

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**GENDER BIAS ANALYSIS OF PRIMARY SCHOOL  
TEXTBOOKS OF AMHARA REGION**

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A STUDY ON ABILITY GROUPING  
AND ITS EFFECTS ON SELECTED INSTRUCTIONAL  
ASPECTS IN SELECTED SENIOR SECONDARY  
SCHOOLS OF ADDIS ABABA

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A Study On Ability Grouping and  
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**ABSTRACT**

The purpose of this study has been to find out the effects of ability grouping on the instructional processes, that is, on the utilization of resources, application of the different methods and techniques of teaching, the academic achievement; the socials and emotional development of the students; and finally, its effects on the working conditions and work relationship of the teaching staff in selected senior secondary schools of Addis Ababa.

To this end, samples of students and members of the academic staff have been selected randomly and were made to fill in the questionnaires prepared for each of them. In addition to this, a randomly selected the Ethiopia Schools Leaving Certificate Examination (ESLCE) results of a matching heterogeneously taught students and a homogeneously treated groups; a randomly selected classroom observations and interviews with the regional education office authorities have been used as the sources of data.

The analysis of the data collected from the different sources showed that there are no significant differences in the utilization of the resources of the schools, in the application of the different methods and techniques of teaching. Similarly, the comparison of the academic achievements of the heterogeneously taught students of the

pre-grouping ability practice and those of the homogeneously grouped and taught students haven't shown significant differences which are in favour of the special grouping. Thus, showing that the expected purposes of the grouping practice in the region have not been attained.

Although there are no significant differences in the Academic achievements, the grouping practice has showed some positive and negative effects on the social and emotional development of both special and non-special group student. However, the negative effects seem to be more and stronger on the non-special group students.

Though there are the desire to excel, high intellectual curiosity, self-reliance, independence, sociability and truthfulness among the special class students, there are some negative characteristics that are manifested by them. These include, the artificially inflated self-esteem or superiority complex, boasting, and some others which have not been observed in the heterogeneously grouped students by the staff and the students themselves.

The negative effects of the practices seem to be higher and stronger on the non-special class students than on the special class students. It has stigmatized them. It made them feel inferior to their peers, lose interest in the school, develop low self-image, lack self-control, etc.

Finally, the findings showed that the ability grouping practice has not showed any significant effect on the teachers' working conditions and work relationships. This is so, because there have been no clearly stated guidelines as to how the practice has to be accomplished and the demands and competencies required from the teaching staff which consequently would have affected them. They teach almost as what they had been doing in a heterogeneously grouped classes. The teaching methods and techniques they use in the special and non-special classes are more or less the same. Therefore, the effects of the practice on the teaching staff are limited.

Eventhough the contribution of the ability grouping in the schools are very limited, its negative effects on the students are higher than its positive effects. To maximize the contribution of the practice in the instructional process and minimize the negative effects, it needs a clearly set guidelines on the different activities. The teachers need training. The separation of the school wholly for the special students seems logical. In addition to this, the number of sections and the large size of the students in each sections are some of the great obstacles to materialize the plan. So it needs great attention to get good results from the practice.

## CHAPTER ONE

### THE PROBLEM

#### 1.1 Introduction

In most of the modern instructional activities, there are interactions between the teacher, the students, and the materials to be taught or to be learned. The teacher alone or with the learner may decide the learning experiences and the practices to be accomplished. Of course, there are occasions when the student decides the what and how of learning and when to learn in case of independent studies. But in the formal classroom condition, the teacher as a guide in the instructional process determines the curricular experiences depending on the availability of resources, the nature of the experiences, the students' previous work performance, interests, level of maturity, the total environment, etc (Harris, 1960).

Of the many alternatives at hand, the teacher's choice of the how of the organization of the student is one. It may be carried out on the basis of the students' achievement, sex, reading skill, creative ability, interest, age group, etc (Yates, 1966). It also may be done depending on the tasks that have to be accomplished at one particular period or for long. Ability grouping in the classrooms or at school levels have been done either "to reduce the range of

individual differences in performances or accomplishing definite tasks" (Gamoran, 1992:11). However, most of the rationales are instructional.

Although the intra classroom grouping of students on the basis of ability or achievements have been common, task oriented and relatively temporary, schools' administrative bodies have been grouping students on the basis of religion, language, races, socio-economic status, sex, age, (Yates, 1966:20) mainly to maintain socio-economic status-quo.

However, the grouping of students by ability or achievements have been to meet individual and social needs. Contrary to this, other criteria have been used to group students so as to maintain the existing social, economic and political status-quo. For instance, the secondary residence grammar school in Great Britain and the United States of America have been used to produce the social elites of these countries" (Cookson and Persell, 1985:284).

Despite all distortions and abuses of the grouping practices, ability groupings by a teacher have been to meet educative purposes which could be evaluated by the teacher him/her self and the society. Regarding ability grouping and its purposes, Yates (1966:108) wrote that:

the practical educative purposes of grouping is to improve the fit between students and the teacher; ... activities, other students or roles. The improvements are shown respectively in greater attainment of the teacher's purposes as judged by the teacher himself, in participation of the students in planning and carrying out activities, in interaction among the students which stimulate their ideas and increase their self-confidence and in the formation of habits and attitudes consistent with the realistic appraisal of their capabilities vis-a-vis the needs and opportunities of society.

Hence, the main purpose of ability grouping has been to reduce the range of individual differences in performance levels and meet individual needs. It has been used as a device that "facilitates learning and the modification of the curriculum to the learning capacity of the learners" (Rogers and Kiptson, 1992:58). Similar researches conducted by Lawson (1957:260) had shown the reasons for the movement to group students homogeneously. He wrote that, "the desire to adapt curriculum requirements to students capacities, special interests and the rate of learning" were the main reasons for the movement. They all have been carried out to meet individual needs and avoid the obstacles teachers face in teaching. Of the long and extensive reviews made by Slavin (1986:314), the following points describe it clearly.

The various practices of grouping students in one class or another as "college preparatory" and "general track", groups for individual subject or for all subjects are to reduce the range of student performance levels teachers must deal with, and help them adapt their instruction to the needs of well defined groups, ... to provide enriched educational experiences for the gifted pupils and facilitating the use of special personnel and resources, to enable remedial or compensatory help to be given to those who require it.

Thus, ability grouping based on specific attainment of the students has been used to meet the learners' need and reduce the teachers' problems of teaching students with heterogeneous ability. It has been used to differentiate instruction and attain specific educational goals.

In the mean time, a large number of researches have been conducted on the various aspects of the grouping practice. Less researches have been carried out on the effects of ability grouping on "the social and emotional spheres of the students and on teachers' working conditions and work relationships than its effects on the academic achievements" (Gamoran, 1992:13). Besides this, the findings in all aspects of the investigations, especially on the academic achievements, have been "Controversial and inconclusive" (Goldberg, Passow and Justman, 1966:1). This has been shown by Slavin's (1988:13) conclusion where he stated that "ability grouping by itself has no effects on either academic (productivity) or inequality (social and emotional)."

Although ability grouping has been as it is mentioned above in other countries, ability grouping has not been widely used in Ethiopia at all levels of the education system. Although some school directors have tried to do what they were permitted to do at their schools, ability grouping on the basis of eighth grade national examination results has not been used until recent years. However, recently the Addis Ababa Schools Office took the initiative and grouped students as special and non-special class students upon their entry at grade nine in six selected secondary schools. The students have been grouped as special class students when their eighth grade national examination results are 96 percentile and above and the rest below 96 percentile and above the passing mark of the year as non-special. The general practice of the grouping processes and the need to know the effects of ability grouping on the students and the academic Staff and make others be aware of the program, the researcher took the issue as the area of study for his thesis.

### **1.2 Background Information About the Problem.**

Although the homogeneous grouping of students have been practiced for long on the basis of geographical location, age, sex, religious denominations, manpower requirements, socio-economic status and students' abilities or achievements in other countries, the practice in the Ethiopian schools has been different in most cases. Students have been grouped

heterogeneously and the classroom treatments were more or less common for all students in the classrooms.

However, there have been schools for girls and for boys since the 1940s. According to Pankhurst, (1958:150;171) there were girls schools (Menen and Yeshiembet) in Addis Ababa and Hararge" respectively. Schools, such as General Wingate and Medahnealem had been used to admit students of high achievement and sons of the regional chiefs (Balabats) respectively. Even though the schools had some social and political missions it is clear that there had been segregations among the student population. Similarly, there had been separate, mission schools for boys and girls in Eritrea while it had been under Italian rule. The students were engaged in handicraft, needlework and agricultural trainings (Adane, 1991:20; Arens, 1978:218, and Pankhurst, 1976:311).

In addition to this, the laboratory school (Bedä mariam) under the Haile Selassie I University (now Addis Ababa University) had been a feeder school for the University whose candidates were high achievers or the first few ranked students and those who passed the school's entrance examinations (Haile Gabriel Dagne, 1989).

Since the late 1950's secondary school students have been grouped on the basis of the students' interests and manpower requirements. Students have been grouped as vocational (agriculture, industrial arts, home economics and business education) and academic streams in the comprehensive secondary schools. At present, the technical secondary schools also have different streams (agriculture, electrical, mechanical, construction etc) where students are recruited on the basis of their senior secondary school (9-10th grade) results for the regular programs (Ministry of Education, 1985)

In addition to this, there are some non-governmental secondary schools established for the two sexes; for male-St. Joseph, and for females-Nazareth. The Awalya Secondary school accepts the muslim students and there are some special schools for the handicapped students in Addis Ababa (Ministry of Education, 1985).

Despite considerable experiences in other countries, ability grouping of students in the elementary and the secondary schools of Ethiopia has been non-existent. But, in recent years, since 1986/87 academic calendar, the Addis Ababa Schools office took the initiative and began grouping students in six of its secondary schools. The schools were selected in the different zones of the city. They admit all students whose eighth grade national examination results are

96 percentile and above as their special class students and those below 96 percentile and with a passing mark, as non-special class students upon their registration for grade nine from the assigned feeder junior secondary schools.

The six secondary schools are composed of academic and comprehensive secondary schools. Abiot kirs, Addis Ketema, Yekatit 12 and Medahnaalem are comprehensive while Bole and Tikur Anbesa are academic secondary schools. As some available documents and the region's education office authorities; Ato Bonsa Baysa and Ato Tefera Bitemai\* told the researcher, "the initiation of grouping students as special and non-special came from the region's party committee; department of the ideological affairs". According to the informants, the purpose of the grouping has been to help those high achievers, (who scored 96 percentile and above get extra help from the schools' community and get high points in the Ethiopian Schools Leaving Certificate Examination (ESLCE) and join to anyone of the higher education institutions. It also aimed at creating competitions between the secondary schools and among the students. They also considered it as a condition that creates a competitive atmosphere in the elementary and junior secondary schools, especially among the students of the junior secondary schools.

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 \* Deputy for Education Affairs & Inspection Dept.  
 Coordinator Respectively

To materialize the decisions, grouping students as special class and non-special class began in 1986/87 academic year. It had not any centrally or regionally prepared guidelines. Therefore, the schools had no clearly set guide to differentiate the instructional process to the two groups. They began grouping the students and started teaching what each secondary school felt appropriate. But after a year and half, a committee composed of senior secondary schools' guidance and counseling officers and inspectors made a survey on the beginning and the actual practice in each school. Soon after the survey the committee submitted a report which focused mainly on the immediate need for the preparation of clear guidelines common for the six secondary schools which will enable the schools carry out the programme as it is intended. Their report included. The classroom achievements of the students and what other secondary schools of the region are tacking about the practice (Belay Zeleke and associates, 1988:89). But the region's education office had not materialized the recommendations of the committee for unknown reason. However, the schools have been doing without any guideline until recently.

Just after four years, the first batch of the homogeneously grouped students appeared for the ESLCE in 1989/90 and the others in the subsequent years. In the mean time, the number of the night school students increased thinking that these schools as special institutions. Some

parents from the different corners of the city attempted to get places in these schools for their children, even if the scores of their children are below 96 percentile. The question of transfer of teachers to these schools, and the complaints from the other secondary schools of the region also increased.

With all such varied views and opinions, the effects of the grouping practice on the academic, social and emotional developments of the students and the working condition and work relationships of the teaching staff have not been studied. Thus, making a study on the practice and its various effects has been timely and appropriate. Therefore, a research on advantages and disadvantages of the practice have not been identified. The good experiences can be used by others and the drawbacks may be avoided by the schools.

### **1.3 The Statement of the Problem.**

The main purpose of the study is to make a survey on the ability grouping practice and its effects on the instructional processes, the learners' academic performance, the social and emotional development of the students. It also aims at finding out the effects of the practice on the working conditions and work relationships of the academic staff in the selected six senior secondary schools of Addis Ababa.

#### 1.4 Basic Questions of the Study

To make the study, the following basic questions are raised.

1. What are the effects of ability grouping on the teaching-learning process; that is, on the use of resources, different teaching methods and techniques among the different ability groups in the six secondary schools? Does it facilitate cooperation among the members of the different groups?
2. Does the grouping help the modification of the Curriculum according to the ability of the students?
3. What is the effect of the grouping practice on the Students' academic performance in homogeneously grouped students? Is there any significant difference between those heterogeneously taught students of the school before the grouping practice began and those homogeneously grouped and taught students of these schools as measured by the ESLCE?

4. What are the observed social and emotional effects of the grouping practice on the students of the schools?. Are there any unusual social and emotional characteristics that are not typical of senior secondary school students who are not grouped according their pervious achievement?
5. What sorts of working conditions or work relationships does homogeneous ability grouping create among the academic staff?

#### **1.5 Significance of the Study.**

Although the grouping of students for instruction in different forms has been a common practice for long, ability grouping is a new practice in Addis Ababa secondary schools. The few researches conducted in the area in the past few years also have limited themselves to the few aspects of the practice; the general conditions of the students' academic performance. Thus, this specific, study topic of the practice being wider and more intensive would help.

1. the academic staff and the region's education officials identify the effects of the practice on the instructional process, the academic, social and emotional development of the students and its effects on the teachers' working conditions and work relationships.

2. acquaint other educators, teachers, parents and other individuals and officials with the information, how it began and the level of development it has reached.
3. the schools themselves to know what is going on in the schools and make the necessary structuring and restructuring of the grouping practice by avoiding their weaknesses. Its information is also important for others who have the intention to start ability grouping. The findings of the research would help other researchers as a source of information for further research in the area.

#### **1.6 Delimitation /Scope/ of the Study**

The study is limited to making a survey on ability grouping and its effects on the instructional processes, the academic, social and emotional developments of the students and on the working conditions and work relationships of the academic staff in the six secondary schools of Addis Ababa.

The effects of the grouping practice on the academic performance of the students is seen from two angles. The first is seen by comparing the differences between the ESLCE results of the students; that is, the ESLCE results of the students who appeared for the ESLCE just before the first batch of the homogeneous ability grouped and taught students appeared for the ESLCE, that is, the 1987/88 and 1988/89 results. These students had been treated heterogeneously and

sat for the examinations. However, there had been students of high ability, who would have been grouped as special students had they been in the recent times of the mentioned schools. Thus, the results of the high ability students of these three schools and the low ability students who would have been non-special class students had they been in the later years were compared with the ESLCE results of the first two batches of the homogeneously grouped and taught students (1989/90-1990/91).

This is done by taking the schools' conditions and the whole characteristics of the ESLCE are similar for all students. Therefore, attempts were made to find out whether there have been improvements in the academic achievements of the Students in the ESLCE or not. No other academic achievements have been compared for the variations. Because variations in the schools and other variables were uncontrollable. In addition to this, the students and the staff who have been in the schools have been asked questions related to the improvements of the academic performance of the students and the conditions created that may help teachers improve their instruction. Thus, the second aspect of the effect of the practice on the academic performance is seen in light of the above mentioned side of the programme.

Furthermore, the study is also limited to the general effects of the practice on the social and emotional development of the learners and on the working conditions and the work relationships of the academic staff. To this end, attempts have been done to find out the effects as a whole. Therefore, no attempts have been done to make a separate presentation and analysis of data from the special and the non-special groups. The data have been taken as a whole and analysed wholistically. No attempts are made to make a comparative analysis on the effects of the practice on the special and non-special students and on teachers of the special and non-special class students separately. Similarly, the study is limited in time, that is, it covers the time from the beginning of the practice (1986/87) to 1991/92 academic calendar.

### **1.7 Limitations of the Study**

In carrying out the research, absence of the ESLCE records of students in some schools and the different problems faced to get the data from the ESLCE office are the outstanding ones. Some teachers were unwilling to fill in the questionnaires despite repeated approaches by a number of researchers and boredom created by it. In addition to this, shortage of materials and financial support, and absence of sufficient sample of students: high achievers for the years 1987/88 and 1988/89 for the feeder junior secondary schools

to the three sample schools were fewer than the latter years, and shortage of time where some the problems encountered by the researcher.

### 1.8 Definition of Important Terms and Phrases used in the Study.

There are some technical terms and phrases that appear more frequently in the paper than others which need to be defined operationally. These include:

1. Ability grouping - a device used for bringing students together on criteria of likeness or homogeneity in ability (Harris, 1960:588). The term is used in this paper, to mean or represent grouping students of the senior secondary school according to the eighth grade national examination results as special and non-special. For the grouping of the students is based on the students' academic achievement, and not on their ability in the strict sense of ability, the terms and phrases, such as achievement grouping, homogenous ability grouping, special classes, on one side and non-special or regular, low ability groups, and the low ability tracks on the other are used alternatively to mean the special and the non-special class students respectively. This is done because the different schools and the education officials use the different terms and phrases

to describe the students in the special and the non-special classes. Thus, homogenous ability grouping, high achievers, high ability groups or tracks, and special students are used interchangeably to mean the special class students. Similarly, regular, low ability groups or tracks, are used alternatively to mean the non-special class students. In the same manner, achievement grouping is used more frequently than ability grouping for the students are grouped based on previous achievement or attainment rather than on standardized ability tests as measured in the developed countries.

2. Modification of the curriculum - an attempt made by teachers or the school to adjust the curriculum and the methods of instruction. In the mean time, terms such as acceleration is used to mean increasing the pace of the learners by covering a large part of the subject matter in a shorter time and the term, enrichment to mean adding some important concepts, principles, laws theories, etc to the subject matter so as to satisfy the needs of the learners. Similarly, adaptation of methods of teaching mean to adjust method(s) of teaching and techniques to the pace of the students; that is, to differentiate one's instruction according to the individual differences and meet individual needs.

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3. Senior Secondary School - The grades from 9-12 in the Ethiopian School System.

### **1.9 Organization of the Study**

The thesis is composed of five chapters that deal with the different aspects of the study. The first chapter presents the background information and statement of the problem, basic questions, significance, delimitations, limitations of the study, and the operational definition of the terms and phrases as used in the study.

The second chapter reviews the available and accessible documents and literature in the area. It attempted to present the purposes and history of grouping in general and about ability grouping in particular. It also presents about the basis of the grouping, the effects of the practice on the academic and socio-psychological condition of the students, on teachers' working conditions and work relationships. Even though, there is as scarcity of materials on African and Ethiopian experiences, those which are accessible to the researcher are reviewed.

The third chapter attempts to describe about the methods and procedures followed in the study. The sources, methods, and instruments of data gathering and methods of analysis are presented briefly. The fourth chapter is the part in which the data gathered are presented and analysed. The chapter presents the data in sections. The Sections are mainly composed of the effects of ability grouping on the instructional process, the academic performance, the social and emotional developments of the students and finally, the effects of the practice on the academic staff. The last chapter presents the summary, conclusions and recommendation of the study. Finally, the bibliography and appendices are attached.

## CHAPTER TWO

### REVIEW OF THE RELATED LITERATURE

Every formal classroom instruction involves the learner, the teacher and the subject matter with all their own characteristics. It needs a planned, organized and guided manipulation for maximum results of educative nature. The knowledge and skills of the subjects can be acquired and developed by the learners if the teachers do their duties as much as they can do in their part. Normally, schools as social institutions are given the responsibility of providing the opportunities for young people to acquire the understanding and skills; to develop attitudes and appreciations which will ensure intelligent and satisfying participation in school, home and community life (Ellisor, 1960).

In the same way, the increasing knowledge of child growth and development, the constantly changing conditions and the frequent changes and advancements in the instructional methods and techniques have been the causes for the decision of providing guidance in the learning opportunities of the learners. Therefore, the school environment, including the physical, intellectual, emotional and social aspects play a considerable role in determining the nature and quality of learning opportunities provided for young people. Besides these, the selection and organization of students for instruction have been "the most urgent and most controversial questions of education" (Vernon, 1959:91).

Similarly, the question of the promotion of well-integrated person whose intellectual abilities and social insights (Cognition), the learning of practical active skills (Psychomotor) and the development of emotions, attitudes and values (affective learning) have been discussed. They begin at different stages of the child's growth and development and develop at different rates. Thus, showing differences over time (Goetz, 1986).

In general, every instructional design requires a thorough knowledge of the students, the subject to be taught and the availability of resources. Of all the things, a clear idea about the capabilities, achievements, strength and weaknesses, background and interests of the learners; and the short term and long term objectives one hopes to achieve in the lesson or series of lessons are the most required curricular strategies. Because of these, a large number of researches have been conducted on the learners' abilities interests, attitudes, and on the different forms of school organizations and classroom groupings. Their effects have been under investigations for decades, though none of them have definite and clear cut conclusions.

Some of the research findings showed that the effects of homogeneous ability grouping on the academic achievement of students are positive and better than the heterogeneously grouped and taught Students. Other showed the opposite.

Some with an eclectic approach stress more on modifications of the curriculum, the methods of teaching, the use of resources, etc than on mere grouping. The findings on the social and emotional aspects of the child's development and on teachers' working conditions and work relationships are also inconsistent and inconclusive. But the purpose of grouping has been mainly to raise the academic achievement of the learner since its inception.

### 2.1 The Purposes and the History of Ability Grouping of Students for Instruction.

The placement of Students into groups for instructional purposes has been a long standing educational practice since the ancient time-the Greek and the Roman period. The students had been grouped on the basis of sex, age, physical strength and the socio-economic status of the parents. Though, they were practised in an undifferentiated manner, the purposes were to reduce the range of individual differences and adjust what they ought to learn and sometimes to maintain the existing socio-economic status-quo. However, the grouping of students on the basis of specific criteria, such as ability and achievement became common since the second half of the 19th century. These have been done mainly to reduce individual differences in the academic achievement.

### 2.1.1 The Purpose of Ability Grouping

The purpose of grouping students in a school or in a classroom condition is mainly for "reducing individual differences in their level of academic performance, to provide enriched educational experience and to facilitate the use of special or personnel resources" (Yates, 1966:54). It is also considered as a device that help teachers "provide appropriate instruction and assignment according to the pace of the learners and that match the needs of the Students" (Bellion, Bellion and Blank, 1991:352). It also provides each student "the schooling that will help develop his potential" (Wightman, 1977:51).

Similarly, ability grouping reduces the burden of teaching that comes from heterogeneity. It creates the "fits between the teacher and the students, the students and the activities, and the student themselves" (Yates, 1966:97-100). According to Slavin (1986:315;).

the primary purpose of homogeneous ability grouping is to reduce the range of students performance levels teachers must deal with, so they can adapt instruction to the needs of a well-defined group.

Thus, ability grouping is taken as a mechanism to reduce the range of individual differences in instruction and meet the needs of every individual by a differentiated approach.

It is "bringing students who will be able to work together and progress together under conditions permitting the fullest possible development of the individuals involved (Turney 1931:22).

The practice is also considered as it helps to increase students' participation, the restoration of confidence of the slow learners, make competition possible among members of the groups, the modification of the curriculum and the adaptation of the teaching methods. Regarding this, Rinehart (1970:50-51) reported that "ability grouping allows students to advance at their own rate with students of equal or at least more nearly equal ability.... be challenged when grouped with the intellectual peers".

