised by student respondents.

3.8. Data Analysis Techniques

After collecting the data the following steps were followed in analyzing the data. First, each sample school student's GPA in EGSECE was collected from the archive of each sample school. Responses of the questionnaire were entered into SPSS version 12. Then, descriptive values such as percentage, mean, standard deviation, Pearson Correlation Coefficient

and regression analysis were computed to see the relationship of the independent variables with the dependent variable..

Percentage was used to compare parent's educational status, tutor type, and weekly study hours. Mean score was used to compare student GPA of government and non government schools. Standard deviation was employed to observe the variation on student GPA of government and non government schools. Multiple regression analysis was conducted to see if it was possible to predict students academic GPA on the basis of parental involvement, homework, class size, school facilities, teacher competency, and principal leadership and coordination.

CHAPTER FOUR

PRESENTATION, ANALYSIS and INTERPRETATION of DATA

In the first part of this chapter, the analysis of the background information of students such as the educational background of parents, tutorial support by family members, and weekly study hours have been analyzed based on frequencies and percentage. In the second part, the analysis looks for whether there is a significant difference between government and non-government schools on their academic achievement as measured by GPA. Furthermore, correlations of factors that affect student academic achievement (GPA of students in EGSECE) have been treated. Besides, an attempt was made to analyze the academic achievement of government and non-government school students and the effect of each contributing factor as a predictor of GPA of the two groups of students.

4.1. Characteristics of the Study Group

Table 3: Parents educational status by school type

Educational Level	Mother's educational status by school type				Father's educational status by school type			
	GOV		NGOV		GOV		NGOV	
	No.	%	No.	%	No.	%	No.	%
No basic education	101	34.2	10	14.9	67	22.7	9	13.4
Grade 1 - 8	134	45.4	4	6.0	118	40.0	2	3.0
Grade 9 - 12	10	3.4	18	26.9	25	8.5	14	20.9
Certificate	5	1.7	2	3.0	5	1.70	1	1.5
Diploma	32	10.9	24	35.8	26	8.8	10	14.9
Degree or above	13	4.4	9	13.4	54	18.3	31	46.3
Total	295	100	67	100	295	100	67	100

As shown in Table 3, 79.6% of mothers of students from government schools and 20.9% of mothers of students from non-government schools

were below grade 9. On the other hand, 15.3% of the mothers of students from government schools and 49.2% of mothers from non-government schools were with diploma and above educational level. On the basis of the data mothers of non-government school students had a better educational level than students from government schools.

Looking at fathers' educational level, 62.7% of fathers of students from government schools and 16.4% of fathers of students from non-government schools are below grade 9 educational levels. On the other hand, 27.1% of fathers of students from government schools and 61.2% of parents of students from non-government schools are diploma and above educational level. Here, again, the proportion of students' fathers with better educational levels was found to be higher for those in non-government schools than those in government schools.

Table 4: Tutors by School type

Who tutors you?	School type			
	GOV		NGOV	
	No.	%	No.	%
Mother	8	2.7	3	4.5
Father	11	3.7	3	4.5
Brother/sister	34	11.5	7	10.4
Hired tutor	10	3.4	4	6.0
No tutor	232	78.6	50	74.6
Total	295	100	67	100

A question was raised concerning the educational support given after school hours. Based on this, as shown in Table 4, the role of mothers and fathers in tutoring their children was very low in both groups of

schools. The tutorial support that was given to non-government schools was a bit better than the government schools.

Student respondents were asked to respond how many hours they utilize for studying. With regard to this question, as shown in Table 5 below, 64.4% of government school students and 74.6% of non-government school students and 65.7% of non-government school students spend more than five hours per week. Moreover, 9.8% of government school students and 14.9% of non-government school students spend five hours per week. From Table 5, it is referred that 12.2% of government school students and 7.5% of non-government school spend four hours per week in studying academic subjects.

Table 5: Weekly study hours and School type

Weekly study hours	School type			
	GOV		NGOV	
	No.	%	No.	%
greater than 5 hours per week	190	64.4	44	65.7
5 hours	29	9.8	10	14.9
4 hrs	36	12.2	5	7.5
3 hrs	9	3.1	2	3.0
2 hrs	7	2.4	0	0.0
I do not have time to study	24	8.1	6	8.9
Total	295	100	67	100

As these figures support, 86.4% of government school students and 88.1% of non-government school students used to spend a minimum of four hours per week for studying.

4.2. EGSECE achievement of Government and Non-government secondary schools students

In this part, the analysis looks for whether there is difference between government and non-government schools on their academic achievement as measured by summing up each item of the independent variables: parental involvement, homework, class size, school facilities, teacher competency, and principal leadership. Besides, t-test between the independent variables with the dependent variable (GPA of students in EGSECE) have been treated.

Table 6: t-test for each of the independent variables

Group Statistics	School Type	N	Mean	Sd	t- value
Parental Involvement	Government	295	18.29	5.40	-2.38*
	Non-government	67	19.97	4.12	
Homework	Government	295	20.10	3.85	-1.15
	Non-government	67	20.70	3.83	
Class Size	Government	295	12.01	4.96	-6.37**
	Non-government	67	16.15	4.05	
School Facilities	Government	295	19.96	4.78	-4.83**
	Non-government	67	23.36	6.72	
Teacher Competency	Government	295	19.98	4.44	-4.66**
	Non-government	67	22.75	4.08	
Principal Leadership	Government	295	28.37	7.52	-4.87**
	Non-government	67	33.24	6.76	

*P < 0.05

**P < 0.01

As indicated in Table 6, the mean value for each of the independent variables has been greater for non-government schools as compared to the government schools. Besides, t-test was computed to look for any statistically significant difference for each of the independent variables between the two groups of schools. The computed t value for each of the independent variables was found to be statistically significant at the alpha level of 0.05 for parental involvement and at the alpha level of 0.01 for the rest of the independent variables except homework which was not statistically significant.

Table 7: T-test between government and non-government schools by students GPA.

School type	Mean	Standard Deviation	t-value
GOV	2.85	0.67	-3.71*
NGOV	3.19	0.64	

*P < 0.05

As shown in Table 7, t test has been used to see whether there was a statistically significant difference. The mean GPA for government school students was 2.85 with a standard deviation of 0.67. Similarly, the mean GPA for non-government school students was 3.19 with a standard deviation of 0.64. This indicates that non-government school achievement mean (3.19) is greater than government school students mean (2.85), and there is a difference between government and non-government schools.

