

**ASSESSMENT OF THE PRACTICES AND PROBLEMS
OF PREPARATORY EDUCATIONAL PROGRAM IN
TIGRAY REGION**

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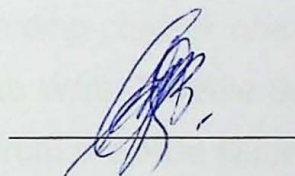
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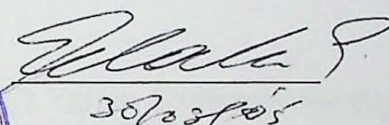
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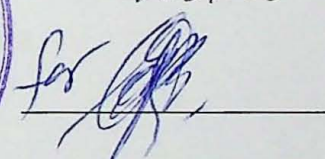
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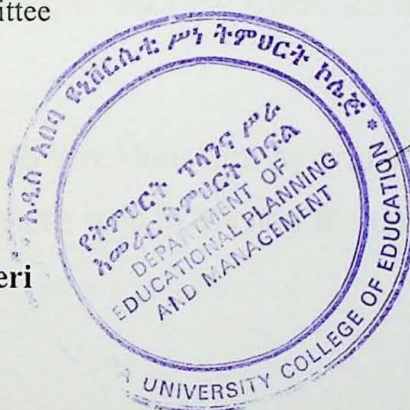
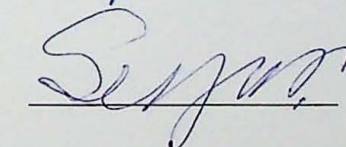
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ACRONYMS

WEO = Woreda Education Office

REB = Regional Education Bureau

ZED = Zonal Education Department

MOE = Ministry of Education

SACMED=Southern Africa Consortium for Monitoring Education

TEMIS = Tigray Education Management Information Services

Abstract

The purpose of this study was to assess the practices and problems of preparatory program in Tigray region. Descriptive survey method was used to address the objectives of the study. The study was conducted in 5 preparatory schools and the subjects of the study were principals, vice principals, teachers, students and educational officials at Woreda, Zone and Region levels.

The sampling techniques used to select the data sources were availability, purposive and random sampling techniques. The instruments used to collect data from principals vice principals, teachers and students were questionnaire, and interview. Interview was used to collect information that would supplement the questionnaire from the educational officials of Wereda Zone and the Region. Moreover, observation was made in the sample schools. Various documents and statistical data found at the REB were also consulted. Qualitative and quantitative methods were used to analyze the data. The statistical tools used to analyze the data obtained were percentage, Chi-square and weighted mean.

The findings of the study revealed that the practice and the problem of preparatory schools in Tigray questionable, because there is no enough number of teachers in the school and the qualification of the teachers is low. Most the teachers in preparatory schools are diploma holders.

In addition, the facilities, and the services offered by library, and laboratories in all preparatory schools in Tigray are not uniform. In some preparatory schools there were good services of library and laboratories while in most of the schools there were no adequate services of library and laboratories due to lack of

accommodation, lack of laboratory technicians, and laboratory equipment. Thus, it is difficult for all students in Tigray who are sent directly from preparatory schools with inadequate facilities to learn in different universities. Based on the findings and conclusions, recommendations are forwarded to address the problem under study.

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

Education is a key element in the overall development of a country. It is an instrument that ...“enables individuals and society to make all rounded participation in the development process by acquiring knowledge, ability, skill, and attitudes;” (MOE, 1994:1). Citizens could have a remarkable contribution in the process of nation building, if they are only educated or trained in some way. As stated by Ranson (1994:5), “education enables individuals to use their powers and capacities to the maximum of their effort and thereby contributing to the creation of responsible citizenship and a society with mature democracy”. It is with educational progress that the economic and political development of a country becomes successful.

Apart from the economic and political advantages a country gains from education, as cited by Bishop, (1989: 1), the Universal Declaration of Human Rights of 1948 declared as education is the birthright of every child. It is, therefore, a must for countries to expand education to reach to all citizens. Pertinent to this, UNESCO (1998: 55) explains the advantages of education as follows:

To be deprived of a basic education is to be deprived of the essential tools for modern living, the skills and understanding required to participate in a technological world where knowledge is essential element in transforming people's environment. Without it, people become marginal to their own society.

In response to the above motives, governments have tried to implement the 'Education For All' motto in their respective countries. However, the development, purpose and implementation of educational programs depend on the political system of the respective countries. The political system of a country directly influences educational targets and their outcomes. According to Fagerlind (1983:130), the political system of a country and the purpose of education have a reciprocal relationship. The influence of the political system on education is usually manifested in the form of education reforms, changes in the educational policy in many European Countries, for instance, were preceded by changes in the political system (Kandel in Aggarwal, 1984:468). This is true for developing nations like Ethiopia where the education system has been changing with the modifications that took place in the political systems.

The Ethiopian education system has experienced three major reforms. The first major program was the Education Sector Review (ESR), which was initiated during the Emperor's regime, in 1971. It was the first comprehensive study made in the education sector. So as to ensure curriculum relevance and educational access to the poor mass. However this program remained ideal due to the low involvement of beneficiaries and the 'camouflage' exhibited by the government to get temporary relief from the massive opposition against the obsolete education system. It was, consequently, brought to an end with the advent of the socialist revolution in 1974.

The Evaluative Research on the General Education System of Ethiopia (ERGESE) was another attempt at educational reform made in the latter development of the 'Derg' regime in 1983. This project was initiated to raise educational quality along with the general objective of creating an "all-rounded socialist personality". Yet, it was supposed to be defective and impractical due to the poor participation of the incumbents and little acceptance of the scholastic recommendations provided by the ERGESE project (Seyoum, 1996: 20-22)

In the recent development of the political system, the new Education and Training Policy (ETP) was launched by the Transitional Government of Ethiopia (TGE) in 1994. This reform has been considered as a comprehensive change accompanied by changes in the organization and management of schools along with the introduced decentralized governance system in the nation.