According to Hassen (1964); Havighurst, Stivers and Dehaan (1955); Garry and Kingsley (1970) and Johnson (1970), the purpose of ability grouping is to differentiate the instruction according to the learners' pace, to enrich the experiences, to make them compet with their peers. It also facilitates the provision of more appropriate tasks and the use of time wisely (Goldberg, Passow and Justman (1966). Others use it to maintain status quo (Yates, 1966).

### 2.1.2 The History of Ability Grouping

Historically, grouping students for instruction began with the advent of formal education which subsequently demanded discussions, carrying out projects, drilling and memorizing, conducting inquiries, testing ideas, etc. Because each of the activities demanded a consistent follow-up and help for each individual. The unproductiveness of the one method to solve the learning problems of students, the shorter time the teacher has to spend with the individual student than with the whole group, the inconvenience of the method for all subjects, forced teachers or educators to search for a mechanism to solve the problems. In the search for the solution of the problem, ability based grouping became one of the devices to solve it (Goldberg, Passow, and Justman, 1966; Johnson, 1970) and Franseth, 1963).

According to Goldberg, Passow and Justman (1966:3); Wilson and Schmits (1978:13), "ability grouping began in the second half of the 19th Century(1867) in St. Louis School. The students had been selected on the basis of achievement as determined by teachers". Then, other schools began the practice. It is reported that the Elizabeth and New Jersey's the Cambridge, the Massachusetts plan followed until 1891. According to the later plan, "students were divided into groups, and the brightest were allowed to complete grades four through nine in four years, while the slowest were

permitted to take seven or eight years" (Goldberg, Passaw and Justman, 1966:3).

The other form of grouping, "streaming" began in the early 20th Century (1920) in detroit schools, with the XYZ plan, X marking the group of most able, and Z that of the least" (Davies and Caves, 1977:8-9). In addition to this, grouping had been greatly encouraged by the advent of the testing procedure which was thought to determine intelligent Quotient (IQ) and ability with considerable reliability (Vernon, 1958; Anderson 1960; and Davies and Caves, 1977).

In general, the assumptions that "children could progress with at their own rate and teacher's burden would be very much lightened" (Vernon, 1958:9) encouraged the expansion of the Practice. Similarly, the assumption which stressed on the adequacy and reliability of the measurement of the innate (intelligence) potential behaviour of the child; educability and effects of reducing the differences on learning and the development of desirable attitude and healthy self-concept (Franseth, 1963) can be taken as major factors for the beginning and development of the practice. In addition to these, "the increase of the detainees and their inability to do better than the pervious years of that same class lessons forced educators to group students according to their abilities" (Lawson, 1957:492).

In Ethiopia, though there are no well documented sources of information, there had been secondary schools such as General Wingate and Addis Ababa Technical School, (Yezaritu Ethiopia, 1993), which were recruiting their students on the basis of the achievements since the late 1940s. The Addis Ababa University's laboratory school (Bedä Mariam) was a preparatory school for the university entrance (Pankurst, 1958) as a candidate of secondary school teacher training program.

## **2.2 Bases of the Grouping and Its Forms.**

Homogeneous groupings have been done on the basis of "geographical location, sex, age, religious denomination race, language, socio-economic status, special needs, manpower requirement, ability and attainments" (Yates, 1966:20). Tests of various nature have been used to group students on their abilities and achievements. In addition to this, "teachers' and principals' approval or assessments, parents' consent, guidance and counseling officers' comments, students' interests" (Gornog 1957:13) have served as basis for ability grouping. The learners' ability measured by a standard of measurement of intelligence, special attitudes, basic social desires, physical and emotional maturity, educational age in various learning areas, health and nervous stability, personal and family history and attitudes, interpersonal adjustments, etc. (Thompson, 1974; Lawson, 1957), also have been employed.

In a classroom situation (Intra-class grouping) the classification of Students into separate ability categories and instructional units is typically done on "the basis of reading ability, aptitude, intelligence, readiness, ... which restrict the range of differences within the unit" (Willson and Sehmits, 1978:13).

Though there are no clearly set criteria for the grouping of students into the secondary grades in most African countries, there are secondary schools which are prestigious like those of the colonizers' secondary school. For instance the Ghanaian, the Nigerian and Kenyan Secondary schools are typical replica of the secondary schools of Great Britain. Students from these school have been sitting for the overseas and regional examinations. According to Ezewu(1983:25):

prestigious families in Ghana send their children to a highly placed secondary schools that provide the best routes to university education, thus guaranting access to higher education and consequently access to a prestigious occupation and high income for their pupils. ... the entrance to these school are very competitive.

Similarly, in Ethiopia, Students in some Senior Secondary School have been grouped as Students of the academic sections and that of the vocational streams based on their eighth grade national examination results. The case of the General Wingate, Bedä Mariam and the Addis Ababa Technical Schools'

recruitments also witness that the basis for the grouping of the students were the students' previous scholastic achievements.

### **2.3 Ability Grouping and the Instructional Process.**

The grouping of students either in an interschool or in an intra-classroom situation or in curricular or ability or achievement forms is almost to improve the instructional process. They all reduce the range of individual differences and facilitate students participation, the guiding role of the teacher and the proper accomplishment of the instructional tasks. In such process of instruction, it is assumed that students acquire knowledge and skills, develop habits, convictions, attitudes, norms, values and characters. Thus, the organization of students in any pattern affects the level of students' academic performance, the social and emotional developments. In the same manner, the pattern also affects teachers' working conditions and work relationships among themselves and with the students, which in the final count affects the whole of the instruction.

### 2.3.1 The Grouping of Students and the Instructions Activities.

The pattern of the organization of students affects the activities of both the teacher and the students which consequently affect the attainment of the instructional objectives. That is why Esposito (1976:164) stressed on the patterns of the organization and wrote that, "the patterns of organization facilitate the development and maintenance of activities on the part of teachers and students which are compatible with the achievement of specified educational objectives". Besides this, the selection and the organizational patterns of students have close interrelationship with the different methods of teaching. According to Yates (1966:133-134);

grouping students and methods of instruction are closely related. One form of grouping facilitates a particular methods of teaching; another permits or perhaps demands a different approach. If homogeneous ability grouping is to be justified, it must be on the grounds that it allows teachers to deal appropriately with children who have different educational needs and capabilities. It reduces the confrontation with the same curriculum and teaching them by identical methods.

Thus, the different forms of the grouping of students must be seen in terms of the method(s) to be used and the instructional value each of them render to the learner and

the teacher. Some of the forms enhance cooperation among students while others deprive some of them. According to Slavin (1986:750-751), "ability grouping (Homogeneous) deprives the slow learners the possibility to learn from their peers who are superior in their academic performance". Hence, it is possible to conclude that the slow learners are the losers in homogenous ability grouping. Because cooperation within the group doesn't help much.

Similarly, the school subjects and the pattern of organization are interrelated. Some are taught better when the students are heterogeneously grouped than when they are homogeneously grouped. Others demand the other form of the grouping. In this respect "humanities are commonly viewed as providing excellent opportunities for mixed ability work, while modern languages and mathematics are considered to present problems (Reid and associates, 1981:7). Abadzi (1985:81) also reported that

ability grouping (homogeneous) treatment consists of separate instruction in reading, mathematics, science, language,... which are not available to the regular students, along with better teachers and optional materials to supplement the curriculum.

This indicates that ability grouping is taken as a means to achieve certain objectives which cannot be attained when the students are heterogeneous in their academic performance.

unless and otherwise, there are some specific tasks to be accomplished, there is no need of grouping students on the basis of their abilities. This is described by Johnson (1970:171) as follows:

Ability grouping is a means for separating students in order to make basic changes in teaching methods and course content, assuming that the differentiation of methods and course content would result in higher achievement by all ability levels.

In general, ability grouping, as one of the forms of the grouping practices is carried out to make modifications in the curriculum, methods of teaching and the use of instructional materials. If it is not to do these, it is seen as a simple and futile administrative activity. That is why, Mehdi and Passow (1976:56) expressed it that "... it is futile to make merely the administrative step of grouping, unless constant efforts are made to improve and differentiate the content and teaching techniques in each course of study for different ability levels".

Thus, the enrichments of content of instruction by using advanced materials, supplementary problems, instructors' lectures, discussions, demonstrations, explanations, etc (Havighurst, Stivers and Dehaan, 1955:35) are the keys for better instructional achievements. The enrichment of content and adaptation of methods of teaching are possible if students are grouped homogeneously. Practically, "enrichment

is so difficult to attain in the regular classroom. It can be had only at the expense of the majority" (Garry and Kingsley, 1970:273).

Therefore, ability grouping is used as a means to reduce the range of the individual differences and facilitate the teaching learning processes. It helps students to be active participant in their groups and cooperate among themselves. It helps the modification of the curriculum and the different methods of teaching to the pace of the learners. The latter activities bring about changes in the learners' general academic performance and subsequently the academic achievement of each student.

### 2.3.2 Ability Grouping and Students' Academic Performance.

Research findings on the effects ability grouping (homogenous) on the academic performances in general and on the academic achievement, as determined by standardized tests, in particular are inconsistent and inconclusive. (Goldberg, Passaw and Justman, 1966). Proponents do argue that ability grouping by itself facilitates learning and subsequently the academic achievements of students. On the other side, opponents state that the improvements in the academic achievement of students are not due to the grouping practice as such, but as a result of the modifications of the curriculum, method of teaching and the use of instructional

materials. Regarding this, Esposito's (1973:171) review of some earlier works shows us that

homogeneous ability grouping shows no consistent positive value for helping students generally or particular groups of students to achieve more scholastically or to experience more effective learning conditions. Among the studies showing significant effect, the slight gains favouring high ability students is more than offset by evidence of unfavorable effects on the learning of students of average and below average ability, particularly the latter.

Thus, the mere grouping of students into a similar group seems that it doesn't favour any one of the groups. It rather has negative effects on those average and below average students. Most researchers have ascertained that the changes or improvements in the academic achievements of students are attached to other factors, such as the range of objectives; the basis of grouping; duration; inadequacy of selection basis and number of students involved; number of groups; size of classes; specification of curricula and teaching methods; instruments and techniques used in assessing changes in students, the development and training of teachers of various groups and means of matching experimental and control group (Turney, 1931; Koontz, 1961; Davies and Caves, 1977; Franseth, 1963, and Cawelti, 1963).

Similar findings have been recorded in the U.S.A in the nation-wide survey made in 1968 by the National Education Association (NEA) According to Esposito (1973:167);

In cases where heterogenous and homogenous ability grouping is related to improved scholastic performance, the curriculum is subject to substantial modifications of teaching methods, and materials, and other variables which are intrinsic to the teaching learning process, and which therefore, may well be causative factors related to academic development wholly apart from grouping per se.

Thus, ability grouping increases the academic achievement of students if there are modifications in the curriculum and methods of teaching. This had been proved by the experiment conducted by Schrank in 1968 in teaching mathematics. According to Schrank (1968:128):

for a standard curriculum, the achievement of randomly grouped students (heterogeneous) in mathematics is greater than that of ability grouped students-while on the other hand, for curriculum differentiation by acceleration, ability grouping produces greater achievement than random grouping, ... which finally lead to the conclusion that it is not the grouping at all that produces the various effects but rather what is done for the students once the groups have been established.

Hence, there is no improvement in the academic achievements by mere grouping of students, but by the activities that follow. That is why Olson (1966:20) expressed it clearly that, "no one plan can be considered superior for inducing growth in achievement. The major explanations for differences in achievements appear to be in the rate of children's growth and the natures that supports it".

In general, academic achievements of students are improved when there is differentiation in the teaching methods, materials, modifications in the educational objectives, curriculum reorganization, etc. (Wilson and Schmiths, 1978; Ketcham, 1965; Bedford, 1957; Harris, 1960; Johnson, 1970; Goldberg, passow, and Justman, 1966, and Slavin, 1986). Unlike the effects of the grouping practice on the academic achievement, the mere classification of students has some negative effects on the social and emotional development of the students.

#### 2.4 Ability Grouping and Its Effects on the Social and Emotional Development of Students.

The social development of mankind is the learning of the particular ways of one's society. It expands progressively; starting from the homes to the world's society. It includes the development of friendship, language competition, leadership, games, aggression, group behaviour, moral judgement and group prejudices (Harris, 1960). It takes place through socialization and the expansion of the individual's social horizon. These could be accomplished through imitation, interaction in a small group-peers and classroom group members, social (large) group-family, religion, class, nationality, race and inter-group attitude.

According to some researchers (Havighurst, 1953; Esposito, 1976), the process of socialization could be by the interaction of the individual in the environment-in the direct and the indirect sources. Schools are one of the direct sources which help every child to build the social qualities of the society and to develop and make every required effort to raise achievement, autonomy-independence, friendship, sex roles, marriage and family, earning a living, citizenship and moral values. It is believed by most educators that the failure or success in most of these areas is related to failure and success in other areas; and therefore, education can not ignore the areas which are not its central concerns.

Until now the effects of homomogeneous ability grouping on the social and emotional development of students are inconsistent and inconclusive. However, the negative effects seem to be stronger than the positive ones. In this regard, the extensive review made by Esposito (1976:168) reveals that:

It is insufficient to support the widely held opinion or contention that the grouping of children homogeneously according to ability contributes more to the development of desirable attitudes and positive self - Concepts, especially among children classified as low or of low ability. It tends to build or more properly inflate the self-esteem of children assigned to relatively high ability groups and to reduce the self-esteem of children assigned to average and low ability groups.

As it is indicated in the above paragraph, the assumption that grouping students according to ability contributes to the development of desirable attitudes and positive results in self-concept is not supported by sufficient findings. It rather affects both the high and the low ability students, by inflating the self-esteem of the high ability students and by reducing the self-esteem of the average and low ability groups. Thus, the grouping of students according to ability affects the morale of both groups. However, the researches on the effects of ability grouping on the social and emotional development are conditional. They vary across time and national boundaries. Cobishley (Davies and Caves, 1977:3) expressed this as follows:

In America, in the period, 1920-1935 research interested in proving the superiority of streaming favoured students of average and below average ability without detriment to the performance of the bright. Similar results have also been found in English and Swedish studies for mixed ability for the period 1955-1964. The underlying argument is that both types of grouping are egalitarian, If personality tests are conducted, personal and social attitudes are found to be unaffected or positively affected by the social status patterns which either form of grouping is to imply. In the latter period, in America, 1957-1964, streaming had been found to favour the brightest without detriment to the performance of other pupils. In England and Sweden in the same period, streaming is found to have detrimental consequences for low stream pupils in terms of both performance, personality and attitude to school.

Thus, the research findings on the effects of ability grouping, (streaming) on the social and emotional development of the students are controversial and inconsistent. They were affected by the timely public opinion held on the practice. The positive attitude the people had forced researchers to act accordingly. For instance, the latter findings were made to go along with the timely movement; "equal education for all:". It followed the socio-economic interest of the society. According to Kelly (1975), ability grouping was criticized in England and the United States of America for the segregation it brought among the student population and to the society. It had been considered as a major obstacle to the achievement of anything approaching educational equality; inhibition of desired social and emotional development; limiting divergent thinking and the development and perfection of democracy.

Besides this, there are educators who strongly argue that the mere grouping of students in the school creates negative effects on the social and emotional development of the students. Because they consider the social and emotional developments as functions of the organization structure of the school. Therefore, they see to it that every means of grouping by ability or achievement has drawbacks which may be serious enough to off-set any advantages. For instance, "the heterogeneous ability grouping has proved good relationship between students and students, students and teachers,

teachers and teachers and a Smooth working conditions and environment in school life" (Kelly, 1975:9). Contrary to this, homogeneous ability grouping has a lot of negative effects on students social and emotional life. According to Slavin (1988:68-69).

... ability grouping plans may stigmatize low achievers, put them into classes or groups for which teachers have low expectations or lead to the creation of academic elites. Grouping may doom children who are not in the top tracks to second class instruction and ultimately to second class futures. It may deprive students of the examples and stimulations provided by heterogenous classes. The assignment may be enough to produce psychological drawbacks but does not do to reap the potential educational benefits of reducing students' heterogeneity in any particular skill. ... it is ineffective even at the secondary level where student heterogeneity may be extreme.

Hence, the grouping of students by their ability seems to create low expectations of students' achievement and behaviour in the low ability groups. It discourages the low ability students. As Kelley (1975:9) reported it "the decision to adopt homogenous ability grouping is to purchase the academic education of the few... at the cost of the social education of all". Thus, the choice of ability grouping, either the homogeneous or heterogeneous group is tantamount to giving priority either to the academic or the social and emotional development respectively. In the same manner, leaving the dull students in the heterogenous groups

where there are superior students is also making them to suffer from helplessness and discouragements. Because of these and other factors, researchers such as Turney (1931:14) had recommended homogeneous ability grouping for many reasons. He wrote that there are:

...less boredom, higher types of leadership, and fewer disciplinary cases, among the brighter Students, more leadership, greater satisfaction and fewer inferiority complexes and fewer disciplinary cases among the slower pupils.

However, the latest researches, especially conducted since the 1960's onwards are not in favour of the homogeneous ability grouping. According to Wilson and Schmith, (1978:14) "desirable attitude and self-concept of low-ability students may be seriously impaired as a result of ability grouping while the self-esteem of high ability students tends to be artificially inflating". These are what the students themselves feel about themselves. But the strongest of the negative effects come from the low expectations of friends and members of the staff which eventually become a constant punishment for every low ability student. According to Azeb Desta (1989:111),

The low expectation of teachers and friends blinds most people. They see no something good from the low ability groups. ... it is serious in stigmatizing the students of the low ability and the problems of over looking of any possible improvement and efforts of students according to their pace.

Hence, the negative effects of the grouping practice on the Social and emotional development of the low ability students seem more than on the high ability students. It is also reported that, ability grouping creates the feeling of frustration, hostility, guilty, and inferiority ... which impede the progress of the class (Ketchman, 1965,). Similarly, it affects teachers' communication in the classrooms, and exposes them to classroom disciplinary problems. According to Slavin (1986:315) the negative effects are more serious on the low ability students than on the high ability ones. He writes that.

Concentrating the low achievers in low track classes seems to work to their detriment. It exposes them to too few positive role models and teachers don't communicate with this group properly. The low ability grouped students show disciplinary problems. Students of the low track classes are more likely than other students to be delinquents and truant and drop out of schools. Students assigned to low tracks in junior and high school experience a rapid loss of self-esteem respectively.

In addition to what is written above, Slavin expressed it further that the students in the low ability group consider themselves as they are officially rejected and resort to absenteeism, dropout, aggression destructiveness, and develop poor images of themselves. They also develop negative attitudes to the school and don't perform at levels consonant with their abilities. Powerlessness induces

anxiety and classroom becomes a threatening and unsecured place. Its effects extends on choices of friends. Therefore, grouping students according to their ability seems a strong condition that creates social maladjustment among students and a practice that discourages free choice of friends.

Contrary to this, proponents of the practice argue that it is democratic and satisfies the individual's need. In line with this argument Lawson (1957:266) Wrote:

homogeneous grouping is not necessarily undemocratic. It actually is an attempt to recognize each child's democratic right to an education that he can handle to an education that will help him individually to achieve his own maximum of self-realization, happiness and effective growth. It is very antithesis of an autocratic regimentation, an imposed uniformity.

In this respect, it seems logical that putting students according to their abilities seems the recognition of individual differences and providing them with the chance to challenge their potentials and develop them to the maximum. But heterogeneous grouping may hinder the teaching of every child according to his/her pace. Thus denying the individual differences and his/her rights for equal education. Therefore, according to the supporters, homogeneous ability grouping goes with the recognition of the democratic rights of the individual. Besides this the student placed in

his/her peer groups finds success within that group for success and feeling of achievement are relative to situation and the competitive demands it creates.

In general, the effects of the practice on the social development of the learner are inconsistent and inconclusive. There are as many research findings that support the practice as those which oppose it. According to Hassen (1964:23,27-28) ability grouping is considered as a practice that:

... restricts experience and retards the development and perfection of democracy. It limits the learner's experience in learning to identify with many types of people. It reinforces feelings of either inferiority or superiority complexes, neither of which is conducive to the development of fully functioning people.

Therefore, the social effects of the practice either on the high ability or on the low ability are more or less similar in nature. The adoption of the practice is favoring the intellectual development at the expense of the social education of the learner.

Similarly, students' emotional development demands "the assurance of being loved, accepted, secured and an opportunity to make good personal relationships" (Farrant, 1980:86). It is believed that the social environment which doesn't provide the necessary conditions for the learner leads to emotional immaturity which could be expressed

through aimlessness, arrogance, bullying, cheating, impulsiveness, jealousy, lack of self-control, suspiciousness, conceit, cowardice, cruelty deceitfulness, idleness, tale-telling, tantrums, uncooperativeness, etc. (Ibid). In the same way, feelings such as anger, anxiety, fear, desire, hate, and love are always expressed through different emotional equipment.

In this respect, the schools at various levels, as agencies of socialization must provide conducive social environment that favour the better development of the learners, both intellectually and socially. The inconducive school environment are found to favour the unwanted social and emotional qualities, such as boastfulness, dependency, destructiveness, dishonesty, disobedience, disrespect for seniors, laziness, quick temper, rebelliousness, violence, unhappiness, cruelty, etc (Ibid, :90).

Therefore, though there are few positive effects such as, the increase of being classified as a star in one's group (Borg, 1967) and higher level of participation in school activities (Davies and caves, 1977) the chances of being classified as a neglected-isolate, the complexities and the consequences, the reduced academic success and social prestige, the low expectations by peers and teachers, the self-attitude to oneself (self-concept), sense of dignity and worth, (Johnson, 1970) affect the learners' negatively.

In the developed World, ability grouping is highly attached to the socio-economic status of the society. It affects the development of general attitude and acceptance of differences needed by citizens. It is used as a means to maintain and promote social and racial biases which militate against the general educational objectives, equal opportunity and development of each person as an individual. According to Goldberg Passow and Justman, (1966)" the organization of students by ability promotes norms which are anti-thetical to norms that foster societal cohesion and individual societal responsibilities."

Thus, the effects of ability grouping practice on the social and emotional development are both positive and negative in their nature. However, the negative effects seem to be more than the positive ones. They operate constantly. The learner always feel frustrated, anxious, neglected, isolated, etc, on the one hand and feel and see himself or herself as superior to others on the other hand. These are harmful in the teaching-learning situation. It seems logical that grouping students in a manner that doesn't destruct their social and emotional development must be highly stressed. Added to the stressed and strained adolescent period (Chaube, 1983:32), the negative effects of ability grouping on both groups are many and are varied in nature and intensity. The practice also affects teachers' working conditions and work relationships.

## 2.5 Ability Grouping and Its Effects on Teacher's Working Conditions and Work Relationships

In most teaching learning situations, there are at least two major elements that influence the behaviour of the learners: the teacher as personality and the procedures used in instruction. According to Monore (1960) the personal qualities of the teacher that affect the behaviour of the learners include the teacher's personal fitness for teaching; adequacy of professional preparation; mental capacity; cultural and experiential background and academic preparation; physical conditions and capacity; emotional adjustment; and the social and moral qualities.

Similarly, the procedures used in any instruction affect the teaching-learning process very much and are causes of unsatisfactory growth. Of the many factors that are included in the procedures;

1. nature, definiteness and value of aims or objectives of both the teacher and students;
2. presence of the conditions that distract and divert the interest and attention of the pupils;
3. extent to which the teacher utilizes methods of teaching that have been experimentally demonstrated to produce superior talents, and skill to which these methods are used;

4. basis of the selection and methods of organization of subject matter, means of providing for individual differences in ability, interest and backgrounds; experience of the learners;
5. extent to which the teacher makes instruction vital, meaningful, through the use of research, selected social experience, etc, and skill to utilize that available instructional materials in the school and the community, are some of them just to mention a few of them.

The above mentioned groups of elements are the major factors that may lead to success or failure. The teacher's competence in the selection, organization and the utilization of content, teaching methods and techniques and instructional material and his personal qualities play the decisive roles in achieving educational objectives. Teacher's attitude towards the students, the subject or the topic he/she teaches, the school, the school community and other factors affect the teacher's participation in different activities of the school and consequently affecting the school's outcome.

