

MAJOR FACTORS AFFECTING THE ENGLISH ACHIEVEMENT OF
UPPER PRIMARY SCHOOL PUPILS GONDAR TOWN

A Thesis

Submitted to School of Graduate Studies

Addis Ababa University

In Partial Fulfillment of the Requirements
for the Degree of Master of Arts in
Curriculum and Instruction

BY

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June 199~~4~~

Addis Ababa

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

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ABSTRACT

The quality of education as reflected in academic achievement can not be divorced from the complex set of social and educational factors which interplay to affect learning processes and outcomes. The question "what makes a difference in academic performance?" has been addressed by different researchers from both the developed and the developing countries. Within the developed countries much is known about the determinant-achievement relationships. In the developing countries, however, the findings are inconclusive and inconsistent.

The purpose of the study was to examine the extent to which variables used in the Educational Production Function and the Process-Product research approaches explain differences in grade five and six pupils' English achievement. Specifically, the study attempted to investigate the relative impact on pupils' achievement of seven home, six pupil, six school-classroom and eleven teacher related variables.

This task was accomplished by regressing thirty independent variables for each grade level. The dependent variable used as a criterion measure was achievement test prepared by the investigator based on the objectives and contents determined by the Ministry of Education for the respective grade levels. The thirty independent variables were selected on the basis of review of literature. Information on the independent variables was secured using three basic tools of data collection: Questionnaire, school and classroom inventory, and classroom evaluation rating scale.

The relationship between the thirty independent variables and pupils' achievement at each grade level was analysed by the method of multiple regression. A variable's statistical impact on the dependent variable was accepted as significant at 0.05 α level or better.

Results of the analysis revealed that variables describing home, pupil, school-classroom and teacher attributes have differential impacts on students' English achievement: some variables (such as class repetition, father's education and planning skill) showed statistically significant impacts while others (such as pupil sex, class-size, and family-size) exerted nonsignificant influence. Based on these findings some basic conclusions are reached and related recommendations forwarded.

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Acknowledgement

The investigator wishes to thank a number of people who lent their assistance during the various stages of the project: Dr. Abebe Bekele for his constructive criticism and guidance throughout the study. W/t Asnakech Feleke, Ato Esayas Belay, Ato Temechehn Engida, Ato Sorsa Nataa, Ato Tenalem Ayenew for typing the manuscript and printing the final paper. The principals, teachers and students in the primary schools of Gondar town as well as the educational officer Ato Ageghehu G/Eyesus should be mentioned with appreciation since they were most cooperative during the stage of data collection.

Finally, what a deep pleasure would my brothers Gebeyehu, Birhane, Meseret, and Tadele fill after the completion of this project.

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CHAPTER ONE

I N T R O D U C T I O N

1.1. Statement of the Problem

Today, the trust on the power of education to bring about societal change and progress is increasing. There is ample evidence in support of the proposition that education has positive contribution to economic growth, social development and the improvement of individual welfare (Philips,1975:8;Tilak,1989:21; and World Bank, 1990:2). This, in turn, has increased governmental concern for improving the system of education and parental demands for more educational opportunity for children (farrell and Heyneman, 1989:1).

As Holmes (1980) generalized from the world perspective, the fundamental aims of education in contemporary society emanate from three basic concerns of governments and the public. The first is that education is accepted as a basic human right which should be accessible to all citizens irrespective of natural and social differences among people. Schools are also expected to develop the cognitive and noncognitive potentials of pupils to the extent society can afford. Finally, schools are called to contribute to national economy by preparing pupils for participation in civic and Production activities. According to Holmes, these ideas find expression in the way educational institutions are structured, aims are formulated, curricula are planned and implemented, and children are admitted to or selected for the various stages in the educational structure (in MOE, 1982:4).

Primary education is thus one aspect of the educational system of different nations which provides fundamental base for pupils. It is often taken for granted that primary education is a foundation for developing the capacity to cope with changes in society. Its universal availability is, therefore,

contral to the human resource capacity of all societies, whatever the level of development reached may be (Chantanavanich etal., 1990:1). According to Chantanavanich and associates, the central purpose of primary education in general is twofold: To enable pupils become literate in the basic skills so that they can function effictively in their respective societies even if they leave the school system and to provide them with sound base for further schooling in case they remain in the school system (ibid).

Failure to recognize and realize these chief objectives will undoubtedly result in poor educational foundation the adverse effect of which is well discribed by the World Bank's caution:

Poor primary schools... produce graduates who are poorly prepared for secondary and tertiary education and Tll equipped for life-long learning. The consequence is an insufficient number of truly educated managers, workers and parents who can efficently contribute to development(p.11).

Such a concern suggests that the realization of primary education objectives inevitably requires not only quantitative but also qualitative growth. Questions of quantity (enrollment, completion, repetition, etc.) and quality (performance level) are, in turn, the basic yardsticks often used to measure the efficiency of educational systems (Omari etal., 1983:69). When filtered through these criteria quantitative growth in both the develkoped and developing countries has shown good results over the past few decades (Fuller, 1986:491; Farrell and Heyeman, p.1).

Though the priority and the degree of emphasis may differ, issues of quality are however still common problems of both developed and developing nations (Ross and Mählick, 1990:8-9). In developing countries in particular the priority placed on expansion had led to dramatic failure in the quality of educational outcomes (Fuller, p.491). The need for planning the quality of education through informed decision making

therefore initiated and encouraged research on determinants of educational achievement as early as the 1960s (Coleman, 1986:111). Thereafter, educational researchers have continuously studied the impact on student achievement of multiple home, pupil, school and teacher related factors.

In developed countries, factors defining home background and pupils are generally established as superior to school and teacher attributes in explaining student achievement. What is not yet clearly established in these countries is the relative influence of the specific variables in each block of factors (Johnston and Jiyono, 1983:278). With regard to research activities in developing countries findings are inconsistent, and even contradictory sometimes. Heyneman's research in Ugandan primary schools, for instance, shows weak relationship between students' achievement and the four home background measures-mother's education, father's education, occupation and possessions in the home-he used. The correlation between pupil's achievement and paternal schooling was only .07; maternal schooling, .02; paternal occupation, .06; the number of possessions in the home, .03; and the summary measure of the four variables, only .05 (Heyneman, 1976:46).

Similarly, Postlethwaite (1980:254) claimed, on the basis of the International Educational Achievement (IEA) data, that correlations between home background factors and student achievement in developing countries are weak. After reviewing over nineteen studies conducted in the developing countries, Simmons and Alexander (1981) concluded on the contrary that "the determinants of student achievement appear to be basically the same in developing and developed countries" (pp.92-3). The difference in the conclusions reached is therefore apparent.

In addition to such inconsistencies in research syntheses and empirical evidences pertinent to developing countries, the relative influence on student achievement of specific

variables, within each home background, student personal, school and teacher category was not clearly disentangled (Caillods and Postlethwaite, 1989:180). These conditions thus call for further research in different subject areas and grade levels.

The reality of Ethiopian primary schools also seems to reflect Fuller's and Farrell and Heyneman's generalization about schools of the developing countries stated above. It is reported that the rate of gross enrollment in the primary schools has generally increased after 1975. The quality of education at this level has however been seriously questioned since the early 1980s (MOE, 1982:2). Hence, complaint about the quality of education means that standards of attainment have fallen or that the average result or achievement of students has gone down.

Sensing this acute problem the former Ethiopian socialist government passed a resolution calling for the identification of the causes for decline in the quality of education (Tekeste, 1990:18). In response to this resolution, the Ministry of Education initiated a project under the title "Evaluative Research of the General Education System in Ethiopia" (hereafter Ergese). After a nation-wide survey Ergese came up with multiple factors that are said to have affected the quality (performance) of primary schools. These factors, as the project's summary report (MOE, 1986) reveals, are generally related to home background, pupil-personal, school-classroom, and teacher characteristics.

Although the major factors (which are also widely known by researchers in other countries) that influence educational quality are identified, Ergese's report seems limited in its depth. As a descriptive national survey, the project did not attempt to examine specifically the relationship between the independent variables and student performance in the different

subject areas. Even more, no attempt was made thereafter to correct this limitation through research. One exception to this vein is of course Derese etal's (1990) investigation which examined the factors affecting lower primary school (grades two to four) student's achievement in Amharic and Mathematics subjects.

Accordingly, two basic factors interested the investigator to study the determinants of educational achievement in relation to one school subject-English language: (1) The desire to contribute to research efforts going on in other countries and (2) the scarcity of such studies on the qualitative aspect of primary school performance in Ethiopia.

1.2. The Conceptual Framework

Researchers concerned with the study of the determinants of educational achievement often follow either the Educational Production Function (EPF) or the Process-Product (P-P) framework.

In this study, the researcher modified and used the Murnane-Phillips (1981) integrative structural equation model. This model derives from the advantages of both the EPF and the P-P frameworks. The EPF research orientation recognizes that the impact on student achievement of various home, pupil, school and teacher related characteristics can be assessed in the context of input-output analysis. In so doing, researchers analyse the relationship between different inputs (such as family-size, pupil-sex, teachers' experience and school facilities) and educational achievement with implication to educational policy-decisions. The basic criticism often presented against this approach is that the framework irrationally neglects the process factors related to the actual classroom behaviour of teachers and students (see chapter two for detail).

In an attempt to correct the weakness of the EPF approach other researchers developed the P-P framework. This framework links particular aspects of teachers' classroom behaviour (such as clarity, feedback and management skills) as processes to the result of instruction (such as achievement) as products. The often stressed limitation of the P-P approach is that, confined as it is in what actually goes in the classroom, it downplays the effect on student learning and achievement of input factors (see chapter two for detail).

Thus, as Murnane and Phillips (p.84) persuasively argued there is little communication between the EPF and the P-P orientations for they deal with different dimensions of the educational problem. What is needed is therefore a model which considers student achievement (Product) as a function of both input and process factors (Kyriacou, 1981:11). In this regard, Murnane and Phillips have developed a structural equation model which can be used for an in depth study of the effects of inputs and processes on student achievement.

1.3. Purposes of the Study

In accordance with the aforementioned statements it was the purpose of this study to examine the extent to which the major home background, pupil-personal, school-classroom, and teacher related variables affect grades five and six pupils' English achievement. In particular, the study attempted:

1. To identify the relative influence on pupils' achievement of home background factors.
2. To identify the relative influence on pupils' achievement of pupil-personal characteristics,
3. To identify the relative influence on pupils' achievement of school-classroom characteristics,
4. To identify the relative influence on pupils' achievement of teacher classroom behaviour variables,

5. To identify the relative influence on pupils' achievement of teacher background characteristics,

1.4. Basic Research Questions

Inorder to achieve the above stated objectives the following basic research questions were raised and their answers were sought using multivariate regression analysis.

1. Do the factors explaining home background characteristics have differential effects on pupils' achievement?
2. Do the factors describing pupils' personal characteristics have differential effects on their achievement?
3. Do the factors related to school classroom characteristics have differential effects' on pupils' achievement?
4. Do the fctors describing teacher background characteristics have differential effects on pupils' achievement?
5. Do the factors related to teacher classroom behavior have differential effects on pupils' achievement?

1.5. Significance of the Study

In the most pressing educational crisis that Ethiopia is in at present, this study would contribute in the following ways.

1. The results may help English syllabus designers to consider the relative influence of in-school and out-of-school factors on the proper implementation of what is planned.
2. As the study comes up with a list of those teacher background characteristics and classroom behavior variables which are variously correlated to pupils' English achievement, the results may

help Teacher Training Institutes to appraise their pre-service and in-service programs.

3. The study may also help teachers, school directors and parents to be informed about the relative impact on pupils' achievement of the various factors so as to take corrective measures whenever possible.
4. This study may provide additional empirical evidence to the educational effectiveness research current in other developing countries.
5. The procedures followed in this study would also assist other researchers who may be interested in related studies at different levels in the educational system of Ethiopia.

1.6. Limitations of the study

A thorough investigation into the quality of program implementation should basically include an analysis of the relevance to the respective grade levels of the centrally produced syllabus, textbooks and supplementary materials. However, due to the extended time that such an undertaking requires, this study has concentrated only on those factors which affect program implementation.

Because of transportation problems prevailing in the region, the study was limited to those primary school pupils' in Gondar town. Therefore, the results obtained and the conclusion reached may not necessarily reflect the condition of rural schools; nor can they be confidently extended to other towns in Ethiopia which might have their own specific features.

Pupils' classroom behavior (such as asking questions, participation in discussions, and orderliness) contributes to the level of their performance on subsequent tests and

examination (Bennett and Wade, 1979:64). But due to the large number of students in a classroom and the complexity associated with measuring learner behavior in such circumstances this aspect is not considered. The study has instead focused only on teacher classroom behavior variables that are often considered essential by specialist in the field of curriculum and instruction.

1.7. Delimitation of the study

It was not the purpose of this study to investigate the effects of home background, pupil-personal, school classroom and teacher related characteristics on the process of teaching. The interest here was rather on the relative influence on learning of these factors taking students' result on achievement test as a product measure.

The study was also specifically concerned with pupils' performance on cognitive achievement tests. The affective and psychomotor aspects of learning outcomes are thus beyond the scope of this study. Because, dealing naturally with certain aspects of cognitive skills, a one-time terminal (summative) achievement test "religates" to the background the affective and the psychomotor aspects of human behavior" (Ogunniyi, 1984:112). As Ogunniyi argued further, only continuous assessment can provide the best picture of students' performance on non-cognitive skills if evaluators can afford the materials, time, energy, up-to-date records, cooperation, and the types of tests and instruments that this costly procedure demands (p.114). These basic requirements were therefore insurmountable to use continuous assessment in this particular project.

1.8. Definition of terms

The following terms or phrases are used in this study in the

same manner as they are defined or described here under.

Achievement test: a measure" intended to assess specific cognitive skills; often developed in school and directly related to the material studied in school" (Clifford,1981: 683). It "... measures a student's achievement of educational objectives, usually in the cognitive domain and in a specific subject matter" (Gage and Berliner, 1988:660).

Home characteristics: the socioeconomic and attitudinal attributes of a family that may affect a child's performance in school (Bridge et al , 1979:10,213).

School-classroom characteristics: the physical and administrative conditions in a school that may influence students' level of performance (ibid).

Pupil-personal characteristics: the demographic and personality attributes that a child brings to the school ~~at~~ to the classroom (ibid).

Teacher characteristics: personal and professional background conditions (inputs) that a teacher brings to the teaching situation which may affect students' performance (Murnane and phillips, p.85).

Teacher behavior: skills, abilities and other attributes of a teacher that students experience directly in the classroom (ibid. 86).

Upper primary school: the grade five and six levels in the elementary phase of the Ethiopian Educational System.

CHAPTER TWO
REVIEW OF RELATED LITERATURE
2.1. INTRODUCTION

Over the past few decades, educational researchers have made a concerted effort to understand the factors which presumably influence student achievement. Significant strides have been made in specifying models which would serve as conceptual frame work in research activities. Work has also progressed in empirical research that there appears to be a continuous supply of evidences of the factors which contribute to disparities in students achievements.

This chapter reviews studies which were concerned with the determinants of the students cognitive achievement. First, the basic features of the Educational Production Foundation and the Process-Product research approaches are examined. Then some research findings which, applying the Educational Production Function and the Process-Product frameworks, investigated the impact on student achievement of selected variables are presented and analyzed in some detail.

2.2. MAJOR INFLUENCES TO THE STUDY OF FACTORS
INFLUENCING STUDENT ACHIEVEMENT

Since the 1960s, the question "what makes a difference in student achievement?" has been central to educational research. The problem has also attracted researchers from various disciplines, notably from psychology, sociology and economics (Schiefelbein and Simmons, 1981:5). Usually,

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researchers from different fields of inquiry define their research problems differently and the conclusions they reach are shaped by the type of the questions raised and the methods of analysis followed. Research on determinant-achievement relationship is not an exception.

As Clark (1979) noted, for instance, psychologists are interested in teacher's class room behaviours which "are systematically and causally related to student achievements" (p.29). Economists, on the other hand, assume that achievement is a function of various combinations of resource inputs made available to schools and attempt to examine the relationship between learning gains and input factors. Sociologists also take another perspective to study the impact on educational attainment of such demographic and structural factor as sex, social status, and ethnicity (Bridge, et al., pp:3-4)). In this regard, research into the determinants of student achievement takes various approaches. Because, those who wish to study the problem set forth a model based on theoretical and practical advances in specific disciplines.

Such a restricted approach to a complex subject of "impact on achievement" was not however found to be fruitful. Instead, more systematic researchers use complex models and apply interdisciplinary approaches drawing information from two or more fields of inquiry. This development has, in turn, helped to deal with the problem more fairly and squarely.

Accordingly, two most common and useful models are being used in the search for the determinants of student achievements. They are the Educational Production Function (EPF) and the Process-Product (P-P) research frameworks (Harbison and Hanushek, 1992:15,314). Some individual researchers have also tried to integrate the ELF and P-P models into one so that the problem of determinants- achievement relationship might be studied from a more wider perspective. A discussion of these developments therefore seems imperative here.

2.2.1. The EPF Research Tradition

According to Hanushek (1979:353), the EPF is a research framework which describes the maximum output achievable with different sets of imputes provided to schools. As he observed, the EPF research tradition has been heavily influenced by researchers from the discipline of Economics. In order to solve the economic problem of how much of the production factors (labour, money, and other materials) to use and how much yield to produce in a firm, economists assume production function. Then, for a given combination of production factors (inputs) they attempt to estimate the maximum amount of products (outputs) using statistical equations (Burkhead et.al, 1967:18-9).