Therefore, the major cause for these reforms was the respective governments' interest to make the education system relevant to their political system and to the existing conditions of the country. Though this was the reason for the revision of the educational system of the country, many scholars had been commenting that all of the reforms were in some way or another defective and have not served to the development of the country as expected.

The secondary education in Ethiopia has not been destined to serve the Ethiopian communities for many years and was so alien to the society. Girma

(1972:2) commented that the Ethiopian secondary education has been the result of direct imitation of the education system of foreign countries like the USA, UK, and France and later, from the former USSR and GDR. According to this scholar, the education system had no chance of arising out of the interest of the people, the social and individual values and problems that seek solutions. The Education Sector Strategy (TGE, 1994: 1) also elaborates that the objective and relevance of education to the country over the last three decades has become questionable. Its usefulness to the development of the country was very minimal even though its curriculum was of an international standard.

As stated in the specific objectives of the Education and Training Policy (MOE, 1994:8), one of the most important dimensions that is given attention is “to promote relevant and appropriate education and training through formal and non-formal programs”. Thus, making education relevant to the needs of a country is a key but difficult task that leaves no other option to the endeavors made for development. With regard to the importance of making the education system relevant, the efforts made so far and how difficult the task is, Seyoum (1996: 31) states:

The question of how to make the curriculum relevant and responsive to the needs of the society had been a prior issue in the education sector review, as well as in ERGESE, and recently also in the Transitional Government's Education and Training policy. The effort made, no doubt, was a correct one, though the issue had proved to be slippery and elusive.

According to the new education policy, the education system is structured to be 8 + 2 + 2, meaning eight years of elementary education, two years of first cycle secondary education and two years of second cycle secondary education or preparatory education. The preparatory education is stage where students after passing the grade 10 National Examination, make a two-years of preparation for college and university education in selected fields of study.

The preparatory education has been implemented since September 2001. Thus, in order to protect that occur frequently beforehand, program should be examined to see its effectiveness to proceed with it, to improve or to replace it by other soon.

1.2 Statement of the Problem

As mentioned in the background of the study, implementation of a new education and training policy is a very difficult task because ...“implementation requires more than just disseminating the plan” (McGinn, 1998: 30). The objectives of a policy are not achieved with the rigorous effort of the policy makers only. There should be coordinated endeavor of the trainers, the trainees, the Government and Non-government organization and the society at large to push forward agreement of the program to its end result for which they have been established.

New Policy implies a need for the creation of a new academic environment. Vegt and others (2001:1) further explain that implementation of a new policy or a new

system means to change the way things used to be done, the process of rearranging and redesigning of familiar way of doing things with new procedures. At school level, implementation of new policy necessitates for new capacities in many respects. Professional expertise in new teaching practices, the availability of quality leadership to organizing the implementation activities and the availability of educational materials are some of the key dimensions, which directly affect the implementation of an education program(Ibid).

The new Education and Training Policy of Ethiopia is now under implementation. The success of the implementation program, however, depends on various factors that underlie the process. The major factors are availability of qualified principals, qualified teachers with competence to teach new curricular materials, orientation and background knowledge of students, and availability of school facilities.

The implementation of a new policy primarily requires professional competence. Vegt and others (2001: 16), for instance, emphasized the need for a “sense of mastery over the skill and knowledge required” to accommodate the new demand. The new policy could make the old practices irrelevant and teachers are supposed to be fit to the new system and its requirements. A professional competence that is supported by a sound pedagogical knowledge is a significant importance. As per the minimum requirements of the Ministry of Education in Ethiopia, teachers who teach in the secondary schools level should have at least

a first degree. The Education Statistics Annual Abstract (MOE, 2002: 13), however, indicates that only 33.7% of the teachers in the secondary schools are certified. This proportion extensively diminishes in to 11.1% when we look at the proportion of certified teachers in the secondary schools of the study area. This is a clear indicator that shows how much the implementation program could be affected due to the lack of qualified teachers.

Another serious issue is the number of students enrolled in the respective classes. The greater the number of students per class the higher the probability it will have a negative impact on the teaching learning process. According to the Education Statistics Annual Abstract (MOE, 2002: 14) the target set for student/section ratio was 60, but average class size of the secondary school under consideration was 85 students during 2001/02. This might have a significant impact on the follow up of the performance of the students, particularly at the preparatory stage for specialized his or her education. Greater student population creates a problem in the use of school resources. The availability of furniture in the classrooms, the share of textbooks, the use of library and laboratory materials is greatly affected by the student population.

An important point related to the class size is teachers' and students' orientation about the preparatory program. Teachers and students should clearly be oriented about preparatory program at the very beginning of the academic year, before the commencement of the program of the school. Students knowledge of the

total program can make them focus and/or help them plan ahead what to do to be successful in their future career. This can also be viewed from the side of the school management. The management of such program should have a clear understanding of the program and accordingly a refined plan of the admission and preparation of students for successful completion of the program. What is the next step for the students, what would be the fate of the students fail to join the higher education, what is the contribution of the courses being offered in the program to raise the capabilities of preparatory students to join the higher education should be some of the key questions that the management of the school has to plan ahead. This, however, needs a quality leadership so as to organize the implementation activity adequately.

Apart from the above-mentioned factors, the availability of school facilities is an important element in determining the success of the preparatory program. For instance, laboratories are important inputs that should be available in schools. But most of the schools in the study area have the buildings, which are poorly equipped with the necessary materials that can be used for conducting practical lessons.

An on-going survey study has, for example, indicated various drawbacks to effectively run both primary and secondary education programs in the country. These include: lack of trained teachers; weak curriculum integrity; and inadequacy of laboratories, workshops, reference materials and other equipment

(MOE, 2000). Hence, successful implementation of the preparatory program, in such situations of the schools in the country, would remain in question as had been observed in the past experience of India (Aggarawal 1981: 159-63).