#### 2.5.1 Ability Grouping and Teachers' participation in programming and Their Working conditions.

There are a large number of factors that affect the grouping practices, of which the role of teachers- their acceptance or resistance takes the first place in the order

of the list. According to Yates(1966) "if teachers support any new innovation, its succeeds, if they don't favour it fails." The usual reasons for acceptance or resistance of any new program is attached to concerns for their status security, convenience and experiences. At the same time, teachers' confidence in the appropriateness of the organization within which they operate is more likely to communicate itself to the students and affects their motivation. It is an accepted tradition that every new grouping arrangement must get support from teachers and it must be superior to the old organization. It is believed that the success or failure of a particular pattern of grouping depends on the extent to which the teachers concerned are capable of exploiting its potentials (Ibid).

In this case, the teacher's support and capacity to use all the possible resources, their will to adapt their methods and approaches that suit to the existing situation makes a difference in results. Hence, the teacher is one of the major elements in attaining the set objectives. According to Cobishley (Davies and Caves, 1977,4)

... the teacher is taken to be the crucial factor in determining the success of any form of grouping. If teachers favour streaming, it works, if mixed ability, then that too works.

Thus, the positions of the teachers taken to any form of grouping is a decisive element. They can make all sorts of successes or failures out of the different groups or of any groups respectively. Although the teacher's role is highly important, "students attitude and the extent to which they wanted and would work for a particular form of social and academic steam offered by or just otherwise available in a particular school work equally (*Ibid.*, :5).

In addition to the teacher's support of a program, teacher and students frequent contacts provide teachers with information about learners. It could facilitate planning for individual student's success. Further more, flexibility in the use of the educational environment and a coordinated plan of groups of teacher and their participation willingly facilitates learning and affects the success or failure of a new program. Their support of program initiates teachers to discover and develop more effective approaches to teaching and learning (*Esposito*, 1971).

Studies conducted in the area have revealed that "learning is improved when teachers identify purposes in their work and seek to determine the extent to which these purposes are being achieved" (*Ellisor*, 1960:p 426). Similarly, teachers' attitude towards a program, their dedication and practical support, their personal and professional qualities and competence play an important

role in the success of any program. Regarding this issue Ellisor (1960:426-427) wrote that:

new buildings, more and better instructional materials and more special services will not necessarily result in better learning experiences for young people. ... a genuine respect, patience with and sympathetic understanding of students a sincere interest in their welfare, a mature and well adjusted personality, a cheerful out look, and professional competence are the essential qualities for the success of a program.

Thus, it is the teacher who gives life to teaching. It is he who determines the success or failure of a program.

In the same way, a review made by Helton, Marrow and Yates (1977). reflects the importance of teacher's support and their active participation in a program. On one hand, and the program's capacity to assure the facilitation of their work on the other. Teachers support and do some practical work when they understand a program and, at the same time, when it ensures the facilitation of their work. If it does, it succeeds, if it doesn't it fails.

Expressing this very idea, Helton, Marrow and Yates, (1977:54) wrote that:

no grouping strategy is likely to succeed without teachers who understand, who are committed to their students' optimum development, and who have the courage to analyse and change their teaching methods as they learn and grow with their students. ... the first priority may be to ensure that grouping strategies facilitate rather than hinder the efforts of such teachers.

Therefore, teachers' understanding and their support to a program which could be expressed through practical actions is very important. They do this first and foremost, if it ensures that it facilitates their working conditions. It should not reduce their social status, make them overburdened, insecure, threatened, deprives them of their spare time in one way or another, etc. These and others are the factors that may help the success or contribute to the failure of a grouping program. Normally, some teachers support while others oppose ability grouping. According to Rinehart (1971:51) they support ability grouping for the very fact that it "provides the teacher with more time to give individual attention for he/she is freed from the time consuming task of meeting a wide range of differences in ability". Other researches also showed that "teachers' enthusiasm and the use of new contents and methods are the requirements for the success of ability grouping" (Cornog, 1957:13). If it facilitates, they support it if not they

negate it. But in most researches, it is found that teachers of low-track classes are less enthusiastic, less organized and are seen teaching more facts and fewer concepts than do teachers of high-track classes (Slavin, 1986:315). This is mainly because of the non-responsive nature of students in this particular group.

Equally to the above mentioned factors, the teachers' dedication and practical actions are the very important requirements. They must be convinced and their full support should be secured. Extensive consultations, discussion persuasion and support of the new program are the necessary conditions for the success of the practice. The program cannot be initiated by the head alone or somebody else. It affects the teachers' approach in teaching and relations to colleagues (Ried and Associates, 1981). Unless they are made to be convinced, most of the time, teachers are "identified as obstructing the normal development of programs, prejudiced, inhibiting the natural development of the instructional process, conservatism, inability to respond creatively to change and satiated" (Ibid :5)

A lot of studies have shown that ability grouping demands the modifications in curriculum, and adaptation of the methods of teaching and the use of instructional materials. This in its turn, demands the teacher to prepare for more time, and needs training and retraining. It is also found

that it overburdens teachers. In this respect, Havighurst, Stivers and Dehaan (1955 P:21) wrote the following:

Enrichment of the curriculum involves the provision of lateral, extensive basis and encouraging the abler students to broaden their experience by working the areas not explored by average students. It broadens and deepens the experiences of the learners. This in its turn places an intolerable burden on already over loaded classroom teachers. It is not easy for a teacher to manage.

Thus, if a program creates additional work load on an already overloaded teacher, the fate of the program is a failure. This is so because no teacher can tolerate beyond what he/she can. However, there are research findings which have shows some teachers and administrative personnels supporting ability grouping and its various forms with definite preconditions: Wilson and Schmits (1978); Davies and Caves (1977:9) on their part wrote, the main reason why teachers support ability grouping. According to their account; "ability grouping narrows down the ability range of a class, so that the teacher is allowed with greater opportunity to deal with individual learning problems". Besides this, Harris (1960:224) too has reported that "teachers tend to react more favourably to teaching groups in which heterogeneity has been some what reduced than to teaching groups selected at random". Thus, every teacher wants to get favourable working conditions. The effects of any program's on teachers' working conditions are also to be reflected on teachers' work relationships.

### 2.5.2 Ability Grouping and Teachers' Work Relationships

As it is seen in other areas, ability grouping creates a certain kind of relations among teachers, teacher-students, and student-student relations. Studies have shown that teachers' expectation to their students; personality and academic performance influence student-teacher relations and students' academic performance. In this regard, Slavin (1986:315) reported that "students assigned to the low-tracks take it that academic success is not within their capabilities and do less than others". Similarly, teachers and other members of the school community develop definite expectations and act according to the attitude they have to the different groups and their members. Students of the different groups too act according to the responses they get from the schools' community. It totally changes the socio-psychological atmosphere of the school and the classrooms. According to a review made by Slavin (1986:750).

teachers want to maintain control when working with the class as a whole. Teachers anticipate that interacting with students for whom they have low expectations will threaten their control of the class. Therefore, they discourage class participation by those students. So that they can work with them singly, one-to-one. They don't see sign of approval from teachers. This reduces their efforts.

Thus, teachers expectations dictate their work relations with students. It affects students' performance; the social and emotional developments, both positively and negatively. It depends on the teachers' expectations.

Regarding the roles of the expectations of teachers' play on the work relations with students and their work mates, Harris, Rosenthal and Snodgrass (1986:173) Wrote:

teachers communicate their high expectations to students in part by creating a warm socio-emotional climate, particularly through the use of positive non-variable cues.

Hence, teachers' expectation to the students they teach is the main factor that may increase and smoothen teachers' and students' relationships. This in its turn, affects the working conditions of both the teachers and the students. The effect of the expectation of teachers on the students' working conditions is more than its effect on their working conditions. Similarly, the work relation among the staff members is highly affected by the kind of grouping. According to Farrant (1980:21), "the mixed ability teaching leads to the better staff relations. Because all the staff share the difficulties of teaching the pupils". This is so, because all teachers share the difficulties which emanate from the students' individual differences in the heterogeneous group.

Contrary to this, the homogeneous ability grouping affects teachers' work relations, because of the assignment of teachers to the high ability and to the low ability classes. Teachers' working conditions vary according to the differences of the students' academic performance. The high ability students understand issues more easily than the low ability students. Because of such variations "most teachers prefer to work with "homogeneous" rather than mixed groups" (Goldberg, Passow and Justman, 1966:7). But there are other group of teachers who argue that "flexibility in the assignment of teachers prevents the loss of morale that sometimes occurs for teachers who are assigned to low-tracks year after year" (Gamoran, 1992:15).

In general, the effects of the grouping Practice on teachers' working conditions and work relationships depends on certain conditions. If it overloads and segregates, them, it will not be supported, but if doesn't create any additional work, doesn't affect status, income, etc, teachers support it. Therefore, its effect relies on the designers.

## 2.6 Some African and Ethiopian Experiences on Ability Grouping

Although there is a scarcity of literature on African and Ethiopian experiences on ability grouping and its effect, what are available and accessible to the researcher show that

there have been some sorts of attempts to adopt the practices of the colonial powers in many of the African countries. But after the 1961 Addis Ababa conference and subsequent meetings in different countries, the Africans have attempted to make secondary education an African (Teshome Wagaw, 1979: Ayalew Gebre Selassie, 1964).

However, In most African countries the basic values of the west or the colonizers had been transferred from the metropolitan countries to the colonies. They still have a deep root among the African. The different government structures and service giving institutions had been and still are established according to the will and the experiences of the colonizers or the west. The Africa had organized their institutions taking the Europeans as models. In the field of education, the Europeans had the conception that "education should be adopted to the mentality, aptitudes, occupations and the traditions of the various people" (Nduka, 1964:41). Based on such assumptions, the few schools built by the colonizers were segregated. The son's of the chiefs, and the ordinary people, the colonizers and indigenous peoples had not equal opportunity. The school systems have been moulded as European Schools. This is expressed by Nduka (1964:41) as follows:

"... Secondary education in Nigeria was based on the English Grammar and Public School tradition. It aimed at producing gentlemen as well as clerks and recruits for training as dispensers and assistants of various kinds. Most of the Secondary Schools offered courses leading to the Oxford or Cambridge Overseas School Certificate Examinations.

This indicates that the colonizers, especially, Great Britain and France have established Secondary Schools like those which they have established at home. Great Britain had established Secondary schools in Kenya similar to her own at home (Lillis, 1985). They were classified as equivalents and converts.

In Sierra Leone, there had been few secondary schools that had the sixth forms which train elites. They were made to expand since 1954, thinking that the practice of these schools would be a standard for lower forms to emulate (Gilbert, 1970).

Similar to the other Africans Ethiopia had few Secondary Schools which had entrance examinations of their own to admit students for education and training. Accordingly, General Wingate Secondary School, the Laboratory School of Addis Ababa University, (Bedä Mariam), the Addis Ababa Technical School, and some other had entrance examination and recruited their candidates by the students' previous academic achievement. "In the 1960s the academic and agricultural

schools were preparing students for admission to colleges" (Kitchen, 1962: 117). Other than these, the special training schools, the cadet schools were taking the high ranked students.

However, teachers in the classrooms group their students for different tasks. They sometimes try to make the composition of the students to be heterogeneous or homogeneous depending on the specific tasks. They make it heterogeneous where there is the need for different skills for the task and homogeneous where the task needs similar understandings. These are usually temporary and task oriented. This is a personal account of the researcher which, of course, need to be verified by research.

## CHAPTER THREE

### PROCEDURES AND METHODOLOGY OF THE STUDY.

In this chapter, the models selected and used, the sources of data and description of work, the data gathering instruments and methods of analysis of the data are presented.

#### 3.1 Models Selected and Used in the Study.

Of the different models available for instructional research, the Model of Classroom Processes (Leinhardt, 1980) and the Theory of School Learning (Bloom, 1976) are selected. The two models are selected and used as guide in this study for data collection and analysis. Because the models elaborate the elements that influence students' as well as a schools' achievements. Both of them help to consider the initial students' behaviour (both cognitive and affective), and other classroom process constructs that reflect the different aspects of the instructional environment: the motivators, the opportunity (temporal and curricular), the structure, the instructional events (quality of instruction) and finally, the learning Outcomes (See Appendix-F). In addition to this, the two models are used because of their advantages in guiding the domains of measurement of the instructional environment and the use of those measures to evaluate educational practices (Leinhardt, 1980: 398-401).

Similarly, the two models are selected and used simultaneously in this study because of the incompleteness of each of them alone for this particular study. Therefore, both of them are selected and used for they complement to each other.

### 3.2 Data Sources and Description of Work

To collect the necessary information for the study the academic staff, the students of the schools, the regional education office authorities, the ESLCE records, and available documents have been used as major sources of data. To this end, three of the six senior secondary schools that have been practising the ability grouping have been selected randomly. Similarly, the samples of the members of the academic staff (140) and the students (720) have been selected by a simple random sampling technique from three hundred and forty two staff members and from fifteen thousand, seven hundred and ten students respectively.

In the selection of the samples, both the special and the non-special students and the academic staff, first, the list of the students and the staff were collected from sample schools. Then, after avoiding the dropouts and other absentees for various reasons from the lists, the total population were classified into the special and non-special groups and were given numbers. Then, the samples were

selected randomly by using the random number table. This technique helped the researcher to select the student samples in proportion to the size of the student population of each secondary school and grades.

Similarly, the samples of the academic staff (teachers) were drawn from the population using the same method. However, all the directors, the deputy directors, Unit leaders, department heads, guidance and counseling officers of the sample schools have been included in the sample for they have been engaged in decision making activities of the schools. The regional education office authorities; the deputy education officer and the chief coordinator of the inspection department were taken as sources of data, for they are highly responsible for the management of the day to day activities of the instructional process in the schools. The head manager of the education office was unable to give information on the practice for he was new to the office.

The other sources of data for the study were the ESLCE result of the sample schools and other documents of the regional office. The ESLCE records of the four years (1987/88-1990/91) of the sample students were collected by using the available and random sampling techniques. To do this, the eighth grade national examination results of the students have been used. The list of all those students whose results had been ninety six percentile and above were

taken for the years 1987/88-1988/89. Because these students had been grouped heterogeneously and taught in heterogeneous groups. Then, their ESLCE result were collected. The results of the low achievers; those whose scores were below ninety six percentile and treated in the heterogeneous groups were collected randomly. The ESLCE results of the 1989/90 and the 1990/91 were selected randomly for the students were grouped homogeneously as special and non-special groups.

The ESLCE results of the former group of students, especially the high achievers, who appeared for the ESLCE in 1987/88 and 1988/89 were taken by using available sampling technique for the number of students of this achievement level had been fewer than those of the latter years.

### **3.3 Data Gathering Instruments (Tools)**

After an extensive review of the related literature such as books, journals, News papers, available and accessible documents, and a preliminary discussions with few of the schools' teachers, deputy directors and regional office authorities, questionnaires, interview items and observation key points were prepared.

The questionnaires were prepared for members of the academic staff and the students. These were distributed for forty sample students and twenty members of the academic

staff of Addis Ketema Comprehensive secondary school. The school is one of the six secondary schools that has been practicing the ability grouping, but not included in the latter sample. In the mean time, the questionnaires, interview items and the observation key points were distributed to the advisor, and colleagues who have experiences in research activities for comments.

After collecting the feedbacks on the questionnaires, interview items and observation key points, the necessary corrections were made. The corrections were made mainly on language clarity, simplification, style of writing, structuring or sequencing, numbering and length of questionnaire items, etc. Major corrections were made on students' questionnaires based on the feed back collected from the students who filled in the pilot questionnaires.

The finalized questionnaires were distributed to Seven hundred and twenty sample students (360 special and 360 non-special) and to one hundred and forty members of the academic staff. Of the sample students, six hundred and sixty eight (92,8%) and one hundred and thirty two (94.3%) of the academic staff completed and returned the questionnaires. During the administration of the questionnaires special helps were made for the sample students in translating some of the technical terms and concepts into Amharic. The other instrument used in the study has been observation. Six of

the teachers who were teaching in both the specials and non-special classes were randomly selected and observed. The observations took place while the teachers were teaching the special and the non-special classes of the same grade levels and the same lesson topics.

They were teachers of Geography, grade 10 at Tikur Anbesa, Biology, physics and Mathematics, grade 12 at Yekatit, and Amharic in grade 11 at Yekatit, and Mathematics, at grades 9 and 10 at Bole Secondary school. The observations were made four times, two periods in the special and the other two periods in the non-special classes for a total of 28 periods. All these have been done to see whether there have been differentiation in the treatment of the subjects and the students or not. Short meetings have been done with the observed teachers.

Interviews were made to collect information on the beginning and development of the practice, the conditions and the plans of the office on the practice. It was done with the deputy education officer and the chief coordinator of the department of inspection of the region's education office.

#### **3.4 Methods of Data Analysis.**

The data collected were tallied, calculated in percentages, ranked in sequence of orders wherever there were the need for them. Then, the questionnaires of the students

and the academic staff were regrouped for tabulation and analysis. The rankings were done using the average ranking system. In this part, for instance, the item ranked as first by a number of respondent is multiplied by one, then the next by two,.... That is, the frequency times the rank order it got, and then, the total sum of the points the item got will be divided into the total number of the respondents to get the average point. The average point will be used for ranking. The smaller the number the higher is the rank. On the other hand, the percentages are used as a ranking points. There, the higher the percentage, the higher is the rank.

The Ethiopian School Leaving Certificate Examination, (ESLCE) results are computed for comparison of the means of the students. In the comparison, the means of the special and the non-special Students are calculated first. Then, one way classifications analysis of variance is used to determine whether there is a difference among the four group means or not. This is a single test of the null hypothesis which states that the population means (M1, M2, M3 and M4) for the four groups are identical. The population means are tested by the use of the statistic:-

$$F = \frac{\text{Mean square between groups}}{\text{Mean Square within groups.}}$$

Then, the test compares, the empirical F value, calculated from the observed data, with tabulated values of

F, which has 3 and  $4(n-1)$  degrees of freedom and in F table at a test size  $\alpha = 0.05$ . (for further elaborations see, chapter four, section three). Further tests for the identification of the where about of the differences are done using the Newmann-keuls test; a procedure applicable to inspect all differences between all pairs of means. To this end, a qr statistic (studentized range statistic) is used.

Finally, the results of the interview and the observations in the Special and the non-special classes are used to substantiate the analyses and discussions wherever there are the need for them.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF THE RESULTS

In this chapter, first the general characteristics of the sample and the possible interpretations that can be drawn from it are presented. Similarly, the data of the study are classified into five sections depending on the nature of the effects of the achievement or ability grouping on the utilization of resources; the instructional process; that is, the methods, techniques of teaching and the possible modification of the centrally designed curriculum; the academic performances of the students; the social and emotional development of the students, and finally, the working conditions and work relationships of the teaching staff. The data are presented both in numbers and in percentages wherever there are the needs for them. Some of the tables are constructed to show the ranks of some of the items as they are ordered by the respondents after their means are calculated and are set according to their sequence of importance.

The students' Ethiopian School Leaving Certificate Examination (ESLCE) records are computed using the statistic that serves to determine whether there are differences between the means of the various groups; that is, the special and the non-special. Tests between the means of the special and the non-special are made for significance. The interview

items and the observation results are used to elaborate or substantiate the analysis of some of the items in the discussions. Each of the sections has some main titles and subtitles to give the real picture of the study.

#### **4.1 General Characteristics of the Samples.**

In 1990/91 academic calendar, there were twenty four government senior secondary schools with a total of 117,291 students and 2,614 members of the academic staff (Addis Ababa schools office, 1991/92 statistics) in the region. Of these secondary schools six of them have been selected as secondary schools to serve special purposes; that is, to group students as special and non-special upon entry in their ninth grades since 1986/87, on the basis of their eight grade national examination results. The schools have been selected for this purpose on the basis of their locations and the facilities they have (Tefera Bitema, 1992).

In this descriptive type of research, three of these secondary schools (50%) were selected randomly. Of the total 40,216 students and 816 members of the academic staff, (Addis Ababa schools office 1990/91 statistics) the three sample schools had 15,710 students and 342 staff members. The latter ones have been taken as the domain to draw seven hundred and twenty students (4.58%) and one hundred and forty members of the teaching staff (40.9%) as samples for the

study. They were made to fill in the questionnaires prepared for each of them.

Of the samples, six hundred and sixty eight (92.8%) students and one hundred thirty two (94.3%) members of the teaching staff completed the questionnaires correctly and turned them in. The composition of the samples were directly proportional to the total population of the schools and the grade levels. Of the total three hundred and sixty special class, sample students one hundred and sixty one (44.7%) were from Bole; Seventy four (20.6%) from Tikur Anbesa, and one hundred and twenty five (34.7%) were from yekatit 12 comprehensive secondary school. Similarly, one hundred and eighty(50%) of the non-special class samples were from Bole; Sixty nine (19.2%) from Tikur Anbesa and one hundred and eleven (30.8%) were from Yekatit 12. They were selected from grades 9-12. Of the total respondents three hundred and ninety four (59%) were males and the rest, two hundred and seventy four (41%) were females. As the sample is drawn randomly the later figure; the proportion of the females indicates that the rate of participation of the female has increased significantly. This had been lower in the 1970s and early 1980s (Bonsa and associates, 1991; Mulatu and Yohanis, 1988:150). Age wise most of the respondents were in their younger ages. About four hundred and eighty two (72%) were with the age range of 13-16; one hundred and seventy one (26%) within the age range of 17-18, and only fifteen (2%)

were above the age of 18. This also indicates that most students are admitted to schools at their early ages ranging from year four to seven and at the sametime the early completion of secondary school education; which may make the early education and training at higher institutions possible.

In addition to this the sample students were selected from each grade levels directly proportional to their number. Of the total respondents, one hundred and sixty five (24.7%) were from grade 9; two hundred and eight (31.10%) from grade 10, one hundred and seventy nine (26.8%) and one hundred and sixteen (17.4%) were from grades 11 and 12 respectively. Quite a large number of the samples, two hundred and ninety five (42.75%) were from the upper two senior grades; grades 11 and 12, who at least have a minimum of three to four years experience in these schools under the grouping practice. This in its turn would raise the validity of the responses collected.

The respondents' family background is also so wide in all the measurements used to collect the data. The family educational background vary from few illiterates (4.3) fathers and mothers (9.3%) to a third degree holder (1.5%) Their family incomes vary from the unknown few birr to more than one thousand birr per month. About two hundred and eighty seven (43%) Students' fathers and four hundred and forty eight (67%) mothers are either working in private

enterprises or have no clearly known and fixed occupations. Similarly, some three hundred and eighty one (57%) fathers' and two hundred and twenty (33%) mothers' of the respondents are government employees. Most of the respondents, five hundred and fifty four (82.9% came from families where the members of the families are six and more. These three factors indicate that there are variations in getting the necessary help in their studies at home and the necessary educational facilities for most parents are at low level of education, and their incomes and family sizes are low and very large respectively. As long as the size of the family is large and the incomes are very limited, the possibility of getting the necessary educational facility seems impossible for the parents will be forced to spend more on basic necessities.

Of the total respondents, three hundred and twenty five, (48.7%) were students from the special classes; those whose eighth grade results were 96 percentile and above and three hundred and forty three (51.3%) from the non-special classes whose scores were below 96 percentile. The proportions are more or less similar which in its turn guarantee the validity of the information gathered. Most of the respondents; four hundred and seventy two (70.7%) came to these schools from government and public Junior secondary schools while the rest one hundred and ninety six (29.3%) were from private, mission, community, church and Kuran Junior Secondary

schools. Although, the proportion of students who joined these schools from the government junior secondary schools exceeds the latter type of schools; about four hundred and twenty five (63.6%) came from non-government schools and the rest, two hundred and forty three (36.4%) were from government junior secondaries.