The t-test was computed in order to check whether or not the mean differences for the two groups was statistically significant. The computed value of $t = -3.71$ was found to be statistically significant at the alpha

level of 0.05. This implies that there is statistically significant difference on EGSECE achievement between government and non-government schools and EGSECE GPA of students from non-government schools was better than that of the government schools.

Table 8 shows that the correlation between the independent variables treated under the study and EGSECE academic achievement as described by GPA in each of the two groups of schools. With the exception of the correlation of GPA with homework in case of non-government schools, which is negative, there were positive correlations between the dependent and the rest of the independent variables. A positive coefficient indicates that two variables systematically vary in the same direction, i.e., as one variable increases, the other variable tends to rise.

Table 8: A Correlation between EGSECE GPA and factors that affect GPA in government and non-government schools.

	GPA of Government Schools in EGSECE	GPA of Non-government Schools in EGSECE
Parental Involvement (PI)	0.33**	0.19
Homework (HW)	0.08	- 0.08
Class size (CS)	0.23**	0.16
School facilities (SF)	0.13*	0.20
Teacher Competency (TC)	0.10	0.25*
Principal Leadership (PL)	0.09	0.21

*P < 0.05

**P < 0.01

Looking at the specific variables, GPA of government Schools in EGSECE had a low positive correlation with all the independent variables. Among these, parental involvement ($r = 0.33$, $p < 0.01$), class size ($r = 0.23$, $p < 0.01$) and school facilities ($r = 0.13$, $p < 0.05$) had a statistically significant relationship with government students' GPA, while teacher competency ($r = 0.10$), principal leadership ($r = 0.09$), and homework ($r = 0.08$) had no statistically significant relationship with GPA.

Similarly, EGSECE GPA of students from non-government Schools had a low positive correlation with all the independent variables except the relationship with homework ($r = -0.08$) which is almost zero. Among the rest of the independent variables, except with teacher competency ($r = 0.25$, $p < 0.05$), principal leadership, school facility, parental involvement, and class size have a correlation coefficient of $r = 0.21$, $r = 0.20$, $r = 0.19$, and $r = 0.16$, respectively, were all not statistically significant.

Comparing the correlation between the two types of schools, the correlation of parental involvement, class size, and school facilities were statistically significant for government schools but not for the non-government schools. The correlation of each of these variables with government school students' EGSECE GPA systematically varies greater than that of the non government schools. On the other hand, except for the correlation coefficient of teacher competency, the other independent variables were not statistically significant for non-government schools.

In general, the association of the independent variables to the dependent variable is low for both government and non-government schools

EGSECE GPA; and the direction of the relationship, except that of homework with non-government schools, with the other variables were positive. The direction of the relationship to homework for non-government schools GPA as shown in Table 7 above was negative.

Looking at the Pearson Correlation matrix the general picture is shown in Table 9.

Table 9: Correlation Matrix between the dependent and independent variables

	EGSECE GPA	PI	HW	CS	SF	TC	PL
EGSECE GPA	1.00	0.12*	0.10	0.22**	0.14**	0.14**	0.25**
PI		1.00	0.24**	0.17**	0.21**	0.33**	0.35**
HW			1.00	0.25**	0.20**	0.34**	0.28**
CS				1.00	0.35**	0.35**	0.27**
SF					1.00	0.54**	0.35**
TC						1.00	0.46**
PL							1.00

*P < 0.05

**P < 0.01

With all coefficients shown, the association between any two variables can be quickly found. As presented in Table 9, the relationship of each of the independent variables with the dependent variables ranges from $r = 0.25$ between principal leadership and GPA to $r = 0.10$ between homework and GPA. Similarly, the relationship among the independent variables ranges from $r = 0.54$ between school facilities and teacher competency to $r = 0.17$ between parental involvement and class size.

4.3. Predicting EGSECE from Factors Affecting Academic Achievement

Table 10 presents how much of the variability in the criterion (GPA in EGSECE) variable is accounted for by the predictor (the independent) variables.

Table 10: Multiple Regression to predict the criterion from the predictor variables.

School type	N	R	R Square	Adjusted R Square	Std. Error of the Estimate
GOV	295	0.38	0.14	0.13	0.63
NGOV	67	0.35	0.12	0.03	0.63

Multiple Correlation (R) between the criterion and the predictor variables is 0.38 and 0.35 for government and non-government schools, respectively. The proportion of variance (R^2) in the criterion variable which is accounted for by predictors (parental involvement, homework, class size, school facilities, teacher competency, and principal leadership) was 0.14 for government and 0.12 for non-government schools.

However, R square tends to somewhat overestimate when applied to the real world, so an Adjusted R^2 is calculated which takes into account the number of variables and the number of observations. The Adjusted R^2 value were 0.13 (13%) and 0.03 (3.1%) in government and non-government schools respectively. The standard error of estimate (the standard deviation of the residuals) is 0.627 for government and 0.634

for non-government schools. Hence, the six predictor variables account for 13% of the variability in the criterion variable for students of government schools.

Table 11: Predicting the criterion from the predictor variables.

School type	Source	Sum of Squares	DF	Mean Square	F (MS_{reg}/MS_{res})	Sig.
GOV	Regression	18.95	6	3.16	8.03**	0.00
	Residual	113.26	288	0.39		
	Total	132.21	294			
NGOV	Regression	3.25	6	0.54	1.35	0.25
	Residual	24.11	60	0.40		
	Total	27.36	66			

**p<0.01

Table 11 indicated the analysis of the significance of the model. The model was found to be significant in predicting EGSECE GPA from parental involvement and class size in government schools ($F = 8.03$, $p < 0.01$) but not in non-government schools.

Table 12 provides the constant and the regression coefficients as well as the associated significance tests. Using these values the regression equation for the two groups of schools would be:-

$GRE = 1.19 + 0.04PI + 0.03CS + 0.01SF - 0.01TC$ for government schools, and
 $NGRE = 2.08 + 0.02PI - 0.02HW + 0.01CS + 0.01SF + 0.03TC + 0.01PL$ for non-government schools.