Besides, there is an intention in the preparatory education program to offer information technology. However, the feasibility of this innovation would remain ideal because most of the schools in the considered region do not have the necessary human and nonhuman resources such as computers and other related accessories to facilitate the program.

In view of the above-mentioned variables, this study tried to investigate the opportunities and impediments in the implementation of the preparatory program in Tigray Region by raising the following basic questions.

1. To what extent are instructional materials available to preparatory schools adequately.
2. Are teachers available adequately enough both in number and qualification? Is there proper assignment of teachers to teach school subjects in the preparatory program?
3. Do the preparatory schools have the appropriate facilities equipment as per the requirement of the program?
4. How are the stakeholders (principals, teachers, and students) made aware of the program and its objectives?

5. Are there well-qualified and competent principals to manage the activities of the program?

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study is to investigate those factors that affect the implementation of the preparatory education program.

1.3.2 Specific Objectives

- To explore the level of implementation of the program in the region.
- To explore the factors that adversely affect the implementation of the program.
- To investigate whether the schools are equipped with the appropriate facilities and equipment.
- To investigate whether the school principals have the required qualification to properly organize the implementation activities.
- To explore whether the schools have orientation programs to the students and teachers.
- To forward some relevant recommendations to the identified problems.

1.4 Significance of the Study

It is evident that preparatory education here in Ethiopia, can lay the foundation for higher education. It can be referred to as a corner stone for solving many of

the problems related to occupational training and development of the nation. Hence, it is important to make extensive research to assess the implementation of preparatory program and forward feasible solutions for effective and efficient preparatory education program. This study is basically designed to investigate the practices and problems of the schools currently conducting the preparatory education program in the secondary schools in Tigray Region. Moreover, the findings of this study are expected to have the following values:

- Serve as a ground to assist planners and policy makers to assess the problems that adversely affect the implementation.
- The finding of this study may also serve as a reference material and initiates researchers who want to investigate the situation in a broader scope and may provide some possible recommendation to solve the existing preparatory education program.

1.5 Delimitation of the Study

An overall assessment of a preparatory education program may require a comprehensive analysis of multifaceted factors that affect the implementation and impact of the program on the roles and benefits of various stakeholders and national development as well (McGinn 1998; Vegt and others, 2001). However, this study was mainly associated to the practices and problems encountered in implementing the program in six Second Cycle Secondary Schools in Tigray

Region so as to make formative evaluation on such recently introduced change in the education system of Ethiopia.

In doing so, the management aspect of the preparatory program particularly at the grassroots level was, to a large extent, emphasized than the analysis of the curricular issues and /or contents of the subjects offered by the program. Besides, special attention was given to such attributes as adequacy of resources (material, expertise in teaching, and management) at school level, arrangement to raise access to higher education and orientation of the major clients (students and teachers) about the program.

1.6 Limitation of the Study

This study has its own limitations. The following were some of the major factors that contributed to the limitation of the study.

1. Lack of up-to-date literature that could provide relevant information on the practices and problems of preparatory education program has affected the depth of theoretical framework of the study.
2. To obtain comprehensive and reliable data and to enable the researcher to attain the study, a broad section of respondents were involved vis-a-vis students, teachers, principals, and WEO and REB education officials. However, the lack of willingness of some of the respondents to complete the questionnaire on time was the major limitation.

3. Preparatory schools can be viewed from different dimensions. That is, from input, process and output side. The researcher believes that it would have better to conduct the study in a wider scale. However, because of financial constraints, the study is confined to the input side with particular emphasis to the internal school factors.

Thus, because of the above mentioned limitation the study does not claim to be exhaustive.

1.7 Research Methodology, Sources and Procedures and Data Collection

1.7.1. Research Methodology

The purpose of this study as described earlier was to assess the practices and problems of preparatory education program in Ethiopia, with particular reference to the experiences of Tigray Region. The study was intended to mirror the main features of the programs, their strengths and weaknesses and the general environment under which the preparatory programs are operating. Thus, a descriptive survey method was adopted as an appropriate methodology to reflect the intended purpose of the study and thereby bringing into play students, teachers, principals, and vice-principals.

1.7.2 Sources of Data

The data and information consolidated in this paper were obtained from both primary and secondary sources. The first-hand information about the

implementation of the preparatory education program was gathered from the education officials at Regional and Woreda levels; principals and teachers; and students. Observations was also conducted in the study areas as well.

Related and relevant documents, books, encyclopedia, and educational journals and newsletter were consulted for secondary data. This major documentary source of the data includes official documents such as Education Statistics Annual Abstract and the ETP manual; and reports and letters documented in the TREB, WEO and Second Cycle Secondary Schools.

1.7.3 Sampling Techniques

There are eleven preparatory schools in Tigray region in the five zones including Makelle Zone, Southern Zone, Eastern Zone, Central Zone, and Western Zone. The survey study was, thus, conducted selecting one preparatory school from each of the five zones randomly and added one preparatory school from the Zone that has more preparatory schools than others (by drawing lots) making a total sample of six preparatory schools.

There were 8,663 students in the six preparatory schools in the region. Nine hundred and seventy (11.2%) of these students were selected using linear systematic sampling(LSS) from the sample schools selected using cluster sampling. Similarly, 30% of the teachers from each sample school were selected using LSS while all six of the preparatory school principals were involved as the constituents of the sample population assuming that they could provide relevant and appropriate information about the problem under study.

Besides, three educational executives from each of the management bodies of Regional and Woreda Education Offices were chosen to obtain adequate data regarding the management of the preparatory program in the study areas. Thus, a total of 15 respondents were represented through both random and purposive sampling techniques.