When applied to the analysis of educational data, the "production function approach" of economists came to be called Educational Production Function (or simply, Input-Output or Quality-Control) framework and its focus is " the

relationship between school outcomes and measurable inputs into the educational process." (Harbison and Hunashuk, p.15). More specifically,

Production functions are used to reflect relations between measures of inputs and output. If different levels of student achievement are found in different schools, then the focus is to identify the source of the differences (Glasman and Biniaminov, 1981:509)

The source of the variation in student achievement are investigated by considering "multiple inputs but a single output" (Noonan and Wold, 1983:236). With regard to output variables the most frequently analyzed is student cognitive achievement (Simmons and Alexander, 1980:80). The number of input variables studied, on the other hand, varies from researcher to researcher although the general form of the ELF framework is always the same (Hanushek, pp.363-8). Accordingly, the general form of the EPF model under the assumption of a single output and multiple inputs is specified by Noonan and Wold (p.24) as follows:

$$A^T = f(P^{(t)}, B^{(t)}, I^{(t)}, S^{(t)})$$

where

A^T = Achievement level at time T;
 $P^{(t)}$ = Matrix of Peer characteristics,
 cumulative to time T;
 $B^{(t)}$ = Matrix of Home background
 characteristics, cumulative to time
 T;
 $I^{(t)}$ = Vector of student characteristics,
 cumulative to time T; and
 $S^{(t)}$ = Matrix of school characteristics,
 cumulative to time T.

It can be observed from the right side of the equation that the four major blocks-peer group, pupil, home and school characteristics-involved different and specific independent variables. The EPF framework therefore helps to regress student achievement ($A^{(t)}$) on selected variables describing each of the four major clusters in a cross-sectional study.

For this purpose, EPF researchers use multiple regression analysis and attempt to sort out the relative impact on student achievement of specific inputs (Schiefelbein and Simmons,p.5).

However, the EPF design can not exhaustively list all the specific independent variables which fall under the four blocks, given the multiplicity of the factors which influence the students' learning and achievement Centra and Potter,1980:27). The framework is thus incomplete with regard to the specific input variables to be included in a given analysis. Rather the selection and definition of variables is simply left to the discretion of individual researchers.

Recognizing this lack of guidance for variables selection, some prominent reviewers have nevertheless identified the basic variables which are considered important by researchers who used the EPF framework. Chief among them are Fuller (1987:256),Avalos and Hadded (1981:13-4), Bridge et al. (pp.191-256), and Schiefelbein and Simmons (p.22,26,29). The common findings of these reviewers, particularly as related to EPF research in developing countries, can therefore be summarized briefly here.

The Peer group block includes mainly social class, ability and ethnic composition of pupils as specific variables. But, usually, these variables interact or overlap with family background factors when both blocks are included in the analysis. In that case, attempts to estimate the influence of peer group factors" are particularly susceptible to the ambiguities due to data aggregation" (Bridge et al.,p.229). For this reason, Bridge et.al. advised, peer group inputs should not enter in analysis together with home background inputs unless in a strictly experimental study.

The home background block principally involves parents' educational level, parents' occupational category, family size, families' moral and material support for pupils, and conditions for study at home. To identify the extent of

family's moral and material support, such indicators as parental encouragement, additional teaching activities at home, day-to-day follow up of pupils' progress and availability of educational materials (like pen, pencil books and so on) are suggested important. The variable "conditions for study at home" is also measured on the basis of whether or not a student gets food regularly; has enough time, room, and light for study; and possesses additional books to strengthen his regular learning at school.

The main variables which represent the student characteristics blocks are pupils' age, sex, preschool education (kindergarten or any other educational experience), class repetition, (repeated or not repeated) and attitude towards teachers, subjects, peers, and the like.. The school characteristics block encompasses two major components: School-classroom component principally includes school facilities (latrine, tea room, library, etc.), classroom facilities (light, desk, door, etc.), instructional materials (textbooks, blackboards, etc.) and class-size or student-teacher ratio. The school-community relations and principals' leadership behaviour are also important aspects of the school-classroom component.

According to Chantanavanich et al (pp.151-2) such indicators as the local community's concern for pupils' health, conduct, and achievement; sign of caring for school property; willingness to provide assistance, criticism, solutions and suggestions; interest in extra-curricular activities and interpersonal relations, and desire to participate in school decision-making are important in the study of student achievements. Numerous researchers have also noted two key element in principal leadership behaviour as related to the interpersonal relations in schools. Silver (1983) stated that a principal's behaviours and "action can be seen as serving the dual purposes of getting things done and expressing feelings" which can be respectively designated as "system orientation" and "person orientation" dimensions (p.126). In the famous leadership behaviour research program at Ohio

University, these two dimensions have been termed "initiating structure" and "consideration" factors respectively (Halpin, 1966, 86).

In essence, system orientation or initiating structure is a category of behaviours which demonstrates the principal's authoritative actions in his relation with teachers. Authoritative leaders define the work to be done, speak in a manner to be questioned, refuse to explain their actions to teachers, are slow to accept ideas, and so on. Person orientation or consideration, on the contrary, is a set of leader behaviours which gives due regard for the comfort, well-being, status and contribution of teachers. Principals with this set of behaviours are, in general, ready to make changes whenever it is the need of staff members in line with educational policy. That is, they consider what teachers would say upon the action they take (Halpin, p. 88-9; Silver, p. 127-8). A given director's leadership behaviour can therefore be directed primarily to one or the other dimension and may variously relate to student achievement.

The teacher background component of the school block inputs involves such attributes of teachers as sex, age, teaching experience, attitude toward the profession, expectation of student achievement, and devotion to teaching purposes. Thus, teachers who like their job, see its importance for acquiring further knowledge, want to remain in it irrespective of the opportunities, and are interested in being with the youngsters are believed to be effective (Broadfoot et al; 1987:285). Expectation of achievement is the subjective judgement teachers have about the level of performance their students attain. Such perceptions could be based on reactions to parental support, school facilities, students' effort, and prior achievement (Anania, 1963:27-8). Out-of-school time devoted to teaching purposes is a measure of teachers' commitment to the betterment of their work and can be measured by the frequency of assessment given to students, the time devoted to the planning and preparation of lessons, the frequency of teacher-parent contacts concerning academic

matters and the like (Chantanavanich et al;pp.124-9).

Thus the above list of the main independent variables most frequently included in the EPF research tradition clearly shows that little or no attention is paid to factors related to the actual teaching process. As Glasman and Biniaminov concluded from their review of over thirty popular studies,

Generally, the input-output analysis do not deal with characteristics of the dynamic and ongoing interrelationships between students and teacher or those among students themselves (p.509).

The EPF research framework is therefore sharply contrasted to the P-P research framework in which the process, not the input, dimension of schooling is given particular emphasis.

2.2.2 The P-P Research Tradition

Researchers in the P-P orientation explore the relationships between teacher behaviour as process and student achievement as product of teaching (*Peterson,1979:46). Briefly, the basic objective and assumptions of the P-P approach are described by Anderson et al. (1979) as follow:

... to define relationships between what teachers do in the classroom (the process of teaching) and what happens to their students (the product of learning) ... Researchers in this tradition assume that greater knowledge of such relationships will lead to improved instruction: once effective instruction is described, then supposedly programs can be designed to promote those effective practices (in Shulman, 1986:9-10).

These concerns show that the process-outcome studies attempt to correlate teacher classroom behaviours with students' achievement with the purpose of determining what teaching qualities lead to increases in teaching outcomes. Hence, the problem herein becomes one of isolating those variables describing teacher activities which can produce better student achievement. But, the question of what number of variables exactly defines teacher behaviour is not clearly

answered (Centra and Potter,p.281). This is mainly because what constitutes effective teaching varies from class to class, from subject to subject, as well as with class-size and in relation to the specific instructional objectives (Brophy and Good,1986:370). That is, as Berliner (1976:7) put it more succinctly, teacher behaviour variables are not always stable across the teaching situations and therefore are difficult for generalization.

It is recognized however that effective teaching is a complex set of teacher behaviours consisting of reactive and interactive processes. The reactive process occurs when the teacher is alone and requires him to deliberately plan implementation emphasizing on the objectives, lesson content, methods, materials and evaluation mechanisms. The interactive aspect, on the other hand, includes all teaching activities related to the actual implementation of the decisions made at the reactive stage (Jackson,1979:26-31). It is also understood that what teachers do in the interactive process can be divided into two major sets of activities: instructional and managerial. The former are intended to facilitate pupils' achievement of objectives and includes such basic teaching skills as presenting, explaining, questioning and so on. The managerial ones are the activities by which teachers maintain productive learning situations by creating order and correcting misbehaviour which distract the smooth flow of instruction (Perrott,1982:110).

Accordingly, several reviewers (for example Brophy,1979:755, Corno and Shaw,1986:622; and Stallings and Stipek,1986:739) have observed that variables used in the P-P research tradition are derived from a pattern of teacher behaviours termed "direct instruction". The term "direct instruction" is variously used in research literature as "active teaching" (Good,1979:153), "explicit instruction" (Bellon et al,1992:273), "teaching functions" (Rusenshine and Stavens,1986:376) and "effective teaching" (Perrott,p.1). But, all these terms essentially describe the systematic procedures, approaches, tactics and techniques used by

teachers in both in the reactive and interactive phases of teaching. Building upon the work of Bauman (1988), Lehr (1986) and Brophy (1986), recent writers have thus summarized the main tents of direct instruction in the following manner:

...direct instruction is explicit instruction with an academic focus led by teachers who interact directly with their students... Explicit instruction is an unambiguous, clear and detailed ...Teachers should allocate classroom time carefully and control the pace, sequence, and content of their lessons... student work is closely monitored, and students receive specific corrective feedback. Direct instruction is delivered face-to-face by the teacher... Teachers lead, tell, and show students what they want them to learn. When students have problems, teachers explain, give additional examples, and reteach until they accomplish the learning objectives (Bellon et al;p. 273-8).

The above question emphasizes that direct instruction is a set of teacher behaviours characterized mainly by good planning, clear instruction, flexible approach, and systematic feedback giving skills. These elements are always vital in P-P research.

As Bellon et al. (pp.31-35) stressed, instructional plans are "scripts for the interactive phase of teaching" and should therefore include specific objectives, methods and materials with concern for pace, sequence and timing. Perrott (p.12-19) has also added that planning is a vital element in teaching which should involve behaviorally stated objectives, lesson content related to the objectives, appropriate methods and materials which will help achieve the objectives, and mechanisms of evaluating wether or not the objectives are achieved. Perrott further stressed that the instructional objective should state what the pupils will do as a result of their learning, not what the teacher will do during instruction, and should indicate how learning is to be assessed. Other researchers on curriculum and instruction teach as Tyler,1949:46-7; Meger,1975:20 and Grounlund,1982)

have also advanced similar ideas on the form and content of instructional plans.

"Clarity of instruction" has always been placed at the head of P-P research variables and is a broad concept which involves understanding, structuring, sequencing, explaining and presenting as its "critical dimensions" (McCaleb and Jacqueline, 1980:27). As McCaleb and Jacqueline synthesized from various studies the understanding dimension refers to the process by which teacher create a smooth transition from already covered content to new content using unambiguous, clear terms. Structuring refers to the way the teacher communicates the objectives to the learners, previews the main ideas and provides lesson summaries; while sequencing refers to the ordering of information based upon the complexity of the material and in relation to the learning characteristics of the pupils. Explaining, the fourth dimension, is described as the use of relevant examples, illustrations, questions, definitions of terms, and so on. Presenting, finally, is defined by such classroom communication skills as the use of appropriate voice, gestures, movement and eye-contact (pp.28-30).

What McCaleb and Jacqueline called "presenting" is probably more precisely termed by Perrott as "stimulus variation" and "refers to those teacher action on the part of the pupils, during the course of the lesson" (pp.28-9). Stimulus variation is therefore the flexibility or variability teachers show in order to keep pupils on the learning task. Different authorities have therefore underscored that teachers' flexibility in instruction will undoubtedly contribute to increase student learning gains.

Davies (1981:152-9) and Perrott (pp.32-3), for instance, concluded from their research and teaching experiences that effective teachers move about the teaching space during instruction, use gestures, postures, facial expressions and eye expressions to convey extra-meaning; give emphasis by various verbal expressions and avoid distracting behaviours such as too loud voice, quite voice, and fast movements.

Varying teacher-pupil, teacher-group and pupil-pupil interaction patterns is also considered important in order to avoid fatigue and to use instructional time appropriately.

The importance of feedback and reinforcement as the basic elements of direct instruction is also well documented. Anania defined feedback as "the information the student receives about the extent of the learning which has occurred up to a particular point in the instruction" (p.11). The purposes of feedback are to confirm correct responses, to identify errors, and to correct or allow students to correct errors (Kulhavy,1977:271). Among this purposes, the corrective function is the most important: "if a student makes an error, it is inappropriate to simply give the student the answer and then move on"; he should rather be told or encourage to discover what his error is (Rosenshine and Stevens, p.386).

Reinforcement is more precisely defined by Dollard and Miller (1950) as "any specified event...that strengthens the tendency for a response to be repeated" (in Anania, p.10). Reinforcement is therefore a teaching technique complementing feedback. According to Perrott (pp.97-101), reinforcement for learning may assume tangible rewards, positive verbal expressions (such as "good", "excellent" and "well done"), building on or asking question on pupils' ideas, and accepting pupils ideas. While there could be various modes of reinforcement, the learner, in any way, must be able to secure some form of praise or reward if learning is to be successful (Anania, p.10).

Classroom "management functions" are also complimentary to direct instruction because they create pressures that shape the process of teaching (Rosenshine and Stevens,p.389). According to Doyle (1986), classroom management is commonly defined as "...the actions and strategies teachers use to solve the problem of order in the classroom" (p.397). Classroom management behaviour is manifested in the preventive and corrective measures teachers take to promote

positive learning climate and to treat disorders respectively (Bellon et al., p.124). As Bellon and associates related Kounin's (1970) investigations, the most salient teacher behaviours in maintaining preventive measures are five: withitness, smoothness, momentum group alerting and overlappingness. Withitness is an awareness of monitoring events in the classroom regardless of teachers' current activity. Teachers ability to detect misbehaviour early and to identify the causes accurately are thus instances of withitness. Smoothness is an aspect of teacher behaviours which help maintain a smooth flow of classroom activities particularly at points of transition from one activity to another; while momentum is the freedom from slow downs by moving the class through the lesson at quick pace without allowing disorder to take place. Group altering and overlappingness are the teachers' ability to maintain attention to non-responding pupils and to deal with two or more things at the same time respectively.

In general, preventive measures can help maintain classroom order by establishing rules and expectations, anticipating potential misbehaviour, and detecting disruptions early when they occur. The corrective measures, on the other hand, are teacher reactions to student indiscipline after the problem has already started. The most common forms of teacher positive intervention in this regard include eye-contact for talking in class, calling to stop for verbal putdowns, changing for the activity for persistence disorder, private conference for hitting or fighting, and group isolation for stealing (Bellon et al., p.166).

It has been realized that the type, of corrective measures taken will not guarantee high degree of order in the classroom unless the teacher establishes rules and expectations in advance and lets his students know the reactions and the consequences (Doyle, p.412). That is to say, corrective measures can repair temporary disturbances but the measures taken may prepare students for other more complex disorders. If, for example, a student is made to sit alone

for stealing others property, he may unexpectedly resort for physical violence. Therefore, the management function is more effectively exercised by teachers who regularly use preventive measures and who very carefully take corrective intervention.

In brief, P-P researchers attempt to examine the impact on student achievement of particular aspect of teacher behaviour using the direct instruction strategies or the management functions or both as sources of guidance for variable selection. But Which, specific variables to include in analysis is simply left to individual researchers, alike the EPF researcher tradition.

In contrast to the EPF approach, the great strength of the P-P design is that it concentrates on teachers' performance that children experience directly (Morance and Phillips,p.86). In doing so, however, the P-P approach tends to belittle the role the input variables (home, pupil, and school related) play in the determination of student achievement. That is, as Shulman aptly commented,"the effectiveness of teaching is seen as attributable to combinations of discrete and observable teaching performance per se, operating relatively independent of time and place" (p.10).

To sum up, attempt is made in the above discussion to highlight the purposes, assumptions and main variables used in the EPF and the P-P research traditions. It is shown that the former emphasizes on input variables giving little place for process variables while the latter stresses on classroom process variables ignoring the contribution to student achievement of input factors. One can therefore see a great gap between these two research orientations.

2.2.3. Integrated Approach

A good research model should however correct the limitations of both the EPF and P-P orientations. Thus, as (Dunkin and

Biddle, 1974) argued cogently, a more complete model:

...must concern itself with properties of teachers and pupils. Characteristics of the classroom must also be considered, together with those of its enfolding school and community. We must also consider the outcomes of education.... We must concern ourselves with... the actual behaviours teachers and pupils as they play out the complex drama of classroom teaching (p.36).

Fundamental ideas like those in the above question have therefore initiated other researchers to fill the gap by producing models which constitute the strong features of the both the EPF and P-P approaches. Two of such developments are Dunkin and Biddle's and Murnane and Phillips' models.