Table 12: Beta Coefficients for predicting the criterion from the predictor variables.

School type		Unstandardized Coefficients (b)		Standardized Coefficients (β)	t
		b	Std. Error(s _b)	Beta	t= b/s _b
GOV	(Constant)	1.97	0.25		
	Parent Involvement (PI)	0.04	0.01	0.32	5.39**
	Homework (HW)	0.00	0.01	-0.00	-0.05
	Class Size (CS)	0.03	0.01	0.18	3.12**
	School Facility (SF)	0.01	0.01	0.06	0.96
	Teacher Competency (TC)	-0.01	0.01	-0.08	-1.15
	Principal Leadership (PL)	-0.00	0.01	-0.02	-0.33
NGOV	(Constant)	2.08	0.68		3.07
	Parent Involvement (PI)	0.02	0.02	0.15	1.13
	Homework (HW)	-0.02	0.02	-0.14	-1.15
	Class Size (CS)	0.01	0.02	0.08	0.59
	School Facility (SF)	0.01	0.01	0.07	0.44
	Teacher Competency (TC)	0.03	0.02	0.16	1.16
	Principal Leadership (PL)	0.01	0.01	0.06	0.42

**p < 0.01

The standardized beta coefficients give a measure of the contribution of each variable. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. In this respect, except parental involvement (0.32), class size (0.18) for government school students, most variables were found to be no good predictors of GPA. Particularly for non-government schools students, no variable was found to have strong predictive power.

Thus, there is no need to rank order the variables in terms of their predictive power because the respective Bs were not statistically significant. This, in essence means, $B = 0$ for most variables.

respectfully. Besides, since the subjects are randomly selected and assigned individually to the two groups of schools, t-test for independent samples was carried out. The result was that a statistically significant difference existed between government and non-government students in terms of their EGSECE academic achievement $t_{(360)} = 3.71$, $p < 0.05$. That is, government school students performed significantly lower than non-government school students.

5.2. Is there any correlation between student academic achievement in EGSECE and parental involvement, homework, class size, school facilities, teachers' competency, and principal leadership?

With regard to the second research question Pearson Correlation between the independent variables and EGSECE academic achievement as described by GPA showed that there was low positive correlation between the dependent and the independent variables. When looked individually, parental involvement, class size and school facilities for government school students, and only teacher competency for non-government schools had a statistically significant relation with student academic achievement.

5.2.1. Parental Involvement and GPA of government and non-government school students

Parental involvement in education is one of the most recognized non-school factors impacting student achievement. This study used six items that made the respondents respond on fulfillment of educational materials, help provided to perform homework in time, communicating teachers about academic progress, involvement in school parent teacher conferences and in-school activities when requested, and knowledge of the subjects their children learn.

Based on these items, comparing the correlation between the two types of schools, parental involvement in government school was statistically significant ($r = 0.33$; $p < 0.01$) while the relationship of parental involvement in non-government schools was not statistically significant ($r = 0.19$; $p > 0.05$). This shows that government schools should work hard and follow better experiences of non-government schools to make parental involvement their priority so as to make their students perform better. The finding of this research was supported by others as well.

However, Henderson and Berla (1994) confirmed that the most accurate predictor of student achievement is the extent to which the family is involved in the child's education. The study of Henderson and Mapp (2002) have found that students with involved parents, no matter what their income or background, are more likely to earn high grades and test scores, and enroll in higher-level programs; pass their classes, earn credits, and be promoted; attend school regularly; and graduate and go on to postsecondary education.

Besides, not all parents are involved in school activities even if they are requested. McMillan (2000) also noted that parental pressure has a positive and significant effect on public school performance. Schickedanz (1995) also reported that children of passive parents were found to perform poorly academically. Valez (in Ryan, 2005) reported that academic performance is positively related to having parents who enforce rules at home.

5.2.2. Homework and GPA of government and non-government school students

This study used six items that made the respondents respond on regular assignment of homework, performing homework without anybody's pressure and without anybody's help, whether teachers check the

homework or not, the impact of performing homework to do better in examinations, and parents encouragement to perform homework in time.

Based on these items, comparing the correlation between the two types of schools, the correlation neither in government schools ($r=0.08$; $p>0.05$) nor in non-government schools ($r = -0.08$; $p > 0.05$) was not statistically significant.

However, Walberg, Paschal, & Weinstein (1985) studies on the effects of homework revealed that homework has large and consistent positive affects on children's academic achievement Improvements in children's achievement were noted even when teachers assigned homework and did not give any feedback or grade, however, graded work resulted in higher achievement gains than ungraded work (Walberg, Paschal, & Weinstein, 1985).

Lengthy homework assignments, on the other hand, tend to be negatively related to achievement gains (Trautwein, Koller, & Schmitz, 2002). Yet, another study by Swank and Greenwood (1999) showed no relationship between academic performance and homework completion. A review of 100 homework studies (Black, 1997) showed less than expected improvement on standardized test scores, especially at the lower grades.

These varying results suggest the need to include individual differences in student attitudes toward homework (i.e., motivation and study habits), the relation of homework and classroom work, the contributions of home environment, and the kind of feedback given on assignments (Muhlenbruck et al., 2000).

5.2.3. Class size and GPA of government and non-government school students

This study used four items that made the respondents respond on the effect of crowded classrooms on student academic achievement, the availability of enough space within the classroom to carry out the teaching learning process, the possibility of a one to one conversation between students and their teacher, and the classroom condition in terms of light, neatness and quality of seats.

Based on these items, comparing the correlation between the two types of schools, class size in government school was statistically significant ($r=0.23$; $p<0.01$) while the relationship of class size with non-government schools was not statistically significant ($r=0.20$; $p>0.05$).

In line with this, the research on class size by Wang (2000) suggested that smaller classes have fewer discipline problems, cover subject matter in more depth, and keep better track of student progress. School principals also report that smaller classes have allowed them to establish and maintain better relationships with students, parents and families (Brophy, 2000).

5.2.4. School Facilities and GPA of government and non-government school students

This study used seven items that made the respondents respond on the availability of textbooks and reading materials, the conduciveness of school buildings for teaching-learning activity, the appropriateness of the school climate to attend schooling, the availability of the necessary reference materials in the library and being open whenever students want to read, using the school laboratories effectively.