1.7.4. Instruments and Procedures for Data Collection

Both close and open-end items were included in questionnaires to gather relevant information from principals, teachers and students of the sample schools. Structured interviews were used to collect the required information from officials of the REB and WEO levels.

The research questionnaire was employed to gather primary data from the larger portion of the sample population-school respondents including principals, teachers and students. Most of the items of the questionnaire were in a closed form with some open-ended questionnaire designed to get expounded views of the respondents about the implementation of the preparatory education program. The questionnaire was set in Tigrign (the National Language of the Region) language with the belief that it would provide maximum opportunity for accurate communication of ideas between the researcher and the respondents.

On the basis of the literature review, items of the questionnaire were developed by conducting a pilot test (with 2 principals 20 teachers and 110 student respondents) in 2 preparatory schools in Mekelle and Quiha towns. Thus, 970 modified copies of the questionnaire were distributed to the sample schools.. Among the distributed copies, 851 (87.7%) were filled and returned.

Besides, successive follow-up interviews were conducted with the education officials at the REB, and WEO levels. In the end, the responses of the school respondents were tabulated and synthesized with the documentary data and primary information obtained through the interviews and observation of the researcher regarding the availability of facilities and materials in the study areas.

1.7.5 Data Analysis

The major preliminary findings of the study were presented and analyzed by making comparisons among and in between the actual roles of various stakeholders (such as principals, teachers, students, REB and WEO experts) in implementing the preparatory education program in the study area and global experiences and /or perspective on the program as well. In doing so, the following mathematical tools were employed. These include: percentage and weighted mean to brief the highlights of the data, and the chi-square test to examine the significance of difference among the opinions of the different categories of the respondents about the preparatory program.

1.8 Operational Definition of Terms

Class-size—is the number of students assigned to and enrolled in a specific class under the direction of a specific teacher (Deighton, 1971:157).
For example, in Ethiopia, the standard class-size for secondary school is 40 students.

Preparatory Program--- Is a kind of program that enables students to choose subjects or areas of training, which will prepare them adequately for higher education and for the world of work (MOE, 1994:15).

Principal—is the administrative head and professional leader of a high school (Good, 1973: 436)

Program--- A selection of one or more courses (planned series of learning experiences) or a combination of courses, usually chosen from a syllabus with an expressed or implied aim (MOE, 2002: 107)

Quality of education--- refers to the level of excellence in the supply of educational inputs such as human and materials resources and their characteristics measured by establishing a publicly accepted standards and the efficiency with which these inputs are organized and administered in order to improve the students' learning achievement.

Teaching experience---is number of years of teaching (Dunkin, 1987, 607). In this context, an experienced teacher is a teacher who has taught for ten years and above.

Teacher Quality---refers to a teacher's formal qualifications, which include completion of a teacher preparation program, accreditation status of the program completed, course work or earned degree(s) beyond the baccalaureate, subject matter majors and minors, credentials by subject matter and prior teaching experience (Boe and Gilford, 1992:33)

Textbook--- is a book dealing with a definite subject of study, systematically arranged, intended for use at a specified level of instruction and used as a principle source of study material for a given course (Good, 1973:605).

1.9 Organization of the Study

This study is organized into four main chapters. In the first chapter the problem and its approach is treated. The second part deals with review of the related literature. And the third chapter treats presentation, analysis and interpretation of the data obtained, while summary, conclusions and recommendations are included in the last chapter.

CHAPTER TWO

2. REVIEW OF THE RELATED LITERATURE

2.1. Educational Policy

2.1.1. Formulation and Implementation of Policy

Policy is production of socio-economic demands and events of the past and situation of the present. Looking back to the past and situation of the present enable us to predict the future, but the connotation of a policy is to establish standards (norms) and goals by which needs of individuals, society and situation are shaped and framed and these ensure the formulation of the policy. As it is aforementioned, policymaking is studying the past and analyzing the present and that doing so enables to identify things to be dealt with and problems to be treated. (Simon, 1986:24)

Policies give the general frame works within which decisions are to be established. They also give the chance to see how far fragments of a policy are consistent, uniform and are easy to implement. Thus, policies provide guidance to make decision on current and future problems with, means to bring in together all decisions towards achieving standards or goals set, (Agrawal, 1993:73).

Policy formulation requires interaction of organizational value, leadership qualities, conceptual philosophical situational analysis of events, argument, participation and value clarification. An idea that comes out of this interaction will be translated into plan, reduced to communicable format or written document.

Then decision-making resource control, and political nexus will follow to bring the policy into effect which is termed as the implementation process-the process of putting an idea, program or set of activities and structures, new to the people into practice with attempt or expectation to make change (Michele, 1991:15). The change may impose explicitly sought and defined or incrementally developed.

3. The Background of Educational Policy

An educational policy is dynamic because it is subject to modifications, changes and adjustments in course of a process. It should address the requirements of time. It is conditioned by the interpretation ability of the task doer. Moreover, it is an intention that needs to be transformed to action. It is not something that states from the scratch, there are always an ongoing system. Education policy is either facilities or change the course of action of that system. It is practical at the grass root level where functionaries are operating. Educational policy is public affair. This means educational policy is made of the flock of many contending and conflicting ideas. There are supports and discontents. Moreover any adopted educational policy ranging from minor innovations to wholesale curricula requires resources (Craig, 1990:10), which, in many instance, is under the control of the state. Thus, the allocation of resources is at the hands and manipulations of those with the political power signifying the role and importance of the state in policy making.

Availability of human, material and financial resources cannot tackle problems unless they are appropriate ones. This is to say that the resources must be convenient for the type of problem we encountered. These resources, which are at constant race with other sectors, are treated genuinely and stability can be maintained and frequent changes imply dissatisfaction.

Public expectation is also other problem that needs inquiry. Because people always dare to and deem that education is a solution to many personal and social problems (Mann 1976:3). Therefore, the problem that should be discussed and dictated by education and policy respectively has to focus on the type and level of the social problem.