Of course, the ratio of the non-government, junior secondary schools is higher than the government. Thus indicating the expansion of junior secondary schools in the city and the increasing participation of the non-governmental bodies in the expansion of education.

Quite a large number of the respondents (71.4%) don't have any hired tutor at home who may help them in their study. But one hundred and ninety one (28.6%) of the respondents expressed that they have hired tutors. This, the latter case may indicate that the parents' concern for the education of their children. Similarly, even if most parents don't hire tutors because of many socio-economic factors, the parents themselves and the elder brothers and sisters do try to help those who are in their lower grade levels. This had become the common practice of every educated family for the every reason that recently the competition to enter higher education institutions is getting increasingly stronger.

One hundred and thirty two (94.3%) of the academic staff respondents completed and turned in the questionnaire. Of these, one hundred and eight (81.8%) were male and twenty two (16.7%) females and two (1.5%) didn't fill in their sex. The majority of the staff (66.7%) were within the age-range of more than thirty five. The sex ratio and the age range may indicate the increased participation of the female population in the teaching profession in the secondary schools and at the same time the age range indicates that most of the teaching staff in these schools are at the age of thirty five and above. This may lead one to generalize or infer that the teachers have the experience of teaching for more years at least in the administrative regions before their transfer to Addis Ababa.

One hundred and ten (83.3%) were Ethiopians, twenty (15.2%) Indians, and two (1.5%) didn't fill in their nationalities or citizenship. Educationally, eighty (60.6%) have their first degrees, thirty two (23.2%) have diplomas and the rest, twenty (15.2%) have second degrees. Of these, ninety two (69.7%) have training in teaching and forty (30.3%) have no training for teaching. Those who are not trained may have serious problems in handling. Students' problem in these schools. Ninety (68.2%) teachers, ten (7.5%) department heads, three (2.3%) directors, six (4.6%) deputy directors, six(4.6%) unit leaders and three (2.3%) counselors completed the questionnaire.

Service wise, about one hundred(75.8%) have served for more than ten years and the rest thirty two (23.2%) have served for less than ten years. In addition to this, most of the teaching staff have served in the provinces for at least two or more years before they got transfer to Addis Ababa. This definitely provides them with the opportunity to get a lot of experience in teaching and handling students' with different problems.

The respondents teach different secondary school subjects and some of them ninety six (72.7%) have a weekly load of twenty one or more periods. Teachers who teach geography, history, home economics, and other two contact hours subjects teach in more than ten sections which would definitely overloads them. They teach more than 800 students which is a burden for them during examination periods. The weekly load and the large size of the students in the sections have discouraged most of these and other teachers not to give more assignments, tests or quizzes for the corrections will take them time and energy.

Although most of the teachers are trained, experienced, and aged, the number of students in each sections and the weekly load; that is, a minimum of twenty five periods have discouraged most of the teaching staff. They don't approach students individually. They give limited assignments, tests or quizzes. Their choices of the different methods and

techniques are very limited, consequently affecting the instructional process in these schools.

Similarly, six teachers were observed. Two mathematics teachers from grades 9 at Bole and grades 11 at Yekatit (female), Biology, Physics and Amharic teachers, from grade 11 and 12 at Yekatit, and a Geography teacher in grade 10 at Tikur Anbesa. This observation gave the chance to see whether there are changes or not in the treatment of subjects they teach and students. The interviewed officials had their first degrees and served for more than ten years.

#### 4.2 Analysis and Discussion on the Data

The data of the study are grouped in five sections and are discussed below.

##### Section 1. The Achievement Based Grouping (Ability Grouping) and the utilization of Resources.

Every new programme's effectiveness is partly measured with the programme's effect on the utilization of resources; that is, its capacity to involve the participants of the programme, and its effectiveness in the exploitation of the human, physical, material and other resources.

Table 1.1: Ability Grouping and Its Effect on Resource Utilization.

S.No	Category of Responses	Respondents*	
		No.	%
1	Creates improved utilization atmosphere	38	28.8
2	Makes the use of the scarce resources to develop the potentials of the few abled ones	20	15.2
3	Enables the use of the limited resources to develop the potentials of the slow learners	12	9.1
4	See no contribution with regard to the use of resources	58	43.9
5	No response	4	3.0
Total		132	100

\* Academic Staff.

NB. All Sums of Respondents that become 132 are staff members and all Sums (668) are student's' responses.

As it is indicated in the table, 43.9% of the members of the academic staff respondents responded that they "see no contribution of the grouping practice on the utilization of the schools' resources." According to the opinion of the majority of the respondents (43.9%) there are no differences in the use of resources which are created as a result of the grouping practice. However, some of the respondents, (28.8%) have expressed their view that the grouping practice creates an improved resource utilization atmosphere.

The responses of the sample students to a relatively similar questions also showed/revealed that there are no differentiations in the use of the schools' resources; that is, in the assignment of teachers, the use of laboratories libraries, schools' fields, etc.

Table 1.2 Ability Grouping and Priority in the Allocation of resources

S.No	Category of Responses	Respondents*	
		No.	%
1	The special class students get priority	251	37.6
2	The non-special class students get priority	56	8.4
3	Both groups get without any priority	275	41.1
4	I don't see any such activities	84	12.9
Total		668	100

As it is shown in the table, 41.1% of the respondents said that both groups are provided with the chance of equal opportunity to exploit the schools' human, physical, material and other resources. The majority of the respondents, (41.1%) expressed that there are no differentiation in the resource allocation. In other words, both groups get equal services from the schools. Quite a large number of the student respondents, three hundred and seven (45%) responded

that as there is a differentiation in the assignment of teachers, laboratory equipment and some supplementary materials either to the special groups (37.6%) or to the non-special (8.4%) students.

Therefore, even if the schools' administrative bodies and the academic staff responded negatively to the questions posed to them regarding the resource allocation, the student respondent three hundred and ninety five (59%) in general and, most of the non-special class students in particular think that there are differentiations in the resource allocation. In this regard, the special class students are those who are "best" served by the schools.

However, the discussions and the interviews made with the concerned bodies confirmed that there have been prior intentions to allocate more resources for those who would be in the special classes than to the non-special class students. However, because of various reasons they did not implement it. Besides this, in all the observations made in the classrooms, those teachers who were teaching in the special classes were also teaching in the non-special classes. They all were using the same lesson plans, lecture notes and instructional materials. They informed the researcher as they take all their students into the laboratories whenever there are laboratory experiments.

Even though most of the students respondents in general and the non-special class students in particular think or feel that as if there are special privileges to the special class students the observations made and the interviews conducted with officials proved that there are no such differentiations. This is done because of the absence of clearly set guidelines from those who initiated the practice and the continuous complaints from the other senior secondary schools (Tefera Bitema, 1992).

Therefore, the ability grouping in the six secondary schools has not contributed much to the allocation and utilization of the schools' resources. Thus, the effect of the grouping practice with regard to the possibility of the utilization of resources is not as such different from the previous practice of heterogenous grouping. There have been no special attention to any of the groups (Bonsa and others, 1991:72). Researchers such as Garry and Kingsley (1970:270), Yates (1966,54), Wightman (1977:51), and Goldberg, Passow and Justman (1966:1) found out that one of the purposes of ability grouping is "to provide enriched educational experiences and to facilitate the use of special personnel or resources and help each student develop his/her potential." Hence, the grouping practice that doesn't facilitate the provision of the different resources to the students contributes little in the improvement of the instructional process.

Section II: Ability Grouping and the Different Methods and Techniques of Teaching and the Adaptation of the Centrally Designed Curriculum

Normally, when the students' academic performance differences are reduced, teachers get more opportunity to choose the best methods and techniques of teaching and adapt the centrally designed curriculum than when the individual differences are too wide. This section deals with presenting and analysing the data on methods and techniques of teaching and the adaptation of the centrally designed curriculum.

Table 2.1 Ability Grouping and Its Instructional value in the Application of Different Methods of Teaching.

S.No	Category of Responses	Respondents*	
		No.	%
1	Helps the use of different teaching methods singly or in combination.	40	30.3
2	Reduces the criticisms extended by many educators because of the frequent use of the lecture method.	2	1.5
3	Makes the use of some equipment and materials along with more methods that are impossible in a mixed group.	13	13.6
4	Encourages the experimentation of different teaching strategies and ideas.	36	27.3
5	Brings no improvement either in the selection and use of the different teaching methods or materials.	36	27.3
Total		132	100

As it is indicated above, the opinion of 30.3% of the respondents expressed that the grouping practice helps teachers use the different teaching methods either singly or in combinations. Similarly, about 27.3% and 13.6% of the respondents expressed that the practice encourages the experimentation of different teaching strategies and ideas and at the same time, it makes the use of different materials and equipment possible which are most of the time impossible in a heterogeneous groups respectively. The finding is similar to what Garry and Kingsley (1970:272-273) found out in the early 1970s.

However, 27.3% of the respondents feel that it brings no improvement either in the selection and use of the different teaching methods or materials. Although the majority of the academic staff members responded that the practice help to use different methods of teaching singly or in combination and different materials and equipment, most of the observed teachers used the lecture method most frequently. The use of the different instructional materials and equipment was limited. This is may be due to the large size of the students in both the special and the non-special classes. This is justified by the responses given by the students to the question posed to them about the most frequently used method. In their response, they ranked, the lecture methods first, (47.8%), problem solving, 16.3% discussion, 15.7% and the demonstration, (8.1%) methods from the second to the fourth. Some 12.1% of the respondents

responded that as their teachers use the different methods alternatively.

Generally, all the instruments used to collect data on the use of the different methods of teaching proved that the teachers use the lecture method more than any other possible teaching methods where there are low range of individual differences. Besides this, some of the teaching methods, such as the problem solving and discussion methods could have been best used where the range of individual differences are low; that is, in this particular case, in the special classes. Because, there is the assumption that the students have the ability to carry out independent activities with little help. However, the teachers have been observed using the same method(s) of teaching for both groups of students. In this case, the ability (achievement) grouping has not created any condition that brought change in the use of teaching methods. In addition to the different methods, the use of the different techniques of teaching is possible in a homogeneous groups.

Table 2.2 Ability Grouping and the Application of Different Techniques of Teaching by Teachers.

S.No	Category of Responses	Respondents*	
		No.	%
1	Use some of the listed techniques less frequently	64	48.5
2	Use the mentioned techniques more frequently for the Students' abilities and pace of learning are similar.	40	30.3
3	Are not interested in the use of the different techniques.	28	21.2
Total		132	100

As it is indicated in the table, that most of the academic staff, (48.5%) responded that some of the different techniques, such as motivation, reinforcement, case studies, questioning, simulation, role playing, verbal and non-verbal communications, etc, are in use less frequently. The observation made in the actual processes of teaching also have revealed that most of the teachers have not been seen using either the positive reinforcements or the negative ones. Fewer teachers in the non-special classes have been observed blaming students for disciplinary problems and for not completing their assignments. What is observed is that they were using the lecture methods of teaching without any additional technique(s) of teaching. Most of them have not been seen either praising or blaming.

Of course, the use of the different techniques of teaching require intensive training and the dedication of every teacher. It needs a lot of time to select, prepare and apply them with the method selected at the right time. Be it knowingly or unknowingly the teachers have not been using either the reinforcements or the punishments, and other devices.

However, teaching becomes effective if there are choices of methods and techniques that are effective. The use of the different techniques makes the topics under treatment more understandable, easier, more simplified, interesting and durable. Teacher's approval or disapproval may encourage, motivate, reinforce the Student or discourage, irritate, or negatively reinforce him/her. (Azeb Desta, 1991).

In addition to this, one of the rationales for homogeneous ability grouping in other countries is that it allows teachers to deal appropriately with the students who have different abilities and needs. It is done to reduce confrontation with the same curriculum and teaching them by identical methods (Yates, 1966). It is done to provide the chance to learn more and deeper with the appropriate method. Regarding this, researchers such as Abadzi, (1985:81) and Jonson (1970:171) and others try to relate ability grouping to methods of teaching. According to these figures, ability grouping is used to provide separate instruction which are

not available to the regular students, along with better teachers, optional materials to supplement the curriculum, and above all, "to make basic changes in teaching methods and course content, assuming that the differentiation of methods and course content would result in higher achievement by all ability levels."

Therefore, the ability grouping practice without modification of the curriculum, especially without the differentiation of teaching methods and techniques is considered as a "simple and futile administrative activity" as Mehdi and Massow (1976:56) expressed it. The use of different methods and techniques of teaching is possible, because of the low range of individual difference in the academic performance levels. Unless it is done to make the use of different methods and techniques of teaching and subsequently get an improved academic achievement, the very idea of ability grouping in the schools is questionable.

Table 2.3 The Extent of the Modification of the Curriculum to the Levels of the Students' Ability

S.No	Category of Responses	Respondents*	
		No.	%
1	They adapt the content of their subjects by simplifying it to the low ability students by and enriching it to the high ability.	18	13.7
2	They adapt the content by accelerating the subject matter to the high ability groups.	14	10.6
3	They adapt the content by reducing some of it to the low ability groups while by adding some to the high.	42	31.8
4	They adapt by all means they think suitable.	10	7.5
5	They don't do any adaptation either through modification or acceleration of the subjects they teach.	48	36.4
Total		132	100

As it is indicated in the table, 36,4% of the academic staff showed that there are no attempts of modifications or accelerations of subjects taught. They don't adapt them to the level of students' pace of learning. On the other hand, quite a large number of the academic staff, (31.8%) responded that they adapt the content of their subjects to the level of their students' pace either by reducing some of the contents or by adding or enriching the content. depending on the groups.

Although the levels and methods of adaptation of the content to the different groups are different, most of the teacher (63.6%) do adapt the centrally designed curriculum. The observations made in some of the classes and the discussion made after each observations have proved that there have been attempts to modify the content of instruction to the level of students' learning pace. However, the modifications have not been so significant. The teachers have been using the same lesson plans, lecture notes, instructional materials, etc. to both groups.

Those teachers who go only to the special or to the non-special classes also have informed the researcher that they do stick to the centrally designed curriculum and the textbooks issued. What they only do is to increase the number of exercises to the special class students for they like to solve or do on more problems and exercises. Similarly, the teachers in the non-special classes also use different illustrations, examples and presentation of cases to make the lessons understandable. However, the attempts to modify the curriculum to the level of the students seems so little. It is done to some extent because of the challenges in the special classes and the non-responding nature of the non-special students.

According to many educators, such as Anderson (1964:), Slavin, (1988), Yates (1966) the grouping of students on the

basis of their ability or achievement reduces the range of individual difference in the level of academic performance. Therefore, it solves the problems that teachers face in the modification of the curriculum in general and the content of each subjects in particular. For instance, the enrichment of the content to meet the needs of the high ability students cannot create a burden on those low ability students. Similarly, attempts to simplify the content of every lesson to the level of the low ability students could not be redundant and a boring one for those high ability students. Hence, the narrower the range of the individual differences the easier is the modification or the adaptation of the centrally designed curriculum (Slavin, 1985; 1988).

But, in the case of the six Addis Ababa Secondary Schools, what is most generally observed regarding the modification either through enrichment or acceleration of the subjects is that teachers in the special classes cover their lessons earlier than in the non-special ones. They allow discussion after every lesson for they get time. Besides this, modifications have been possible as long as they have contributions to the preparation for the ESLCE according to some of the schools' directors and teachers. It has been possible as long as it doesn't take more time for preparation and does not make any conflict with the existing social reality. All the departments and the deputy directors have been checking the lesson plans of all teachers whether they

are along with the syllabi and textbooks for the grades or not.

Despite all the above mentioned administrative conditions about the modifications, there are specific requirements that must be fulfilled to do it. According to Ellisor (1960), Turney (1931) Wilson and Schmits 1978) the requirements includes the presence of instructional materials, availability of enough time to prepare reading materials or list of specific references, exercises, knowledge of the students' area of interest, academic background, level of maturity, their ability to work independently, the time they have to do additional work, the will of the school community to provide with all the requirements, and work together. Otherwise, adaptation of the centrally designed curriculum to the levels of students' becomes very difficult if not impossible.

In addition to this, according to Hassen (1964:112), Garry and Kingsley. (1970:272) "both the high and the low ability groups benefit equally, if the centrally designed curriculum is modified according to the students' pace of learning". But, the case in the Addis Ababa Senior Secondary Schools is different. The main purpose of the grouping practice has been to make all the efforts and invest most of the resource to the special class students and enable them pass the ESLCE and join the higher education institutions.

However, because of the different problems encountered and absence of clearly set guide lines, and absence teachers' involvement in the planning and decision making activities, the modifications of the curriculum or the methods of teaching have not been materialized. The grouping of students became an end in itself rather than being a means to achieve the desired objectives through the right kind of the instructional process. Students were asked to give their opinion on the present conditions and how the curriculum for each of them be.

Table 2.4: Students' Response on the Modification of the Curriculum, Methods and Materials for the Groups

S.No	Category of Responses	Respondents*	
		No.	%
1	I strongly agree	334	50.0
2	I agree to some extent	186	27.8
3	I have no opinion	30	4.5
4	I disagree	21	13.6
5	I strongly disagree	27	4.1
Total		668	100

As it is shown in the above table, the majority (77.8%) of the respondents agreed with the argument that "the modification of the curriculum, methods and instructional materials could benefit both groups". Modification of these

components to the level of the learners means adapting the content and the activities of the teacher and the students' according to the requirements of effective instructional process. That is adjusting the subject matters and the methods of teaching to the students.

Naturally, most students need to satisfy their intellectual or spiritual needs; the needs to know more, deeper and make them durable and functional. They want to get the skills of acquiring knowledge and further abilities and skills of doing things by themselves. They want to go along with time and its requirements with what is socially recognized and highly valued. This could be possible if the lessons of each instruction are prepared and presented in accordance with their abilities and rate of learning.

Therefore, the ability (achievement) grouping becomes an effective means of influencing the students' academic achievement if and only if there is modifications and adjustments. Adhering to the centrally designed curriculum and making no adaptation in methods results in no improvements in the students' academic performance.

Most educators agree with the argument that the main purpose of ability grouping is to meet individual needs by differentiating the instructional process. They propose the modification of the curriculum, the adaptation of the

teaching methods and the use of the instructional materials. Because curricular modifications, in organization, enrichment and acceleration according to the pace of the students and the wise use of the instructional resources are the main factors for the improvement of the students' achievements (Harris, 1960; Reid and Associates', 1981; and Lawson, 1957). Without such organized activities no group would get benefit from the grouping practice. It rather facilitates the negative effects on the students' emotional and social life.

Hence, the ability grouping practice in the six senior secondary schools of Addis Ababa may be taken as a plan left aside by its initiators. However, teachers who had not participate in the decision making processes have no idea as to how they should do. They simply go to the classes wherever they are assigned and face whatever they get. Of course, the challenges they face in the special classes and the non-responsive nature of the non-special students, some teachers have begun modifying their lessons according to the level of the students. Thus, it seems impossible to get improved or differentiated instructional activities, and improved academic achievements from the grouping practice. Thus becomes a reality for there are no curricular differentiations and methodological adaptations that fit the students' pace.

**Section III: Ability Grouping and the Academic Performances of Students.**

In this section, the ESLCE results of the three selected senior secondary schools; namely Bole, Yekatit and Tikur Anbesa are assessed. In each school the mean scores of four groups, where group 1 (1987), heterogeneous; group 2(1988), heterogeneous, group 3 (1989), homogeneous and group 4 (1990) homogeneous are compared. The comparison is done for special class and non-special class students.

In the comparison, the means of the special class and the non-special class students are calculated first. Then one way classifications analysis of variance is used to determine whether there is a difference among the four group means or not. This is a single test of a null hypothesis that the population means,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $M_4$ , for the four groups are identical. This hypothesis is tested against the alternative hypothesis that at least one group of mean differs.

The null hypothesis that the population means are the same in all groups is tested by the use of the statistic.

$$F = \frac{\text{Mean Square Between groups}}{\text{Mean Square within groups}}$$

The test compares the empirical  $F$  value, calculated from the observed data, with the tabulated values of  $F$  which has  $4-1=3$  and  $4(n-1)$ . (Where  $n$  is the number of observations) degrees of freedom, in  $F$  table at a test size  $d=0.05$ . The testing procedure is as follows.

1. If  $F_c$ ,  $F$  calculated, is greater than  $F_t$ ,  $F$  tabulated reject the null hypothesis and accept that there is a significant difference among the group means.
2. If  $F_c$  is less than  $F_t$  accept the null hypothesis that there is no difference among the group means. The detailed theory and practice that justifies these is found in Snedecor G.W and Cochran W.C (1964) and Winer B.J. (1971).

### 3.0 Data Analysis and Results.

Table 3.1 displays the analysis of variance results of special class students of Bole secondary school as reflected in the ESLCE.

Table 3.1 Analysis of variance for Bole Special class Students

Source of Variation	SS	df	MS	Fc	Ft	Remark
Between Groups	15.239	3	5.08	8.9	2.70	Significant
Within Groups	66.054	116	0.57			Difference
Total	81.293	119				

The result of the analysis shows that there is significant difference between the mean scores of the different groups in their ESLCE. Therefore, the assumption that there is no difference between the different groups of the special class students in their achievement in the ESLCE is rejected. In other words, the data show that there is at least one pair of groups that has statistically significant difference at 0.05 level.

However, the presence of a difference and a rejection of the assumption still leave us to go further and answer the question "which groups show significant differences?". Thus, we have to make a further test to find out the cause of rejecting the very assumption. We use the Newmann-Keuls test, as a procedure to inspect all differences between all pairs of means. Here, the set of ranked means is divided into subsets which are consistent with the hypothesis of no differences. The test procedure focuses upon a Series of ranges rather than a collection of differences between the expected values of order statistics. For this purpose, the  $q$  statistic is used.

$$qr = \frac{\bar{X}_i - \bar{X}_j}{\sqrt{MSW/n}}$$

Where  $r$ , is the number of steps the two means are apart on an ordered scale. That is, if the rank order of  $\bar{X}_i$  is  $a$  and the rank order of  $\bar{X}_j$  is  $b$ , then  $r = (a-b+1)$ . The  $n$  is the number of observation in each of the means and is assumed to be the same. If  $N_i$ 's are different,  $n$  is the harmonic mean of  $N_i$ 's. This is  $n = \frac{K}{\frac{1}{N_1} + \frac{1}{N_2} + \frac{1}{N_3} + \dots + \frac{1}{N_k}}$ .

$$n = \frac{K}{\frac{1}{N_1} + \frac{1}{N_2} + \frac{1}{N_3} + \dots + \frac{1}{N_k}}$$

Then, the critical values for  $qr$  are found in the tables of the standardized range statistic with degrees of freedom,  $r$  and  $N-K$  ( $N-K$  is the degree of freedom of the within groups.)

The test criterion is that "if  $\bar{X}_i - \bar{X}_j$  is greater than  $qr \sqrt{MSW}$ , there is a significant difference between group  $i$  and  $j$ " (Winer, 1971). Based on the above elaboration the test of all pairs of means of Bole Secondary school's Special class students are made. Summary of the result is given in table 3.2.

Table 3.2 Test on Difference Between All Pairs of Means for Bole Special class Students.

Group		3	2	4	1
	Mean	2.49	2.85	3.01	3.48
3	2.49	-	0.36	0.52*	0.99*
2	2.85	-	-	0.16	0.63*
4	3.01	-	-	-	0.47*
1	3.48	-	-	-	-

\* The astricks (\*) here and in the next comparisons show differences.

	r	2	3	4
q.05	(r, 116)	2.80	3.36	3.69
q.05	(r, 116) $\sqrt{\frac{MSW}{n}}$	0.39	0.46	0.51

The first test is made between the two means that are four steps apart, that is  $r=4$ . The critical valve is 0.51. Since the difference is 0.99, the hypothesis that  $M_3 = M_1$  is contradicted by the data. Then, the next test is between two means which are three steps apart, that is, between, 2 and 1 and between 3 and 4. In both eases, the differences are greater than the critical value 0.46. Therefore, the data contradicted the hypothesis that  $M_2 = M_1$  and  $M_3 = M_4$ .