Dunkin and Biddle constructed a model for research on teaching based, as they said, on an earlier formulation by Mitzel (1960). The simplified form of their model can be showed in the following diagram:

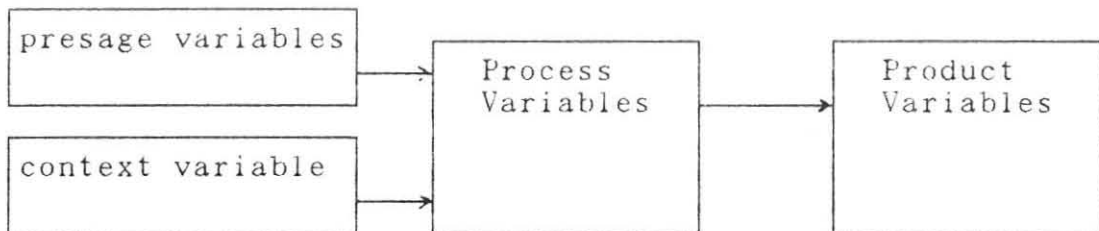


Figure: Model for the Study of Classroom Teaching (Dunkin and Biddle, 1974:38, simplified)

As the figure depicts, Dunkin and Biddle's model accommodates four major categories of variables-presage, context, process and product. According to the authors (pp.39-43), presage variables refers all those teacher characteristics which may have some bearing on the success of teaching. Such characteristics cover teacher formative experience (age, sex, etc.), teacher training experiences (teaching experience,

courses taken, institute attended, etc.) and teacher properties (expectations, attitudes, motivations, etc.). Context variables refer to the characteristics of the learning environment mainly pupil formative experiences (age, sex, home background, etc.), pupil properties (attitude, prior achievement, etc.), school and community contexts (facilities, principal behaviour, school-community relations, etc.) and classroom contexts (lighting, equipment, class-size, etc.). Process Variables are all observable actions, actual activities of teachers and pupils in the classroom. This category therefore includes teacher behaviours (clarity, flexibility, etc.) and student behaviour (discipline, participation, interest, etc.). Product Variables concern the immediate and long-term effects of teaching on pupils' cognitive, effective and psychomotor growth (pp.44-8). This last category thus constitutes the learning outcomes to the betterment of which every educational effort is made.

In this prescient work, the authors produced a framework which conceptualizes the impact on student achievement (product) of both the "process" and the "input" variables respectively used in the P-P and EPF studies. Their process variables category includes the teacher behaviours of the P-P research which are derived from the direct instruction strategies and the management functions. In the context of EPF, too, the presage variables category of Dunkin and Biddle refers directly to the teacher background aspect of the school characteristics matrix ($S^{(T)}$), excluding the school-classroom characteristics component (see discussion on page 19). The context variables category on the other hand is made

to include four aspects: the aggregate of peer group, home background, student, and school-classroom characteristics.

While it is interesting that Dunkin and Biddle have produced an integrated and a more inclusive scheme in which a teacher background characteristics are separated from the general school characteristics, it seems inconvenient to put home background, peer group, pupil and school-classroom characteristics in one category of "context variables". Because, there is a possibility that these blocks of factors can influence student achievement (at least slightly) independent of each other. Part of the limitations of Dunkin and Buddiles' model therefore seems to have been corrected by Murnane and Phillips' structural question model presented as follows for longitudinal data (pp.85-9):

$$\text{Model D: } A_t = a + bA_{t-1} + cF_t + dS_t + pP_t + qQ_t + e_t$$

where A_t : achievement at the end of a particular
school year, t ;

A_{t-1} : achievement at the end of the previous
school year, $t-1$;

F_t : a vector of variables describing the
child and his family in year t ;

S_t : a vector of school characteristics in
year t (excluding teacher activities);

P_t : a vector of variables describing teacher
characteristics;

Q_t : a vector of variables describing teacher
classroom behaviour; and

e_t : an error term that is assumed to be normally distributed with zero mean and constant variance.

The structural equation model also separates teacher characteristics (P_t) from all other independent blocks of variables and include a block of teacher behaviour variables (Q_t) in the equation. Its main advantage over Dunkin and Buddle's model however lies in that school characteristics (S_t) are systematically separated from the child and family characteristics (F_t). While this aspect is a good step forward, the authors failed to separate the child characteristics from the family characteristics for these two are not always homogeneous to be put in one block. Otherwise, this structural equation model which is meant for longitudinal data can be easily adjusted for cross-sectional data.

In summary, one can develop a working framework taking ideas from that presented as the general form of the EPF model, depending on Murnane and Phillips' integrated Model, and considering the variables counted as a main in the EPF and P-P research traditions. The framework can therefore be presented in this manner:

$$A^{(T)} = f(B^{(T)}, I^{(T)}, S^{(T)}, P^{(T)}, Q^{(T)})$$

Where $A^{(T)}$: student cognitive achievement level at time T ;

$B^{(T)}$: vector of seven family background variables at time T : family size,

father's occupation, mother's occupation, father's education, mother's education, conditions for study at home and family's moral and material support;

$I^{(T)}$: vector of six student characteristics at time T : sex, age, preschool education, class repetition, attitude and prior achievement;

$S^{(T)}$: vector of six school-classroom characteristics at time T : school facilities, classroom facilities, instructional materials, class-size, school community cooperation and principal's behaviour;

$P^{(T)}$: vector of six teacher background characteristics at time T : sex, age, experience, out-of-school time devoted to teaching, expectation of pupils' performance and attitude toward job; and

$Q^{(T)}$: vector of five teacher classroom behaviours at time T : planning, clarity, flexibility, feedback and reinforcement giving, and management skills.

(T) : indicates that the information on the variables in each vector is collected only once in time (cross-sectionally).

In line with preceding discussion of the major approaches to the study of the factors affecting students achievements and the aforementioned summary, the following section reviews some research results which investigated the impact on student achievement of the major variables.

2.3. Some Findings on the Determinants of Achievement

In 1966, Coleman and his associates reported results of the first large-scale study on the relative contribution to pupils' cognitive achievement of different sets of inputs indicating that home-related characteristics account for more variance than student, teacher and school related variables. Since the publication of this early study, research examining the influences of both input and process factors on student performance has markedly increased (Ross and Mahlck, pp.8-9). The results have however been inconsistent and have differed markedly from study to study, place to place, subject to subject and grade level to grade level (Chinagah, 1983:43). Yet, inspite of this fundamental incompleteness, many noticeable research activities have been accomplished.

In this section some research projects which studied input and process factors as determinants of student cognitive achievement are presented and analyzed. Particular emphasis is also given to studies which have totally or particularly dealt with the independent variables selected for analysis in this investigation.

2.3.1. Some Works on the Impact of Home Characteristics

Bridge et al., (pp.213-27), in a synthesis of EPF research conducted in the U.S.A., have identified important results for the impact of home related variables on the reading, mathematics and verbal achievement of primary and secondary school pupils. In this review, family-size showed strong negative correlation with all sorts of achievement except in one study which reported weak negative impact coefficient for the mathematics score of eighth graders. The variables maternal education, paternal education, paternal occupation and maternal occupation (composite index) showed significant positive associations with all kinds of achievement in most of the studies reviewed. The only exception in this case were the low positive impact coefficients for maternal education on the mathematics mean score of twelve graders, paternal education on the verbal results of six graders and paternal occupation on the reading gains of grade six pupils. Educational environment of the home (measured on the basis of parental encouragement, material support and study facilities as indicators) had strong positive relation with pupil's achievement in all the three tests.

The reviewers therefore concluded that small family-size, higher levels of parental education, more prestigious parental occupation, and better conditions for study at home make a positive contribution to the improvement of cognitive achievement. These conclusions were also confirmed by another

review published three years later (Glasman and Biniaminov, pp. 115-21). Unlike the former who reported both the weak and strong impact coefficients, Glasman and Biniaminov were interested in the number of studies which produced only significant results. Nonetheless, the findings were generally consonant in spite of the time gap. They found consistently negative influence on reading, verbal and maths test scores for increased family-size in seven of eight studies. More years of parental schooling, more prestigious parental occupation, and more conducive atmosphere for study at home were found to have positive effects on achievement in nine of thirteen, seven of thirteen and four of four studies respectively.

Schiefelbein and Simmons' (pp. 28-30) early review of studies completed in Africa, Asia, and Latin America similarly revealed that SES (parents' socioeconomic status as an index of education, white-collar occupation, and relatively good income levels) is a significant predictor of cognitive achievement. Children of parents with higher levels of education, white-collar occupation, and relatively good income performed better in ten of thirteen studies conducted in the three developing regions. Nevertheless, the differences in mean achievement that resulted from the SES variations were modest compared to the findings in the U.S.A. On the other hand, Niles (1981:419-26) has presented a different finding in Sri Lanka. Relating various SES indicators to a composite score in five core subjects (including English) of 832 tenth graders, he found

substantial positive relationships "... greater than that ... reported in the industrialized west" (p. 426).

Schiefelbein and Simmons' finding on increased family-size was contrary to the American results. They observed positive correlation coefficient in sixty percent of the studies reviewed. But, relatively recent evidences did not clearly support this result as will be seen later.

Cooksey (1981:403-18) in the Cameroon, Lockheed et al., (1988:189-92) in Thailand, Harbinson and Hanusek (pp.146-8) in rural Brazil have also examined the effect of home characteristics using different approaches. Cooksey used four categories for parental occupation, two for parental education, three for material facilities in the house, and two for family-size. He then analyzed the aggregate score in the high school entrance examination of 3197 grade six pupils vis-a-vis these stratifications. In this analysis, children from white-collar, trading and farming families had the first, second, and third levels of mean performance in that order while those from manual parents achieved very low. Compared to the children from nonelite parents, mean achievement was high for children with both elite mothers and fathers in all the occupational categories. In particular, the average score of children with elite mothers was nearly twice that of the total sample. Coming from a household with good material facilities contributed to better achievement twice as much as that from either poor or medium number of facilities. Contrary to the author's expectation, however, no

difference was observed between the mean test scores of children from households with poor and medium number of material facilities. Finally extended family was found to have a negative influence compared to small family-size.

But what would, for example, be the achievement level of pupils if some aspects of parents' SES is increased by one unit ? Cooksey's conclusions did not answer this reasonable question due to the method of analysis followed. This question is rather well responded to by Lockheed et al., (1988) who investigated the impact on 4030 grade eight pupils' mathematics achievement of fathers' occupation, mothers occupation and parental support using multiple regression. The reported partial regression co-efficient show that, other things remaining constant, one unit increase in fathers' occupational status, one years increase in mothers' schooling and one unit improvement in parental support can raise post-test achievement respectively by 0.59, 0.97, and 0.62 percent. These estimates were in fact very large and were significant at 0.001 level of confidence.

Harbison and Hanushek (pp.352) studied the effects (among others) of mothers' education, fathers' education and family-size on the mathematics and Portuguese achievement of second grade pupils in three separate cohorts-1981, 1983 and 1985. The findings of these researches are rather revealing. The level of both the mothers' and fathers' education exerted a positive influence on achievement. But, while the specific estimates varied by year and test-type, the quantitative

magnitude of the effects were smaller than expected. The estimated impact of one year increase in either mothers' or fathers' education was between 0.30 and 1.00 points (with no expectation) in both tests. As in Cooksey's study, too, increased family-size showed the expected negative effect on both the Portuguese and mathematics scores although the estimated impacts of varying the size were quite small in absolute terms.

Two parallel research projects carried out in Kenya (Bali et al., 1984:68-9) and Tanzania (Drenth et al., 1983:155-6) based on identical method of data collection and analysis have also produced interesting evidences from the East African perspective. The predictor variables examined for their effects included SES (a composite index of parents' education and occupation), material facilities in the house, parents' support and interest in school work, and family-size. The criterion measures were of two types: Examinations and Aptitude test scores. The examination consists of English, Mathematics, General Knowledge and Ki-Swahili language (for Tanzania) prepared by the Examinations council of the respective countries for the certification of primary school leaving (P7) pupils. The Aptitude tests consisted of fifteen different ability measures co-operatively adopted or specially developed by the two searching groups. The P7 pupils of Kenya, (sample 571) and Tanzania (sample 892) were then selected to take the two sets of tests and can concurrently filled the background questionnaires. The resulting data was analyzed using OLS (multiple regression).

SES and maternal facilities in the house (light, study room, etc.) showed positive correlations with all examination results in both studies though the Tanzanian group observed more clear correlation co-efficient than that of the Kenyan. These two predictors were also positively related to all the fifteen Aptitude test scores in the Tanzanian study; while negative correlation co-efficient were found between each of them and the Aptitude test results in the Kenyan case. In the Tanzanian study, parents' support and interest (helping with homework, talking about school, etc.) was positively related to all examination and Aptitude test scores with one exception. But in the Kenyan investigation this variable was positively associated only with the English Examination result and with five (out of 15) Aptitude tests. The Kenyan research group interpreted the predominantly negative correlations (thirteen instances) as cases which might have resulted from "the presence or absence of a need for help" from the part of children. In the Kenyan study, too, substantial negative correlations were found for family-size. That is, decreased family size was positively associated only with the scores on "Mark-Numbers"-on Aptitude test which was meant to measure pupils' perceptual speed. The Tanzanian study identified just the opposite: decreased family size was positively (though distant) related to all Examination and Aptitude test Scores. Given the locational similarity of Kenya and Tanzania and in view of the similarity of the instruments and methods of analysis used the variation in the results of the two studies particularly for family-size and parents' support and interest in school work is surprising.

In sum, different evidences have revealed that home-characteristics are variously related to student cognitive achievement with some variables, particularly size of family and condition for study at home, showing more consistent statistical influences.

2.3.2. The Impact of pupil-personal Factors

Various researchers have examined the effects of multiples of student related variables including sex, age, preschool education, class repetition and attitude towards schooling. In Bridge et al's review student age showed a strong negative, impact on the verbal reading, and mathematics achievement of sixth graders. Kindergarten attendance was strongly and positively correlated with all sorts of achievement expect in Michelson's (1970) study which reported nonsignificant positive result for sixth grade reading score. Student sex was found to have inconsistent association: nonsignificant negative in four cases, significant negative in one case, nonsignificant positive in four cases, significant positive in two case, and zero impact in two cases. In general however reading achievement tended to be greater for girls than for boys while mathematics achievement favoured by boys. Male students also appeared at a disadvantage in verbal achievement. The reviewers finally concluded that being a female detracts from mathematics achievement while positively contributing to verbal and

reading achievement, that achievement declines with age, and that kindergarten experience makes a positive contribution to achievement.

From the developing countries perspective, Schiefelbein and Simmon's synthesis has examined the effects of class repetition, preschool education, and sex. The reviewers observed nine cases (out of thirteen) in which repeating students achieved lower than non-repeating students. They also identified three cases (out of four) in which participation in pre primary educational programs contributed for the betterment of performance in the elementary schools. Finally, achievement favoured boys than girls in nine of ten studies.

In Lockheed and Kumenan's (1988) study of the factors affecting the mathematics achievement of eight graders in Nigeria (N=700) and Swaziland (N=593) older pupils and girls showed significantly poor performance while students with kindergarten experience and more positive attitude to maths and maths teachers performed at a higher level. These finding were also supported by Lockheed and Bruns' (1990) study in Brazil. Lockheed and Bruns examined the effects of sex, age, preschool education, and attitude towards schooling on mathematics and Portuguese achievement of high school pupils (N=2648). In this study, older pupils performed less well than younger ones, girls performed less well than boys specially in mathematics. pupils with kindergarten experience scored at a slightly better level specially in Portuguese,

and pupils with relatively high level attitude achieved higher than others.

In the Ethiopian context, Deresse et.al's study has shown some contrasting results for the impact of sex, age, pre-school experience and attitude toward schooling on the mathematics, amharic reading and amharic writing achievement of second, third and fourth graders. In amharic girls did better than boys in all cases of the three grades except for the grade three amharic reading. On the contrary, the mean achievement for mathematics were better for boys though the difference was significant in only one case. With respect to age, older pupils attained better than younger ones in all areas until grade three while the results were reversed at grade four. The result for pre-school education contrasted with the findings of studies in other countries. Comparing the results if pupils who participated in either Church or Koran or Kindergarten program and the results of those who did not participate the investigators found six times (out of nine) better achievement results for nonparticipating students. Student attitude towards schooling showed significant impact in many cases. In twenty out of twenty five checked comparisons high attitudinal level was strongly associated with achievement. It was only in grade three that pupils of medium attitudinal level scored slightly better than pupils of high attitudinal level. These exceptions could even be explained by the measurement errors that have contaminated the instrument of data collection. That is, when the researchers divide respondents into "low", "medium" and

"high" attitudinal levels most of the students levelled "medium" might be concentrated around the upper limit of the dividing point.

2.3.3. The Impact of School-Classroom Characteristics

The quality of education as reflected in academic achievement can not be divorced from school and classroom quality indicators. The issue of whether schools make a difference has been addressed by various researchers. And "it is now widely recognized that schools do have important effect" (Vulliamy, 1987:217). In the developing countries however "The relative magnitude of effects from different school factors has been explored only rarely... We know very little about the efficiency with which school factors raise or lower achievement" (Fuller, 1987:275). In addition, there are methodological differences in studying the effect of achievement of a certain variable. Some use simple bivariate analysis, others use multivariate analysis, and still others employ qualitative descriptive techniques.

The following review highlights the few available studies that have emphasized effect sizes or the efficiency with which a particular school factor boosts achievement. One of the recent studies that examined the effects of school related variables that reported by Mwamwenda and Mwamwenda (1987). The researchers examined the relationship between achievement and three specific school and classroom quality

indicators. They took a sample of 2559 pupils writing their final examination given at the end of seven years primary schooling in Botswana. They collected the marks in English, Maths, Science and Social Studies as criteria measures. They also used "availability of classrooms", "availability of desks and seats" and "availability of books" as independent predictors. "Availability of classroom" was operationalized as "adequate" and "inadequate", "availability of desks and seats" as "sufficient" and "insufficient" and "availability of books" as "sufficient" and "insufficient". The overall analysis revealed that pupils in schools with adequate classrooms sufficient desks and seats, and sufficient books perform significantly better than pupils in schools which inadequately possessed the three indicators. For example, the English performance of pupils from adequately furnished schools was significantly better than the performance of pupils from inadequately furnished schools ($t=21.9$, $df=1627$, $p=0.001$). Vulliamy's research in Papua New Guinea also reinforced these findings.

Vulliamy investigated the schools related factors affecting grades eight and then students who took internal assessment examinations and a School Certificate Examination in what are called core subjects --- English, Maths, Science and Social Science. Taking these subjects as product measures, the researcher then analyzed the effects of class-size, classroom facilities, school facilities, and instructional materials stratifying his sample into various categories. In his finding, large class-size (student-teacher ratio) showed a

relatively much greater impact on small school; better school and classroom facilities also exerted significant positive effects on the quality of classroom teaching and on pupils' achievement. The writer concluded from this finding that "The lack of the most basic facilities in many Third World schools... not only depresses staff and student moral but also acts as an impediment to effective teaching and learning" (P.220).