Based on these items, comparing the correlation between the two types of schools, school facilities in government school was statistically significant ($r = 0.13$; $p < 0.05$) while the relationship of school facilities with non-government schools was not statistically significant ($r = 0.20$; $p > 0.05$).

For a school library programme to meet the needs of teachers and students the school must have the personnel, information sources, funds, quarters and equipment, etc that are necessary for its successful performance (Metzger, 2000).

5.2.4. Teacher quality and GPA of government and non-government school students

This study used six items that made the respondents respond on the number of exercises and tests teachers give, teachers encouragement to make students active participants in the teaching-learning process, teachers methodology of teaching, how teachers manage the instruction time properly, the qualification and competency of teachers, and the continuous follow up and evaluation of teachers.

Based on these items, comparing the correlation between the two types of schools, teachers competency in government school was not statistically significant ($r = 0.10$; $p > 0.05$) while the relationship of teacher competency with non-government schools was statistically significant ($r = 0.25$; $p < 0.05$).

Effective teachers, according to Sammons, Hillman, and Mortimore (1995) teach the classroom as a whole; present information or skills clearly and animatedly; keep teaching sessions task oriented; have high expectations for achievement, and relate easily to students. Curricular

factors are also important in shaping student performance. The number of homework and type of tests students are given, or the frequency of student assessment was also found to have an impact on student performance (Weglinsky, 2000).

5.2.5. Principal Leadership and GPA of government and non-government school students

This study used nine items that focused on principals involving teachers in decision making, involving parents in different school activities, regularly informing parents on their children's academic achievement, communicating instructional goals to teaching and non-teaching staff members, mobilizing the school community for a safe and orderly school environment, initiating the school community to aspire high expectation in student achievement, making regular classroom visits, coordinating instructional program appropriately, and monitoring student academic progress.

Based on these items, comparing the correlation between the two types of schools, the correlation principal leadership neither in government schools ($r = 0.09$; $p > 0.05$) nor in non-government schools ($r = 0.21$; $p > 0.05$) was not statistically significant.

Blase and Blase (2000) defined instructional leadership in a series of principal behaviors: making suggestions, giving feedback, modeling effective instruction, soliciting opinions, supporting collaboration, and providing professional development opportunities. Consistently communicating expectations for high performance has been linked by researchers to positive results in school and student achievement (Cheng, 1994)

5.3. To what extent do parental involvement, homework, class size, school facilities, teachers' competency, and principal leadership predict students' achievement in EGSECE?

The independent variables, when taken together, accounted for 13% of the total variance in EGSECE GPA of student achievement (Adjusted $R^2 = 0.13$, $p < 0.01$) of government school students. This percentage, though low, is statistically significant. The low percentage only shows that there are other factors (besides the independent variables considered for this study) that can also explain science achievement. Thus, these six independent variables are important predictors of EGSECE GPA in government schools.

The independent variables, for non-government schools, when taken together accounted for only 3% of the total variance in student science achievement (Adjusted $R^2 = 0.03$, $p > 0.05$). This percentage is very low and is not statistically significant. Thus, the selected six independent variables are not important predictors of EGSECE GPA for non-government schools and this implies that there are other factors besides the ones that are considered here.

This study indicates that some variables differentiate between government and non-government schools but others do not. For example, one of the findings from the Schaffer et al. (2002) study is that there is limited variance among schools in terms of school organizational characteristics, school conditions, and curriculum delivery. This study also reveals that government and non-government schools differentiate with regard to parental involvement and class size, while they do not differentiate between the other variables that had been discussed.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. Summary

The main purpose of the study was to examine factors affecting EGSECE achievement of students in government and non-government general secondary schools in Addis Ababa.

The specific objectives of the study were to:-

- i. compare EGSECE achievement of students in government and non-government secondary schools of Addis Ababa.
- ii. examine the relationship of factors that affect students' achievement in EGSECE between government and non-government secondary schools of Addis Ababa.
- iii. examine the prediction of EGSECE with the factors that affect students academic achievement.

This study was conducted in five government and five non government schools. The participants of this study were students of grade 11 and grade 12 of the sample schools. The researcher selected 372 in line with Krejcie and Morgan (1970) formula to determine the sample size of participants from the target population. The sample size for each school was set proportionally using the target student population of each school. The questionnaire was administered to 372 students, the analysis was made using 362 students. Ten questionnaires were discarded as either the respondents gave incomplete or inappropriate information

The instrument used in this study was questionnaire mainly focusing on parent involvement, homework, class size, school facilities, teacher competency, and principal leadership on Likert-type five point rating scale. The data was analyzed using descriptive and inferential statistics

such as percentage, mean, standard deviation, t-test, correlation and multiple regression analysis.

Percentage was used to compare parent's educational status and it was found that there were more fathers (61.2% Vs 27.1%) and more mothers (49.2% Vs 15.3%) of non-government school student parents had diploma & above education level than their counterpart in government schools, respectively. In terms tutorial, neither the non-government school students nor the government schools had a good record. In addition, 86.4% of government school students and 88.1% of non-government school students used to spend a minimum of four hours per week for studying.

Mean score was applied to compare student GPA of government and non government schools. Standard deviation was employed to observe the variation on student GPA of government and non government schools.

The mean value for each of the independent variables of non-government schools was greater than the government schools. The t-test computed to check for statistical difference revealed that there was statistically significant difference on EGSECE achievement between government and non-government schools.

Pearson coefficient correlation indicated that association of the independent variables to the dependent variable is low for both government and non-government schools EGSECE GPA; and the direction of the relationship, except that of homework with non-government schools, was positive. The relationship of each of the independent variables with the dependent variables ranges from principal leadership versus GPA ($r=0.25$) to homework versus GPA ($r=0.10$). Similarly, the relationship among the dependent variables

ranges from school facilities versus teacher competency ($r=0.54$) to parental involvement versus class size ($r=0.17$).

How much criterion (GPA in EGSECE) variability was accounted for by the predictor (the independent variables)? This was presented by Adjusted R^2 . The Adjusted R^2 were 0.13 (13%) and 0.03 (3.1%) of variance in government and non-government schools respectively. The standard error of estimate (the standard deviation of the residuals) is 0.627 for government and 0.634 for non-government schools. Hence, the independent predictor variables account for 13% of the variability of criterion variable (Adjusted R squared).