The difference between the two means that are two steps apart is tested next. The critical value is 0.39. Among the differences which are two steps apart, only 0.47 is greater than 0.39. Hence, the data contradicted the hypothesis  $M4=M3$ . But the data don't contradict the hypothesis  $M3=M2$  and  $M2=M4$ . Thus, group one differs from the rest of the groups. Though group 3 and group 4 are homogeneous, the achievement mean score shows a difference. But there is no difference between three (3) homogeneous) and two (2) (heterogeneous) and between 2 (heterogeneous) and four(4) (homogeneous).

In general, there are statistically significant differences in four (66.7%) out of six possible difference cases and no significant differences in two (33.3%) out of six possible difference cases. Out of four possible matches between heterogeneous and homogeneous classes, two pairs, group 1 with group 3 and 4, showed a difference but two pairs (group 2 with group 3 and 4) showed no difference. It is observed that there is a difference within a homogeneous groups and likewise, within the heterogeneously grouped and treated classes.

Thus, it is very unlikely to conclude that there are differences between the achievement of the students of the homogeneously grouped and taught students and that of the

heterogeneously grouped and treated students, as it is reflected in the ESLCE results at Bole Secondary School.

Similar comparisons between the results of the non-special students are summarized in table 3.3.

Table 3.3 Analysis of Variance for Bole Non-special Students.

Source of Variation	SS	df	MS	Fc	Ft	Remark
Between Groups	3.54	3	1.18	3.69	2.68	Significant
Within Groups	36.95	116	0.32			Difference
Total	40.49	119				

As it is shown in the table, there is a statistically significant difference between the groups. Therefore, there is the need for further test for the differences. Table 3.4 displays the comparison between all possible pairs of difference.

Table 3.4, Tests on Differences Between All pairs of Means Bole Non-special class students

Group		2	3	1	4
	Mean	1.94	1.95	2.25	2.32
2	1.94	-	0.01	0.31	0.38*
3	1.95	-	-	0.30*	0.37*
1	2.25	-	-	-	0.07
4	2.32	-	-	-	-

	r	2	3	4
q.05 (r, 116)		2.80	3.36	3.69

$$q.05 (r, 116) \sqrt{\frac{MSW}{n}} \quad 0.29 \quad 0.35 \quad 0.38$$

As it is indicated in the table above, there are significant differences between 3 (homogeneous) and 1 (heterogeneous), 2 (heterogeneous) and 4 (Homogeneous groups which were treated differently. There is also significant difference between 3 (homogeneous) and 4 (homogeneous) groups which were similarly treated.

On the contrary, the test also shows that there is no difference between 3 and 2, 4 and 1 which were differently treated, and between 1 and 2 which were similarly treated.

Table 3.5 displays the analysis of variance results of special class students of Tikur Anbesa Secondary school as reflected in the ESLCE.

Table 3.5 Analysis of variance for Tikur Anbesa special class students.

Source of Variation	SS	df	MS	Fc	Ft	Remark
Between Groups	3.13	3	1.040	2.67	2.70	No Significant Difference
Within Groups	38.63	99	.39			
Total	41.76	102				

As it is shown in the above table, there is no significant difference between the group at 0.05 level. Therefore, the assumption that there is no difference between the different groups; the heterogeneously and homogeneously grouped and treated students' achievement is accepted in the case of Tikur Anbesa's secondary school. Similar results have been found from the comparisons between the non-special groups. Thus, there is no need for further tests for Tikur Anbesa. However, Table 3.6 displays the analysis of variance of results of the non-special class students of Tikur Anbesa secondary school.

Table 3.6. Analysis of variance for Tikur Anbesa Non-Special Students.

Source of Variation	SS	df	MS	Fc	Ft	Remark
Between Groups	1.27	3	0.42	2.1	2.7	No
Within Groups	20.11	101	0.20			Significant Difference
Total	21.38	104				

Here too, the assumption that there is no difference between the mean achievement of the different groups is accepted. Thus, there is not test for further identification of the where about.

In these two cases, there are no significant differences in the academic achievement of the students as reflected in the ESLCE. The probable reasons for the absence of differences could be many and varied. However, the educational background of the students seems more than any other factors. They more or less come from limited and highly praised feeder junior secondary schools.

Table 3.7: Analysis of Variance for Yekatit 12 Secondary School Special Class Students.

Source of Variation	SS	df	MS	Fc	Ft	Remark
Between Groups	2.40	3	0.8	9.19	2.70	Significant
Within Groups	10.05	116	0.087			Difference
Total	12.45	119				

As it is indicated in the table, there is a significant difference between the means of the different groups of the special class students of the school. The comparison of the mean differences of the groups reveal the following.

Table 3.8 - Tests on Differences Between All Pairs of Means.

Group		3	4	1	2	
	Mean	2.92	3.20	3.24	3.28	
3	2.92	-	0.28*	0.32*	0.34*	
4	3.20	-	-	0.04	0.08	
1	3.24	-	-	-	0.04	
2	3.28	-	-	-	-	
	r		2	3	4	
	q 0.05 (r, 116)		2.80	3.36	3.69	
	q 0.05 (r, 116)		$\sqrt{\frac{MSW}{n}}$	0.15	0.18	0.20

As it is shown above, the differences are between group 3 and all the rest groups. The means of group three is less than all the means. It is the result of the first homogeneously treated students; that is, the special classes. The reasons may or may not be the grouping practice. However, the earlier achievements of the students,- the heterogeneously grouped high ability students showed better results than the next two of the homogeneously grouped ones. Thus, the differences are not infavour of the homogeneous ability grouping.

Table 3.9 Analysis of variance for Yekatit 12 Secondary School Non-Special Class Students.

Source of Variation	SS	df	MS	F <sub>c</sub>	F <sub>t</sub>	Remark
Between Groups	4.87	3	1.62	54	2.70	Significant Difference
Within Groups	2.93	116	0.03			
Total	7.8	119				

There is a significant difference between the groups. That is, the Critical value for the groups is 54 which is greater than 2.70; the tabulated value. The next step is to find out where the differences are. Therefore the test on the differences of all pairs of the means is important.

Table 3.10 - Tests on Differences Between All Pairs of Means.

Group		1	3	2	4
	Mean	2.15	2.48	2.65	2.65
1	2.15	-	0.33*	9.50*	0.50*
3	2.48	-	-	0.17*	0.17*
2	2.65	-	-	-	-
4	2.65	-	-	-	-

	r	2	3	4
q 0.05	(r, 116)	2.80	3.36	3.36

q 0.05	(r, 116)	$\sqrt{\frac{MSW}{n}}$	0.09	0.11	0.11
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As it is indicated above in the table, there are differences between all pairs except between group 2 and group 4. Of the differences three of them (60%) are between the heterogeneously treated students. That is between group 1 on one hand and 3&4, and between group 2 and group 3 on the other. As it can be seen from the mean, there is only one mean 1990/91 (2.65) which is greater or equal to the other means.

Although, of all of the comparisons made, three fourth (75.0%) Showed significant differences as a whole, the differences are not solely because of the grouping practice.

The further comparison of the results of 1987/88-1988/89 to that of 1989/90-1990/91 showed that 57.5% of the differences are because of the higher means of the earlier (heterogeneous groups) Students. In general, more than 50% of the comparisons showed significant differences, which cannot be taken as differences solely caused by the ability grouping. This is true, because of the many variables that the practice in the schools is lacking. That is, there are no significant accompanied activities after the grouping.

However, most of the staff members and the students have a positive attitude towards the grouping practice in light of the possible advantages it renders in raising the academic performances of students. The average or mean rank of the possible advantages of the ability grouping practice in the sample schools shows the following.

Table 3.11 Ability Grouping and its Effects on the Academic Performance of the Students\*

Rank	Categories of Items	Average Score*
1	Enables students to be better challenged to do at their best for they are with their similar peers	3.89
2	Makes academic success within the capabilities of those who are hard working irrespective of their group.	4.84
3	Results in high academic achievements by reducing heterogeneity and making teaching easy.	4.91
4	Improves the teaching situation thereby satisfying students' personal needs and teachers' systematic instructional skills.	5.02
5	Helps to realize the adaptation of methods, techniques, materials of instruction according to the rate of progress of the learners.	5.23
6	Allows students to advance at their own rate	5.26
7	Reduces the range of individual differences and makes differentiation of instruction possible	6.21
8	Makes a greater difference in what, how much and how well is learned and the quality of instruction.	6.8
9	Makes all students put forth their efforts when they are grouped homogeneously.	6.94
10	Accentuates self-discovery and individualization of instruction.	7.77
11	Benefits the low and the average students more than the special ones for there is modification in objectives, curricular organization and materials used.	8.72

\* Academic Staff

As it is indicated, the ranking shows that the students are better challenged when they are with their similar peers, and it is assumed that it makes academic success within the capabilities of each student. It is also mentioned that the practice reduces heterogeneity; improves the teaching situation; help the adaptation of methods; techniques, and instructional materials, and makes the differentiation of instruction possible so as to help each student progress at his/her own pace. It is also stated that the ability grouping practice makes difference in what, how much and the how well of instruction or how well the student has learned.

In general, most staff members do agree with the classification of the students into groups in principle. But they disagrees with the criterion used to group the students. Because there have been students in the special classes who have not been better than their peers in the non-special classes. Contrary to this, there have been some clever students who are better than most of the special class students in the non-special groups. However, some of the students who have been grouped in the special classes have asked the deputy director of Yekatit 12 secondary school to be regrouped into the non-special classes. Nevertheless, the majority of the students, (68.7%) responded that the ability grouping practice "increases the academic and social success, "creates healthy competition among their own group (48.4%)", and 67.2% and 58.8% responded that "it motivates and

challenges them to work harder and better in their own pace", and "it increases their classroom participation without any fear" respectively.

Although the results in the academic achievement, mainly in the ESLCE, had shown significant differences in most of the cases, the differences are not wholly due to the grouping practice. Instead, some of the heterogeneously treated students had been better in their ESLCE results than the homogeneously grouped and taught students. So it is impossible to conclude from what is found that the ability grouping practice has improved the academic achievement of students. Because similar Studies conducted on the effects of ability grouping on the academic achievement (Goldberg, Passow, and Justman, 1966, Yates, 1966; Hassen, 1964; Johson, 1970; and Slavin, 1988) have showed that academic achievement cannot be improved by ability grouping itself, but by what is done after the grouping. That is, the modification of the curriculum, the adaptation of methods and techniques of teaching and in the utilization of resources. Therefore, in the absence of the necessary actions that should accompany the ability grouping one cannot put much credit for the grouping practice as a factor for a few better results in some groups.

When we observe the real classroom activities, some students from both the special and the non-special groups

disagree with the grouping practice. According to the opinion of some students, some teachers either ignore or undermine the capacities of the non-special class students and try to teach every minor points or steps in their subjects. Similarly, some of the special class teachers present their lessons by giving the highlights and leaving the students to work by themselves. This happened because of the expectations the teachers have about the two groups. Of course, both of these situations have affected the teaching - learning process. This has been seen in the observed classes. A few teachers give more examples and use more illustrations in the non-special classes than in the special classes.

Even though there are some significant differences in the students' academic achievements, one can not generalize that they are caused by ability ~~of the~~ grouping. The Students of the 1987/88-1988/89 had better results than the 1989/90-1990/91 in some years. Therefore, the differences are may be due to other factors. Because ability grouping per se doesn't create any change in students achievement (Burr, 1964).

Section IV      Ability Grouping and Its Effects on the Social  
and Emotional Development of the Students.

In this section, the level of agreement of the teaching staff on the positive and negative effects of ability grouping practice, the possible reasons of the respondents for the agreements, the observed characteristics of the special and the non-Special class students, the self-images of the students and finally possible reasons for the low self-images of some of the respondents are presented and analysed.

Table 4.1 Level of Agreement of Respondents on the Argument that the Practice Has Positive and Negative Effects on the Social and Emotional Development of the Students.

S.No	Categories of Responses	Respondents			
		Teaching Staff		Students	
		No.	%	No.	%
1	I Strongly agree with the idea	18	13.6	305	45.7
2	I agree with this idea	62	47.0	172	25.7
3	I have no opinion	4	3.0	43	6.5
4	I disagree with the argument that it has negative effects	24	18.2	87	13.1
5	I strongly disagree with the argument that it has negative effects	16	12.1	61	9.1
6	No response	8	6.1	-	-
Total		132	100	668	100

As it is indicated in the table, the majority of the respondents, 60.6% of the teaching staff and 71.4% of the students agreed with the argument that the grouping of students as special and non-special has both positive and negative effects. Of course, almost all practices that involve people with different abilities, motives and level of experiences will have both positive and negative effects on all or on at least one of the groups. The only thing that

may differ is the level or degree of the effects. Thus, as a social practice ability grouping in the secondary schools has both positive and negative effects, though the intensity is different on each one of the groups. However, few (30.3%) of the teaching staff and students, (22.1%) disagreed with the argument. They disagree with the negative effects. They think that the practice has only positive effects on the social and emotional development of the learners. The list of reasons for their position show that the practice ensures satisfactory participation, encourages hard work, creates competition and avoids boredom, etc, Though the size of the respondents is low, the reasons given seem reasonable.

Table 4.2      The Rank of Possible Reasons for the Support  
of the Argument that It Has Only Positive  
Effects.\*

Rank	Categories of Items	Average Score
1	Ensures satisfactory and free participation within the classroom where they are with their similar peers.	2.94
2	Encourages every special class students to work harder by providing him/her with constant reward from the social environment.	3.22
3	Creates emulation, rivalry, pride and self-confidence among the special class students.	3.54
4	Improves Student-Student and Student-teacher relationships.	4.82
5	Enhances the learning opportunity of the special and the non-special groups through cooperation among themselves.	5.02
6	Avoids the boredom of bright students by excluding the dull students	5.18
7	Increases the academic and social success of the non-special class students.	5.29
8	Makes individual attention possible to the non-special class students.	7.08
9	Makes the special class students to be active in both curricular and extra-curricular activities.	8.86
* Academic Staff.		

As it is indicated in the table, the grouping practice is taken as a means that ensures satisfactory and free participation within the classrooms, encourages every special

class students to work harder by providing a constant reward from the social environment, creates emulation, pride, and self-confidence, and that it improves student-student and student-teacher relationships. However, the cooperation among the different groups, the reduction of boredom, the roles in increasing the academic and social success, and the possible attentions that are given to the non-special class students are among the least ranked items.

Practically, the narrower the range of individual differences in the academic performances of the students the higher is the possibility of presenting one's lesson according to the learners' pace. Besides to this, the low ability students don't "Suffer from the undifferentiated teaching" (Garry and Kingsley, 1970:272) which emanates from the heterogeneity of the students' in their academic performance. It seems true that every one in his/her group succeeds according to his/her level of work, and never feels inferior to anyone of his/her classmates. The students in each groups get acceptance in their own group. They play their social roles among the members of their group. They cooperate among themselves and their relationships among themselves and with their teachers seem to be at its highest level.

However, the grouping practice's positive effects on the social and emotional developments of the students don't outweigh the negative effects that it creates on the different groups. There are a number of negative effects of the practice on the students. Many of the respondents who agree with the argument that ability grouping has negative effects argue by presenting possible reasons.

Table 4.3 A Rank of Possible Reasons for the Agreement that "the Grouping Practice Has Negative Effects"

Rank	Categories of Responses	% Responses*
1	Produces frustration, hostility, guilty consciousness and inferiority complex among the non-special students.	60%
2	Creates low, self-confidence, self-concept or low self-image in the students of the non-special groups.	48
3	Dooms the non-special class students to second class instruction and second class futures.	44
3	Artificially inflates the self-esteem of the special class students.	44
5	Creates a social disobedience, dependency destructiveness, uncooperativeness, lack of self-control, etc, among the non-special class student.	42
6	Creates maladjusted deliquescent sub-culture (aggression, absenteeism, increased dropouts, cheating rebelliousness, boasting, cruelty, etc)	38
6	Creates Social stratification in the school which is not stated in the national educational objectives.	38
8	Creates poor model, low teacher expectation and low instructional pace among the non-special class students.	36
9	Stigmatizes the non-special class Students.	34
10	Aggravates inequalities and deprives most of the adult life experiences.	28
11	Favours the special class students with a detrimental effects on the non-special class students.	18
12	Promotes conformism as opposed to divergent thinking and the perfection of democracy.	14

\* Academic Staff.

As it is shown in the table 4.3, the negative effects of the grouping practice on the non-special students are more than its effects on the special class students. Frustrations, inferiority complexes, low self-image and low self-confidence, the reduced class instruction and citizenship sentiments, disobedience, dependency, low self-control, maladjusted behaviours, poor models, low teacher expectation, the stigma and the inequalities the practice creates on the non-special class students are among the lists of the negative effects. It also affects the special class students by inflating their self-esteem artificially and making them feel superior to those who are grouped in the non-special classes. Though, it is the last in the rank, the grouping of students homogeneously, as it is currently practiced in the secondary schools is found to promote conformism as opposed to divergent thinking and the perfection of democracy (Kelley, 1975, Hassen 1964). Because they have more similarity than their differences in thinking and in action. So, the lower the differences in thinking the lower the condition for the development of democracy.

Furthermore, the grouping practice in the secondary school has created a feeling of a Know-all among the special class students and a sort of unnecessary challenges in the classrooms. In addition to this, the respect teachers get from the school students are different. Teachers who are assigned to the non-special classes are not respected by

most students, thinking that they are not as knowledgeable as those assigned in the special classes as some of the school directors reported (Tefera Bitema, 1992).

In general, the practice has both positive and negative effects on the social and emotional development of the students. It has created some characteristics that are observable in the student population, but uncommon when they are heterogeneously grouped, especially by the low ability students.

Table 4.4 Commonly Observed Characteristics of the Special Class Students of the Studied secondary Schools.

Rank	Characteristics	Respondents	
		No.	%
1	Desire to excel (exceed)	518	77.5
2	High Intellectual Curiosity	476	71.3
3	Self-Reliance	471	70.5
4	Independence	416	62.3
5	Gentle/Calm	407	60.9
6	Honesty	386	57.8
7	Truthfulness	378	56.6
7	Sociable	378	56.6
9	High acceptance of Others	356	53.3
10	Inflated Self-esteem	194	29.0
11	Boastfulness	193	28.9
12	Dependency	148	22.2
13	Aggressiveness	140	20.9
14	Lack of Self-Control	123	18.4
15	Uncooperativeness	112	16.8
16	Inferiority Complex	111	16.6
16	Rebelliousness	111	16.6
18	Cheating	107	16.0
19	Low-self-confidence	94	14.1
20	Loss of interest in the school	93	13.62

\* Student Respondents.

As it is indicated in the above table, special class students are manifesting some strong positive observable behaviors. According to the opinion of the respondents, the behaviors that are most manifested by the activities of the special class students are the desire to excel, high intellectual curiosity, self-reliance, independence, gentle, honesty, truthfulness, sociability, etc. However, loss of interest in the school, low self-confidence, cheating, rebelliousness, inferiority complex, lack of self-control,

etc. are some of the least manifested behaviors by the special class students. They are manifestations of emotional immaturity as Errant (1980) reported it. However, the first group of characteristics fits with what Esposito (1973) reported. Though the second group of characteristics are uncommon in most of the special class students, there are some students who manifest them. This may be created due to the criterion used in the grouping of students. Because there are some students who are no better than most students of the non-special classes in their academic performance. Even there are students who have applied for regrouping; that is, to go to the non-special classes and learn there with their peer groups. This may be taken as the failure of the criterion used to group the students.

Table 4.5 Commonly Observed Characteristics of the Non-Special Class Students of the Studied Secondary Schools.

Rank	Characteristics	Respondents*	
		No.	%
1	Loss of interest in the school	429	64.2
2	Cheating	418	62.6
3	Carelessness (who cares type)	409	61.2
3	Dependency	409	61.2
5	Destructiveness	351	52.5
6	Delinquency	341	51.0
7	Lack of Self-Control	340	50.9
8	Low self-image or self-concept	337	50.4
9	Uncooperativeness	325	48.7
10	Rude	317	47.5
11	Aggressiveness	302	45.2
12	Inferiority Complex	293	43.9
13	Frustration	270	40.4
14	Boastfulness	250	37.4
15	Independence	200	29.9
16	Truthfulness	178	26.6
17	High Intellectual Curiosity	170	25.4
18	Honesty	166	24.9
19	Self-Reliance	150	22.5
20	Sociability	143	21.4

\* Student Respondents.

As it is shown above, the non-special class students have developed some characteristics which are negative in their nature. These include, the loss of interest in school, cheating, carelessness, destructiveness, dependency, delinquency, lack of self-control, low self-image or low self-concept, uncooperativeness, etc. They are the characteristics that have been commonly observed by the students themselves and are rated highly. It is a common phenomenon wherever, there have been the ability grouping practices (Errant, 1980; Borg, 1967; Johnson, 1970; Slavin, 1988; Hassen, 1964).

Besides this, the other secondary schools' students and academic staffs' morale of work are found being affected (Addis Ababa Schools Office, 1992). This is because of the topping of those high scorers from every junior secondary schools at the beginning of every academic year. The six secondary schools enroll, the special students in their 9<sup>th</sup> grade and latter in the other senior classes. In the above list of characteristics, the qualities that are most common for the special class students are ranked least. In both lists of characteristics, (of the special and non-special) the highly observed are uncommon in most of heterogeneously grouped students. Of course, most of the qualities manifested by the special class students are most wanted while those highly rated for the non-special classes are the most disliked ones for their negative influences.

Normally, a Student who has lost the interest in the school doesn't learn at his/her best. He/she is not motivated at all. External factors (the school organization, practices within it, etc) create more negative effects on his/her attitude toward the school and the activities there. Hence, someone who doesn't have the inner motive to work hard due to the external factors cannot do any better performance. He/She rather tends to act contrary to what is expected.

Hence, the arguments about the positive and the negative effects of the grouping practice on the social and emotional

spheres of the life of the students seem logical. Both groups; the supporters and the opponents have given their reasons. However, at least, numerically, the negative effects of the practice on the non-special groups seem to have more than its effects on the special class students. In addition to these, the qualities the students have developed are uncommon to the heterogeneously grouped and taught students, especially the non-special class students' few first ranked qualities.

Although there have been no modifications in the curriculum taught and adaptations of methods and instructional materials to the pace of the learners and subsequently any significant difference between the heterogeneously treated and the homogeneously grouped and taught students in the academic sphere, the negative effects of the grouping practice on the non-special class students are more than the effects on the special class students. However, the self-concept of the students in general is not highly affected by the grouping practice. Most of them have rated that they have positive attitude towards themselves and their activities.

Table 4.6 Students' Self-concept under the current school climate.

Categories of Responses	Respondents							
	Yes		No.		No Idea		No. Response	
	No.	%	No.	%	No.	%	No.	%
1. I take a positive attitude toward my self.	360	53.9	40	6.0	63	9.4	205	30.7
2. I feel that I am a person of worth on an equal plane with others.	296	44.3	87	13.0	81	12.1	204	30.7
3. I am able to do things as well as most other students.	340	51.0	78	11.7	47	7.0	203	30.4
4. On the whole, I am satisfied with my self.	340	51.0	64	9.6	58	8.9	206	30.8

\* Student Respondents.

As is indicated in the above table, the majority of the respondents, 53.9%, 44.3%, 51% and 51.0% have shown that they take positive attitude towards themselves; feel that they are persons of worth on an equal plane with others; feel that they do things as well as most other students and on the whole that they are satisfied with themselves respectively.

Contrary to this, quite a few of the respondents showed that they feel negatively towards themselves and are not satisfied with themselves. Quite few of the respondents either responded as they have "No idea" or kept silent.