Fuller (1987) has also related in his review some research undertakings that investigated the impact of class-size and instructional materials on achievement. The Malaysian study of 89 secondary schools (Beebout, 1972) found a significant effect of smaller class-size on pupils' language achievement. Jamison (1982, in Nicaragua) examined the relative magnitude of achievement effects resulting from experimentally introducing textbooks, radio, and lowering of class-size. But as Fuller observed, lowering class-size with the intent of raising achievement was not found to be an effective strategy for cost reduction even if pupils in the treatment group achieved relatively better. Further, in studies undertaken in different developing countries library materials, desks, duplicators, telephone, and other school facilities were found to strongly predict student achievement. Fuller's comprehensive review of over sixty empirical studies has also shown that the positive effects of instructional materials specially those related to reading and writing were consistent across several non-experimental and experimental research designs. In short, school-classroom related

variables are positive predictors of student achievement although the evidence presented here is limited.

2.3.4. The Impact of Teacher Characteristics

It is generally recognized that teachers' background characteristics are important determinants of student achievement. But the question of the relative importance of teacher related variables is not yet clearly answered. In this section a brief of some empirical findings and research syntheses is presented with particular emphasis to teacher sex, age, experience, devotion to teaching, expectations of student performance, and attitude towards the profession. In Schiefelbein and Simmons' review of the determinants of school achievement in Africa, Asia, and Latin America sex appeared significant predictor with the expected sign in two of four cases. That is, males at primary and lower secondary and females at the upper secondary schools. Age showed statistically nonsignificant relationship with achievement in both cases of the two observations while in about one-third (seven of nineteen) observations. Schiefelbein and Simmons also identified a single study in Asia which reported significant effect coefficient for teachers' devotion to teaching as measured by motivation as its proxy.

In another comprehensive synthesis of research totally devoted to the examination of teacher effects on achievement, Avalos and Haddad have also observed important variations in the explanatory power of teacher characteristics variables. In

this review, sex did not appear a significant predictor of achievement in most of the studies. A few studies, on the other hand, indicated that teachers in the thirty to forty age bracket showed greater job satisfaction than younger or older ones. They also appeared better adjusted with a better knowledge of educational attitude. These all, in turn, contributed to the betterment of pupils' achievement. Concerning the relationship between teaching experience and student achievement, the reviewer identified five positive cases, three neutral, and four negative ones. Teachers' expectations of student performance is also highly related to student achievement as Avalos and Haddads' synthesis revealed. Teachers' attitude towards their profession also showed a considerable impact on various kinds of achievement. This brief review therefore shows that variables describing teacher characteristics have differential impact on pupils achievement.

CHAPTER THREE

DESIGN AND PROCEDURES OF THE STUDY

The main purpose of this study was to investigate the extent to which major factors related to home background, pupil-personal, school-classroom and teacher attributes influence the English achievement of fifth and sixth graders in Gondar town. Accordingly, the correlational method of research which depends on correlation and regression coefficients was followed by the investigator. This chapter describes the research variables selected, the sampling procedures followed, the tools of data collection employed, and the methods of data analysis used.

3.1. The Research Variables

In this investigation the researcher examined the impact of thirty independent variables on one dependent variable. The dependent variable used as a criterion measure at each grade level was student's score on an achievement test prepared by the investigator himself. The independent variables were basic factors describing the five major blocks in the modified Murnane- Philips (1981) structural equation model.

— These variables were selected after the investigator made an extensive survey of related literature reflecting the works of EPF and P-P researchers.

Two main criteria were used as sources of guidance for variable selection. Since it is almost impossible to include

all specific factors which may have direct or indirect effects, only those independent which are recognized by many researchers as having main, direct impact were considered for inclusion in the analysis. A variable was also retained only if it is related to the existing socio-economic and educational realities of the research setting, that is Gondar town. For example, variables "time allocated for teaching" and "content of text books" were excluded on the basis of the second criterion. Because, by the time of data collection, English was uniformly taught for five periods a week and teaching depended only on one textbook of the same content centrally produced for each grade level-variables such as these would be meaningless if they were included in the analysis. For a variable to be relevant as a determinant of achievement, there must exist in the population some individuals who can be sampled to reflect its influence.

Based on the two criteria then thirty independent variables were selected for inclusion in the final analysis. Twenty two of the thirty predicator variables are quantitative each measured on a continuous scale. The rest are qualitative which do not assume numerical values. In order to use the qualitative variables in a regression analysis, the researcher artificially created dummy measures for those which are not true dichotomies. A brief description of the thirty independent variables, as used in this study, is presented below under each major block.

Block-B: Home background Characteristics

- x_1 - Family size
- x_2 - Father's education
- x_3 - Mother's education
- x_4 - Father's occupation
- x_5 - Mother's occupation
- x_6 - Conditions for study at home
- x_7 - Parental support

Family size (x_1) is a continuous variable defined as the number of people (parents, sisters, brothers and others) living in the household of the target students. Father's education (x_2) and Mother's education (x_3) are also continuous variables defined as the number of years of formal schooling that each parent has attended.

Father's occupation (x_4) and Mother's occupation (x_5) are both dummy variables constructed on the basis of the Central Statistical Authority's document (1990: 164-72) which lists the following occupational categories: (1) managerial, (2) professional, (3) sales, (4) skilled crafts, (5) clerical, (6) labourer, (7) farmer and (8) others- pensioners, students, etc. For the purpose of this study students' fathers who are under categories '1' through '4' were coded "1", otherwise "0". There is no systematic meaning implied in "0"s and "1"s since occupations are qualitative indices. Simply those coded "0" are used as reference groups while interpreting the impact of variables x_4 and x_5 .

Conditions for study (x_6) is a continuous variable defined by the presence or absence in the pupil's house of such educationally important provisions as regular food, adequate time, adequate light and study room. Parental support is also a continuous variable operationalized as parents' interest in their child's school work expressed by such activities as encouraging, helping, and providing the necessary learning materials.

Block-I: Pupil-Personal Characteristics

x_8	sex
x_9	age
x_{10}	preschool education
x_{11}	class repetition
x_{12}	prior achievement
x_{13}	attitude towards schooling

Three of the six factors describing the student- personal input block are used as dummy variables. Student sex (x_8) is a dummy variable (boys=1; girls=0) that was expected to have no impact on students' English achievement. Age of grade five and six student is a continuous variable defined as the number of years since birth.

Preschool education (attended=1, otherwise 0) is a dummy variable defined as the pre-primary educational history of target pupil related to church, kuran or kindergarten educational programs. Class repetition (repeating=1, otherwise 0) is also a dummy variable reflecting the success

or failure of a student in any one of the lower primary grades. Prior achievement (x_{12}) is a continuous variable defined as pupils' total result on English tests and examinations given during the first semester of the 1992/93 academic year. Finally, attitude toward schooling (x_{13}) is a continuous variable operationalized as the subjective judgment that students have about schools, classmates, English teachers and the language itself.

Block-S: School-classroom Characteristics

- x_{14} School-community relations
- x_{15} Principal's perception
- x_{16} School facilities
- x_{17} Classroom facilities
- x_{18} Instructional materials
- x_{19} Class size

School- community relations (x_{14}) is a continuous variable defined as the extent to which the local community cooperates with the school in order to facilitate program implementation. It also refers to the local community's interest in the well-being, conduct and achievement of students. Principal's perception (x_{15}) is a dummy variable defined as the dimension of leadership behaviour that a school principal favours. Based on Halpin's grouping a principal who believes that the "initiating structure" dimension of leadership is more important than the consideration dimension was coded "1"; and "0" otherwise. School facilities (x_{16}) is a continuous variable used as an

indicator of school quality based on the availability and condition of such basic school provisions as tea-room and play-ground. Classroom facilities (x_{17}) is also a continuous variable used as an indicator of classroom quality based on the availability and/or conditions of basic school supplies such as desks, windows and others.

Instructional material (x_{18}) is a continuous variable which refers to the availability of basic English teaching aids. Class size (x_{19}) is a dummy variable referring to the total number of students in a given section. A student sampled from a class size of more than fifty was coded "1" otherwise "0". This coding was based on the Ministry of Education's document (MOE, 1988:67) which recommends that elementary school size should not exceed fifty.

Block-P: Teacher Characteristics

x_{20}	Sex
x_{21}	Age
x_{22}	Teaching experience
x_{23}	Devotion to teaching
x_{24}	Expectation of student
x_{25}	attitude towards job

Sex (x_{20}) is a dummy variable (male=1; female=0) expected to have no impact on the target pupils' achievement. Age (x_{21}) is a continuous variable measured as the number of years since birth. Teaching experience (x_{22}) is also a continuous variable referring to the number of years that a teacher has

served in the teaching profession. Devotion to teaching (x_{23}) is a continuous variable reflecting teachers' motivation as indicated by the time spent on preparing lessons, correcting assignments and consulting parents. Expectation of student performance (x_{24}) is a continuous variable defined as the subjective, prejudging attitude of teachers about their students' future achievement. Attitude toward job (x_{25}) is a continuous variable reflecting teachers' commitment to their profession.

Block-Q: Teacher Classroom Behaviours

- x_{26} Planning
- x_{27} Clarity
- x_{28} Flexibility
- x_{29} Feedback and Reinforcement
- x_{30} Management and Control

These five elements of the "direct instruction" strategy are continuous variables. Planning defines teachers' skills of lesson plan preparation during the reactive phase of instruction. Clarity (x_{27}) reflects teachers ability to communicate the lesson objectives and content during the interactive phase of teaching. Flexibility (x_{28}) expresses teachers' ability to vary situations or interactions in order to keep learners on the learning task. Feedback and reinforcement (x_{29}) reflect teacher's behaviour in responding, encouraging and supporting pupils. Finally, management and control (x_{30}) define the reactive and corrective measures teachers take on behaviours of pupils.

3.2. Subjects and Sample Procedures

The subjects were grade five and six students in Gonder town who were attending English classes in the regular program. These two upper primary grades were chosen because pupils at this level are relatively matured enough to fill questionnaires more objectively than those in the lower grades. The primary level is preferred to the junior and senior level because it would be profitable if pupils' English learning and achievement patterns are studied before they join higher levels. That is, what students' English performance will be in higher grades will partly depend on their learning in the primary schools.

The investigator concentrated on English because it was his minor area of specialization in his under graduate study. The skills acquired in this area would therefore help him see problems and facilities in learning the language and construct test items for measuring pupils' ability.

Finally, Gondar town was selected as the centre of study for the basic reason that the investigator could secure adequate cooperation and assistance from the educational officers, teachers and directors with some of whom he had personal acquaintance. In view of the extended time (nearly three months) that the process of data collection took, the required level of cooperation and assistance could not have been realized in other places.

The total number of primary schools in Gonder town is

sixteen. Included in this figure are "kebele 02" and "kebele 19" which respectively provided education upto second and forth grades by the time of data collection. One school named "kebele 16" also worked in a single-shift-system and only one teacher was assigned to teach English for both grades five and six. This teacher usually did not appear in the school because of his engagement in other community services. These three schools (kebele 02, kebele 16 and kebele 19) were therefore not included in the study. In each of the remaining thirteen schools there were at least one and utmost eight sections in the respective grade levels. The average class size in each section of grade five was about fifty-five and in that of grade six about sixty.

The total number of fifth grade students was 2602. There were also 2,995 pupils attending in all sections of grade six by the time of data collection. The total number of English teachers was seventeen and sixteen for grade five and six respectively.

For the purpose of including all the thirty-three English teachers in the analysis, one to two sections were randomly selected from each grade level of the thirteen schools, depending on the number of the teachers working there. At first 1000 fifth graders and 1220 six graders were selected to participate in filling the questionnaires and setting for the achievement tests. However, some pupils from both grade levels did not appear for the achievement tests. Therefore, complete and useable data was secured from 780 and 890 students respectively from grades five and six.

3.3. Tools of Data Collection

The necessary data for the study were collected using four instruments: (1) achievement test, (2) questionnaires, (3) school and classroom inventory, and (4) classroom teaching observation schedule.

3.3.1. Achievement Test

Two forms of achievement tests (one for each target grade) comprising comprehension, spelling, tense, vocabulary, and sound identification items were developed based on the grade level objectives given in the Ethiopian School Syllabuses (1984) and the content covered in the respective text books. The test prepared for grade five covered chapters 16,17,18,19,20,21 and 22 of the text-book and originally consisted of forty items but ten were excluded after the pilot-test.

The ten excluded items were prepared to test students' cursive writing ability which is included in the list of objectives for that grade level. Unfortunately, teachers usually do not teach cursive writing for they give emphasis to other aspects of the language. As a result all students who took the pilot-test failed to write cursive letters. The situation therefore compelled the investigator to drop all the ten items from the final test. The analysis finally depended on thirty items some of which were improved after item analysis. The test items are put as Appendix 'A'. The

test prepared for grade six covered chapters 16, 17,, 18, 19, 20, 21 and 22 of the text-book and consisted of forty items (Appendix B).

The two achievement tests were pilot tested one week before the final testing with twenty-five students of the respective grade levels at Hibret Junior and Primary School in Gondar town. After the items were pilot-tested in such a manner they were item analysed in order to identify the difficulty level and the discrimination power of each item. The necessary revision was made on each item based on the result of item analysis. The reliability index of the two sets of tests was computed using Kuder-Richardson formula 21(K-R21):

$$r = (K/K-1) \{1-(m(K-m))/K\sigma^2\}$$

where,

r : correlation coefficient

K : number of items in the test

m : the mean

σ^2 : Variance of the score on the test (Ebel, 1979:20).

Apply those formula, the reliable index of the grade five test was found to be 0.81 and that of grade six 0.86. The content validity of the item was also checked against the objective stated in the Ethiopian School Syllabuses. The tests were dependable. Finally, each set of tests was administered on April 28 and 29, 1992 in cooperation with selected investigators (English teachers totally excluded) to the actual target groups.

3.3.2. Questionnaires

Three separate questionnaires were prepared for students, teachers and directors. The structured questionnaire (Appendix E) filled by students was used to collect data on their personal and home background characteristics. This questionnaire (Amharic version) was first administered to about thirty pupils at each grade level randomly selected from Meseret Elementary School in Gondar town. After correcting for errors and conceptual difficulties the final form was then administered to the respective grade level students. The administration procedure was as follows: the instructor first read out the question and the possible answers, gave further explanation, and the pupils simultaneously answered the question.

The questionnaire prepared for teachers was structured. Its purpose was to collect data on teachers' background characteristics which might have direct or indirect influence on students' English achievement. It was prepared in Amharic and tested with fifteen teachers randomly selected from Hibret Junior and Elementary School in Gondar town. After correcting for errors and conceptual difficulties, the final form (Appendix C) was distributed to all of the target grades in Gondar town. The respondents were allowed to take the questionnaire home and return it after two weeks so that they would give well-thought responses. All the questionnaires were returned and used in the analysis.

The questionnaire for school principals [Appendix D(II)] was used to elicit information on their own perception of leadership behaviour and the extent of school-community relations. The part that asked for school-community relations was prepared by the investigator based on review of related literature; and that which asked for directors perception of leadership behaviour was prepared by Halpin (1966:88-9) for use in America schools. This questionnaire was directly used by the investigator for all the items included seem relevant to Ethiopian schools too. Halpin prepared this questionnaire in the form of rating scale.

The first part of the questionnaire consists of fifteen statements which reflect the system-orientation or, in Halpin's terms, the 'initiating structure' behaviour of director. The second part also consists of fifteen statements that describe the person-orientation or, in Halpin's words, the "consideration" behaviour of directors.

The questionnaire was translated into Amharic, pilot-tested with five directors in Gondar town and corrected for some pit falls. The final form was then distributed to all directors in the target schools. Rating was made as follows. The first part that asked for school-community relations was rated from low (0) to high (4) for each school. The second part that asked for directors perception of leadership behaviour was rated from low (0) to high (4) for both the "the initiating structure" and the "consideration" dimensions. Then the difference between the results on the "initiating structure"

and the "consideration" dimensions was taken as the major perception of a director.

3.3.3. School and Classroom Inventory

In order to collect data on school and classroom conditions, facilities, and equipment a check list was prepared by the investigator (Appendix D-I). The check list involved all the basic classroom related facilities. Using the checklist, the investigator himself recorded the availability and the condition of the major items in the school and the observed classrooms. Based on the availability and quality of the school-classroom related characteristics items were rated from low (0) to high (4) for the purpose of analysis.

3.3.4. Classroom Observation Schedule

Classroom observation was made for four periods of forty minutes in each of the thirty-three target sections. This means that each teacher's classroom behaviour was observed for four periods and averaged first for each behaviour indicator and then for all indicators. A five-point rating scale (1=very poor, 2=poor, 3=satisfactory, 4=good, 5=very good) was used for this purpose. The scale was prepared based on literature review and distributed to Senior Educational Administration students in A.A.U. who had many years of experience in teaching and administration, to graduate students in the department of TEFL in A.A.U., and to graduate students in the department of Curriculum and Instruction in

A.A.U. who have taken courses related to classroom teaching evaluation.

They were asked to indicate each items degree of relevance for the stated purpose according to the following scale: highly relevant, relevant, somewhat relevant, and irrelevant. Items rated "highly relevant" were directly accepted for use by the investigator.

Those rated "relevant" and "somewhat relevant" were improved based on the comments forwarded and further review of related literature. No item was rated 'irrelevant'. The final form (Appendix F) was then used for the actual evaluation of teachers' classroom behaviour.

3.4. Method of Data Analysis

After the information was collected in the manner described above all home and pupil-personal characteristics school and teacher related variables were aggregated at individual level; and those related to school-classroom and teacher related variables were aggregated at classroom (group) level. Separate analysis was run for grades five and six samples.