Parental involvement and class size for government schools were found to be statistically significant predictors in government schools but not in non-government schools. Hence, the model as a whole was found to be significant in predicting EGSECE from parental involvement and class size in government schools.

6.2. Conclusion

This study revealed that when the variables under this study taken together, they determined significantly government secondary school students academic performance, but not for non- government secondary school students academic performance

Based on the findings, it has been found that comparing factors that affect students' academic achievement is a complex issue that can vary from one school to another. This had been indicated from the findings in terms of mean difference, the correlation of the independent variables among each other and with the dependent variable. Besides, it was only few of the predictor variables that were statistically significant.

This does not, however, in any way imply these factors are not important as predictors. The failure to predict does not necessarily indicate that the empirical studies conducted are unreliable and invalid. They may have failed to predict because of the possible effect of some other unidentified factors. On the contrary, it points to the need to control or study the effect of some other relevant factors since student achievement is a multiple function of several variables.

In a situation where such educational research is scarce, research of this kind can contribute to an understanding of why differences occur in academic achievement. It is hoped that results of this study will provide the necessary basis for policy makers, planners, teachers and school administrators to realise the magnitude of the problem and design viable and effective community-based intervention measures for mitigating the problem under consideration. Finally, the findings of this study may generate interest or assist as a stepping-stone for those who have an intention for further study in the field.

6.3. Recommendations

Results in this study showed that non-government school students outrank government school students in academic achievement. Comparing the correlation between the two types of schools, parental involvement ($r = 0.33$; $p < 0.01$) and class size ($r=0.23$; $p<0.01$) in government school were statistically significant and t-value for this two independent variables were ($t = 2.38$; $p < 0.05$) and ($t = 6.37$; $p < 0.01$), respectively. This showed that that there was a mean difference, in favor of non-government schools. Hence, schools must break down any barriers that impede parental involvement and work diligently to increase parental interaction at school and with their children's schoolwork. Schools can do this by creating a welcoming and inviting environment at the school for parents, providing opportunities for parents to collaborate

with the school and/or teachers to identify support needs of the students, and keeping the lines of communication open. Furthermore, the concerned government body (the City Administration Education Bureau) should build new schools or additional classrooms to relieve overcrowding since this study suggested that there is a statistically significant relationship between overcrowding in government schools and a decrease in student achievement.

On the other hand, the remaining observed independent variables showed no statistical significant difference between government and non-government school students in terms of their academic achievement and this calls for repeating the same research on a wider population by including many other relevant variables that possibly differentiate the learning gain of government and non-government school students. Hence, an investigation should be completed that replicates this study by designing variables that consistently and significantly relate to student achievement. Since this study indicated a negative correlation between homework and the EGSECE achievement a study should be completed that determines why homework had negative correlations with EGSECE achievement.

References

- ADEA (2003). **The Challenge of Learning: Improving the Quality of Basic Education in Sub Saharan Africa**. IIEP. Paris
- Andrews, R., & Soder, R. (1987). **Principal leadership and student achievement**. *Educational Leadership*, 44(6), 9-11.
- Ascher, C. (1988). **Improving the school-home connection for low-income urban parents**. *Urban Review*, 20(2), 109-123.
- Azumi, J. E., & Madhere, S. (1983). **Professionalism, power and performance: The relationships between administrative control, teacher conformity, and student achievement**. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada. (ERIC Document Reproduction Service No. ED 275 054)
- Bauch, J. P. (1994). Categories of parent involvement. *The School Community Journal*, 4(1), 53-61.
- Baughman, J.C. (2000). **'School Libraries and MCAS Scores'**, A paper presented at a symposium sponsored by the Graduate School of Library and Information Science, Massachusetts.
- Biblarz, Timothy J. and Adrian E. Raftery (1993). The Effects of Family Disruption on Social Mobility. *American Sociological Review* 58:97-109.
- Blase, J. & Blase Jo. (2000). Effective instructional leadership: Teachers' perspectives on how principals promote teaching and learning in schools. *Journal of Educational Administration*, 38(2), 130-41.
- Blau, M. (1999). The Effects of Income on Child Development. *Review of Economics and Statistics* 81: 261-276.
- Black, S. (1997). Doing our homework on homework. *The Education Digest*, 62, 36-39.

- Bowers, J. H., & Burkett, C. W. (1989). Effects of physical and school environment on students and faculty. *CEFPI's Educational Facility Planner*, 27(1), 28-29.
- Brahier, D. (2000). ***Teaching secondary and middle school mathematics***. Boston: Allyn
- Brewer, D.J. (1993). "Principals and student outcomes." *Economics of Education Review*, 12: 281-292.
- Brophy, J. (2000). How Might Teachers Make Smaller Classes Better Classes? The CEIC Review, Volume 9, Number 2 (March). Achilles, C. (1999). Let's Put Kids First, Finally: Getting Class Size Right. Thousand Oaks,
- Capper, C. A. (1993). Rural community influences on effective school practices. *Journal of Educational Administration*, 31(3), 20-38.
- Carvalho, M. E. P. (2001). *Rethinking family school relations: A critique of parental involvement in schooling*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Charles, T. and O'Quinn, S. (2001). Eliminating the Black-White Achievement Gap: A summary of research. Chapel Hill: North Carolina Education Research Council.
- Cheng, Y.C., (1994). Principal's leadership as a critical factor for school performance: Evidence from multi-levels of primary schools. *School Effectiveness and School Improvement*, 5(3), 299-317.
- Chester, M., & Beaudin, B. (1996). Efficacy beliefs of newly hired teachers in urban schools. *American Educational Research Journal*, 33, 233-257.
- Connors, N. (1992). *Homework: A new direction*. Westerville, OH: National Middle School Association.
- Cookson, Peter W. (1994). *School Choice: The Struggle for the soul of American Education*. New Haven: Yale University Press.