Similarly, some four hundred and forty four (67.96%) of the student respondents have given their response either as they "feel happy" or at least they "don't feel unhappy" because of their presence in their present group; the special or the non-special. But 224 (32.04%) of the respondents have expressed their feeling that they "feel unhappy" because of their presence in any one of the two groups. As most educators know it, a person who has a negative attitude towards him/her self doesn't learn properly because of lack of motivation. Thus schools as institutions are not expected to create conditions that retard or hamper the motives of students. However, there are some students who have already developed low self-images. They have a negative attitude towards themselves and the schools. The reasons for low self-concept/low self-image/ of these students are many in number and vary in nature. However, the highly rated possible reasons are as follows:

Table 4.7 Respondents' Reasons for Low Self-Concept (Low self-image)

Rank	Categories of Responses	Respondents*	
		No.	%
1	The best teacher, who are experienced, patient, knowledgeable are always assigned to the special class students.	182	27.2
2	Teachers' expectation toward our academic performance is low and they teach us unsatisfactorily .	178	26.6
3	Makes students of the special class to look down on the non - special class students.	175	26.2
4	Teachers' attitude towards the group is positive but they don't teach us properly thinking that we understand everything quite easily.	174	26.0
5	The grouping practice is a constant punishment for me.	170	25.4
6	Regrouping of students is not practiced in the school, therefore, there is no mobility from the special to the non-special and the vice-versa.	161	24.1
7	The school community think that academic success is out of our capabilities.	143	21.4
8	Our teacher prefer blaming to praising.	134	20.1
9	Makes the non-special class students to see the special class students like their enemies and makes unnecessary social distance.	113	16.9
10	The school doesn't help us develop any of our interests in any of the subjects and treat us all equally.	101	15.1
11	Although I am in the special class, I get nothing different from others because of the grouping practice except my presence in that group.	93	13.9

\* Student Respondents.

As it can be seen from the table, both the special and the non-special class students feel unhappy, because of many reasons. The special class students do feel unhappy because of the overlooking of their learning problems, absence of regrouping and the negative attitudes of the non-special

class students toward them for no benefit they got from the grouping practice. The students of the non-special classes feel unhappy because for many reasons. Some of the reasons include the assignment of teachers, the low expectations of teachers on the academic performance of the group, the blames directed at them by most teachers and the direct effect of the grouping practice as a constant punishment on them. Similarly, the absence of regrouping and mobility and the unnecessary social distance created by the practice make them feel unhappy.

In general, the grouping practice's effect on the social and emotional life of every student is great. It has created distance between the students of the two groups. They have begun identifying themselves as "we" and "they". They choose their friends from their own group in most cases. They all have felt it that without modifications of the curriculum, methods and techniques of teaching, they all get no benefit except the negative social and emotional effect. Their communications, social roles, security acceptance by their peer groups, etc are highly affected by the grouping practice.

In addition to this, the dissatisfaction of the teachers about the frequent assignment to the same group of students, especially to the non-special classes, the disrespect shown to some of the teachers by the special class students, etc.

are some of the common phenomena in these secondary schools. Teachers' low expectation of the academic performance of the non-special class students, the artificially inflated self-esteem of the special class and the inferiority complex of the non-special class students have become the constant punishment for the non-special class students. The inflated self-esteem is equally harmful for the special class students.

Section V. Achievement Based Grouping and Its Effects on Teachers' Working Conditions and Work Relationships.

The success or failure of any programme can partly be evaluated by the impact it creates on those who are actually engaged in its implementation. The support it gets can lead to success while the disapproval or rejection can lead to its failure. Table 5.1 shows the effects of grouping practice on teachers' working conditions.

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Table 5.1 The Effect of the Grouping Practice on Teachers' Working Conditions.

Rank		Respondents	
		No.	%
1	Improve the instructional task of teachers by reducing the range of individual differences which are obstacles to teach according to the pace of the different students.	80	60.6
2	Satisfies teachers' preference for teaching homogeneous groups.	68	51.5
3	Makes teachers' work difficult when they are assigned to the non-special classes	58	43.9
4	Forces teachers to use different methods and techniques for teaching which it in turn demands and in-service training of teachers.	54	40.9
5	Provides teachers with plenty of opportunities to have contacts with those who have problems.	50	37.9
6	Demands teachers' dedication and competence that were inexistant.	46	34.8
7	Takes teachers' time because teaching any one of the two groups has become more challenging now than the previous heterogeneous groups.	36	27.3
8	Makes teachers spend most of their spare time to correct assignment and tests.	30	22.7
9	Overloads the weekly activities of teachers	28	21.2

As it is listed above in the table, most of the positive effects of ability grouping on teachers' working conditions are that the reduced individual differences of students which made teaching possible according to their pace. The chance to satisfy teachers' preference for teaching a Homogeneous group, and opportunities to help students who have learning problems come next. However, the problems teachers face when they are assigned to the non-special groups include the problems of handling students because of lack of proper training, the demands of the practice, and the time it takes them in the preparation of lessons, correction of test and exercises which overload teachers throughout their working and spare times. These are some of the negative effects raised by most teachers.

Although the responses teachers gave here indicate that they spend most of their time in the preparation of lessons and correcting tests, the observed teachers have been using the same lesson plans and lesson notes in both the special and the non-special groups. The only difference seen is that teachers finish their lessons in a shorter time when they are teaching in the special groups than in the non-special groups. They give some more time to discuss on what they presented in that particular period. This has not been observed in the non-special classes because of the students' slow rate of learning and low level of responses. In addition to this, most teachers don't correct assignments

because of the large size of students in each section. The tests are also few and are arranged by the offices of each school. Therefore, though there are some differences in the classroom situations, the level of differentiation of instruction according to the pace of the students in each group is so little. Hence, the working condition of teachers in these secondary schools are not different from that of other teachers of other secondary schools. Because they all use the same lesson plans, lecture notes, methods, instructional materials, etc. Thus, the working conditions of teacher in these secondary schools are not affected much.

Table 5.2 The Grouping Practice and Its Effects on Teachers' Work Relationships.

Rank		Respondents	
		No.	%
1	Creates staff disagreement when teachers are assigned to one of the two groups on certain criteria: experience, mastery of subject matter, etc.	54	40.9
2	Affects the morale of those teachers who are assigned to the non-special classes while inflating the self-esteem of some of those who are assigned to the special classes	52	39.4
3	Improves teacher-parent contacts to discuss on students' progress.	44	33.3
4	Involves all staff members of the school in planning, implementing, evaluating, and making decisions on the school's programme.	34	25.8
4	Encourages the coordination of instruction through the exchange of views and experiences.	34	25.8
4	Improves teacher-directors, teacher-unit leaders, and teacher department heads interactions.	34	25.8
4	Improves student-teachers and teacher-teacher interactions.	34	25.8
8	Saves teachers' time to discuss with colleagues and with their students.	32	24.2
9	Reduce the interaction morale of the teaching staff.	28	21.2
10	Enables every teacher to take part in decision making in the schools' activities.	14	10.6

As it is shown in the table, the grouping practice's negative effects appear in the first few rank orders. The disagreements among teachers when they are assigned to the non-special classes or to the special group on the basis of specific criteria; the reduced morale of work among some staff members of the non-special groups and an inflated self-esteem of those assigned to teach in the special classes are some of the negative effects of the practice.

On the other hand, the improved close interactions between parents and the school to discuss on the students' progress, the coordination of instruction through the exchange of experience, and the smooth work relationship among the academic staff seem as factors that facilitate the instructional process. It also creates all condition that involve all the concerned personalities in the affairs of the schools. As informed by two of the observed teachers, Ato Gebeyehu Asrat and W/o Solomie G/Meskel, both from Yekatit 12; the students' disobedience to some of the non-special class teachers forced some teachers to react against the grouping practice. The practice also has affected the six secondary schools' relation with the other secondary schools. Because the six secondary schools admit all those students who scored 96 percentile and above in their ninth grades, depriving others of bright students. In addition to this, these secondary school admit those students who may have good ranks in any one of the secondary schools in Addis Ababa and

come at any grade level at the beginning of any Semester. Therefore, the other secondary schools are losing their top students because of the grouping practices in the region. Similarly, most night school students flow into these six secondary schools thinking that the schools are the best of all the other secondary schools. Not only these, but there are some parents who ask both the regional education office and one or more of these six secondary schools to admit their child/children which, of course, would affect the school-community relations.

In general, as the evidence collected showed it, the effects of the grouping practice on the teachers' working condition is not so high. It has created some work overloads on those who try to prepare for two groups of students, though their preparations are more or less the same. The academic staffs' work relationships also have not been affected too much. There are some positive conditions that have improved their relationships. There are also a few negative effects. However, their work relationships are not highly affected by the practice because of absence of factors that affect relationships among staff members. Had there been benefits such as further education, promotion and increments attached to the assignment of teachers, as in other countries, one would guess that there would have been different work relations among the academic staff.

Therefore, the effect of the grouping practice on teachers' working conditions and work relationships is very little. However, it doesn't have support by most teachers as it is practiced now.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this last part of the thesis, the summary, conclusions and recommendations are presented.

#### 5.1 Summary

It has become a common practice that every formal instructional activity involves the interaction of the student, the teacher, and the material to be learned. Of the many factors that affect the interactions, the organization of the students either in an inter-school, intra-school or in the classrooms will have its important place in the list of factors. By considering this fact, authorities concerned with the education of the young generation attempt to device new ways and methods that would help them achieve the educational goals of the country in general and the local needs in particular.

Based on such assumptions, the responsible department of the then ruling party (the Workers' Party of Ethiopia (WPE)) of the region initiated the region's education officials and the six secondary schools began the special ability grouping in 1986/87. The ability grouping which is based on the eighth grade national examination results has been done in six of the senior secondary schools of the

region. students whose eighth grade national examination results were ninety six and above percentile have been considered as special students and those below that (96%) as non-special students. The very purpose of the grouping practice has been mainly to help those whose results are high; that is, those who scored ninety six and above. It aimed at providing the opportunity to develop their abilities and be able to join the higher education institutions. It has been in operation for the last few years. However, there have been few researches on the practice's effects on the academic performance of the students, but not on other aspects of the students and the staff.

Taking this into account attempts are made to find out the overall effects of ability grouping on the students' academic performance, social and emotional life and finally the effect of the practice on teachers' working conditions and work relationships. The students' academic achievements are taken and compared by using the ESLCE results. In addition to this, teachers' and students' opinion on the advantages of the grouping practice are also analysed.

The practice's effects are gathered by using different instruments: questionnaires, interviews and observations. The first two instruments were tested, and commented by the advisor and colleagues before the final items were prepared.

region. Students whose eighth grade national examination results were ninety six and above percentile have been considered as special students and those below that (96%) as non-special students. The very purpose of the grouping practice has been mainly to help those whose results are high; that is, those who scored ninety six and above. It aimed at providing the opportunity to develop their abilities and be able to join the higher education institutions. It has been in operation for the last few years. However, there have been few researches on the practice's effects on the academic performance of the students, but not on other aspects of the students and the staff.

Taking this into account attempts are made to find out the overall effects of ability grouping on the students' academic performance, social and emotional life and finally the effect of the practice on teachers' working conditions and work relationships. The students' academic achievements are taken and compared by using the ESLCE results. In addition to this, teachers' and students' opinion on the advantages of the grouping practice are also analysed.

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By making the necessary corrections in the structure and style of the items of the questionnaires and the interviews, they were administered and the data were collected, tallied and finally tabulated and analysed.

In the data collection, the questionnaires were distributed to randomly selected sample students (720) and to one hundred and forty members of the academic staff. Only six hundred and sixty eight (92.8%) of the students and one hundred and thirty two (94.3%) of the academic staff completed and returned the questionnaires. A total of twenty eight periods of six randomly selected classroom teachers in grades 9-12 were observed. This took place in the special (fourteen periods) and in the non-special (fourteen periods) classes. Every teacher was observed four periods while teaching in the special and in the non-special classes of the same grade level and the same lessons. This has been done to see whether there are differentiation in the instruction or not. The results are used to substantiate the findings with data collected through other tools. On the basis of the mentioned sources of data, instruments employed and methods of data analysis the following are the summary of the findings:

1. There are no differentiations in the utilization of resources. The schools use all resources equally for their instructional activities. Teachers' use the same

methods and techniques of teaching. Students' cooperation are highly limited to their own groups. Students of the special and the non-special classes have been working with their peers in their own groups, thus limiting the possibility of getting help from each other.

2. The adaptation of the curriculum, methods and techniques of teaching to the level of the learners understanding and rate of learning through enrichment or acceleration is very limited. Their use of the centrally designed curriculum and materials is the same for both groups. However, some teachers do attempt to prepare and present their lessons according to the learning pace of the students.
3. The computation done on the ESLCE results of the two years, heterogeneously taught students of the three schools and of the two years of homogeneously treated students of the very same schools of similar students showed some significant differences between the students. The special class students of the two schools have shown significant differences in their ESLCE results for most of the cases (60%) and no significant differences in 40% of the cases. One of the sample secondary schools has shown no significant differences in any groups. In addition to these, the academic staff

and the student respondents were asked to rank the possible advantages the grouping practices rendered in the improvement of the instructional process. Though the application is so little, they expressed that the grouping practice facilitates the instructional process; performance of the students, their participation, and as it enables students to be better challenged, to be successful and get high academic results. It is also found that at least in principle, that some teachers have attempted to modify their subjects to the level of their students, and use different methods of teaching that suit to the students, and the topics.

4. The grouping practice in the schools has both positive and negative effects. It is found that the grouping practice ensures satisfactory participation of each students in his/her group;- encourages hard work; competition; self-confidence; cooperation, and good social interaction mainly among the special class students. It also avoid boredom of the abled and it increases the social success as in the academic performance.

On the contrary, frustrations; inferiority complex, loss of interest in the schools; loss of self-confidence, the reduction of the feelings of the low ability (non-special class) students to a second class instruction and

hopelessness, dependency, disobedience, maladjusted behaviors such as aggressions, absenteeism, cheating, rebelliousness, etc, social stratification, poor model for the non-special class students, low expectations of teachers and the stigmatization of the low ability (non-special class) students etc, are some of the common negative effects of the practice that are observed by most of the school community. Besides this, the schools' community have begun to think that the non-special class students often do less than the special class students.

Similarly, characteristics which are not most typical of the heterogeneously organized senior secondary school students are observed. The most clearly seen characteristics of the special class students are the desire to excel, high intellectual curiosity, self-reliance; independence; gentle (calm) behavior; honesty; truthfulness and high acceptance of others on the one hand, and some negative characteristics, such as an inflated self-esteem; boastfulness; lack of self-control; etc. on the other.

Furthermore, the negative effects on the low (non-special class) ability students are high. The characteristics that are highly manifested are; loss of interest in the schools cheating, carelessness, dependency, destructiveness, delinquency, lack of self-control, low-self-image, uncooperativeness, etc. But characteristics such as

sociability, honesty, high intellectual curiosity, truthfulness, etc, are the least rated for the non-special class students. However, the self-rated results of the students show the positive attitude they have toward themselves and their abilities in doing things.

Although the positive attitude and feelings of the students are remarkable, a large number of the student population disagree with the form of the grouping and the current way of practicing it. They think that there are differentiation in the assignment of teachers, and other resources. Besides this, the low expectation of teachers towards the non-special class students, the absence of regrouping, the low consideration of the academic success of the non-special students and the limited social interactions of the two groups made them feel it. Similarly, the frequent ~~blames~~ <sup>blames</sup> forwarded by most teachers to the non-special classes, and the negative reinforcements they receive have made them feel inferior to their peer groups in the special classes. The special class students, too, disagree with the practice of grouping. That is, ~~also~~ because of <sup>some</sup> teachers' high expectation and their method of teaching. In addition to this, they think that all of them understand every lesson equally and easily and leave most of the parts to the students' independent work. Besides this, their interactions with their peers in the non-special classes are getting ~~worse~~ and worse.

5. The effect of grouping students by ability on teachers' working conditions and work relationships seems positive. Most of the respondents (60.6%) (P. 132) think that it improves the instructional tasks of the teachers by reducing the individual differences teachers face in the class, meets the teachers' preference for teaching homogeneous groups, and the opportunity to use different methods, at least in principle. Contrary to these, the burden teachers face when they are assigned to the non-special classes are high. This is mostly encountered by teachers for most of the students in the non-special classes are not responsive. In addition to this, the time required for preparations, lack of appropriate training in handling relatively homogeneous ability groups; the dedications and competence required from every teacher have made the practice a programme that affects teachers working conditions negatively to some extent.

In regard to the work relationships created among the staff members, the data collected reveal that it has positive effects. It has increased teachers' involvement in decision making; gave them a chance to coordinate instruction; enabled them to discuss with colleagues and share practical experiences obtained from classrooms, and created a close and warm relationship among many of the staff members. It has also created conditions that made teachers have close contact with students that have problems in their education.

However, there are some disagreements among few of the staff members on one side, and the schools directors, unit leaders and department heads on the other side. This has been so because of the frequent assignment of teachers into the non-special class students. Besides this, some teachers who are assigned to the special classes sometimes show artificially inflated self-esteem that demoralized those who teach in the non-special classes. In addition to this, some students show disobedience or disrespect to the non-special class teachers thinking that they are not as competent as those who teach in the special classes.

In general, the evidences collected through the various instruments show us that although there are some negative effects on teachers' working conditions and work relationships, the positive effects seem to be more than the negative ones. However, unless proper measures are taken on time, the negative effects may grow to a higher degree and affect the whole of the school climate.

## 5.2 Conclusions

As a descriptive research, especially a survey method, the instruments employed in this study have produced required data for analysis. The analysis of the collected data have helped in finding out certain results. Thus, on the basis of the findings the following possible conclusions are made.

3. The differences in the academic achievements are moderately in favour of the heterogeneously treated high ability students and the homogeneously taught non-special class students. Of the tests made between all pairs of means, 57.64% of the differences are due to better results of the heterogeneously taught students. The rest of the differences are between similarly taught students, that is, within the heterogeneous groups and the homogeneous groups themselves.

Similarly, the differences between the non-special class students are in favour of the homogeneously taught low ability students. In this case, 50% of the differences between all pairs of means are due to better results of the homogeneously low or non-special students. The rest are within the same types of groups. Thus, according to the statistical analysis made on the ESLCE results, the heterogeneously treated high ability students had better achievement than homogeneously treated special class students. But the homogeneously low or the non-special class students of the 1989/90 and 1990/91 had shown better results than similar students of the 1987/88 and 1988/89. Hence, the effect of ability grouping on the results of the high ability students is almost nil. But, in the contrary, it has improved the academic achievement of the non-special class students to some extent.

Although the effects of the ability grouping practice on the academic achievement of the students is not high, both the academic staff and the students are optimistic about the practice's contribution in the academic performance of the students, if there is modification in the accomplishment of the programme.

4. The grouping practice in the six senior secondary schools of Addis Ababa has more negative effects on the social and emotional development of the non-special class students than on the special class students. The inferiority complexity, frustrations, anxieties, maladjusted social behaviors such as aggression, absenteeism, increased drop out rates, destructiveness, loss of interest in the school and the programs it stands for etc. are some of the feelings that are frequently manifested by the non-special class students. Similarly, the superiority complex, boastfulness, disobedience to some staff members, and artificially inflated self-esteem of the special class students are seen as some of the negative effects of the ability grouping practice. Because these characteristics have not been seen on the bright students of the earlier times. In the same manner, teachers' low expectation to the academic performance of the non-special class students is increasing the negative feelings of the students towards themselves and the teachers, thus,

increasing the non responsive nature of the non-special class students Vis-a-vis special class students.

5. The effects of the practice on teachers' working conditions and work relationships tend to be positive at present. The majority of the staff members do accept the grouping practice, at least in principle, as a device that helps the improvement of the instructional process by reducing the range of the individual differences in the academic performance. They also consider it as a means that provides them with the chance to choose their method of teaching that fits to the learning pace of the students. It is also taken as a good mechanism that helps the coordination of the instruction and exchange of experiences. However, the frequent assignment of some teachers to the non-special classes, the artificially inflated self-esteem of some staff members and the disrespect by some students to the non-special class teachers are affecting the work relationships with the academic staff.

### 5.3 Recommendation

Based on the findings and the conclusions made on the effects of the ability grouping on the instructional process, the academic performance, social and emotional development of the students and its general effect on the working conditions

and work relationship of the academic staff the following points are suggested as recommendations.

1. The ability grouping's contribution to the use of the schools' resources, human, physical, material and others is very limited. Its instructional values in the application of the different methods and techniques of teaching are also very limited. All these are due to the absence of clearly set guidelines from the region's education office or elsewhere. Therefore, the schools' academic staff, the region's education officials and parents or parents' committees of the schools may meet and prepare the guidelines for the schools if the practice is at all needed to continue in <sup>its</sup> current form. The guidelines may focus on clarifying the purpose, the criteria or the bases for the grouping, the use of the schools' resources, the possibilities and the extent of the modifications in the curriculum methods and techniques of teaching, the evaluation mechanisms of the students and other related matters.
  
2. The very purpose of the ability grouping is to reduce the range of individual differences in the academic performance level of the student and meet individual needs. The attainment of this is possible through modification of the curriculum and the adaptation of the methods and techniques of teaching. This in turn

requires the will and orientation of the academic staff. It also needs the proper training of teachers. Therefore, the training of teachers to handle their instructional tasks is an urgent need. Further more, the close contact and discussions of the region's education officials, the school directors and the teacher training higher education institutions on the content and nature of the courses for pre-service and an in-service training seem timely. If teachers don't get the training on how to modify their lessons through enrichment, acceleration of the subjects and adaptation of method and techniques of teaching, including the use of the different instructional materials, the practice's goals cannot be easily attained. Therefore, the training of teachers must get proper attention.

3. The comparison of the academic achievements of the earlier, heterogeneously treated students and that of the recent, homogeneously taught students haven't shown any significant differences at 0.05 level. The few significant differences observed cannot make the result conclusive for some achievement results of the heterogeneously taught students are better than the homogeneously treated ones. In certain instances, the homogeneous groups have shown better results. Hence, added to many variables that can affect the academic achievements of students, the findings don't show direct

and an all out improvements that favour the special grouping. One can ascribe the absence of significant differences to the absence of modifications of the curriculum and adaptation of methods of teaching and related factors. Because these factors-are considered as the sole causes for the improvements in academic achievements wherever ability grouping is practiced and has shown achievement improvements. Hence, to raise the academic achievements of both groups, the special and the non-special students, teachers must be willing and be supportive to modify the curriculum and adapt their methods and techniques of teaching according to the learning pace of the students. In addition to this, the grouping of students on the basis of their abilities and achievements in selected subject(s) seems a better device in the improvement of the students' academic achievement rather than simply grouping students on the basis of a single criterion, the fixed achievement of students in a certain test.

4. Although the effects of ability grouping on students' academic performance need modification of curriculum and adaptation of the teaching methods to the learning pace of the students, its negative effects on the social and emotional life of the students need no further treatment after grouping. The effects will be manifested soon after the grouping is accomplished. Activities that

follow the grouping practice also reinforce the negative effects more than any time. Thus, as the study indicated it, the effect of grouping students by ability on the social and emotional life of the students, especially on the non-special class students <sup>are</sup> ~~is~~. This is the result of the grouping within the same school or intra-school grouping. Therefore, the regional schools office and the concerned bodies, both governmental and non-governmental, parents and parents' committees, individuals, etc. may meet and discuss to organize wholly separated secondary school(s) in the region. The school(s) may recruit new entrants based on multiple criteria which may be more reliable than the present eighth grade national examination results. Similarly, a flexible ability grouping on the basis of students' ability in subject areas may help avoid the negative effects of the practice for every student may become a member of one group or another instead of belonging to a rigidly grouped special or non-special group.