The whole data were processed using the COBOL computer program available in the System Design and Data Processing Department of Addis Ababa University. The statistical technique of multi-variate regression analysis was employed as the basic method of data analysis. The statistical impact

on the dependant variable of any independent variable was then accepted at 0.05 (or better) significant level.

Table I provides a summary description on the type, number of indicators, instrument, unit of measurement and value for each variable.

TABLE I
Description of the Major Research Variables

C = continuous ; *D* = dummy;
 ** = Grade 5 = 4 ; Grade 6 = 5
 *** = Grade 5 = 21; Grade 6 = 26

Code	Variable Name	Type	No Indicator	Instrument	Unit of Measurement	Value min.	max.
y	Achievement	C	1	Achievement Test	Number	**	***
X1	Family-size	C	1	Student questionnaire	Number	3	10
X2	Father's education	C	1	Student questionnaire	Number	0	16
X3	Mother's Education	C	1	Student questionnaire	Number	0	16
X4	Father's Occup.(high=1)	D	1	Student questionnaires	Number	0	1
X5	Mother's occup. (high=1)	D	1	student questionnaire	Number	0	1
X6	Conditions for student at home	C	7 items	Student questionnaire	scale(0to2)	0	14
X7	Parental support	C	9 items	student questionnaires	scale(0to4)	0	24
X8	Sex (boy=1)	D	1	Student questionnaire	Number	0	1
X9	Age	C	1	Student questionnaire	Number	-	-
X10	Preschool education (attended=1)	D	1	Student questionnaire	Number	0	1
X11	Class-repetition (repeating=0)	D	1	Student questionnaire	Number	0	1

X12	Previous achievement	C	-	Student questionnaire	Number	0	100
X13	Attitude toward schooling	C	8 items	Student questionnaire	Scale(1to3)	8	24
X14	School-community relations	C	9 items	Director's questionnaire	scale(0to4)	0	36
X15	Director's perception (initiating struct.=1)	D	30 items	Director's questionnaire	scale(0to4) (different)	0	1
X16	School-facilities	C	9 items	checklist	scale(0to2)	0	20
X17	Classroom facilities	C	8 items	checklist	scale(1to3)	8	9
X18	AV-instrumental materials	C	6 items	checklist	scale(1to4)	6	18
X19	class-size (about50=1)	D	1	checklist	Number	0	1
X20	Teacher's sex (male=1)	D	1	Teacher questionnaire	Number	0	1
X21	Teacher's Age	C	1	Teacher questionnaire	Number	27	50
X22	Teaching experience	C	1	Teacher questionnaire	Number	17	29
X23	Devotion to teaching	C	4 items	Teacher questionnaire	scale(1to4)	4	15
X24	Expectation of student performance	C	4 items	Teacher questionnaire	scale (1to4)	4	16
X25	Job Attitude	C	8 items	Teacher questionnaire	scale(0to5)	0	40
X26	Planning	C	5 items	Classroom observation	scale(1to5)	5	25
X27	Clarity	C	5 items	Classroom observation	scale(1to5)	5	25
X28	Flexibility	C	5 items	Classroom observation	scale(1to5)	5	25
X29	Feedback and Reinforcement	C	5 items	Classroom observation	scale(1to5)	5	25
X30	Management and Control	C	5 items	Classroom observation	scale(1to5)	5	25

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

Following the procedures outlined in chapter three, the required data was collected on 780 fifth and 890 sixth graders drawn from seventeen and sixteen classrooms respectively. In this chapter, the information gathered is presented, described and analysed. All the basic data pertaining to the relative importance of the predictors variables are summarized in the form of tables so as to give a clear picture of the results.

The main strategy used to analyse the data was multiple regression which specifically helped to determine and compare the coefficients of predictor variables. Based on the nature of the variables, again, home ($x_1, x_2, \dots, x_7$) and pupil-personal ($x_8, x_9, \dots, x_{13}$) characteristics were aggregated at individual level and entered as a single set of regressors. The regression analysis gave outputs for all these thirteen variables. The rest seventeen variables involved in the school-classroom, teacher characteristics and teacher behaviour blocks were, on the other hand, aggregated at group level based on classrooms sampled from each grade level. Because the number of observations (16 and 17 classrooms) was small compared to the number of independent variables included, the regression process excluded those variables which could not reach the minimum tolerance ($F = 0.005$) level. Accordingly, variables x_{17} , x_{21} , x_{22} , and x_{23} were rejected from the grade five data. Variables x_{17} ,

x_{21} , x_{22} and x_{29} could also not reach the minimum level of tolerance. The following analysis is therefore based on the remaining twenty-six independent variables in the respective data sets.

The Relative Importance of Predictor Variables

In the next part of the analysis the relative importance of the thirty predictor variables is determined by testing the individual regression coefficients for statistical significance. For the sake of convenience and for the sake of group comparison, each variable is examined together with other variables in its block.

TABLE II

Regression Results: Home Characteristics

Six(N=890) Independent Variable	on Achievement (Y)			
	Grade Five (N=780)		Grade Five (N=780)	
	b_i	SE	b_i	SE
Family-size(X_1)	-0.0401 (-1.3234)	0.0172	-0.1375 (-1.8432)	0.0746
Father's education(X_2)	0.2566 ^c (7.9504)	0.0323	0.3391 ^c (6.9346)	0.0489
Mother's education (X_3)	0.2819 ^c (8.5945)	0.0328	0.6528 ^c (11.4930)	0.0568
Father's occupation(X_4)	0.1810 (11.9124)	0.0946	0.7675 (1.9202)	0.3997
Mother's occupation (X_5)	0.5572 (1.5807)	0.3525	0.1558 (0.4345)	0.3586
Conditions for study (X_6)	0.2644 ^c (5.7478)	0.0460	0.3063 ^c (6.8263)	0.0449
Parental support (X_7)	0.4999 ^c (5.6043)	0.0892	0.5284 ^c (6.2320)	0.0876
Degree of freedom (df)		766		866

=====

b_i = raw regression coefficient (t-value in parenthesis)

SE = Standard Error

c = $p < 0.001$

Table II presents the regression results for the seven home related variables separated for internal comparison from the rest thirteen possible out-of-school determinants of achievement included in the analysis. The pattern of the results reveals some important variations. And each regression coefficient can be interpreted as an estimate of the variable's statistical impact on students' achievement regardless of the inter-correlations that exist between the variable and the remaining independent factors.

The first coefficient (b_1) indicates that increasing family-size by one unit would reduce the mean achievement of fifth and sixth graders by 0.0401 and 0.1375 points respectively. However, the respective computed t-values (-1.3234 and -1.8432) of b_1 are less than the tabulated t-value (1.960) at the pre-determined minimum alpha level and the degree of freedom (df) associated with each sample. Thus, though coming from a bigger family appears to exert a negative influence on achievement the estimated statistical impact coefficients are not significantly different from zero.

It can therefore be concluded that, other things being equal, increased number of persons in a household has no significant relationship with the English achievement of the target pupils. This conclusion confirms Winkler's (Bridge et al.) Observation for eighth grade mathematics score in the U.S.A. and Harbison and Hanushek's finding for second grade mathematics and Portuguese test results in rural Brazil; while contradicting other studies reviewed in chapter two.

It is usually argued by researchers who found strong negative impact coefficients that children's competition for parental support could be the major cause for the low achievement of pupils from families of larger size. While this contention seems reasonable enough it is also likely that a child can be motivated to learn and to achieve better if most of the family

members possess positive attitude towards schooling and are successful in their own learning. If this situation prevails in many of the families where the sampled individuals were drawn, it may decrease the diluting effect of additional persons thereby making the calculated coefficient (b_1) modest rather than strong.

As table II also shows, regressing pupils' achievement on the rest six home related variables resulted in positive impact coefficients of varying magnitude. It can be seen from coefficients b_1 and b_2 that a one year increase in X_1 and X_2 would boast fifth graders' English achievement respectively by 25.68 and 28.19 percent of a point; and that of sixth graders by 33.91 and 65.28 percent in that order. Since the corresponding observed t-values are above the tabulated t-value (3.291) at 0.001 alpha level and the degrees of freedom related to each sample, coefficients b_1 and b_2 are statistically significant with less than ninety-nine percent chance for error.

These results may therefore give way to conclude that the higher the level of either parents' education the better would be fifth and sixth graders' English achievement, the influence of other variables held constant. This conclusion supports the findings of Niles, Cooksay and many other researchers. The impact upon English achievement of parental education may be indirect. It may be that better educated parents are more likely to talk with their children in English while the less educated ones may not. Accordingly one possible explanation for the observed strong association between parental education and pupils achievement could be the frequency with which English is spoken at home between each parent and the child.

The implication of this statement for the uneducated and less educated parents is again clear. If such parents can hire tutors or order other siblings to teach younger ones, their

children's competence in the language would rise thereby contributing to the betterment of achievement in schools. School principals and teachers can also facilitate such a help by identifying (through record keeping and other means) the level of education reached by pupils' parents. This therefore may enable schools to provide equal opportunity for learning English.

Table II further reveals that dummy variables X_4 and X_5 can predict achievement in the positive direction. That means, children of parents with higher occupational status tend to score higher than children of parents with low occupational status. As the regression coefficients b_4 and b_5 indicate, a one unit change in father's and mother's occupational status would raise fifth graders' mean English test score respectively by 0.1810 and 0.5572 points; and that of sixth graders by 0.7675 and 0.3997 points in that order.

Unlike parental education, however, X_4 and X_5 did not emerge as significant predictors of achievement in both grade levels. This fact is clearly reflected by the low (less than 1.960) calculated t-values attached to each coefficient. One may therefore conclude that, other variables held constant, neither father's nor mother's occupation has statistically significant effect on students' English achievement. This conclusion can be accepted with ninety-five percent certainty.

For the result thus identified one may find the explanation in the relevance to the third world setting of X_4 and X_5 . As Fuller (1987) commented from his wide reason experience, occupations are less clearly differentiated in developing countries than in highly developed countries. For this reason, advantages rooted even in the less structured occupational categories and related parenting practices can influence cognitive development to some degree but not necessarily strongly.

Fuller's comments are suggestive in the sense that if one expects to find strong associations one has to go beyond the western occupational status distinctions and look for local material factors (such as electricity, house and income level).

These indicators can therefore serve as proxies to occupational status differences (lookheed et al.). That is using the western indicators of occupational status in the analysis of educational achievement in developing countries like Ethiopia can result in positive (albeit modest) impact coefficients. But, using indices of family income and possessions would result in more stronger impact coefficients. It can be said therefore that the weak associations between parents' occupation and their children's achievement are due to the less relevance to the research setting of occupational status indicators.

The evidence in table II further shows that variables X_6 and X_7 are substantially related to higher level of achievement at both grade levels. The regression coefficients (b_i) indicate that one unit improvement in "conditions for study at home" would bring about 0.2644 and 0.3063 additional points respectively to the mean achievement of grade five and six pupils. The observed t-values related to b_i are also greater than 3.291. The observed regression coefficients are thus statistically significant at ninety-nine percent test.

With respect to variable X_7 , a unit's improvement in "parental support" estimates 0.4999 and 0.5284 points additional points on the mean achievement of fifth and sixth graders respectively. The two observed t-values for b_7 are also more than the tabled value (3.291) at alpha 0.001 level and the degrees of freedom related to each sample.

It can therefore be concluded that the more conducive the home atmosphere for study the higher the pupils' English

achievement. This result is revealing. It suggests that children who can get their food regularly, can get adequate time for study, have separate room for study, and possess additional books that would help them strengthen their English learning at school are advantageous compared to their counterparts. It can also be concluded in relation to X_7 that the higher the level of parents' material and moral support the better children's English achievement at school. That is, children who can get the necessary educational materials, parental encouragement and the like can out perform those who lack them. The implication is again that better English achievement is not merely a function of what schools do for the moral, material and situational factors at home play a significant role.

TABLE III
Regression Results: Pupil-Personal
Characteristics on Achievement (Y)

Independent Variable	Grade Five (N=780)		Grade Six (N=890)	
	b_i	SE	b_i	SE
Sex (X_8 , boy=1)	0.1212 (0.9374)	0.1293	0.0218 (0.3765)	0.0579
Age (X_9)	0.3280 (1.0674)	0.3073	0.5562 (1.1501)	0.4836
Preschool education (X_{10}) (attended=1)	0.1833 (2.3838)	0.0769	0.9112 (1.9714)	0.4622
Class repetition (X_{11}) (repeating=1)	-0.0658 (-2.1891)	0.0301	-0.0822 (-2.0064)	0.0310
Previous achievement (X_{12})	0.1990 (3.3302)	0.0593	0.3912 (4.4404)	0.0881
Attitude toward schooling (X_{13})	0.3286 (3.9686)	0.0828	0.6550 (19.0409)	0.0344
Degrees of freedom (df)		766		886

b_i = raw regression coefficient (t-value in parenthesis)

SE = Standard Error

a = $p < 0.05$; b = $p < 0.01$; c = $p < 0.001$

Table III summarizes the regression results for the six variables describing pupil-personal characteristics. Variable

X_0 is positively related to English achievement at both grade levels; learning gain tends to favour boys than girls. However, student sex was not found to be a significant predictor of both achievement levels. The calculated t-values of the two regression coefficients of X_0 are far less than the expected minimum at 0.05 alpha level and the respective degrees of freedom. The statistical impact upon the target pupils' achievement can therefore be labelled nonsignificant with ninety-nine percent confidence.

The reason why student sex is not strongly associated with English is particularly hard to explain. Yet, one could think in terms of the level of "achievement motivation" among the sampled individuals. When achievement motivation (the desire for or interest in success in a field of activity which develops and becomes prevalent around second grade) is reasonably equal within or between the sexes level of performance shows little or no variation (Gage and Berliner, 1988).

Variable X_2 is positively related to pupils' achievement at both grade levels. That is, the older a child relative to his or her classmates the more well that child tended to do on the achievement test. Thus, a one year increase in pupils' average age estimated 0.3280 and 0.5562 points increment respectively in grades five and six mean achievement. However, the calculated t-values of b_2 are below the critical t-value at 0.05

alpha level. Hence, other variables kept constant, age's statistical impact upon the English achievement of the target groups is not significantly different from zero. This conclusion can be accepted with five percent probability for error.

The result could probably be explained by the similarity of the learning experiences that children encounter. Older students could have highly out scored relatively younger ones on tests of English achievement at grades three and four. But as they moved to grades five and six the advantage that being relatively older provides is likely to diminish. Because the learning experience that children encounter in schools become continually homogeneous under normal conditions (Heyneman, 1981).

The data in table III also shows that participating in preschool education positively contributes to sixth and fifth grade English achievement. The computed t-value for b_{10} corresponding to grade five is greater than the tabled t-value (2.326) at 0.02 alpha. The observed t-value for b_{10} at grade six sample was also found to be greater than the tabled value (1.960) at 0.05 alpha level.

It follows therefore that, given the maximum error tolerance (five percent), preschool experience has a strong and positive statistical impact on the English test score of the target

pupils. The relatively low effect of X_{10} on grade six achievement does not seem surprising as such. Because, the initial advantage in academic performance that preschool education provides would have started to decline due to the increasing importance to learning and achievement of school related factors (Hayneman, 1980; Johnston Jiyono).

The finding in relation to X_{10} thus suggests the need for strengthening preschool education in order to enhance English achievement. The practice of providing some form of preschool education has of course been part of the total education system in Ethiopia. Nevertheless, its relation to English achievement in the upper primary schools was not studied in any clear and formal sense. If similar studies are conducted on a large scale this small-scale research result may thus have some educational policy implications for the future. To reinforce, finance, and expand kindergartens.

Dummy variable X_{11} , as table IV indicates, showed an adverse statistical effect on the achievement of both target groups. Both the observed t-values (-2.1891 and -2.0064) for b_{11} respectively at grades five and six exceed (in absolute value) the critical t-value (-1.1960) at 0.05 alpha level. One can therefore conclude with ninety-five percent confidence that class repetition has a strong negative influence on fifth and sixth grade English achievement.

Class repetition may be a proxy to natural ability (intelligence) or student motivation. If it stands for intelligence the mechanism of solving the problem is difficult to the writer to explain. It is a proxy to student motivation the question can then be a matter of raising learners' motivational level. What is being emphasized here is rather the implication to English achievement of repetition. Therefore, students can be motivated to work hard (and repetition rate reduced) if they are advised, encouraged and shown the future importance of education.

Finally, the evidence presented in table III for variables X_{12} and X_{13} is much more revealing. As shown by b_{12} , students who performed better on the first semester tests and examinations prepared by their own teachers also scored higher on the achievement tests prepared for this study. Thus, one point increase in the first semester average score predicted 0.1990 and 0.3912 points rise in the mean subsequent test result of grades five and six pupils respectively. It can also be seen that the computed t-values (3.3302 and 4.4404) of b_{12} are greater than the critical t-value (3.291) at 0.001 alpha level.

The conclusion that can be made with more than ninety-nine percent confidence is therefore that, everything else held constant, prior achievement has a strong positive statistical impact upon upper primary school pupils' later achievement. The implication is that if pupils who scored better in one semester were also to score high in subsequent tests, those who score low should be identified and given special assistance so that they may achieve better. This suggestion may help to equalize pupils, opportunity for learning English. This

however is not to forget or belittle the role that natural ability plays.

Pupils' attitude towards schooling (X_{11}) also appeared to be a significant predictor of student achievement at both grade levels. As table IV indicates, a unit change in the average attitude of grade five pupils estimated 0.3286 points rise in their mean achievement. The observed t-value (3.9686) for this group is also identified to be greater than the tabulated value (3.291) at 0.001 alpha level. Similarly, a unit change in the average attitude of grade six pupils predicted 0.6550 points increase in their mean achievement. This coefficient (0.6550) has a computed t-value (19.0407) which is also greater than 3.291 at 0.001 alpha level.