The important thing that people, who are making policy need to take into consideration is to see whether the policy is clear. A policy, which is defined clearly, can be clear for those who are going to implement it. In addition a clear policy may help to establish the limits and make decision clearly at any level needed. The other thing that should be considered is the relationship between the politics and administration. Policy determination is a political activity while policy implementation is a task of the administration. The political force determines the policy and the administrative staff executes it. Therefore, making the policy clear and knowing the connection of politics and administration is essential in implementing policies. However, this does not mean that administrative and teaching staff do not involve in the policy making as far as

educational polar, concerned. Teachers particularly are considering as partner and implementers of education policy (Croll, 1996:12-14).

“Implementation is about putting policies into practice. It is often the complex process of planning, organization coordination and promotion which is necessary in order to achieve policy objectives”. (Lewis and Wallace, 1984:1) This is to mean that to implement policy, implementation calls for education policy based on comprehensive national policies and plans. In practice, this is easier said than done. This is to say that implementation of educational policy may require much effort than the policy formulation since many individuals are involved in its implementation (Reilly, 1979:34-36).

2.2 Preparatory Education Program in Ethiopia

One of the objectives of education offered in school is to enable students solve the problems they encountered based on the knowledge and information they have gained in school (MOE, 1983: 3).

Education is in a constant change at everywhere due to the advent of new generation, thinking and methodologies. So education needs a continuous evaluation and change parallel to the new technology in coverage. The new education policy addresses issues such as: the purpose of education, the context for the science and social curriculum, teacher education, the condition that promote the development of practical work in school. Accordingly, the

education curriculum has been changed and phased in from the beginning of the millennium.

Due to the drawbacks of the previous education system new education and training policy was developed. According to the new education policy, starting from 2002/03 academic year there is not a Freshman program. Thus, universities will directly accept students from preparatory educational program schools or second cycles secondary schools and assign to the different departments. The freshman program was playing a role in equalizing students coming from different schools with different facilities (Laboratory, Libraries). Tuckman (1985) has noticed that any program shall be assessed after its implementation to know how much of the program is effectively practiced and to identify the major problems encountered in the application of the program. Accordingly, preparatory educational program, which was put in practice two years ago by the party which is now in power to make the education more relevant and appropriate to the need of people than the previous education system that is 6+2+4. The new system is 8+4.

2.2.1 Educational Structure of Ethiopia

According to MOE (1994:14), 8+4 educational structure means eight years of elementary education, two years of general secondary education (first cycle secondary) and two years of preparatory education (second cycle secondary). The name given to the program may vary from countries to countries.

Aggrawal (2001:123) has noted that a number of countries divided secondary education into junior or senior, academic or technical, general or senior, and lower or upper secondary, with the duration from two to four years. UNESCO (2000:21) confirmed that there is no universal agreement as to where primary ends and tertiary begins and extended “most countries (Latin America is an exception) divided the secondary level of education into a first or lower segment and a second or higher segment”. However, the nomenclature of secondary education is not only to make change in name but also there is an intention to widen the basic education as UNESCO (2001: 21) has indicated that

There is a worldwide trend to establish the concept of “Basic Education”, understood to mean a minimum schooling standard for everyone in a given society. This is frequently done by adding to the primary grades the first part of the secondary cycle, typically called the lower or junior secondary cycle. Thailand is undergoing this change currently. The combination of primary plus lower secondary then becomes “Basic education” usually administered separately from secondary education.

In this case the nomenclature of secondary education in Ethiopia may not be far from the trend mentioned above. Thus, the name given to the two years education to prepare a student for higher education is preparatory education program. A preparatory school, or prep school, is usually a secondary school (high school) designed to prepare a student for higher education and also known as Pre University.

2.2.2 Purpose and Objective of Preparatory Program

According to MOE (1995:1-3), the purpose of the program is to solve some of the multifaceted problems. Addis Ababa University and other colleges were offering remedial courses as part of the freshman program to solve problem of standards, and problems of implementation of the curricula at the previous secondary level. The other purpose, as it has been suggested, is to improve the standard of students joining higher institution. Moreover, the objective of the program is to prepare students for tertiary level education and the world of work as well. In addition, MOE (1995) identifies activities which are important to achieve the objectives of the preparatory program in the following ways.

1. Help students to measure up the quality and quantity of senior secondary school academic work and to bridge the gap between pre-tertiary education and the pre requisites of first year tertiary education.
2. Orient and assist students in the transition period from the pre-tertiary to tertiary system of education.
3. Enable students to complete the requirements of the General Secondary and Second cycle education.
4. Enable students to study the basic social science and natural science subjects and languages that are the main spring of the development of proficiency.
5. Orient, motivate, develop, widen and diversify students' interests and promote a working choice of fields of study.

The preparatory education program of Ethiopia is being implemented since September 2001 delineated in the following areas MOE (1995)

A. Content areas and period allotment

1. a whole day program : long term
2. Seven periods per day or 5 to 7 contact hours per day
3. Five school days in a weeks
4. Forty to fifty minutes a period
5. Greater emphasis on languages, mathematics and natural sciences

B.2nd Cycle Secondary Education (preparatory education program grade 11 and 12) is a level of specialization divided into streams. These are:

1. Natural science stream
2. Social Science stream

Table I
Course offering of Preparatory School

N.S	Stream	Specialized Course	Common Course	Elective
1	Natural Science	1. Physics 2. Chemistry 3. Biology 4. Technical Drawing	1. English 2. Civics 3. Physical Education 4. Maths	1. National Language 2. National Federal lang. 3. Foreign Language 4. Technical Drawing

With regard to the courses offered, students in preparatory program should obtain 50 marks out of 100 in each course. To make these viable MOE requested to make continuous evaluation to help the student to transfer to the

next grade. There are 35 credit hours per week for each stream (see the appendix)

2.2.2 Student's Profile of Preparatory program

As it has been mentioned in the appendix, every student in preparatory program schools has to take all courses listed under the stream Natural or Social above. After the students have taken the courses or complete the second cycle of secondary education (Grade 11-12) their profile looks like the following. (UNESCO (2001) has indicated.