5. Though the academic staff is fully aware of the positive effects of the practice on the instructional process as a whole they all are not doing what they should do to benefit from the grouping practice. This is because of the absence of their involvement in the decision making, lack of clearly set guideline, and issues related to

training, promotion, increment in payment, transfer, educational, etc. Although some of them think or take it as if it has created an extra-ordinary duties on them, most of the teachers in the schools have been observed using the same methods, techniques of teaching, lecture plans and notes, exercises, etc. Therefore, it seems that the practice has not created any different working conditions. Similarly, their work relationships are not highly affected at this time. However, the deteriorating teachers' working conditions and work relationships can be improved and the practice can be more useful if the number of the weekly periods and number of sections, and the number of students per sections are reduced. Similarly, the beginning staff disagreement due to frequent assignment to the non-special classes and the disrespect of some students to the non-special class teachers and an inflated self-esteem of some special class teachers must be resolved by assigning teachers by rotation. Besides this, incentives could be arranged to teachers of both groups so as to initiate them to do what they should do in groups they are assigned to. The incentives could be further education, promotion, increment in payments, transfer, etc. Therefore, the schools' directors, teachers, unit leaders department heads, guidance and counseling officers and the various committees in the schools and concerned members of the regional office,

training, promotion, increment in payment, transfer, educational, etc. Although some of them think or take it as if it has created an extra-ordinary duties on them, most of the teachers in the schools have been observed using the same methods, techniques of teaching, lecture plans and notes, exercises, etc. Therefore, it seems that the practice has not created any different working conditions. Similarly, their work relationships are not highly affected at this time. However, the deteriorating teachers' working conditions and work relationships can be improved and the practice can be more useful if the number of the weekly periods and number of sections, and the number of students per sections are reduced. Similarly, the beginning staff disagreement due to frequent assignment to the non-special classes and the disrespect of some students to the non-special class teachers and an inflated self-esteem of some special class teachers must be resolved by assigning teachers by rotation. Besides this, incentives could be arranged to teachers of both groups so as to initiate them to do what they should do in groups they are assigned to. The incentives could be further education, promotion, increment in payments, transfer, etc. Therefore, the schools' directors, teachers, unit leaders department heads, guidance and counseling officers and the various committees in the schools and concerned members of the regional office,

parents, and public figure in the surrounding areas of each school, etc, need to meet and cooperate to improve the working conditions and work relationships of the academic staff to benefit from the practice.

Finally, since the knowledge about the practice and its proper application is limited, and the present size of students per section, and teacher's weekly loads are very high the practice can not be used properly. Thus, an organized and detailed study could be done by the region's education office and the Ministry of Education. This may include other areas which are not included in this study.

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**Appendix - A**

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**FACULTY OF EDUCATION**  
**DEPARTMENT OF CURRICULUM AND INSTRUCTION**

**Introduction**

This is a questionnaire prepared for School Directors, Deputy directors, Teachers, Unit Leaders, Department Heads and Guidance and Counseling Officers of selected senior secondary schools of Addis Ababa. The selected schools are those which group their newly enrolling students as (1) special students who scored ninety six percentile and above in Eighth Grade National Examination results and (ii) non-special those who scored below ninety six percentile. The purpose of this questionnaire is to collect data on the effects of the ability grouping practice on the (i) academic per formance; (ii) Social and emotional development of students and on (iii) the working conditions and relationships of the academic staff of these schools.

Hence, you are kindly asked to fill in the questionnaire with out any hesitation. Your cooperation and genuine participation in providing the necessary information is very important.

Thank you in advance for your cooperation.

A Questionnaire Prepared for School Directors, Unit Leaders,  
Department Heads, Teachers and Guidance and Counseling  
Officers.

Direction One

1. Please, give all the required information about yourself by making (x) on the lines where they are given and by writing the required data in the space provided.
2. Since the information you give will be kept confidential, You can feel free in responding.
3. Writing your name is not required.

1. School \_\_\_\_\_
2. Sex:- Male\_\_\_\_\_ Female\_\_\_\_\_
3. Age \_\_\_\_\_
4. Nationality \_\_\_\_\_
5. Marital Status: Married\_\_\_\_\_ Single\_\_\_\_\_ ,
6. Highest Level of Qualification \_\_\_\_\_
7. Trained for teaching:\_\_\_ Yes\_\_\_\_, No\_\_\_\_,  
Institution\_\_\_\_\_.
8. Present occupational status:\_\_\_\_\_.
9. Years of experience in teaching \_\_\_\_\_.
10. Years of service in the present school \_\_\_\_\_.
11. Subject(s) you teach \_\_\_\_\_
12. Number of periods you teach (Reg)\_\_\_\_\_ per week
13. Number of sections you teach \_\_\_\_\_
14. Number of students you teach \_\_\_\_\_

Direction Two:- Make a circle on one of the items of your choice where there are choices and please do the others according to the stated requirements.

1. In your opinion, what is the most important benefit that ability grouping practice provides to the schools in general?
  1. It creates improved resource (material, personal, time etc.) utilization atmosphere.
  2. It makes the use of the scarce resources to develop the potentials of the few more able ones.
  3. It enables the school to use its limited resources to help the development of the slow learners.
  4. It saves the resources as it saves most of the teachers' time.
  5. I see no contribution of the grouping practice with regard to the use of the resources.
  
2. What is the instructional value that one gets from the ability grouping practice in secondary schools?
  1. It helps the use of different teaching methods, either independently or in a combined form.
  2. It reduces the criticisms extended by many educators regarding the frequent use of the lecture method.

3. It helps the making of the use of some equipment and materials along with few teaching methods which are not possible in a heterogeneously grouped schools.
  4. It encourages to experiment with different teaching strategies and ideas.
  5. It brings no improvement in either the selection and use of the different teaching methods or materials.
- 
3. What do you comment on the use of the different teaching techniques by teachers? (Eg. techniques:- such as motivation, reinforcement, questioning, case studies, assesment, simulation, problem solving, role playing verbal and non-verbal communication, explanations, etc.)
    1. They use some of these techniques less frequently.
    2. They use the mentioned techniques most frequently for the students' abilities and speed of learning are more or less similar.
    3. They are not interested in using the different techniques of teaching.
  
  4. Do teachers adapt the centrally designed curriculum depending on the students' ability and availability of the needed materials?
    1. Yes, they adapt the content of their subjects; That is, they simplify the content to the low ability students while enriching it to the high ability ones.

2. Yes, they adapt it by accelerating the subject matter to the high ability students.
  3. Yes, they adapt it by reducing some of the contents to the low ability groups while adding some to the high.
  4. Yes, they adapt their subject by all means listed above.
  5. No they don't do any modification or acceleration of subject matter to any groups.
5. Do you agree with the argument that the grouping practice as "special" and "non-special" class within the same school has a lot of negative effects on the social and emotional development of students?
1. Yes, I strongly agree with this idea
  2. Yes, I agree with this idea
  3. No, I have no idea or opinion on this issue
  4. No, I disagree with the argument that it has negative effects.
  5. No, I strongly disagree with the argument extended.
6. If you agree with the Negative effects of ability grouping on the social and emotional developments, which of the following are the most crucial negative effects? (Mark (x) only in front of those which you consider are the most crucial).
- 6.1. \_\_\_\_ Stigmatizes the low group students

- 6.2.\_\_\_\_ Artificially inflates the self-esteem of the high ability groups.
- 6.3.\_\_\_\_ Produces frustration, hostility, guilty and inferiority complex among the low ability groups.
- 6.4.\_\_\_\_ Creates maladjusted and deliquescent subculture (aggression, absenteeism, increased dropout, cheating, boastful, rebelliousness, cruelty, etc.).
- 6.5.\_\_\_\_ Creates poor model, low teacher expectation and low instructional pace among low ability groups.
- 6.6.\_\_\_\_ Creates a social disobedience, dependency, destructiveness, uncooperativeness, lack of self-control, etc. among the low ability groups.
- 6.7.\_\_\_\_ Dooms the low ability groups to second class instruction and second class future.
- 6.8.\_\_\_\_ Aggravates the inequalities and deprives most of the adult life experiences.
- 6.9.\_\_\_\_ Loss of self-confidence, self-concept or low self-image in the low ability groups.
- 6.10.\_\_\_\_ Promotes conformism as opposed to divergent thinking and the perfection of democracy.
- 6.11.\_\_\_\_ Favours the high ability groups with a detrimental effect on the low ability groups.

- 6.12.\_\_\_\_ Creates social stratification in the school which is not stated in the national educational objectives.
7. In your opinion, which of the following positive effects are highly reflected on the social and emotional atmosphere in the school? (Rank them according to their order of importance (1-9).
- 7.1.\_\_\_\_ Ensures satisfactory and free participation within the classrooms for they are with their similar peers.
- 7.2.\_\_\_\_ Creates emulation, rivalry, pride and self-confidence among the high ability groups.
- 7.3.\_\_\_\_ Increases the academic and social successes and greater teacher approbation of low groups.
- 7.4.\_\_\_\_ Enhances the learning opportunity of both groups through cooperation among themselves.
- 7.5.\_\_\_\_ Encourages every high ability student to work harder by providing him/her with a constant reward from the social environment.
- 7.6.\_\_\_\_ Makes individual attention possible to the non-special students.
- 7.7.\_\_\_\_ Improves student-student and student-teacher relationships.
- 7.8.\_\_\_\_ Avoids the boredom of the bright students by avoiding the dull.
- 7.9.\_\_\_\_ Makes the Low-ability groups to be active and focus on extra-curricular activities.

8. Which possible advantages have you observed in facilitating the academic performances of the students? Please rank them by writing the number (1-11) in front of the points you chose.

8.1.\_\_\_\_ Reduces the range of individual differences and makes differentiation of instruction possible.

8.2.\_\_\_\_ Results in high academic achievement by reducing heterogeneity and making teaching easy.

8.3.\_\_\_\_ Helps to realize the adaptation of methods, techniques, materials of instruction according to the rate of progress of the learners.

8.4.\_\_\_\_ Makes academic success within the capabilities to those who are hard working irrespective of their group.

8.5.\_\_\_\_ Makes a greater difference in what, how much, and how well is learned and the quality of instruction.

8.6.\_\_\_\_ Enables students to be better challenged to do at their best for they are with their similar standards.

8.7.\_\_\_\_ Allows students to advance at their own rate.

8.8.\_\_\_\_ Benefits the low and the average students more for there is no modifications in objectives, curricular organizations and materials used.

- 8.9.\_\_\_\_ Improves the teaching situation and satisfies both students personal needs and teachers systematic sequential instructional skills.
- 8.10.\_\_\_\_ Accentuates self-discovery and individualization of instruction.
- 8.11.\_\_\_\_ Makes all students put forth all their efforts when they are grouped homogeneously.
9. What are the effects of the grouping practice on teachers' working conditions? (Mark (x) in front of those of the listed effects which you consider are the most observable ones.)
- 9.1.\_\_\_\_ Improves the instructional tasks of teachers by reducing the range of individual differences which were obstacles to teach according to the learning rate of the different students.
- 9.2.\_\_\_\_ Provides teachers with plenty of opportunities to have contacts with those who have problems.
- 9.3.\_\_\_\_ Satisfies teachers' preference for teaching homogeneous groups.
- 9.4.\_\_\_\_ Takes them a lot of time to prepare lessons for the two groups as teaching them now becomes more challenging than the previous ones.
- 9.5.\_\_\_\_ Makes teachers' work difficult when they are assigned to the low ability groups

- 9.6.\_\_\_\_ Overloads the weekly activities of teachers.
- 9.7.\_\_\_\_ Makes them spend most of their spare time to correct assignments and tests.
- 9.8.\_\_\_\_ Forces teachers to use different methods and techniques of teaching which in turn demands an in-service training of teachers.
- 9.9\_\_\_\_ Demands teachers' dedication and competence that doesn't exist.
10. In your opinion, which major working relationships are created in your school? (Mark (x) in front of your choice.)
- 10.1\_\_\_\_ Creates staff disagreement when they are assigned to one of the two groups on certain criteria (experience, mastery of subject matter, etc).
- 10.2\_\_\_\_ Improves teacher-parent contacts to discuss on students progress.
- 10.3\_\_\_\_ Depresses those teachers who are assigned to the low ability groups and inflates the self-esteem of those assigned to the high ability groups.
- 10.4\_\_\_\_ Involves all staff members of the school in planning, implementing, evaluating and making decisions on the school's programme and close interaction among every member of the school.
- 10.5\_\_\_\_ Encourages the coordination of instruction through the exchange of views and interaction.

- 10.6\_\_\_ Saves teachers' time to discuss with colleagues and their students.
- 10.7\_\_\_ Improves student-teacher, teacher-teacher, interactions.
- 10.8\_\_\_ Enables every teacher to take part in decision making in the school's activities.
- 10.9\_\_\_ Improves teacher-directors, teacher-unit leaders, and teacher-department heads relationships.
- 10.10\_\_\_ Reduces the staff morale of interaction.
11. Does the grouping practice facilitate the improvement of relations the school has with other secondary schools?  
Yes \_\_\_\_\_ No \_\_\_\_\_
12. Consider yourself as one of the parents of a student in one of the groups and think for a moment, then do you support the continuation of the grouping practice in the secondary schools?
1. Yes, I do support its continuation
  2. No, I don't support the continuation of the practice.

13. If you support its continuation, please write some points how should it be?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

14. If you don't support its continuation, please give your reasons.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Appendix - B

ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
FACULTY OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Introduction:

This is a questionnaire prepared for students of selected Addis Ababa Senior secondary Schools to collect information for the study entailed:

"A study on Ability Grouping and Its Effects on the Instructional Process, Students, and the Academic Staff in Selected Senior Secondary Schools of Addis Ababa."

You are one of the students of the selected sample schools and who can give the necessary information about the grouping practice and its effects. The base for the grouping of students is the Eighth Grade National Examination results of the years preceding the year of entry to the senior secondary school.

Therefore, the researcher requests you to give the necessary information that you have observed in relation to the students' (a) ~~general academic performances, (ii) the~~

social and emotional conditions of students and (iii) about your teachers' and their work in the classrooms. At this point, you are kindly asked to fill in all of the questions by reading them carefully. Your cooperation and your genuine information is valuable for the research.

Thank you in advance for your cooperation.

A Questionnaire Prepared for Students of the selected Sample Senior Secondary Schools of Addis Ababa.

Direction:

1. Please give the necessary personal information before you start working on the questionnaire items.
2. Mark a sign (x) on the line wherever there are lines in front of the required data in the right word or phrase that fits your personal information and write others in the space provided in front of each item.
3. Since your responses will be kept confidential, please be as honest as possible and feel free in giving responses to all the questionnaire items.
4. Writing a name is not required.

Part One:- Personal Data

1. Name of the School \_\_\_\_\_
2. Sex:- Male \_\_\_\_\_ Female \_\_\_\_\_
3. Age \_\_\_\_\_
4. Grade:- 8<sup>th</sup> \_\_\_\_\_ 10<sup>th</sup> \_\_\_\_\_ 11<sup>th</sup> \_\_\_\_\_ 12<sup>th</sup> \_\_\_\_\_

## 5. Family Conditions:-

5.1 Father's Educational Background:- \_\_\_\_\_

(write one of the levels listed below that describes your father's educational level)

Illiterate

Newly literated and continued

Post literacy programme

Grade 1-6

Grade 7-8

Grade 9-12

Certificate

Diploma

B.A/Bsc. (1<sup>st</sup> degree).

M.A./M.Sc.

Above M.A./M.Sc.

5.2 Mother's Educational Background:- \_\_\_\_\_ (Write one of the levels listed above that describes your mother's educational level).

6. Family monthly income (Gross) \_\_\_\_\_ Make the Sign (x) in front of the amount that describes the monthly income of your family.

6.1 Less than 100.00 Birr

6.2 101 - 200.00 Birr

6.3 201 - 500 Birr

6.4 501 - 1000 Birr

6.5 More than 1000 Birr.

7. Father's Occupation:- Private \_\_\_\_\_  
 Government Employee \_\_\_\_\_  
 No Occupation \_\_\_\_\_
- Mother's Occupation:- Private \_\_\_\_\_  
 Government Employee \_\_\_\_\_  
 No Occupation \_\_\_\_\_

8. The total number of people at home \_\_\_\_\_
9. Your 8<sup>th</sup> grade national examination result \_\_\_\_\_
10. Your Junior School \_\_\_\_\_
- Type:- Government \_\_\_\_\_ Private \_\_\_\_\_  
 Public \_\_\_\_\_ Church \_\_\_\_\_  
 Mission \_\_\_\_\_ Kuran/Mosque \_\_\_\_\_  
 Other \_\_\_\_\_.

11. Do your parents hire part time tutor(s) for your study at home?  
 Yes \_\_\_\_\_ No. \_\_\_\_\_

Part Two:- Direction

Make a circle around the number you choose where there is a choice and make a mark (x) in other items. Each of them have directions in brackets.

1. Does the grouping of students as "Special Class" and "non-special" using the eighth grade national examination results help every one of you develop your abilities to the maximum?
  1. Yes, it does very significantly
  2. No, it does not at all
  3. Yes, it does to some extent
  4. I have no opinion on this
  
2. Whom does the grouping practice serve best?
  1. The special classes
  2. The non-special classes
  3. All students of the school
  4. It is difficult to determine whom it serves best.
  
3. Does your school try to give priority to any one of the two groups in using the school's facility? (Classrooms, Library and Laboratory services etc...)
  1. Yes, it does in most cases
  2. No, it does not
  3. Yes, it does in a few cases
  4. It is difficult to see such practices
  
4. Who gets the best teachers, laboratory and library services, classrooms, new textbook distributions, etc.. in the school?

1. The special class students
  2. The non-special class students
  3. Both groups without any priority
  4. I don't see any such activities
5. Which method of teaching is most frequently used by your teachers?
1. The lecture method (teachers present we listen)
  2. The demonstration method (teachers display/show we see and do)
  3. The discussion method (teachers group us and let us talk on the issue)
  4. The problem solving method (give us problems with little assistance and we do solve problems)
  5. They use the different methods alternatively depending on the topics and the time we have.
6. Which of the following group of activities is most frequently seen or heard from most of your teachers till now?
1. Blaming, discouraging, irritating, punishment, etc..
  2. Motivating, encouraging, praising, simulation, questioning, case studies, independent work, etc..
7. How do you see the selection and utilization of contents, methods of teaching, and materials of your teachers?

1. The content of what our teachers are teaching us is exactly the same as what is written in our textbooks.
  2. Most of our teachers simplify the content and they teach us with simple and related examples until we understand the topics.
  3. Most of our teachers teach us by adding some new important ideas which are not written in the textbooks.
  4. Most of them teach us few things from the books and leave us to work on our own in the libraries, laboratories and elsewhere.
  5. Most of them teach us what is important and give us some extra-readings and exercises to be done at home or outside the classrooms.
8. What is your evaluation of your classroom lessons?
1. The lessons are vary interesting and help me join one of the higher education institutions in the future.
  2. The lessons are interesting and I hope that they will help me join the world of work at any time in my secondary school life or later.
  3. They are not so satisfactory and may not enable me join either the higher education institutions or the world of work.

4. The lessons in our group seem to me that they are organized in such a way that they will let us finish grade 12 and make me see no bright future.
  
9. Do you agree with the argument that grouping secondary school students as "Special" and "non-special" class within the same school benefits both groups if it is accompanied by modifications in the curriculum, method of teaching and materials?
  1. Yes, I strongly agree
  2. Yes, I agree to some extent
  3. No, I disagree
  4. No, I strongly disagree
  5. I have no any idea/opinion

10. Which of the following qualities describe best the characteristics of the students of the "Special" classes in your school as you see them in the school campus? (Make the sign (x) in the space provided in front of your choices).

- 10.1. \_\_\_\_\_ desire to excel (exceed)
- 10.2. \_\_\_\_\_ inferiority comple
- 10.3. \_\_\_\_\_ high intellectual curiosity
- 10.4. \_\_\_\_\_ Boastful
- 10.5. \_\_\_\_\_ aggressive
- 10.6. \_\_\_\_\_ Inflated self-esteem
- 10.7. \_\_\_\_\_ independent
- 10.8. \_\_\_\_\_ cheating
- 10.9. \_\_\_\_\_ sociable
- 10.10. \_\_\_\_\_ dependency
- 10.11. \_\_\_\_\_ lack of self-control
- 10.12. \_\_\_\_\_ self-reliance
- 10.13. \_\_\_\_\_ low-self-confidence
- 10.14. \_\_\_\_\_ loss of interest in the school
- 10.15. \_\_\_\_\_ high acceptance of others
- 10.16. \_\_\_\_\_ gentle/calm
- 10.17. \_\_\_\_\_ honesty
- 10.18. \_\_\_\_\_ uncooperative
- 10.19. \_\_\_\_\_ truthfulness
- 10.20. \_\_\_\_\_ rebelliousness

11. Which ones are characteristics of students of the "non-special" classes? (Make (x) in the space provided.)

- 11.1. \_\_\_\_\_ Delinquent
- 11.2. \_\_\_\_\_ Cheating
- 11.3. \_\_\_\_\_ Honesty
- 11.4. \_\_\_\_\_ Truthfulness
- 11.5. \_\_\_\_\_ Who-cares
- 11.6. \_\_\_\_\_ Uncooperative
- 11.7. \_\_\_\_\_ Destructive
- 11.8. \_\_\_\_\_ Independent
- 11.9. \_\_\_\_\_ Rude
- 11.10. \_\_\_\_\_ Boastful
- 11.11. \_\_\_\_\_ Loss of interest in the school
- 11.12. \_\_\_\_\_ Aggressive
- 11.13. \_\_\_\_\_ Self-reliance
- 11.14. \_\_\_\_\_ Lack of self control
- 11.15. \_\_\_\_\_ Dependency
- 11.16. \_\_\_\_\_ Low-self-image (concept)
- 11.17. \_\_\_\_\_ Frustrated
- 11.18. \_\_\_\_\_ Inferiority complex
- 11.19. \_\_\_\_\_ High intellectual curiosity
- 11.20. \_\_\_\_\_ Sociable.

12. Which of the following Educational advantages have you got from the school's grouping practice? (Mark (x) only in front of those which you consider are the most important).

- 12.1.\_\_\_\_ Increases academic and social success
- 12.2.\_\_\_\_ Creates healthy competition among our own peers.
- 12.3.\_\_\_\_ Cooperative learning is realized
- 12.4.\_\_\_\_ Motivates and challenges us to work harder and better in our own pace.
- 12.5.\_\_\_\_ Increases classroom participation without any fear.
- 12.6.\_\_\_\_ Initiates every student to spend his/her spare time on studying at home, in the libraries and elsewhere.
- 12.7.\_\_\_\_ Makes to spend more time to work on work books, studying what one learned, reviewing and some times to go to libraries.
- 12.8.\_\_\_\_ Creates spoon-feeding as opposed to independent work.
- 12.9.\_\_\_\_ Let students learn according to their abilities.
- 12.10\_\_\_\_ Makes the weekend test and assignments the normal duty of every student.
- 12.11\_\_\_\_ Raises the academic achievement and speed of learning.
- 12.12\_\_\_\_ Enable every student get the necessary help from teachers whenever there is the need for it.

13. Do you feel unhappy with your presence in your present group?

1. Yes, I feel unhappy
2. No, I don't feel unhappy

14. What makes you feel unhappy in your present group? (Make the sign (x) only in front of the phrase (s) or the sentence(s) that describe (s) your reason (s). (Choose only those which make you feel unhappy).

14.1. \_\_\_\_ The grouping practice is a constant punishment for me.

14.2. \_\_\_\_ Teachers' expectation toward our academic performance is low and they teach us unsatisfactorily.

14.2. \_\_\_\_ Regrouping of students (upgrading or downgrading) is not practiced, so that there is no mobility from group to group.

14.4. \_\_\_\_ The best teachers, who are experienced, patient, knowledgeable are always assigned to the high ability groups.

14.5. \_\_\_\_ Although I am in the high ability group, I get nothing from the grouping practice except my presence in that group.

14.6. \_\_\_\_ Teachers' attitude towards the group is positive, but they don't teach us properly thinking that we understand everything easily.