- Cooper, H. (1989). Synthesis of research on homework. *Educational Leadership*, 47, 85-91.
- Cooper, H. (1994). Homework research and policy: A review of literature. *Research/Practice*, 2(2). Retrieved December 8, 2007, from <http://education.umn.edu/CAREI/Reports/Rpractice/Summer94/default.html>
- Cooper, H. (2001). The battle over homework: Common ground for administrators, teachers, and parents (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Corno, L. (1996). Homework is a complicated thing. *Educational Researcher*, 25(8), 27-29.
- Darling-Hammond, L. (1999). Teacher Quality and Student Achievement: A Review of State Policy Evidence. Center for the Study of Teaching and Policy. University of Washington
- Duncanson, E. (2003). Classrooms are not roadways. They are parking lots! *The Science Teachers Bulletin*, 66(2), 1-4.
- Earthman, G. I., & Lemasters, L. (1996). *Review of research on the relationship between school buildings, student achievement, and student behavior*. Paper presented at the Annual Meeting of the Council of Educational Facility Planners, International, Tarpon Springs, FL. (ERIC Document Reproduction No. ED 416 666)
- Eckstein, Max A. (1994). Great Expectations: an International Comparison of End-of-Secondary School Examinations. *Background paper prepared for a Conference of the Office of Educational Research and Innovation, Department of Education, Washington, D.C.*
- EPA (Environmental Protection Agency) (2000). Indoor air quality and student performance. EPA report number EPA 402-F-00-009. Washington, D.C.: Environmental Protection Agency. Retrieved 10/10/07 from <http://www.epa.gov/iaq/schools/performance.html>

- Epstein, J. L. & Voorhis, F. V. (2001). More than minutes: Teachers' roles in designing homework. *Educational Psychologist*, 36(3), 181-193.
- Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan*, 76(9), 701-712.
- Epstein, J. L., & Salinas, K. C. (2004). Partnering with families and communities. *Educational Leadership*, 61(8), 12-18. Retrieved November 4, 2007, from http://pdonline.ascd.org/pd_online/success_di/el200405_epstein.html
- Epstein, J. L., Coates, L., Salinas, K. C., Sanders, M. G., Simon, B. S. (1997). *School, family, and community partnerships: Your handbook for action*. Thousand Oaks, CA: Corwin Press.
- ESDP II (2002). **Addis Ababa Education Sector Development Program II**. Addis Ababa Education Bureau. Unpublished
- Ethiopian Third National Learning Assessment of Grades 4 and 8 students, Draft (2007). Addis Ababa. GEQAEA.
- Feiman-Nemser, S. (2001). From Preparation to Practice: Designing a Continuum to Strengthen and Sustain Teaching. *Teachers College Record*, 103, 1013-1055.
- Finn, J. D., & Achilles. C. M. (1999). Tennessee's class-size study: Findings, implications, misconceptions. *Educational Evaluation and Policy Analysis*, 21(2), 97-109.
- Freiberg, H. J. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56(1), 22-26.
- Fuller, B & Heyneman, SP (1989) Third World school quality: current collapse, future potential *Educational Researcher* 18,2,12-19
- Fuller, M. L. & Olsen, G. (1998). *Home-school relations: Working successfully with parents and families*. Boston: Allyn and Bacon.

- Goldhaber & Brewer, D. (1999). *Does teacher certification matter? High school certification status and student achievement*. Unpublished manuscript.
- Greenwald, R., L. V. Hedges, and R. D. Laine (1996). The effect of school resources on student achievement. *Review of Educational Research* 66 (3): 361-96.
- Grissmer, D., Flanagan, A., Dawata, J., & Williamson, S. (2000). *Improving Student Achievement: What NAEP Test Scores Tell Us*. Santa Monica, CA: Rand.
- Hallak, J (1990) *Investing in the Future: Setting Educational Priorities in the Developing World* IIEP/Pergamon
- Hallinger, P. and K. Leithwood (1994). "Introduction: Exploring the impact of principal leadership." *School Effectiveness and School Improvement*, 5: 206-218.
- Hanushek, E. A.(1999). Some findings from an independent investigation of the Tennessee STAR experiment and from other investigations of class size effects. *Educational Evaluation and Policy Analysis* 21 (2): 143-63.
- Haycock, K. (1995). 'Research in Teacher-Librarianship and the Institutionalization of Change', *School Library Media Quarterly*, Summer, pp. 227-33.
- Heck, R., T. J. Larsen and G. A. Marcoulides (1990). "Instructional leadership and school achievement: Validation of a causal model." *Educational Administration Quarterly*, 26: 94-125.
- Henderson, A., & Barla. N. (1994). *A new generation of evidence. The family is critical to student achievement*. Washington, D.C: Center for Law and Education.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement. Annual synthesis*. Austin, TX: National Center for

Family and Community Connections with Schools, Southwest Educational Development Laboratory.

- Hiatt-Michael, D. B. (2004). *Promising practices connecting schools to families of children with special needs*. Greenwich, CT: Information Age Publishing, Inc.
- Hong, E. & Milgram, R. (2000). *Homework: Motivation and learning preference*. Westport, CT: Bergin & Garvey.
- Hoy, W. K., Smith, P. A. & Sweetland, S. R. (2002). The development of the organizational climate index for high schools: Its measure and relationship to faculty trust. *The High School Journal*, 86(2), 38-49. Accessed 10/10/2007.
<http://www.publicagenda.org/specials/smallschools/smallschools.htm>
- Jencks, C. & Phillips, M. (1998). The black-white test score gap: An introduction. In C. Jencks and M. Phillips (Eds.). *The black-white test score gap*. Washington, DC: Brookings Institution Press.
- Johnson and Pontius (1989). 'Homework: a survey of teacher beliefs and practices', *Research in Education*, 41, 71-8.
- Johnson, K. A.(2000). Do small classes influence academic achievement? What the national assessment of educational progress shows. Washington, D.C.: Heritage Foundation. Retrieved 12/23/07 from <http://www.heritage.org/Research/Education/CDA00-07.cfm>
- Keith, T. Z., Diamond-Hallam, C., & Fine, J. G. (2004). Longitudinal effects of in-school and out-of-school homework on high school grades. *School Psychology Quarterly*, 19, 187-211.
- Kellaghan, T. and Greaney, V. (2003). *Monitoring Performance: Assessment and Examinations in Africa*. Paris: UNESCO: International Institute for Educational Planning.
- Kellaghan, T., & Greaney, V. (2001). The globalisation of assessment in the 20th century. *Assessment in Education*, 8, 87-102.