1. They can be assigned to work in places which do not require special skills or training but which demand responsibility.
2. They are ready to continue tertiary level education because they have knowledge, ability and the skills as analysis, organization, research and evaluation, which qualify them for higher education
3. They can work in public services and productive sectors with short-term training
4. They can actively participate in social activities and take responsibilities..
5. They are able to work cooperatively for the common goal

Moreover, the total number of students who took entrance examination according to National Examination Office in the academic year 2002, were 28,419. Out of these 73.34% were males and 26.6% were females. And those who have obtained passing mark were 20784 males and 7428 were females. This shows that almost all who took the exam have got access to higher education. UNESCO

(2001:2) states that the enrolment in primary, secondary, and tertiary level stood at 34%, 15% and 1% respectively. Compared to African Countries, Ethiopian enrolment ratios are among the lowest in primary education and somewhat below average in secondary education. The enrolments in all levels of education are male biased.

Moreover, the number of preparatory education program enrolled in grade 11 and 12 in Trgary region in 1994 E.C (2001/02) and 1995 E.C (2002/03) is shown below (TEMIS: 1994 E.C and 1995 E.C) in table 2

Table II
Senior school second cycle Enrolment of students by Grade, Year, Sex, and Zone

Government and Non-Government

Zone Name	1994 E.C (2001/02)						1995 E.C (2002/03)					
	Grade 11			Grade 12			Grade 11			Grade 12		
	M	F	T	M	F	T	M	F	T	M	F	T
Southern	796	119	915	1297	642	1939	1017	372	1389	596	78	674
Central	1060	253	1313	2228	762	2990	1764	498	2262	1108	156	1264
Western	440	100	540	663	216	879	834	206	1040	385	46	431
Eastern	1073	234	1307	1869	762	2631	1586	585	2171	973	248	1221
Mekelle	726	239	965	1667	891	2558	1221	516	1737	987	231	1218
Total	4095	945	5040	7724	3273	10997	6422	2177	8545	4049	759	4808

Source; TEMIS, 2002: 75

Besides, the TEMIS (2002) states that the total readmission 2001/02 in preparatory education program or secondary school second cycle is 77. And most of the teachers were diploma graduates. They were 499 in number while

the number of B.A or B. Sc graduates and those who have 2nd degree were 83 and 3 respectively. In addition to what has been mentioned above, there were 5450 classrooms, and 42 laboratories for all preparatory education programs in Tigray in 2001/02(TEMIS, 2002:2).

2.3. Relevant Experience of Other Countries

In various countries different subject matters, which are relevant to their particular needs and objectives of secondary education, are being provided.

It is universally acceptable that the main purpose of secondary education is to train students as a middle level manpower or as students of higher education. In addition, the similarity of objectives among many countries makes it possible to share experiences among each other. Thus, it is of paramount importance to explore the experience of secondary education of different countries to make inference regarding the practices and problems of preparatory education program in Ethiopia.

2.3.1 India

The new educational structure of India (10+2+3) have been introduced in 15 states and 8 Unions Territories after the education commission of the country understood that the previous education structure was largely unrelated to the life, need and aspiration of the people and it was only important to prepare all students for universities (Aggarwal, 2001: 151:163)

The objective of the new education program is for both employment and to have access to university expecting that all students will not rush for university degrees.

10+2+3 structure means after the students complete grade 10 they will be assigned to academic program to prepare them for tertiary education and to vocational program for two years according to their interest and ability. Then, those who complete the academic program may attend in the university for three years to have their first degree.

The characteristics of the program are to envisage 10 years of schooling with common and an undifferentiated course, provide for 12 years of higher secondary education and first degree will be attained after 15 years of schooling.

The new system or program has its own merits and demerit. Its merit is that both education and productivity strengthen national unity, raises the standard of education, provides first degree in less than 15 years, and its demerit is that the number of courses offered for students of 14 years of age is burdensome, curriculum is heavy, no course is offered according to interest and ability. No time for extracurricular activities. There were inadequate laboratories, workshops and libraries. Implementation of the program creates administrative problem and makes teachers to have additional courses to be offered. Some of the problems of the program were explained in the following ways.

1. Problem related to provision of equipment and laboratories
2. Problem related to reorientation and training of teachers

3. Problem related to work experience
4. Problem related to heavy load upon students
5. Problem regarding selection of suitable courses
6. Problem related to preparation and production of suitable books and teachers and learning materials.

2.3.2 Costa Rica

It is one of the developing countries in central American with well known development achievement and it is as one that has achieved high levels of performance on development. The annual enrolment of the known university of Costa Rica is 29, 000 students. Due to this fact, in 1995 there were 32 percent and 100 percent tertiary and primary education gross enrollment` rate respectively. Costa Rica had 98 percent literacy which was the highest rates in Latin America in 1998 (Husen, 1994:114-6).

In Costa Rica, there are two cycles in secondary education. Lower secondary, which covers three tears, and upper secondary takes place over two or three years, depending on the stream. The objective of upper secondary schooling is to prepare graduates to study at university level and to equip school leavers for the labour market. All students from the academic schools, and those from technical streams, who wish to pursue their education in university, have to pass a set of nationally administered examinations, called the 'Bschillerato' at the end of their last year (Ibid,246).

Besides, Costa Rica believes that the program stated above might be possible to increase the average school size to generate economics of scale and reduce the number of expensive three-year secondary school (Ibid).