A conclusion that should follow from this finding is therefore that, other things held constant, upper primary pupils' attitude towards schooling has a statistically significant contribution to their English achievement. Like X_{12} , this conclusion can also be accepted with less than ninety-nine percent error for chance.

Students' attitude toward schooling was measured using eight attitudinal statements as indicators. These statements elicited information on pupils' attitude toward English, English teachers, school assignments, and classmates. The result of this study has therefore indicated that what students think about these factors is highly correlated with their English achievement. And this in turn implies that both parents and teachers should follow pupils' attitude if the teaching of English is desired to achieve its objective.

TABLE -IV
Regression Results: School-Classroom Related
Characteristics on Achievement (Y)

Independent Variable	Grade Five (N=17)		Grade Six (N=16)	
	b_i	SE	b_i	SE
School-community relation (x_{14})	0.3834 (2.6951)	.1423	2.6451 (1.6988)	1.557
Director's Perception (initiating Structure = $1. x_{15}$)	2.6452 (3.0072)	.8796	1.8463 (2.6411)	0.699
School-Facilities, x_{16}	1.4602 ^a (3.1882)	.4580	3.3456 ^a (3.1856)	1.0502
Classroom Facilities (x_{17})	-	-	-	-
AV. Instructional material (x_{18})	1.2691 ^a (3.2950)	.3852	1.4628 ^a (4.1662)	0.3511
Class-size (above 50= $1. x_{19}$)	0.9643 (.8872)	1.0869	-2.0162 (-1.2872)	1.5663
Degrees of Freedom (df)	3		3	

b_i = raw regression coefficient (t-value in parenthesis)

SE = Standard Error; $a = p < 0.05$

Table IV summarizes the relative impact on upper primary school pupils' English achievement of six specific predictors explaining school and classroom realities. It can be seen that the overall picture of the regression result does not seem as impressive as it should be.

Coefficient b_{14} indicates that a unit change in the extent of school-community relations would predict 0.3834 and 2.6451 points rise respectively in the mean achievement of fifth and sixth graders. However, the calculated t-values (2.6951 and

1.6988) of coefficient b_{14} are below the tabled t-value (3.182) at 0.05 alpha level and three degrees of freedom. One may therefore conclude that the impact upon upper primary school pupils achievement of school- community relation factor is not significantly different from zero.

Extent of school-community relation was measured using directors' questionnaire as a means of data collection. As appendix D(11) shows directors were asked to indicate the level of assistance that the local community provides to the school in matters related to criticism, suggestion and planning. Information was also elicited on the local community's interest in student conduct, health and progress surprisingly enough, however, higher levels of community assistance didn't bring about significant change in students' English achievement. The explanation for this contrary finding could be that the extent of school-community relation may not show that much difference among schools if sampling is made in one area. This seems reasonable because all the target schools are found in similar environment- Gonder town people's attitude to and interest in something is likely to be more or less similar if they are living in similar areas. Had one taken schools sampled from different areas that markedly differ in their socio-economic development (Urban, semi-urban and rural for example) one would probably have identified strong and significant positive relations than otherwise. This one can infer from the direction (that is positive) of school-community relation and students achievement in the target grades. In fact, chantavanich and

his associates (p-253) have found strong correlation between extent of school-community relations and third grade mathematics and English achievement based on samples drawn from geographically diverse regions in Thailand.

According to the data in Table V again, dummy variable x_{15} is positively related to the English achievement of students at both grade levels: learning gains tending to favour classrooms administered by authoritative principal. It can be seen that a one unit change toward "initiating structure", that is, strict leadership would bring about 2.6452 and 1.8463 points rise in the mean English achievement of grade five and six pupils in that order. Nevertheless, the calculated t-value of b_{15} at grade five (3.0072) and that at grade six (2.6411) are both below the critical t-value (3.182) at 0.05 alpha level and three degrees of freedom. The conclusion therefore may be put with five percent chance for error that, other things held constant principal's perception of leadership behaviour has no significant statistical effect on the English achievement of upper primary pupils.

As described in chapter two, "initiating structure" is a dimension of leadership behaviour reflected by principals' authoritative actions and decisions with regard to program implementation. Directors with such behaviour, as Silver stressed, focus on getting things done at the expense of sharing ideas to the staff. Such leaders are the ones who advocate tightly disciplined staff that stress absolute obedience than more active roles and individual initiative;

who enforce a hierarchical power structure than encourage participation of teachers in addressing problems (Fuller, 1987). According to Silver and Fuller, the interpersonal relation in schools led by authoritative principals is negatively affected thereby contributing to failure in staff morale and, in turn, to low student achievement. But, as both Fuller and Silver observed, the direct impact on student achievement of principal's behaviour is not empirically studied in any clear sense particularly in the developing countries.

The result of this study which indicate positive (albeit modest) relationship between directors perception and upper primary school English achievement can therefore be informative. It should be noted, however, that a director's regard for one or another aspect of leadership behaviour may not necessarily reflect his actions. For example, directors who perceive "initiating structure" as the most productive dimension of leadership behaviour may not in actual practice promote authoritative interpersonal relationships. In that case then conclusions which may be reached on the basis of studying mere perception can be misleading. That is, to observe how directors administer would result in more objective explanation of achievement effects than asking them what their belief is a task which requires extended time and energy.

The data in table IV also shows that dummy variable x_1 ; (class-size) has differential impact on upper primary

English achievement; positive on grade five but negative on grade six. It can be seen, however, that the calculated t -value (0.8872) of b_9 at grade five and that (-1.2872) at grade six are both less than the tabulated t -value (3.182) at 0.05 alpha level and three degrees of freedom. Hence, other variables held at their mean value, class-size has no significant positive or negative statistical impact on fifth and sixth grade English achievement.

The implication is that incremental increases in grade five class-size than the present average (fifty five in this study) is likely to negatively influence their English achievement. Though the grade six level has its own specific characteristics, the finding for this grade level may not be used to explain this expectation. As discussed in chapter three, the average number of students per class at grade six was about sixty. For samples drawn from this grade the present evidence has indicated negative influence. Therefore, what the Ministry of Education proposed as the maximum class-size (fifty) in the elementary schools seems very much reasonable. In fact, substantial reductions in class-size would be necessary to raise English achievement. In contrast, substantial reductions in class-size would free up meagre resources while not increasing overall student achievement. The issue thus becomes a matter of balancing educational needs and economic resources.

The evidence presented for independent variables x_7 and x_{10} reveals similar patterns of influence on student achievement.

As b_{16} indicates a unit change in school facilities predicts 1.4602 and 3.3456 points rise in the mean English achievement of grade five and six pupils in that order. The calculated t -values corresponding b_{16} at grade five (3.1882) and that at grade six (3.1856) are greater than the tabulated t -value (3.182) at the preset minimum 0.05 alpha level and three degrees of freedom. It can therefore be concluded with ninety-five percent certainly that school facilities have statistically significant positive contribution to upper primary English achievement. That is, the higher the level of school facilities in both qualitative and quantitative terms the better students achievement within the given sample.

This variable-school facilities- was measured using staff-room, tea-room, water-supply, play-ground, library, latrine, duplicators and telephone as school quality indicators. The result has therefore shown that these facilities are very important in enhancing English achievement. Heyneman(1980) has also stressed the importance of school facilities for the quality of education and for academic achievement. He argued that one of the basic reason why pupils' performance in science, mathematics and languages in developing countries is inferior to the performance of pupils in the West can be attributed to lack of adequate provision of school facilities on the other hand, in the context of the West, it has been contested that such provisions have very little impact on academic achievement. What contributed to student achievement in the context of the West are "Characteristics of the entering students" (Mwamwenda and Mwamwenda, 1987).

The reason why school facilities do not affect academic achievement in the West be due to the small variations that exist in the quality of schools were there exists adequate difference in school facilities this variable is significantly related to achievement even in the West (Bridge et al).

The evidence presented here also seems to confirm the above conclusions. Its implication for Ethiopian education also seems imperative here. It would be a difficult process to increase the quality and quantity of school facilities. But it may not be that much a problem to rationally distribute the governmental budget for education.

Finally, similar results are found for variable x_{18} (availability of instructional materials). It can be seen from regression coefficient b_{18} that one unit improvement in x_{18} estimated 1.2691 and 1.4628 points addition to the mean achievement of grade five and six students respectively. Like that of variable x_{15} , again, the calculated t-values (3.2950 and 4.1662) exceed the critical t-value (3.182) at alpha 0.05 and three degrees of freedom.

Hence, other things held constant, availability of English teaching materials has a statistically significant positive impact on upper primary English achievement. This conclusion can in turn be accepted with less than 0.05 probability for error.

As studies in other developing countries - Nicaragua, the Philippines, Uganda, Peru, /elsalvador and others (Fuller, 1987: 262)- revealed one would expect a result even better than the present finding. Nevertheless, given the small variation in the availability of instructional materials (pictures, charts, graphs and text books) in the target classrooms, an impact coefficient significant at 0.05 seems rather satisfying. Even more if the same study is undertaken on classrooms situated in rural and urban areas one would expect very relation between instructional materials and upper primary pupils' English achievement.

TABLE V
Regression results: Teacher Characteristics on Achievement (Y)

Independent variable	Grade Five (N=17)		Grade Six (N=16)	
	b_i	SE	b_i	SE
Sex (x_{11}) male = 1	3.0101 ^a (4.1224)	0.7302	2.9670 (3.5025)	0.8471
Age (x_{12})	-	-	-	-
Teaching Experience (x_{13})	1.6263 (2.3332)	0.6970	-	-
Devotion to teaching (x_{14})	-	-	2.3414 (0.3212)	7.2899
Expectation of student performance (x_{15})	3.6722 ^a (3.4762)	1.0564	1.8997 ^a (4.1115)	0.4620
Job Attitude (x_{16})	2.2099 ^a (3.8124)	0.5800	5.4502 ^b (0.7514 (7.2533)	
Degrees of freedom (df)	3		3	

b_i = raw regression coefficient (t-value in parenthesis)
SE = standard Error; a = $p < 0.05$; b = $p < 0.01$

Table V presents the relative contribution to upper primary pupils' English achievement of six predictors explaining teacher characteristics. Some of the variables contributed significantly while others influenced very little.

Variable x_{20} is positively related to English achievement at both grade levels; performance rising with male sex than female sex. the partial regression coefficients of sex are indicated in Table V to be 3.0101 and 2.9670 respectively at grade five and six. The respective completed t-values for these coefficients (4.1224 and 3.5025) are also greater than the critical t-value (3.182) at the pre assigned minimum 0.05 alpha and two degrees of freedom. Thus, other things held constant, the statistical impact upon the target pupils' English achievement of male sex is significantly different from zero; a conclusion which can be accepted with ninety-five percent confidence.

This evidence supports Glasman and Binlaminov's (p.526) finding in their review of basic studies that examined the contribution of sex (male = 1) to twelfth grade verbal and mathematics achievements in the U.S.A. It also adds further evidence to Bridge *et al*'s work who, in their review of other studies, found predominantly positive contribution of male sex to verbal and reading achievement. The finding here, however, seems inconsistent with Murnane and Phillip's observation for the relationship between vocabulary achievement and male sex at three primary grades in the U.S.A. In their study vocabulary achievement declined with male sex at grades four, five and six. The findings for teacher sex in the developing countries show mixed result. As Schiefelbein and Simmons (p.40) synthesized developing country research, male teachers appeared to significantly contribute to the rise of general achievement at primary and

lower secondary grades (twelve cases out of twenty five) while other thirteen studies produced no statistically significant contribution.

Why, in general, male sex is positively and significantly related to English achievement is difficult to the investigator to explain; nor has available literature rained this issue. It may be suggested, however, that assigning males to teach English at grades five and six level would be more productive provided that the finding here can be verified by further research, and that assigning male teachers to teach English will not bring an adverse effect on other subjects and grades.

The experience of teachers (X_{22}) in the teaching profession also predicts upper primary school English achievement in the positive direction. That is, the more the number of years that a teacher has served in the teaching profession the more better his students' English achievement at fifth grade level. Nevertheless, the completed t-value of b_{22} at grade five (2.3332) is less than the minimum expected t-value (3.182) at 0.05 alpha level and three degrees of freedom. Hence, everything else kept constant, teaching experience has no significant statistical effect on fifth grade English achievement. This generalization can again be accepted with five percent chance for error.

The results for length of teaching experience on student achievement in other developing countries are inconsistent.

As Fuller (1987) recently observed "... 13 of 23 studies that have looked at teacher experience have found no significant achievement effects" (p.283), what perhaps appears more clearly from the present study is therefore that there is some positive effect of length of experience upon upper primary English achievement. It could be asked, however, that why length of experience is not more strongly associated with student achievement in the target grades. This question can not be easily answered by the investigator. Yet, one likely explanation seems that length of teaching experience may produce rather high achievement if comparison is made between the performance level of beginners and more experienced teachers. On the other hand, the extra-advantage that being more experienced provides is likely to diminish once beginners have become seniors.

This suggestion seems true for comparisons like in the present study where the length of teaching experience of teachers ranges between sixteen and twenty-nine.

As the data in table V reads further, variable X_{23} predicted achievement in the positive direction. That is, the more devoted a teacher to teaching purposes the better his students' achievements. This holds true to grade six only. Thus, for a unit change in teacher deviation to teaching purposes the multiple regression coefficient predicted 2.3414 points addition to the mean achievement of grade six students. However, the observed t-value (0.3212) of coefficient b_{23} is below the critical t-value (3.182) at the

preset minimum 0.05 alpha level and three degrees of freedom. Hence, other things held the same, teachers deviation to teaching purposes has no significant contribution to grade six English achievement.

"Devotion to teaching" was used as a rough proxy to teacher motivation expressed by such indicators as frequency of assignments given to students, time spent in correcting assignment and preparing lesson plans, and talking with parents concerning learners' academic progress. But given the very low variation in the response provided by teachers the little impact coefficient reported here cannot be surprising as such. The identified direction of effect (positive) seems to indicate, however, that deviation to teaching is a good predictor of achievement where significant differences can be observed.

According to the data in table V again, variables X_{24} has appeared a significant predictor of student achievement. A unit change in teachers expectation of student performance estimated 03.6722 and 1.8997 points rise in the mean achievement of fifth and sixth graders respectively. Again, the calculated t-value (3.4762) of b_{24} at grade five exceeds the tabulated t-value (0.182) at 0.05 alpha level and three degrees of freedom. The computed t-value (4.1116) at grade six is also above the tabled value at 0.05 alpha level and the degrees of freedom associated with the sample. This observation may therefore lead to the conclusion that, other things held constant, teachers 'expectation of student

performance has a significant positive impact on pupils' achievement. This conclusion can be accepted only with ninety - five percent certainty.

These findings support the conclusions reached in other three developing countries (Hongkong, Uganda and Thailand) where the hypothesis "Teachers who expect high achievement receive stronger commitment and performance from students" was accepted at 0.05 significant test (Fuller). The process by which teachers' expectation contributes to student achievement is not clear to the writer. None of available literature addressed this important question. One may, however, suspect that a teacher's expectation is closely related to his or her knowledge of students' ability and effort. If so, the finding for this variable can have two important implications for instruction. First, low teacher expectations of performance levels should not be communicated to students for they may produce strong adverse effect. Second, if teachers have initially low expectation of learners, putting an utmost effort may help raise performance to a certain degree.

Finally, the data in table V presents interesting information on the relationship between teachers attitude to teaching profession and English achievement in the upper primary schools. It can be seen from the partial regression coefficient b_{25} that a unit change in teachers attitude toward the teaching profession brings about 2.2099 and 5.4502 points increase in the mean achievement of grades five and six in

that order. The calculated t-value (3.8124) of b_{15} at grade five exceeds the tabled value (3.182) at 0.05 alpha level and 3 degrees of freedom. The computed t-value (7.2533) of b_{25} at grade six is also greater than 6.841 at 0.01 alpha level and three degrees of freedom. The conclusion may therefore be stated that, in normal conditions, the impact of teachers' attitude toward their profession on the English achievement of upper primary pupils is significantly different from zero.

Thus teachers who enjoy being with students, who believe that teaching is a way of developing one's knowledge, who think that teaching is not a boring and monotonous job, and who want to remain in it despite some inconveniences appeared more successful than otherwise. The result here again supports the findings of the eight major studies completed in other developing countries in the last fifteen years (Awalos and Hadad).

TABLE VI
Regression Results: Teacher Class Room Behaviour
On Student Achievement (Y)

Independant Variable	Grade Five (N=17)		Grade Six (N=16)	
	b_i	SE	b_i	SE
Planning (x_{26})	2.8461 ^c (13.1221)	0.2169	3.0681 ^c (21.8001)	0.1407
Clarity (x_{27})	3.4782 ^c (12.9452)	0.2687	1.3572 ^c (15.7333)	0.0863
Flexiblity (x_{28})	2.0469 (3.1295)	0.6541	1.5534 (3.0926)	0.5023
Feedback and reinforcement (x_{29})	-	-	-	-
Management and control x_{30}	2.5564 ^b (6.0092)	0.4254	1.98259 ^c (17.2311)	0.1151
Degrees of Freedom (df)	3		3	

b_i = raw regression coefficient (t-value in parenthesis)
SE = Standard Error; b = $p < 0.01$; c = $p < 0.001$

Table VI summarizes the partial regression results for the four independent variables explaining teacher behaviour. The data presented shows substantially high impact coefficients for some of the predictors. The first regression coefficient (b_{26}) indicates that a unit change in teacher's lesson planning skill would boost the mean achievement of fifth and sixth graders respectively by 2.8461 and 3.0681 points. The 13.1221 calculated t-value of b_{26} at grade five is greater than the critical t-value (12.941) at 0.001 alpha level and three degrees of freedom. The computed t-value (21.8001) of b_{26} at grade six is also far above the tabulated t-value (12.941) at 0.001 alpha level and three degrees of freedom. Hence, other factors held at their mean value, teacher planning has a significant statistical impact upon the English achievement of upper primary school pupils. This conclusion can then be accepted with one percent probability for error at both grade levels.