- 14.7.\_\_\_\_ Our teachers usually prefer blaming to praising.
- 14.8.\_\_\_\_ The School community think that academic success is out of our capabilities.
- 14.9.\_\_\_\_ The school doesn't help us develop any of our interest in any of the subjects and treat us equally.
- 14.10\_\_\_\_ Makes students of the special class to look down on us.
- 14.11\_\_\_\_ Makes the non-special groups to see us like their enemies and makes unnecessary social distances.
15. From which of the groups do you choose your friend (s)?
1. From the special group
  2. From the non-special group
  3. I don't see the grouping system in choosing my friend(s).
16. Please, make the mark (x) in the appropriate space that best describes your feelings which you might have developed as a result of the grouping practice in your school?

		Yes	No Opinion	No
16.1	Do have a positive attitude towards your self?			
16.2	Do you feel that you are a person of worth on an equal plane with others?			
16.3	Are you able to do things as well as most other students?			
16.4	On the whole are you a satisfied with yourself?			

17. What is your recommendation regarding the grouping practice?

1. It soon be eliminated for its instructional value is not clearly seen.
2. It soon be modified and continue with accompanied activities.

## Appendix - C

ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
FACULTY OF EDUCATION  
DEPARTMENT OF CURRICULUM AND INSTRUCTION

Classroom Observation Key Items

1. School observed \_\_\_\_\_ Name of the Teacher \_\_\_\_\_  
Grade and Section \_\_\_\_\_ Sex \_\_\_\_ Age \_\_\_\_  
Subject \_\_\_\_\_ Total Years of Experience \_\_\_\_\_  
The daily Topic \_\_\_\_\_ Qualification \_\_\_\_\_  
No. of Sections \_\_\_\_\_  
No. of Students per section \_\_\_\_ Marital Status \_\_\_\_\_  
Total Number of students he/she teaches \_\_\_\_\_  
Area of training \_\_\_\_\_  
Total years in teaching the subject \_\_\_\_\_
2. Instructional organization and development. Mark (x) in the space that describes it best.

		Points				
		5	4	3	2	1
1.	Prepared a lesson plan for his/her subject					
2.	Orients students the daily lesson/objectives					
3.	Revises the previous lesson before he/she begins teaching					
4.	Begins instruction promptly					
5.	Handles materials (content) in an orderly manner.					
6.	He/she presents his/her material using different examples, defining concepts and materials					

		Points				
		5	4	3	2	1
7	Keep students" rate of progress /pacing/-					
8.	Asks questions of various types (factual, academic, comprehension, analysis synthesis,...)					
9.	Recognizes responses /amplifies/ and gives corrective feedback/about their effort to learn/.					
10	Gives specific academic praise					
11	Provides for time practice, return of students' work, etc.					
12	Gives directions (assigns/, checks home work, classwork/					
13	Goes around and assists students while they are working					
14	Discusses cause-effect relationships, uses laws, principles, etc. in his/her teaching.					
15	States and applies academic rules in teaching .					
16	The teacher keeps course content and teaching methods essentially the same for all groups .					
17	There are enrichment of materials and increased tempo of instruction for the bright group?					
18	A program modification for the learners					
19	The roles of the teacher are the same in the two groups?					
20	The teacher's use/of body behaviour that shows support, interest, approval, acceptance, etc..					

		Points				
		5	4	3	2	1
21	Body behaviour that shows rejection, boring, disapproval, frowns, lack of interest, etc.					
22	Student-teacher communication (relationship)					
23	Students' participation in the high groups?					
24	Students' participation in the low groups					
25	Management of students (stops misconduct, conducts punishment, maintenance of instructional momentum, etc.					
26	On the whole, the teacher's					
	a. ability to motivate and individualize instruction is according to the expectation of the practice.					
	b. personal relationship with the different groups					
	c. differentiated approach to the two groups and fulfills the desired type of instruction.					
	d. ability to give and take feedback					
	e. attempts to build positive relationship and avoidance of mass criticism, goes along with the principle of grouping.					
	f. capacity to use a variety of method and techniques to gain student interest and participation is high					
	g. ability to relate the lessons to life, capacity of students, use time etc. fits the objectives of the practice.					

Appendix - D.

ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
FACULTY OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

An Interview Items Prepared for Regional Education  
Officials (Authorities).

1. You are familiar with the ability grouping practice in six of the senior secondary schools which are under the office. It began in 1979 E.C and continued functioning till now. Please, would you brief me about the purpose of the grouping practice? How it began, developed, bases of the grouping, approval by higher education office and officials, and state of the program?
  
2. What instructional advantages have you observed from the practice?
  - 2.1 In the process of instruction - Use of resources, in developing the required profile of students, use of different methods and techniques, etc..
  - 2.2 In terms of the academic performance of students?
  - 2.3 In terms of the intellectual, social and emotional developments of the student and its effects? (if any).

- 2.4 In terms of teachers' working conditions and work relationship.
3. What kind of problems have you received from these and other schools?
- Students' behaviour,
  - Teachers and administrative staff' and,
  - parents (if-any)
4. What is your plan for the future regarding the ability grouping practice?

## Appendix - E

## The Sample Schools' Four years' ESLCE Results

Bole - High (Special) Ability students' ESLCE Result.

Sub.	1987/88		Sub.	1988/89		Sub.	1989/90		Sub.	1990/91	
	X	X2		X	X2		X	X2		X	X2
1	2.8	7.84	1	2.4	5.76	1	3.8	14.14	1	2.00	4.00
2	3.00	9.00	2	3.0	9.00	2	3.6	12.96	2	3.6	12.96
3	3.0	9.00	3	2.8	7.84	3	2.2	4.84	3	3.2	10.24
4	2.8	7.84	4	2.4	5.76	4	3.0	9.00	4	3.4	11.56
5	4.0	16.00	5	1.6	2.56	5	2.0	4.00	5	2.8	7.84
6	2.6	6.76	6	1.6	2.56	6	3.2	10.24	6	2.8	7.84
7	2.8	7.84	7	1.6	2.56	7	2.2	4.84	7	3.6	12.96
8	2.4	5.76	8	1.4	1.96	8	2.0	4.0	8	2.8	7.84
9	3.2	10.24	9	1.8	3.24	9	3.2	10.24	9	4.0	16.00
10	3.8	14.44	10	3.0	9.00	10	2.6	6.76	10	2.6	6.76
11	3.0	9.00	11	3.8	14.44	11	2.8	7.84	11	3.2	10.24
12	2.2	4.84	12	3.4	11.56	12	2.4	5.76	12	4.0	16.00
13	3.4	11.56	13	3.0	9.00	13	1.8	3.24	13	2.8	7.84
14	3.2	10.24	14	3.2	10.24	14	2.2	4.84	14	2.2	4.84
15	3.0	9.00	15	3.2	10.24	15	2.4	5.76	15	2.2	4.84
16	3.0	9.00	16	3.6	12.96	16	2.6	6.76	16	2.6	6.76
17	2.6	6.76	17	2.4	5.76	17	2.2	4.84	17	4.0	16.00
18	2.4	5.76	18	3.4	11.56	18	1.6	2.56	18	2.2	4.84
19	3.4	11.56	19	3.4	11.56	19	2.2	4.84	19	2.4	5.76
20	3.4	11.56	20	3.4	11.56	20	2.6	7.76	20	3.0	9.00
21	3.6	12.96	21	2.4	5.76	21	2.6	7.76	21	2.2	4.84
22	3.4	11.56	22	3.2	10.24	22	3.0	9.00	22	3.2	10.24
23	3.00	9.00	23	3.6	12.96	23	2.0	4.00	23	2.8	7.84
24	3.4	11.56	24	2.8	7.84	24	1.8	3.24	24	3.0	9.00
25	3.4	11.56	25	3.0	9.00	25	1.8	3.24	25	3.0	9.00
26	3.0	9.00	26	3.8	14.44	26	2.0	4.00	26	4.0	16.00
27	2.6	6.76	27	3.0	9.00	27	2.0	4.00	27	3.4	16.56
28	3.6	12.96	28	3.2	10.24	28	3.2	10.24	28	3.0	9.00
29	3.8	14.44	29	3.0	9.00	29	3.6	12.96	29	3.4	11.56
30	3.6	12.96	30	3.0	9.00	30	2.0	4.00	30	2.8	7.84
Total	104.4	296.76		85.6	236.6		74.6	295.9		90.2	281
Mean	3.48			2.85			2.49			3.01	

## Bole Low (Non-Special) Ability Students' ESLCE Results

Sub.	1987/88		Sub.	1988/89		Sub.	1989/90		Sub.	1990/91	
	X	X2		X	X2		X	X2		X	X2
1	2.2	4.84	1	2.8	7.84	1	2.0	4.00	1	3.6	12.96
2	2.2	4.84	2	3.8	14.44	2	2.2	4.84	2	2.4	5.76
3	2.8	7.84	3	1.8	3.24	3	2.0	4.00	3	3.0	9.00
4	3.4	11.56	4	2.0	4.00	4	1.6	2.56	4	2.0	4.00
5	2.4	5.76	5	1.6	2.56	5	2.6	6.76	5	2.4	5.76
6	2.2	4.84	6	1.6	2.56	6	1.6	2.56	6	2.4	5.76
7	2.6	6.76	7	1.4	1.96	7	1.8	3.24	7	2.4	5.76
8	2.6	6.76	8	1.4	1.96	8	1.8	3.24	8	2.2	4.84
9	1.4	1.96	9	2.2	4.84	9	3.0	9.00	9	1.8	3.24
10	1.8	3.24	10	2.4	5.76	10	2.0	4.00	10	2.2	4.84
11	1.4	1.96	11	2.0	4.00	11	1.6	2.56	11	2.0	4.00
12	1.8	3.24	12	1.4	1.96	12	1.8	3.24	12	3.2	10.24
13	1.8	3.24	13	1.0	1.00	13	2.2	4.84	13	2.0	4.00
14	1.8	3.24	14	2.8	7.84	14	1.4	1.96	14	2.8	7.84
15	3.0	9.00	15	1.4	1.96	15	1.8	3.24	15	2.2	4.84
16	2.2	4.84	16	1.2	1.44	16	1.8	3.24	16	1.6	2.56
17	3.0	9.00	17	2.4	5.76	17	1.8	3.24	17	2.4	5.76
18	1.6	2.56	18	1.8	3.24	18	1.8	3.24	18	2.2	4.84
19	2.8	7.84	19	2.2	4.84	19	2.8	7.84	19	2.2	4.84
20	2.8	7.84	20	1.6	2.56	20	1.4	1.96	20	1.8	3.24
21	2.0	4.00	21	2.0	4.00	21	1.2	1.44	21	1.8	3.24
22	2.4	5.76	22	1.8	3.24	22	1.2	2.56	22	1.6	2.56
23	2.4	5.76	23	1.4	1.96	23	1.8	3.24	23	2.8	7.84
24	2.0	4.00	24	2.8	7.84	24	1.2	1.44	24	2.2	4.84
25	2.4	5.76	25	2.4	5.76	25	2.4	5.76	25	2.8	7.84
26	2.6	6.76	26	2.2	4.84	26	2.8	7.84	26	2.0	4.00
27	2.2	4.84	27	2.6	6.76	27	2.4	5.76	27	2.6	6.76
28	2.0	4.00	28	2.4	5.76	28	2.6	6.76	28	2.8	7.84
29	1.6	2.56	29	2.4	5.76	29	1.2	1.44	29	1.8	3.24
30	2.2	4.84	30	1.4	1.96	30	1.8	3.24	30	2.4	5.76
Total	67.6	159.44		58.2	131.6		58.6	119.0		69.6	168
Mean	2.25			1.94			1.95			2.32	

## Tikur Anbesa High (Special) Ability students' ESLCE Results

Sub.	1987/88		Sub.	1988/89		Sub.	1989/90		Sub.	1990/91	
	X	X2		X	X2		X	X2		X	X2
1	3.2	10.24	1	3.0	9.00	1	3.2	10.24	1	3.0	9.00
2	3.4	11.56	2	3.0	9.00	2	3.0	9.00	2	3.2	10.24
3	2.8	7.84	3	3.2	10.24	3	3.2	10.24	3	2.8	7.84
4	3.4	11.56	4	3.0	9.00	4	3.2	10.24	4	3.0	9.00
5	3.0	9.00	5	2.8	7.84	5	3.4	11.56	5	3.2	10.24
6	3.0	9.00	6	3.0	9.00	6	3.0	9.00	6	2.6	6.76
7	2.6	6.76	7	3.4	11.56	7	2.6	6.76	7	3.2	10.24
8	3.2	10.24	8	3.8	14.14	8	3.0	9.00	8	2.8	7.84
9	2.0	4.00	9	3.0	9.00	9	3.0	9.00	9	2.6	6.76
10	2.6	6.76	10	2.2	4.84	10	3.8	14.44	10	3.6	12.96
11	2.4	5.76	11	2.6	6.76	11	3.8	14.44	11	3.4	11.56
12	2.0	4.00	12	2.8	7.84	12	2.8	7.84	12	3.6	12.96
13	2.8	7.84	13	2.0	4.00	13	3.6	12.96	13	2.8	7.84
14	2.4	5.76	14	3.0	9.00	14	3.4	11.56	14	3.8	14.44
15	2.4	5.76	15	1.4	1.96	15	3.6	12.96	15	3.8	14.44
16	2.6	6.76	16	3.2	10.24	16	2.6	6.76	16	2.6	6.76
17	2.2	4.84	17	3.2	10.24	17	2.8	7.84	17	3.0	9.00
18	3.0	9.00	18	2.8	7.84	18	3.2	10.24	18	3.0	9.00
			19	2.0	4.00	19	2.6	6.76	19	3.0	9.00
			20	1.4	1.96	20	3.2	10.24	20	3.2	10.24
			21	3.0	9.00	21	3.0	9.00	21	3.0	9.00
			22	3.4	11.56	22	2.8	7.84	22	3.2	10.24
			23	3.4	11.56	23	3.2	10.24	23	3.2	10.24
			24	2.2	4.84	24	3.0	9.00	24	3.2	10.24
			25	3.2	10.24	25	3.4	11.56	25	3.4	11.56
			26	3.2	1.24					3.4	11.56
			27	3.4	11.56					3.4	11.56
			28	3.2	10.24					3.4	11.56
			29	3.0	9.00					3.4	11.56
			30	3.6	12.96					3.4	11.56
Total	49.00	136.68		86.4	276.9		78.2	248.7		95.2	305.2
Mean	2.72			2.88			3.12			3.17	

## Tikur Anbassa Low (Non-Special) Ability students' ESLCE Result

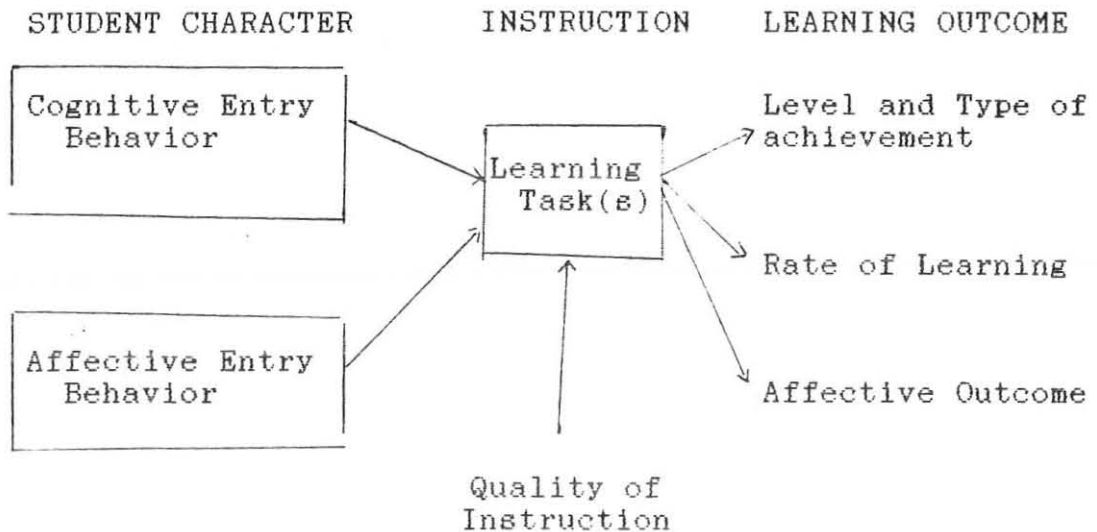
Sub.	1987/88		Sub.	1988/89		Sub.	1989/90		Sub.	1990/91	
	X	X2		X	X2		X	X2		X	X2
1	2.0	4.00	1	3.2	10.24	1	2.8	7.84	1	2.2	4.84
2	2.8	7.84	2	3.6	12.96	2	3.2	10.24	2	2.4	5.76
3	2.2	4.84	3	3.2	10.24	3	2.4	5.76	3	3.6	12.96
4	2.4	5.76	4	1.8	3.24	4	3.4	10.24	4	2.0	4.00
5	3.2	10.24	5	2.2	4.84	5	3.0	9.00	5	2.8	7.84
6	1.8	3.24	6	1.4	1.96	6	3.4	11.56	6	2.6	6.76
7	3.2	10.24	7	3.0	2.00	7	2.8	7.84	7	3.0	9.00
8	2.6	6.76	8	2.2	4.84	8	2.8	7.84	8	2.6	6.76
9	2.8	7.84	9	2.6	6.76	9	2.6	6.76	9	2.8	7.84
10	2.4	5.76	10	2.2	4.84	10	3.0	9.00	10	2.8	7.84
11	2.6	7.76	11	2.4	5.76	11	2.8	7.84	11	3.2	10.24
12	2.0	4.00	12	1.6	2.56	12	3.0	9.00	12	3.2	10.24
13	2.6	7.76	13	2.8	7.84	13	2.4	5.76	13	2.6	6.76
14	3.0	9.00	14	2.2	4.84	14	2.6	6.76	14	2.8	7.84
15	3.0	9.00	15	2.6	6.76	15	3.0	9.00	15	1.8	3.24
16	3.2	10.24	16	2.6	6.76	16	2.4	5.76	16	2.6	6.76
17	2.2	4.84	17	2.8	7.84	17	3.0	9.00	17	2.6	6.76
18	2.4	5.76	18	3.4	11.56	18	2.6	6.76	18	2.8	7.84
19	2.6	6.76	19	2.8	7.84	19	3.0	9.00	19	2.8	7.84
20	2.8	7.84	20	2.2	4.84	20	3.0	9.00	20	2.6	6.76
			21	2.6	6.76	21	2.4	5.76	21	3.4	11.56
			22	3.2	10.24	22	2.8	7.84	22	3.2	10.24
			23	2.2	4.84	23	2.8	7.84	23	3.2	10.24
			24	2.4	5.76	24	3.2	10.24	24	2.8	7.84
			25	1.6	2.56	25	1.8	3.24	25	2.8	7.84
			26	3.4	11.56				26	2.4	5.76
			27	2.2	4.84				27	3.0	9.00
			28	3.2	10.24				28	3.0	9.00
			29	2.0	4.00				29	2.6	6.76
			30	3.0	9.00				30	3.0	9.00
Total	51.8	137.48		76.6	205.3		70.0	198.6		83.2	235.1
Mean	2.59			2.55			2.8			2.77	

## Yekatit 12 High (Special) Ability Students' ESLCE Results

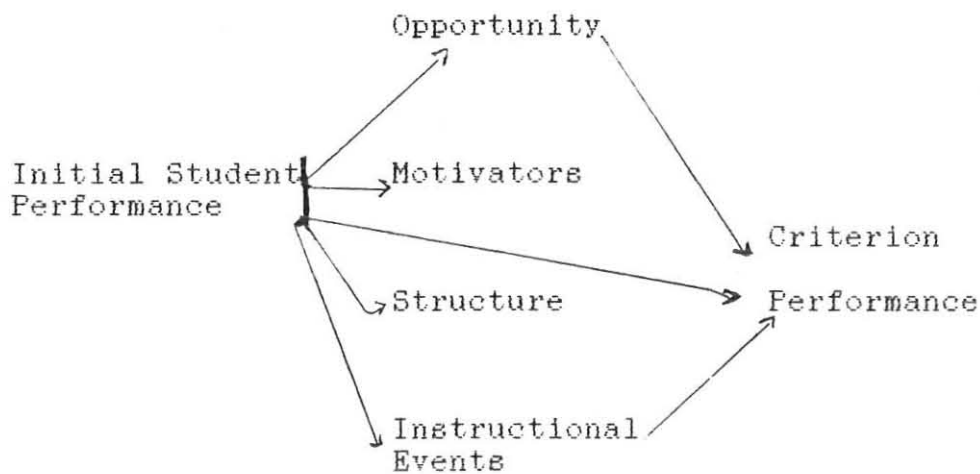
Sub.	1987/88		Sub.	1988/89		Sub.	1989/90		Sub.	1990/91	
	X	X2		X	X2		X	X2		X	X2
1	3.6	12.96	1	3.2	10.24	1	2.0	4.00	1	2.8	7.84
2	3.0	9.00	2	2.6	7.76	2	2.4	5.76	2	3.2	10.24
3	3.4	11.56	3	3.0	9.00	3	3.2	10.24	3	3.0	9.00
4	3.6	12.96	4	2.6	6.76	4	3.0	9.00	4	2.8	7.84
5	3.4	11.56	5	3.6	12.96	5	2.0	4.00	5	3.2	10.24
6	3.2	10.24	6	3.4	11.56	6	1.8	3.24	6	3.4	11.56
7	3.6	12.96	7	3.2	10.24	7	3.6	12.96	7	3.2	10.24
8	3.4	11.56	8	3.0	9.00	8	3.6	12.96	8	3.6	12.96
9	3.0	9.00	9	2.0	4.00	9	3.0	9.00	9	3.8	14.44
10	3.4	11.56	10	3.2	10.24	10	2.6	6.76	10	2.6	6.76
11	2.6	6.76	11	2.8	7.84	11	3.0	9.00	11	2.8	7.84
12	3.2	10.24	12	3.9	11.56	12	3.0	9.00	12	2.8	7.84
13	3.2	10.24	13	3.0	9.00	13	2.8	7.84	13	3.4	11.56
14	2.2	4.84	14	3.4	11.56	14	3.6	12.96	14	3.0	9.00
15	3.4	11.56	15	3.4	11.56	15	2.8	7.84	15	4.00	16.00
16	3.0	9.00	16	3.4	11.56	16	3.0	9.00	16	3.8	14.44
17	3.4	11.56	17	3.6	12.96	17	3.2	10.24	17	3.4	11.56
18	3.2	10.24	18	3.2	10.24	18	3.0	9.00	18	3.2	10.24
19	3.2	10.24	19	3.2	10.24	19	2.8	7.84	19	2.6	6.76
20	3.0	9.00	20	4.0	16.00	20	3.2	10.24	20	2.4	5.76
21	3.0	9.00	21	3.4	11.56	21	3.4	11.56	21	2.8	7.84
22	3.6	12.96	22	3.6	12.96	22	3.4	11.56	22	2.8	7.84
23	3.2	10.24	23	3.4	11.56	23	1.6	2.56	23	2.8	7.84
24	3.4	11.56	24	3.2	10.24	24	2.6	6.76	24	3.0	9.00
25	3.6	12.96	25	3.6	12.96	25	3.4	11.56	25	3.6	12.96
26	3.6	12.96	26	3.6	12.96	26	3.0	9.00	26	3.4	11.56
27	3.4	11.56	27	3.6	12.96	27	3.0	9.00	27	3.2	10.24
28	3.6	12.96	28	3.6	12.96	28	3.6	12.96	28	3.8	14.44
29	3.2	10.24	29	3.2	10.24	29	2.8	7.84	29	3.2	10.24
30	3.0	9.00	30	3.0	9.00	30	3.2	10.24	30	3.4	11.56
Total	97.2	320.48		98.4	320.6		87.6	263.9		96.0	305.6
Mean	3.24			3.28			2.92			3.2	

Appendix - F

1. Theory of School Learning (Bloom, 1976)



2. A MODEL of Class Room Processes (COOLEY, LEINHARDT & LOHNES)



Source:- Leinhardt, G. "Modeling and Measuring Educational Treatment in Evaluation", Review of Educational research Vol. 50.3, 1980.