2.3.3 African countries

2.3.3. Botswana

The twenty first century marks a crucial phase in the development of education in Africa. Many Africa countries are facing numerous problems—most of them relating to the financing of higher education and increasing student populations. In Botswana, the turn of the century has seen a phenomenal increase in the number of secondary school leavers in demand of tertiary education (Morapedi 2001:1).

The philosophy of the senior secondary school education is to prepare Botswana for a change from an economy based on agriculture to one based on industrial development. The aim of the senior secondary component is to build on the foundations of the Basic Education Programme (primary and junior levels) and orientate students towards further education and work. It also seeks to prepare citizens to be able to participate in the future development of the country. The two-year senior secondary school curriculum is diversified and it encompasses academic, technical and commercial subjects. It is much more practically oriented and it inculcates skills essential in practical life. The objective of the senior education programme are to provide a continuation from the basic

education programme and lay a foundation for further education and training (Ibid)

2.3.3.2 Nigeria

Nigeria is one of the countries with largest population in Africa. Its GNP per capita of 1995 was 260 US dollar and the GER at primary and secondary education was 89% and 30% in 1994 (UNESCO 1998).

Nigeria encountered a number of problems to implement its new education structure 6+3+3+4 which was recommended by the National Curriculum Conference of 1969 and the Conference of National policy on education of 1973. This was made to remove any existing contradiction, ambiguities and lack of uniformity in education practice in different parts of the country.

However, the reports and the recommendation to the 6+3+3+4 system took 4 years to publish (1977), another four to revise (1981) and several more years to implement it nation wide. Because the implementation was haphazard, depending on the political will of the party in power in each state (Ibid).

2.4 School and Non- School Factors Affecting Pupils Academic Achievement

It is true that students' academic achievement in the schools is largely affected by the quality of education a given country provides. Therefore, one has to see or view the importance or need of quality of education for economic, social and political development of a country, which in turn could have positive correlation

with pupils achievements in the schools. Hence, this paper would like to give attention on quality of education before it entertains factors affecting achievement in the schools.

2.4.1 The Need for the Quality of Education

Regardless of economic, social and political development of a country, the need to have quality of education at all levels of educational structures becomes the common concern and critical issues to be targeted in all countries across the world. Scholars in various fields of study have also been pronouncing the importance of quality of education at different situations. This is because, as education increases, the productivity of the people increases which in turn enhances the economic development of a given country. According to Nebeyu (2000:45) “...Both society and individuals benefit from education through increased productivity improvement of quality of life and increased standard of living”.

Besides of the positive effect quality of education has in economic development, it also develops the strong and acceptable culture of the society while discouraging the harmful ones. As the new Education and Training Policy of Ethiopia indicates (TGE,1994:1) “Education enables people to identify harmful traditions and replace them by useful ones. It helps people to improve, change as well as develop and conserve environment for the purpose of an all-rounded development by diffusing science and technology into society”

Education as stated above, makes people to realize the effect of following a given custom, traditions and practices. People could only be aware of the need to conserve their environment through education. They could only become on position of a waring of the harmful traditions they have been following for long through education. "A quality education " is the only means to make people rational and objective.

Recognizing the value of quality education, the new education and training policy of TGE Ethiopia (1994:6) has indicated the objective of quality education in Ethiopia, in the following way. "Bringing up citizen endowed with human out look, countryside responsibility and democratic values having developed the necessary, productive, creative and appreciative capacity to participate fruitfully in development and utilization of resource and environment at large."

The necessary skill to produce and become creative in the world of work and the development of rational mind, which sense the democratic values, required would occur as the result of quality education provided to citizens. Generally, quality education is thought to be the key issue that a country be it poor or rich must seek for its future development, but a question has to be raised on what " quality education means. As Heynemann and White (1986:7) has stated.

Educational quality has many dimensions in the poorest countries.... qualitative changes may simply mean more resources. As more resources become available, the type of goods and services available in the school must be considered: the basic abilities education, professional training, and in- service programs for teachers: availability of text- books,

availability of other support materials, physical plants and so on.

As the above quotation indicates, even if abundant resources are available in the school, they cannot bring quality education required. Human power that can use the abundant resources should be trained and hence must have the necessary skills to use the resources. In supporting the above idea, Heynemann and White (1986:7) further stated, as “school quality is a function of how students and others spend their time, both in and Out of School”. To these writers “ Quality ” is a function of in and out school activities. The “in” function indicates the schools, while the “out” function indicates the non-school factors, which affect the quality of education in a society. That is why this paper would like to glance the studies made on quality of education in short.

2.4.2 Studies Made on Quality of Education

Quality of education as stated above is the demand of every nation regardless of its development level although; the definition of “quality education ” varies from study to study, “quality education” holds more comprehensive or broad aspect of changes than specific aspects of changes. Change agents who are in the line of operation (teachers) must get training and retraining. Buildings and equipment that facilitate learning must also be renewed improved and changed accordingly.

According to Chantavarich (1990) cited by Getahun (2002:13), the quality of education defined as tantamount to more passed students, well-equipped

facilities, low teacher student ratio and long service of school personnel. The author would like to mention here that input and output improvement are the essential determinates of quality of education.

On the other hand, Fuller (1986) cited by Getahun (2002-13) considers quality of education in terms of material inputs allocated to schools per pupil (resource concentration) efficiency with which a fixed amount of material inputs are organized to raise students; achievement. Here, the writer needs to stress quality of education to inputs required to run school, and process that deals with efficient input organization.

Significant number of studies also relate quality of education as quality of schooling, but, these studies are divided into two in terms of defining quality of schoolings, that relate quality of schooling as school improvement and hence give more emphasis to process variables, and these that relate quality of education as effectiveness in schooling which in turn measured quantitatively from large scale studies.

Furthermore, at whatever ways school quality is defined, the central concept of school quality is to give quality of education in school, which could boost students achievement. As indicated by Craig (1995) in Erkiyhun (2000:11).