This finding seems to give further support to the ideas of Perrott, Mager and other authorities on teaching who argue that planning is a vital element in teaching. The result has indicated that teachers who state objectives clearly and behavioural, who integrate contents with the objectives of a lesson, who device appropriate methods, who prepare lesson with concern for sequence and timing produce better achievement than otherwise.

The evidence found for instructional clarity (x_{27}) as table VI depicts, is even more impressive. As can be seen from the b_{27} coefficients, a one unit improvement in teachers' clarity of lesson presentation estimated 3.4782 and 1.3572 points rise in the average achievement of fifth and sixth graders respectively. The respective computed t-values for these two estimates are also indicated to be 12.9452 and 15.7330. These are figures which exceed the critical t-value (12.941) at 0.001 alpha level and the respective degrees of freedom. One may therefore conclude with ninety-nine percent confidence that, other things remaining constant, clarity of instruction has a very strong statistical impact upon the English achievement of upper primary pupils.

The different authorities in the area of classroom research have underlined that clarity plays a fundamental role in the interactive phase of teaching. What the teacher does with regard to previewing, presenting, questioning and summarizing essentially affects the level of achievement and learning. The present study also seems to have realized the importance of such arguments for instructional clarity. Using five basic statements (Appendix F) considered basic in P-P research as indicators, the writer has found high impact coefficients.

On the other hand, compared to other variables within the teacher behaviour block, the achievement effect of variable x_{28} (flexibility) seems rather low. As Table VI the partial regression coefficients x_{28} are 2.0469 and 1.5534 at grades

five and six respectively. However, the computed (3.1295) t-value for the 2.0469 coefficient is less than the tabulated t-value (3.182) at the predetermined minimum 0.05 alpha level and three degrees of freedom. The observed 3.0926 t-value for the 1.5534 coefficient is also below the 3.182 critical t-value at 0.05 alpha level and three degrees of freedom. Hence, one can conclude with ninety-five per cent confidence that: flexibility has nonsignificant effect upon fifth and sixth graders' English achievement.

In view of some politic writers and researchers (Perrot, Davies, and McCaleb and Jacqueline for example) the flexibility factor in teaching is regarded as one of the best contributors to the betterment of learning and achievement (see chapter two). The question may then arise that why flexibility is not strongly associated with fifth and sixth graders English achievement. But, the answer to this perfectly reasonable question is particularly hard to the writer to explain. Yet one might suspect the little difference in their skill of varying the interaction situation among these teachers. Where there is little variation one cannot expect high level explanatory power for a given variable.

Teachers' classroom management and controlling behaviour (x_{30}) also seems, in its part, to play an important role in enhancing pupils' English achievement. As table VI reads, the multiple regression analysis has resulted in 2.5564 and 1.9829 raw coefficients respectively at grades five and six.

The computed t-value (6.0092) for the 2.5564 coefficient exceeds the tabulated t-value (4.604) at 0.01 alpha level and three degrees of freedom. Again, the calculated t-value (17.2311) for the 1.9829 raw coefficient is above the critical t-value (12.941) at 0.001 alpha level and three degrees of freedom. Therefore, other variables held constant, teachers' classroom management and controlling behaviour has a significant positive effect upon sixth and fifth graders' English achievement. This conclusion can be accepted with one percent and less than one percent probability for error at grades five and six respectively.

Thus, the preventive and corrective measures English teachers take for student indiscipline are closely related with achievement levels. Therefore five specific skills can be said to have greater contribution to such relationships between English achievement and teacher's classroom management and controlling behaviour. They are (1) communicating clear rules and expectations (2) maintaining attention to non-responding pupils (3) giving prompt attention to issues of misbehaviour, (4) moving the class through the lesson at quick pace, and (5) maintains a smooth flow of classroom activities at points of transition. These are indicators of the variable (x_{30}) used by the investigator (see Appendix F).

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1. SUMMARY

The question "what makes a difference in student achievement?" has been central to educational research since the early 1960s. This problem, which is essentially related to the quality of education, has been studied by researchers from both the developed and the developing countries. The research in the developed countries has generally revealed that home and pupil related variables are the major sources of variation in student achievement while the effect of the specific factors is not yet clearly disentangled. Though researchers in the developing countries have also made a concerted effort to understand the major determinants of educational achievement, the results are still inconclusive, inconsistent and even contradictory at times. This prevailing condition therefore initiated the investigator to study the factors that may affect the English achievement of Ethiopian pupils.

In addition to this, the qualitative growth of Ethiopian primary education has been seriously questioned since the early 1980s as the ministry of education (MOE, 1984) stressed earlier. Though the existence of such a basic problem was well recognized, evidence on the specific factors that relate to pupils' performance seems extremely scarce. The rarity of such important evidences on the qualitative aspects of primary education in Ethiopia also pressed the investigator to study the determinants of upper primary (grades five and six) pupils' English achievement in Gondar town.

Accordingly, the main purpose of this study was to examine the extent to which variable describing home, student, school and

teacher attributes explain differences in pupils' English achievement. In relation to this basic purpose the investigator raised the following specific research questions:

1. Do the factors explaining home characteristics have differential effects on pupils' achievement?
2. Do the factors describing pupil-personal characteristics have differential effects on pupils' achievement?
3. Do the factors related to school-classroom characteristics have differential effect on pupils' achievement?
4. Do the factors defining teacher background characteristics have differential effect on pupils' achievement?
5. Do the factors related to teachers' classroom behavior have differential effect on pupils' achievement?

In order to seek answers to the above questions the investigator used various instruments of data collection: achievement tests, questionnaires, school-classroom inventories, and classroom evaluation schedules. The data collected was analyzed by the method of multiple regression. A variable's statistical impact on pupils' achievement was considered adequate at 0.05 or better alpha level. The basic findings of the whole analysis can be presented as follows.

- A. The seven variables ($X_1, X_2, \dots, X_7$) explaining pupils' home characteristics showed differential effect on their English achievement. Increased family-size had nonsignificant negative influence while father's and mother's occupation showed nonsignificant positive impact ($p < 0.05$). On the other hand, father's education, mother's education,

condition for study at home, and parental support all showed significant positive contribution to pupil's English achievement at both grade levels ($p < 0.05$).

- B. The six variables ($X_8, X_9, \dots, X_{13}$) describing pupil-personal characteristics also showed differential statistical influence on their own achievement. Although boys and older pupils appeared to perform relatively better, the statistical contribution to English achievement of the two predictors was not found to be significant at a 0.05 test. Participation in any form of preschool education (Church, Koran or Kindergarten) exerted a significant positive impact on fifth grade English achievement while its statistical contribution to six grade performance was modest ($p < 0.05$). Class repetition showed a strong negative statistical effect on the achievement of pupils in both grades. Students' prior achievement and attitude towards schooling contributed positively and strongly to their achievement ($p < 0.05$).
- C. The five variables ($X_{14}, X_{15}, X_{16}, X_{18}$ and X_{19}) describing school-classroom conditions were differentially related to pupils' English achievement. The extent of school-community relation and director's perception of leadership behavior exerted nonsignificant positive influences on pupils' English achievement ($p < 0.05$). Class-size showed positive impact at grade five and negative influence at grade six but both of the effects were not significantly different from zero ($p < 0.05$). School facilities and availability of instructional materials exerted substantial positive impacts on pupils' achievement at both grade levels ($p < 0.05$).

- D. The five variables (X_{20} , X_{22} , X_{23} , X_{24} and X_{25}) defining teachers' background characteristics had also differential impact on pupils' achievement. Teachers' sex showed a significant positive relation to student achievement at both grade levels ($p < 0.05$). Teachers' teaching experience was positively related to fifth grade pupils' English achievement. However, its effect was not significantly different from zero. Thus teaching experience consideration has no discernible contribution to English achievement. Unlike the investigator's expectations, teachers' devotion to teaching purposes showed no significant impact on both grade level pupils' English achievement. On the other hand, teachers' expectations of student performance showed strong positive statistical influence on the English achievement of the target pupils ($p < 0.05$). Teachers' attitude towards the teaching profession also exerted strong positive impact, its contribution being more pronounced at grade six ($p < 0.01$).
- E. Finally, the four variable (X_{26} , X_{27} , X_{28} and X_{30}) defining the classroom behavior of teachers exerted significant positive influence on English achievement of the target pupils. Among all the five variables, "planning" and Clarity" were the strongest predictors of student achievement at both grade levels ($p < 0.001$). The positive effects of classroom management and control gained strength from grade five ($p < 0.01$) to grade six ($p < 0.001$). "Flexibility" in teaching was also positively related to achievement at both grade levels though its contribution was nonsignificant. Thus, teachers who apply the basic elements of the "directinstruction" strategy can bring about high level of English achievement.

5.2. Conclusions and Recommendations

Within the limits of the study the following conclusions are reached and recommendations forwarded in relation to significant results summarized above.

Children from relatively better educated parents outperform those from relatively less educated and illiterate parents. English teachers should pay additional attention towards children of the less educated and those of the illiterate in order to compensate for this disadvantage.

Children getting relatively better conditions for study at home outsmart those who face less conducive realities. Parents should be told the educational importance of separate rooms, adequate light and adequate time so that they may arrange such situations for their own children.

Participating in any form of primary education (Church, Koran or Kindergarten) can help increase English achievement at least at grade five. The expansion of pre-primary education should be encouraged and supported provided that its contribution to other school subjects and grade levels will be realized by further research.

Repeating pupils are poor achievers compared to non-repeating pupils. English teachers should pay special attention to repeating students and assist them in any way possible in order to compensate for this disadvantage.

High level of prior English achievement is strongly associated with pupils' subsequent achievement in a given test. English

teachers should pay additional attention to pupils with below average previous achievement and assist them in any way possible.

Pupils' attitude towards schooling is highly related to the level of their English achievement. Directors and teachers should make it their purpose to identify pupils having less positive or negative attitude towards schooling and try to raise their attitudinal level.

There is a strong association between school resources (school facilities and instructional materials) and English achievement at the upper primary grades. As much as possible, there should be a wise distribution of resources among the different schools so that there would be equal opportunity for English learning and achievement.

Male teachers seem to be more successful in producing higher levels of English achievement than female teachers. It would therefore be important to identify the causes behind this variation by further research.

Positive teacher expectations of students produce good English results and negative expectations produce poor English results.

Be it objective or otherwise, teachers having low, pessimistic expectations should be very careful not to express such values to their students. Communicating positive expectations may be important to raise students' academic self-concept thereby enhancing pupils' effort for better achievement.

Teachers' attitude towards their profession is substantially related to their pupils' English achievement. Every effort should be made to raise teachers' attitude towards their profession. At least, the effect of having less positive or negative attitude on the English achievement of upper primary schools should be well recognized by school directors. This may help them to assign teachers with positive attitude for grade five and six English teaching in a manner that does not affect other grade levels and subjects.

Teachers' classroom behavior is a strong determinant of upper primary pupils' English achievement. English syllabus designers should realize that English teachers are well skilled in the elements of "direct instruction". Whenever seminars or workshops are arranged for teachers on methodological issues, programs should focus on how to prepare lesson plans, how to present lessons, and how to manage and control classroom order.

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APPENDIX-AENGLISH ACHIEVEMENT TEST FOR GRADE FIVE

(Time allotted: 60 minutes)

Name _____ Roll No. _____ Grade _____
 _____ Section _____ School _____

General Direction: Attempt all the questions. Follow the specific instructions. Write the letter of your choice on the space provided to the left of each Item.

I. Choose the word or phrase which best completes the sentence.

- _____ 1. We _____ going to ride a horse. (a) has (b) have
(c) are
- _____ 2. Abebe _____ write a letter to Aster. (a) was (b) is
(c) will (d) has
- _____ 3. She will go to school, _____ she? (a) won't (b) will
(c) would (d) wouldn't
- _____ 4. When he is hungry he _____ food. (a) eat (b) eats
(c) ate (d) eaten
- _____ 5. Father won't let me go to school, _____ he? (a) is
(b) isn't (c) won't (d) will
- _____ 6. Are you going to write a letter tomorrow?
(a) Yes ,we are (b) No, we are
(c) Yes, we are not (d) No, we not
- _____ 7. Everyday Hailu _____ a bus (a) is driving (b) derives
(c) drove (d) will drives
- _____ 8. Will Almaz lend me her book? (a) No, she won't
(b) Yes, she will (c) No, she will (d) both "a" and
"b" are correct

- _____ 9. Yesterday I _____ water. (a) am drinking (b) drank
(c) will drink (d) drinks
- _____ 10. Now she _____ pencils. (a) sold (b) will sell (c) is
selling (d) solds
- _____ 11. Tomorrow you _____ a pen. (a) will take (b) took
(c) takes (d) take

II. Identify the correct simple past form of the following
Words.

- _____ 12. begin (a) began (b) begun (c) begon (d) began
- _____ 13. buy (a) boat (b) bout (c) bought (d) boun
- _____ 14. find (a) finde (b) fond (c) found (d) foud
- _____ 15. hear (a) heard (b) hare (c) hair (d) heared
- _____ 16. run (a) ron (b) ren (c) ran (d) run
- _____ 17. sit (a) set (b) sat (c) sot (d) sut
- _____ 18. teach (a) taught (b) tought (c) tot (d) teach
- _____ 19. lend (a) land (b) lund (c) lent (d) lind
- _____ 20. make (a) make (b) maked (c) make (d) made

III. Read the following passage and answer the questions that
follow.

A cat was hungry. She was looking for her lunch. She saw a bird in a tree. She began to climb up the tree. But the bird saw her and flew away. Then the cat went to the barren. There she saw a mouse. But the mouse saw the cat and quickly ran away. The poor cat had no lunch that day.

- _____ 21. What was the cat looking for at the beginning?
(a) another cat (b) a mouse (c) her food (d) the
barren

- _____ 22. Where did the cat see a mouse?
(a) in the tree (b) in the barren (c) in the field
(d) in the lunch
- _____ 23. Which one of the following statement is true?
(a) There was a mouse in the tree
(b) The cat caught the mouse
(c) The cat had no food that day
(d) The cat didn't see the bird
- _____ 24. The word "her" (in the passage) refers to
(a) the cat (b) the mouse (c) the bird (d) the barren
- _____ 25. What did both the bird and the mouse do?
(a) They made the cat their friend
(b) They ate grains together
(c) Both flew away
(d) All "a", "b", and "c" are correct

IV. Identify the word which is wrongly spelt.

- _____ 26. (a) brought (b) found (c) begin (d) boght
- _____ 27. (a) domestic (b) narow (c) thirsty (d) angry
- _____ 28. (a) corn (b) feed (c) drink (d) colect
- _____ 29. (a) angrly (b) quickly (c) lazily (d) carelessly
- _____ 30. (a) train (b) arround (c) seat (d) quiet

APPENDIX-BENGLISH ACHIEVEMENT TEST FOR GRADE SIX

(Time Allotted: 60 minutes)

Name _____ Roll No. _____ Grade _____
Section _____ school _____

General Direction: Attempt all the questions. Follow the specific instructions. Write the letter of your choice on the space provided to the left of each item.

I. Choose the word or phrase that best completes the sentence and write the letter of choice on the space provided.

- _____ 1. Do you want some food? No, Thank you, I don't want
(a) some (b) any (c) little (d) many
- _____ 2. One of the boys _____ taking to the director.
(a) are (b) were (c) is (d) has
- _____ 3. How _____ girls are there in this class?
(a) many (b) much (c) few (d) some
- _____ 4. He doesn't learn English, _____ he wants to.
(a) so (b) and (c) but (d) or
- _____ 5. Almaz always goes to school _____ 8 O'clock.
(a) during (b) in (c) on (d) at
- _____ 6. Meseret was sick in bed _____ the war months.
(a) during (b) for (c) since (d) over
- _____ 7. I am looking for _____ the picture.
(a) up (b) from (c) at (d) on
- _____ 8. _____ does Hailu live? He looks strange
(a) Where (b) When (c) Why (d) How

- ____ 9. You won't be here tomorrow, will you?
- (a) Yes, I won't
(b) Yes, I will not
(c) No, I won't
(d) No, I will
- ____ 10. I want to have this one, not ____ one.
- (a) this (b) that (c) these (d) which
- ____ 11. When you get in to the room, please ____ your hat.
- (a) take out (b) take up (c) take in (d) take off
- ____ 12. ____, isn't it?
- (a) These are your pens (b) This is your pen
(c) She has pen (d) She has two pens
- ____ 13. ____ is dancing.
- (a) Two of the girls (b) All of the girls
(c) Three of the girls (d) One of the girls
- ____ 14. Unless you give us some milk, we will take it ____.
- (a) myself (b) ourself (c) yourself (d) ourselves
- ____ 15. I always come to school ____ foot.
- (a) in (b) by (c) on (d) over
- ____ 16. The doctor works ____ nine hours everyday.
- (a) for (b) at (c) on (d) since

II. Choose the correct opposite from the following pairs of words and write the letter of your choice on the space provided.

- ____ 17. (a) good / active (b) sick / bad (c) heavy / light
(d) healthy / pure
- ____ 18. (a) happy / sad (b) kind / type (c) much / many
(d) idle / dull

- ____ 19. (a) bright / light (b) tall / longe (c) remember / forget (d) dangerous / troubling
- ____ 20. (a) brave / strong (b) old / new (c) clean / dark (d) busy / quick
- ____ 21. (a) dawn / dusk (b) small / short (c) anger / hunger (d) plan / decide
- ____ 22. (a) postman / fireman (b) baby / nurse (c) teapot / tearoom (d) sunset / sunrise

III. Choose the word which is spelt incorrectly and write the letter of your choice on the space provided.

- ____ 23. (a) confort (b) confuse (c) connect (d) compass
- ____ 24. (a) decrease (b) danger (c) encrease (d) dagger
- ____ 25. (a) historical (b) mechanical (c) intentional (d) expermental
- ____ 26. (a) excuse (b) millstone (c) imediately (d) birthday
- ____ 27. (a) criminal (b) musikal (c) critical (d) rational

IV. Read the following passage and answer the questions.

Ato Bekele has plenty of money. When his neighbours want money, they always borrow it from him and return in a years time. On holidays Ato Bekele also gives ten Birr to each of the six poor old women living in his village. Ato Bekele is therefore a kind person.