- Kellaghan, T., Sloane, K., Alvarez, B., & Bloom, B. S. (1993). *The home environment and school learning: Promoting parental involvement in the education of children*. San Francisco, CA: Jossey-Bass, Inc. ED364966.
- Kellaghan, T. and Greaney V. (1996). Monitoring the Learning Outcome of Education Systems. Directions in Development, The World Bank, Washington, D.C.
- Kellaghan, T. and Greaney V. (1992). *Using examinations to improve education. A study in fourteen African countries*. Washington DC: World Bank
- Krejcie, R.V. and Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement Journal*, 30, 607-610.
- Krueger, A. (2000). Economic considerations and class size. Working paper number 447. Princeton, N.J.: Princeton University, Industrial Relations Section. Retrieved 12/03/07 from <http://netec.mcc.ac.uk/WoPEc/data/Papers/fthprin447.html>
- Krueger, A. & Whitmore, D. (2002). Would smaller classes help close the black-white achievement gap? In J. Chubb and T. Loveless (Eds.). Washington, DC: Brookings Institution.
- Lee, V. & Smith, J. (1995). Effects of high school restructuring and size on early gains in achievement and engagement. *Sociology of Education*, 68(4):241-270.
- Lehr, F. & Osborn, J. (2002). *Helping your child with homework: For parents of children in elementary through middle school*. Washington, DC: Office of Intergovernmental and Interagency Affairs. (ERIC Document Reproduction Service No. ED468288)
- Leithwood, K. (1994). "Leadership for school restructuring." *Educational Administration Quarterly*, 30: 498-518.

- Lockheed, ME & Verspoor, A (1991) Improving Primary Education in Developing Countries World Bank/OUP
- McEvoy, A. & Welker, R. (2000). Antisocial behavior, academic failure and school climate: A critical review. *Journal of Emotional and Behavioral Disorders*, 8(3), 130- 140.
- McGuffey, C. (1982). Facilities. In *Improving educational standards and productivity: The research basis for policy*, ed. H. Walberg. Berkeley, Calif.: McCutchan Pub. Corp.
- McMillan, R. (2000). Parental involvement, competition, and public school performance: An Empirical Analysis Using individual Data. (In press).
- MOE (2002). National Organization for Examinations Annual Magazine, May 2002, No.3
- MOI (1973). Ethiopia Today. Berhanena Selam H.S.I. Printing Press. Addis Ababa.
- Mosisili, M. (1999). Report on "Policy Seminar on Improving Teacher Supervision and Support Services for Basic Education", 22-24 June, 1999. Gaborone
- Muhlenbruck, L., Cooper, H., Nye, B., & Lindsey, J. J. (2000). Homework and achievement: Explaining the different strengths of relation at the elementary and secondary school levels. *Social Psychology of Education*, 3(4), 395-317.
- National Association of Elementary School Principals (2001). Does size really matter? The debate over class size. Alexandria, Va.: National Association of Elementary School Principals. Retrieved 11/10/07 from <http://www.naesp.org/comm/c1200.htm>
- Osborne, E. (1959). *The parent teacher partnership*. New York: Teachers College Columbia University.
- Osgood, J. and Keys, W. (1998). Headteachers' Main Concerns (Annual Survey of Trends in Education, Digest No. 5). Slough: NFER

- Parson, S. R. (1999). *Transforming schools into community learning centers*. Blacksburg, VA: Eye on Education.
- Pittman, R. B., and P. Haughwout (1987). Influence of high school size on dropout rate. *Educational Evaluation and Policy Analysis* 9 (4): 337-43.
- Ryan, T. (2005). Using Information in Education .Available at:
<http://www.parental//involvement/htm>. Accessed 20/03/2006.
- Sammons, P., Hillman, J. & Mortimore, P. (1995). Key characteristics of effective schools: A review of school effectiveness research. London, England: Office for Standards in Education (ERIC Document Reproduction Service No. ED389926)
- Schaffer, E., Hwang, C. J., Lee, Y. Y., Chang, S. Z., & Pan, H. L. (2002). Case studies of more and less effective schools in Taiwan. In Reynolds et al (eds) *World Class School: International perspectives on school effectiveness* (pp. 100-118). Routledge Falmer.
- Schickedanz, J.A. (1995). Family Socialization and Academic Achievement. *Journal of Education*, 1, 17-34.
- Sheldon, S. B., & Epstein, J. L. (2005). School programs of family and community involvement to support children's reading and literacy development across the grades. In J. Flood & P. Anders (Eds.), *The literacy development of students in urban schools: Research and policy*. Newark, DE: International Reading Association.
- Smedje, G., and D. Norback (1999). The school environment: Is it related to the incidence of asthma in the pupils? In *Indoor Air '99*, vol. 5. 445-50. The Eighth International Conference on Indoor Air Quality and Climate. International Academy of Indoor Air Sciences.
- Swick, K. J. (1988). Parental efficacy and involvement: Influences on children. *Childhood Education*, 65(1), 37-38, 40, 42.
- Swank, A., & Greenwood, L. (1999). *The effects of weekly math homework on fourth grade student math performance*. Tennessee: Johnson Bible College. (ERIC Document Reproduction Service No. ED433234)

- Teddlie, C. & Reynolds, D. (2000). The international handbook of school effectiveness research. New York, NY: Falmer Press.
- Teddlie, C., Kirby, P., & Stringfield, S. (1989). Effective versus ineffective schools: Observable difference in the classroom. *American Journal of Education*, 42, 221-236.
- Tekeste Negash (1990). The Crisis of Ethiopian Education. Some Implications of Nation-Building. Uppasala University: Uppasala Reports on Education no. 29.
- TGE (1994). Education and Training Policy. Addis Ababa.
- Trautwein, U., Koller, O., & Schmitz, B. (2002). Do homework assignments enhance achievement? A multilevel analysis in 7th grade mathematics. *Contemporary Educational Psychology*, 27(1), 26-50.
- Van Voorhis, F. L. (2003). Interactive homework in middle school: Effects on family involvement and students' science achievement. *Journal of Educational Research*, 96(6), 323-339.
- Walberg, H. J., Paschal, R. A., & Weinstein, T. (1985). Homework's powerful effects on learning. *Educational Leadership*, 42, 76-79.
- Wang, M. (2000). How Small Classes Help Teachers Do Their Best: Recommendations from a National Invitational Conference. The CEIC Review, Volume 9, Number 2 (March).
- World Bank (2005). Education in Ethiopia-Strengthening the foundation for sustainable Progress- 28037-ET. Africa Region Human Development Department, Washington D.C.
- Weinstein, C. (1979). The physical environment of the school: A review of the research. *Review of Education Research*, 49(4), 577-610.