- ____ 28. Ato Bekele is ____.
- (a) rich (b) supporting (c) cooperative (d) all 'a', 'b' and 'c' are correct.
- ____ 29. When do the poor old women get the Birr from ato

Bekele?

(a) always (b) in summer (c) on holidays (d) in winter

____ 30. The word "it" (in the passage) refers to ____.

(a) Ato Bekele (b) The neighbours (c) the women
(d) the money

____ 31. The word "kind" means ____.

(a) cruel (b) generous (c) mean (d) selfish

____ 32. The word "plenty" means ____.

(a) a little (b) a few (c) limited (d) much

____ 33. The word "borrow" means ____.

(a) lend (b) take from (c) give to (d) share

____ 34. How many neighbours does Ato Bekele have?

(a) six (b) nine (c) seven (d) not known

____ 35. Ato Bekele is ____.

(a) liked by his neighbours (b) disliked by his
neighbours (c) disliked by the poor old women
(d) poor

V. Choose the Pair of Words which have the same sounds except one sound.

36. (a) cat/tale (b) yet/yes (c) rat/rain (d) wet/pen

37. (a) well/wed (b) fat/yesterday (c) window/wet
(d) chalk/boat

38. (a) telephone/afternoon (b) yellow/yes (c) ship/sweet
(d) rain/driver

39. (a) export/conduct (b) correct/connect
(c) decrease/danger (d) yet/wet

40. (a) contract/complete (b) record/radio (c) rain/pain
(d) desk/duck

APPENDIX-CTEACHER BACKGROUND CHARACTERISTICSA Questionnaire to Be Filled by Teachers of English for Fifth and Sixth Grade Students

The purpose of this questionnaire is to know about the factors which may influence the English achievement of students and to suggest solutions for improvement. What is required for the study is not your personal identity but only your opinion. Therefore, the objectivity of the opinions you provide is very important. Any information that you give will be kept confidential.

Thank you.

I. Instruction

- A. For the questions or statements followed by dashes (___) write your free response on the space provided.
- B. Indicate your opinion by putting an 'X' in the place of your choice for the statements written in boxes or rectangles.
- C. Encircle a letter (a,b,c,d, or e) of the opinion that you think is right for the items followed by alternative responses.

II. Identification

- D. Name of the school _____
- E. The grade level and section in which you teach (write only one) _____
- F. Indicate the number of students in the section you wrote under "E" above: Female___Male ___Total___

III. Information

1. Specify your sex Female _____ Male _____
2. Specify your age _____
3. For how many years (including this academic year) have
 you secured in the teaching profession? _____
4.
 - 4.1 How many times a week do you give assignments to your
 students? (a) only once
 (b) only twice
 (c) only three times
 (d) more than three times
 - 4.2 Not including the regular class time, how many hours per
 week do you spend to correct your students assignments?
 (a) from one two to hours
 (b) from three to four hours
 (c) from five to six hours
 (d) above six hours
 - 4.3 How many hours per week do you devote to lesson plan
 preparation? (a) from one to two hours
 (b) from three to four hours
 (c) above four hours
 - 4.4 Do you make contacts with parents in order to discuss
 about pupils' English ability? (a) No, I do not make
 contacts (b) Yes, I sometimes make contacts
 (c) Yes, I frequently make contacts
5. Please indicate the level of performance on an English
 achievement test that you expect from the students mention
 under "E" above:

Criteria	Level of Performance			
	Low	Average	High	V.High
5.1 From the perspective of the School's ability to create conducive atmosphere to learn the language				
5.2 From the perspective of parents' moral, material etc., support to pupils' learning				
5.3 From the perspective of learners' own interest in learning the language				
5.4 From the perspective of learners' ability to learn language				

6. Please indicate the extent of your agreement to each of the following statements. Place an "X" sign in the box of your choice under S (Strongly Agree), A (Agree), U (Undecided), D (Disagree) or S (Strongly Disagree).

Statement	Extent of Agreement				
	S	A	U	D	S
6.1 Teaching is enjoyable contact with students					
6.2 Teaching is not only a means of earning a living but also a way of developing one's knowledge					
6.3 Teaching is not boring and monotonous job					
6.4 Teacher's interest in his profession influence his performance in teaching					
6.5 A teacher should abandon his job if he offered more favourable income					

1 Negatively Scored

6.6² A teacher should give
up his profession
people look down upon

² Negatively Scored

APPENDIX-D(I)A CHECK LIST OF SCHOOL AND CLASSROOM RELATED VARIABLES(TO BE FILLED BY THE INVESTIGATOR)

Direction: Complete this check list for each school and for only those sections (classrooms) selected for the study.

General School-Related Information (specify).

- (A) Name of the school _____
- (B) Director's name _____
- (C) Total student enrolment (Semester II, 1984 E.C.) _____
- (D) Total number of teachers _____
- (E) Total number of classrooms _____
- (F) Total number of grade five students _____
- (G) Total number of grade six students _____
- (H) Total number of sections (classrooms) for grade five _____
- (I) Total number of sections (classrooms) for grade six _____
- (J) Total number of English teachers for grade five _____
- (K) Total number of English teachers for grade six _____
- (L) Student-Teacher ratio in the school _____

1. Specific School-Related Data

Indicate the condition of the following basic school facilities by encircling one of the alternatives which seems most appropriate to the realities of the particular school considered.

1.1 Staff-room: (0) not available

(1) available but is narrow and poorly
equipped

- (2) available and poorly equipped
- 1.2 Tea-room (0) not available
- (1) available with limited service
- (2) available with adequate service
- 1.3 Water-supply (0) not available
- (1) available with limited supply
- (2) available with adequate supply
- 1.4 Play-ground (0) not available
- (1) available with limited facilities
- (2) available with adequate facilities
- 1.5 Library (0) not available
- (1) available with a few collections
- (2) available with adequate collections
- 1.6 Latrines (0) not available
- (1) available but not adequate to the school
community
- (2) available and adequate
- 1.7 Duplicator (0) not available
- (1) available
- 1.8 Telephone (0) not available
- (1) available
- 1.9 Any other facility unique to the school (specify) _____

General Classroom-Related Information (specify)

- (a) Name of the school _____
- (b) Grade level _____
- (c) Section (Classroom) code _____
- (d) Total number of student in this section _____
- (e) Name of the English teacher for this section _____

Specific Classroom-Related Data

Indicate the condition of the following basic classroom facilities and instructional materials by encircling one of the given choices which seems most appropriate to the realities of the classroom coded under 'c' above.

2. Basic Classroom Facilities

- 2.1 Availability of desks (1) some students have no desks
(2) all students have desks
- 2.2 Availability of seats (1) some students have no seats
(2) all students have seats
- 2.3 Condition of windows (1) some do not function - are
broken
(2) all function properly
- 2.4 Condition of the door (1) broken, detached or deformed
(2) function properly
- 2.5 Condition of the floor (1) dusty, dirty or uncomfortable
(2) clean and comfortable
- 2.6 Condition of the roof (1) collapsed or partly collapsed
(2) well constructed
- 2.7 Condition of room- light (1) usually disturbs pupils'
sight
(2) sometimes disturbs pupils'
sight
(3) usually does not disturb
pupils' sight
- 2.8 Condition of room-temperature (1) usually hot or cold
(2) sometimes hot or cold
(3) usually average and

conducive

2.9 Classroom distance from disturbing situation

- (1) usually exposed to
disturbances
- (2) sometimes exposed to
disturbances
- (3) usually free from disturbances

3. Instructional Materials

3.1 Pictures for English teaching (0) not available

- (1) available with limited
number
- (2) available and adequate

3.2 Charts for English teaching (0) not available

- (1) available with limited
number
- (2) available and adequate

3.3 Graphs for English teaching (0) not available

- (1) available with limited
number
- (2) available and adequate

3.4 Language-games for english teaching (0) not available

- (1) available with
limited number
- (2) available and
adequate

3.5 Condition of the blackboard

- (1) small in size, scratched, dirty or too
shiny

- (2) good-sized, well painted, clean and smooth

3.6 English textbooks distribution

- (1) rare (if textbook-student ratio is one to four or more)
- (2) moderate (if textbook-student ratio is one to three)
- (3) adequate (if textbook-student ratio is one to three)
- (4) very adequate (if textbook-student ratio is one to one)

5. Student-Teacher ratio in the section (specify) _____

APPENDIX - D(II)SCHOOL-COMMUNITY RELATIONS AND DIRECTORS PERCEPTION OF LEADERSHIP BEHAVIOUR

A questionnaire to be filled by School Directors

The purpose of this questionnaire is to collect information on school-related factors which may have influence on pupils' performance on English achievement tests. Therefore, you are kindly requested to provide appropriate information. Any information that you provide will be kept confidential.

Thank you.

Name of School _____

Location (a) Kebele _____ (b) Higher _____

1. Direction: Please indicate the extent to which each statement characterizes your school and its community relationship. Write a number (0,1,2,3, or 4) on the space given after each statement. The numbers represent the following scales:

0 = never 1 = rarely occurs 2 = sometimes occurs

3 = frequently occurs 4 = very frequently occurs

1.1 The local community shows sign of caring for school property. _____

1.2 The local community is concerned with students' conduct.

1.3 The local community is concerned with students' health.

1.4 The local community is interested to know students' achievement. _____

1.5 The local community is concerned with teacher-director relations. _____

1.6 The local community is willing to provide suggestions and criticisms for the improvement of the school._____

1.7 The local community is willing to provide assistance (donations, labour, etc.)._____

1.8 The local community cooperates in school-decision making._____

1.9 The local community encourages the school to be innovative._____

2. Direction: The following statements describe ways in which school directors may behave. Indicate the degree of your agreement by writing a number (0,1,2,3, or 4) on the space given. The numbers represent the following scales.

0 = never 1 = seldom 2 = occasionally 3 = often
4 = always

2.1 A school director should:

(a) make his attitudes clear to the staff._____

(b) try new ideas with the staff._____

(c) rule with iron hand (be authoritative)._____

(d) criticize poor work._____

(e) speak in a manner not to be questioned._____

(f) assign staff members to particular tasks._____

(g) work without a plan._____

(h) maintain definite standards of performance._____

(i) emphasize the meeting of deadlines._____

(j) encourage the use of uniform procedures._____

(k) make sure that his role in the school is understood by all._____

(l) ask that teachers follow standard rules and regulations._____

- (m) let teachers know what is expected of them.____
- (n) see to it that teachers are working to their capacity.____
- (o) see to it that the work os teachers' is coordinated.____

2.2 A school director should:

- (a) do personal favours to teachers.____
- (b) do little things to make it pleasant to teachers.____
- (c) be easy to understand.____
- (d) find time to listen to teachers.____
- (e) keep to himself (avoid meeting teachers socially).__
- (f) look out for personal welfare of individual teachers.____
- (g) refuse to explain his actions to teachers.____
- (h) act without consulting teachers.____
- (i) be slow to accept new ideas.____
- (j) treat all teachers as his equals.____
- (k) be willing to make changes.____
- (l) be friendly and approachable to teachers.____
- (m) make teachers feel at ease when taking with him.____
- (n) put staff-made suggestions into practice.____
- (o) get teachers approval on important matters before going ahead.____

APPENDIX-E

HOME AND PUPIL RELATED CHARACTERISTICS

A Questionnaire to Be Filled by Fifth and Sixth Grade Pupils

The purpose of this questionnaire is to know about the factors that influence the English language academic performance of students and to suggest solutions for improvement. What is required for the data is not the student's personal identity but only his or her opinions. Therefore, the objectivity of the information you give is very important for the study. Any information that you provide will be kept confidential.

I. Instruction

- A. For the questions or statements that request your free response please write your answer on the space provided following each question or statement.
- B. For the items having alternatives encircle the letter (a,b,c,d,ore) of the option that you think is the right answer.
- C. For the statements written in boxes or rectangles indicate your opinion by placing an 'X' following the specific instructions stated.

II. Identification

- a. Name of School _____
- b. Grade Level _____ c. Section _____
- d. Student's Name _____
- e. Student's Roll Number _____

III. Information

- 1. Are you a boy or a girl? a. Boy _____ b. Girl _____

2. How old are you? (specify) _____
3. Have you participated in preschool (Church, Koran, or Kindergarten) education program?
- a. Yes _____
- b. No _____
4. Have you eve repeated in class starting from grade one until now? a. Yes, I have repeated _____ b. No, I have not repeated _____
5. What was your average English result at the end of the semester? (specify) _____
6. Indicate the extent of your agreement to each statement by putting an 'X' on one of the corresponding boxes under 'level of agreement.

Statement	Level of agreement		
	Agree	Undecided	Disagre
6.1 Weekends are preferable to school days			
6.2 I don't think homework is useful to improve one's knowledge			
6.3 Especially for us, Ethiopians, learning English is not useful for life and work			
6.4 English is more difficult to learn than other school subjects			
6.5 My friends believe that my ability to learn English is low			
6.6 My English teacher doesn't care whether or not I show progress in learning the language			
6.7 My English teacher doesn't like me			

7. For each statement listed from 7.1 to 7.7 please indicate the extent of the conditions available for your study by putting 'X' in one of in one of the boxes corresponding each

statement.

Condition for study	Extent of availability		
	Never	To some extent	Always
7.1 I eat my breakfast regularly			
7.2 I eat my lunch regularly			
7.3 I eat my dinner regularly			
7.4 I have adequate time to study my lessons			
7.5 I have adequate light to study my lessons			
7.6 I have a separate room to study my lessons			
7.7 (Not including the textbook) I have additional books which can help me learn English			

8. What is your father's job? (specify) _____

9. What is your mother's job? (specify) _____

10. To what grade level is your father educated? (specify) _____

11. To what grade level is your mother educated? (specify) _____

12. How many people (including yourself live in your family, specify)? _____

13. Which of the following educational materials do your parents have available to you whenever necessary? Please indicate your answer by placing an 'X' on the boxes either under "I am bought" or "I am not bought".

Kind of Educational Material	Bought or not bought	
	I am bought	I am not bought
13.1 Exercise book		
13.2 Pen		
13.3 Pencil		
13.4 Ruler		
13.5 Clothes		
13.6 Soap		

14. Please indicate by putting an 'X' on the box of your choice the level of assistance that your parents provide to you.

Kind of parental assistance	Level of assistance				
	Nothing	Very low	Average	High	Very high
14.1 Their day-to-day follow up to know what I have learned					
14.2 Their material and moral support to study my lesson strongly					
14.3 The kind of additional education they provide me at home					

APPENDIX-FCLASSROOM TEACHING BEHAVIOUR:OBSERVATION RATING SCALE

School_____ Grade and Section_____

Date_____

Teachers' Name_____ Period_____

Shift_____

Lesson Topic_____

Rater_____

Instruction: Please rate the teacher's observed classroom behaviour by encircling a number according to the following scales: 1 = Very poor 2 = Poor 3 = Satisfactory 4 = Good
5 = Very good

I. Lesson Planning

- He (She) specified objectives clearly and behaviourally === 1 2 3 4 5
- He (She) integrated contents with the objective of the lesson === 1 2 3 4 5
- He (She) devised appropriate methods which would help achieve the objectives === 1 2 3 4 5
- He (She) planned for materials and equipments required for the lesson === 1 2 3 4 5
- He (She) planned the lesson with concern for sequence and timing === 1 2 3 4 5

II. Clarity

- He (She) focused students' attention on what is to be learned === 1 2 3 4 5
- He (She) provided a smooth transition from already covered material to new material === 1 2 3 4 5
- He (She) used appropriate questions and

examples === 1 2 3 4 5

- He (She) avoided grammatical complexity, vague terms, etc. === 1 2 3 4 5
- He (She) summarized (or made student summarize) the main points of the lesson at the end === 1 2 3 4 5

III. Flexibility (Stimulus Variation)

- He (She) used gestures to convey extra-meaning === 1 2 3 4 5
- He (She) moved about the teaching space at various points during the teaching-learning time === 1 2 3 4 5
- He (She) avoided destructing behaviour (inappropriate movement, too loud voice, quite voice, etc.) == 1 2 3 4 5
- He (She) gave emphasis to important points by various verbal expressions === 1 2 3 4 5
- He (She) varied, teacher-pupil, pupil-pupil, and teacher-group interactions. === 1 2 3 4 5

IV. Feedback and Reinforcement

- He (She) gave immediate feedback to pupils on the correctness of their responses === 1 2 3 4 5
- He (She) clearly praised the good work of individual pupils === 1 2 3 4 5
- He (She) rewarded pupils who gave partially correct answers === 1 2 3 4 5
- He (She) encouraged pupils to discover their error(s) === 1 2 3 4 5
- He (She) used positive verbal expressions (good!, excellent!, well done!, etc.) to reinforce pupils' learning === 1 2 3 4 5

V. Classroom Management and Control

- He (She) communicated clear rules and expectations for pupils classroom behaviour === 1 2 3 4 5
- He (She) maintained attention to non-responding pupils === 1 2 3 4 5
- He (She) gave prompt attention when issues of misbehaviour arose === 1 2 3 4 5
- He (She) moved the class through the lesson at quick pace without allowing disorders to take place == 1 2 3 4 5
- He (She) maintained a smooth flow of classroom activities at points of transition from one activity to another. === 1 2 3 4 5

DECLARATION

I, the undersigned, hereby declare that this thesis is my original work, has not been presented for a degree to other University and all materials are dully acknowledged.

A handwritten signature in dark ink, appearing to read 'Abera Ayele', is written over a horizontal line.

Abera Ayele