- Wenglinsky, H.(2000). How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality. ETS and Milken FamilyFoundation.
- Whitehurst, G. (2002). Research on Teacher Preparation and Professional Development. White House Conference on Preparing Tomorrow's Teachers. Retrieved from <http://www.ed.gov/inits/preparingteachersconference/whitehurst.html>
- Wright, S. P., Horn, S. P., & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 57-67.

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF EDUCATIONAL RESEARCH

This questionnaire is to be completed by government and non-government students' of secondary schools in Addis Ababa.

To the Respondents:-

This questionnaire is prepared for the purpose of conducting a study on 'A Comparative Study of Factors Affecting EGSECE Achievement in Government and Non-Government Schools of Addis Ababa'. To achieve the purpose, your cooperation in completing this questionnaire is highly appreciated. The success of this study by and large depends on your honest and sincere responses to the question items. The data you provide will be kept confidential and will not be disclosed to any third party. You are, therefore, kindly requested to provide the required information.

Thank you in advance for your cooperation

I. Background Information

Instruction:- Some characteristics of students are given below. Please respond either by filling in the blank space or by circling the letter of the appropriate response.

1. Name of school
2. Grade.....
3. Sex a. Male b. Female
4. Age a. 11-13 years b. 14-16 years
 c. 17-19 years d. Greater than 19 years
5. The result you achieved in grade 8 regional examination is percentile.

6. Your Identification Number for EGSECE (Grade 10 National Examination) was

II. Items related to yourself and your parents

1. With whom are you living now?

- a/ with my mother and father
- b/ with my mother
- c/ with my father
- d/ with my mother and step father
- e/ with my step mother and father
- f/ with relatives

2. Which of the following is true about your mother and your father?

- a/ they live together
- b/ they are divorced
- c/ my mother has died
- d/ my father has died
- e/ my mother and father have died

3. The educational status of my parents

3.1. My mother's educational status is :-

- a/ never been to school
- b/ between grade 1 and grade 12
- c/ has a certificate
- d/ has a diploma
- e/ has a degree or above

3.2. My father's educational status is :-

- a/ never been to school
- b/ between grade 1 and grade 12
- c/ has a certificate
- d/ has a diploma
- e/ has a degree or above

4. How much tuition fee do your parents pay to your school per month?

- a/ less than Birr 50

- b/ greater than Birr 50 and less than Birr 150
- c/ greater than Birr 150 and less than Birr 300
- d/ greater than Birr 300

5. Who gives you tutorial at home?

- a/ my mother
- b/ my father
- c/ my brother/sister
- d/ a hired tutor
- e/ no one tutors me

6. How many hours do you study per week?

- a/ more than 5 hours per week
- b/ 5 hours
- c/ 4 hours
- d/ 3 hours
- e/ 2 hours
- f/ I do not have time to study

III. Items related to Factors Affecting Students' Academic Achievement

Direction:- The following items indicate factors that contribute to students' academic achievement. Each item is to be responded by selecting the most appropriate response from the five alternatives where

Always (A),

Often (O),

Sometimes(S),

Rarely (R) , and

5=Never (N).

Please respond by marking a tick “√” against the response you think most appropriate.

No.	Items	A	O	S	R	N
	Items related to parents support to their children					
7	My parents fulfill educational materials for me.					
8	My parents help me to perform my homework in time					
9	My parents communicate my teachers about my academic progress					
10	Many parents involve in school parent teacher conferences.					
11	Many parents involve in school activities when requested					
12	Many parents know what subjects their children learn					
	Items related to homework					
13	Our teachers give us homework regularly					
14	I perform my homework without anybody's pressure					
15	I perform my homework without anybody's help					
16	Our teachers check whether we did our homework or not					
17	My daily performance of homework enabled me do better in Examinations					
18	My parents encourage me when I perform my					

No.	Items	A	O	S	R	N
	homework in time					
	Items related to class size					
19	Crowded classrooms do not affect student academic achievement					
20	The space within our classroom has effect on the teaching learning process					
21	Our teachers can make a one to one conversation with each of us					
22	The Classroom condition (light, neatness and quality of seats)is to the standard					
	Items related to school facilities					
23	Textbooks and reading materials are available for each student					
24	School building are conducive for teaching-learning activity					
25	The school climate is appropriate to attend the teaching-learning activity					
26	The library is open at school time whenever students want to read					
27	The library is full of the necessary reference materials					
28	The school laboratories are at the services of science students.					
29	Science teachers use laboratories effectively to teach the sciences.					
	Items related to teachers competency					
30	Our teachers give us a number of exercises and tests					
31	Our teachers encourage us to be active participants in the teaching-learning process					
32	Our teachers teach us by making use of different teaching-learning methods.					
33	In each period, our teachers manage the instruction time properly					
34	Our teachers are qualified and competent enough to teach.					
35	Our teachers continuously follow up and evaluate our progress					
	Items related to principals leadership					
36	Principals involve teachers in decision making (related to teaching-learning)					
37	Principals involve parents in different school					

No.	Items	A	O	S	R	N
	activities					
38	Principals regularly inform parents on their children's academic achievement					
39	Principals communicate instructional goals to teaching and non-teaching staff members					
40	Principals mobilize the school community for a safe and orderly school environment					
41	Principals initiate the school community to aspire high expectation in student achievement					
42	Principals make regular classroom visits (when teachers are teaching) for support					
43	Principals coordinate instructional program appropriately					
44	Principals monitor student academic progress					

DECLARATION

This Thesis is my original work and has not been presented for a degree in any other University and that all sources of the material used for the Thesis has been acknowledged.

A Getnet Semad

Name

This Thesis has been submitted for the examination with my approval as the university advisor.

Desalegn Chalkisa Chalkisa

Name