The central role individual school plays in raising students achievements is often overlooked. Teachers training, supervisory support and facilities are all important and often the focus of national policy initiatives. However, there are other school- level

factors many of which are process related, like effective leadership school flexibility and autonomy, school climate, and teaching learning process which also have significant influence on students learning.

According to the above writer, people often over look the role each school plays in affecting students' achievement. The different education policies set by higher responsible body have been blamed or appreciated depending on the students' academic achievement. But, academic achievement is the cumulative out come of the external factors and school level factors. If there is no good leadership in the school, teachers who are in the line of operation may be dissatisfied and hence show little effort in teaching. Therefore, school and non-school factors have effect on learners' achievement. Of course, as the writer of this paper it is difficult to claim which of the two factors play significant role. For instance, as Coleman (1966:325) indicated in Chincepah (1983), school factors bring little or no effect after family background variables considered for academic achievement of students.

On the other hand, Fuller (1986) stated many research studies have been solely engaged in studying non school factors as factors affecting students, academic achievement. To this writer, such study is incomplete and hence needs study on school factors to make such study complete.

As Erkiyhun (2000) indicated by citing Reynolds and others (1994:20), 12-18 % of variance in students' outcomes could be attained by classroom and school factors. Therefore, as reviewed by Reynolds (1994), many school effectiveness

researches have been undertaken by U.S.A Britain, Canada, Hong Kong and Norway, The school effectiveness research conducted in Canada, for instance, in three major areas, i.e. on school climate, effective leadership and teachers' effectiveness: where as, the Hong Kong's research focused on styles of principals' leadership and organizational climate. This Hong Kong's research ended with the conclusion that school organizational factors play significant role in determining students, achievement.

Although the UK School effectiveness and improvement research was late to be conducted as other developed countries, it has contributed a lot how school effectiveness could be conducted. Therefore, it raised five basic factor in study of school effectiveness. Those questions were attempting to answer, whether.

- Schools have effect upon students' achievement
- Schools are consistently effective or ineffective
- Schools have the same effect upon pupils who have the same background
- Schools have equal effect upon different aspect of pupils achievement
- There are similar characteristics of effective school organization.

Taking school factors as influencing element, Getahun (2000:16) indicated. Mortimore (1988) as substantial school effects could be observed on students' attainment at mathematics. Hence, he further stated that school effects are 10 times more important than home effects on the above subject.

Studies on school and non-school factors have also been conducted in developing countries too. The Mauritius study conducted by Chinapah (1983), the participation and performance of primary school, which stressed on home and school factors in determining students' academic achievement is the one to be mentioned. This study raised such questions as: whether school inputs were differing in schools and become the causes for difference in academic achievement. It then ended with a conclusion as well-equipped schools have high academic performance and at the same time pupils with good relationship with teachers and well-to-do family have better academic achievement than others.

At the same time, the Southern Africa Consortium for Monitoring Education quality (SACMED) formed a network of ministries of education among member countries (Kenya, Malawi, Namibia, Tanzania (Zanzibar), Zambia, Mauritum and Zimbabwe) in 1998 studied the quality of education in each country with the assistance of International Institute for Educational planning (IIEP). The study was mainly to case on grade 6 students. It was largely set to answer the characteristics of grade 6 learners, teachers and principals, what were the approaches, goals and perception of teachers and principals, teaching conditions in primary schools and general conditions of schools.

The findings of the study showed that lack of equipment and facilities (Zambia, Zambabwe), lack of textbook (Zimbabwe) unqualified teachers (Zambia and Zanzibar) higher repeaters, unprepared buildings and high in equality

(Zanizibar), high pupil-teacher ratio, lack of seating (Zimbabwe), less frequency of tests/homework (Zambia and Zimbabwe), district variation (Mauritius) and students, absenteeism as the characteristics of many of them, were the major identified problems of the countries performing low performance.

2.5 Specific School Factors Contributing Academic Achievement Differences

School factors contributing to achievement differences considered many things. According to National Learning Baseline study conducted in Namibia, (1998:62) these factors are stated as. " School qualities", which include: quality related to teachers, class room and instructional materials, facilities and school level organization. Study conducted in Zimbabwe (1998: 25-49) focused on characteristics of pupils, teachers, teaching conditions and facility (building, texts and materials).

Furthermore, Fuller (1986:14-15) states school quality determines the academic achievement of the learners, which means " school quality", is the character of instructional process experienced by each student and the school's efficiency in developing cognitive proficiencies. Besides to these inputs he further pointed out the following factors have also significant impact on academic achievement.

- Teacher's quality (School type, social background) verbal proficiency and motivation of teachers)
- Teachers' behaviour in classrooms (efficient use of instructional time, the level of performance standards and expectations set for students, the

extent to which teachers' evaluate pupils performance, teachers ability to motivate students)

- Organization of the school (Head masters management capability, feeling of camaraderie among teachers, and norms of achievement set by headmaster and the schools legitimacy in community.

To this author, academic achievement of students is often affected by the instructional process, which each student is experienced in the school and the capability of the school to develop cognitive ability of the student.

Bruce (1986:20) indicated few elements on school quality, he pointed as the followings, which could have impact on students' achievement even if they are not as such significant.

1. Specific material inputs- class size, school size, instructional materials (texts, reading materials and desks), instructional media (radio) school building quality, library size and activity, science laboratories etc.
2. Teachers quality- teachers' length of schooling, (qualification), in-service teacher training, teacher's length of experience, teachers' verbal proficiency schools percent of full-time teachers. Teacher's punctuality and (low) absenteeism.
3. Teaching practices (classroom organization- length of instructional programmers, , teacher's time spent on class preparation.
4. School management- quality of principal, student reptetion of grade.

Contextual above author, material inputs and teachers' quality have received the most attention by researchers and studied several times. Whereas, despite increasing research on the influence of teaching practices and school management within industrialized countries, these areas have received very little attention in this world.

As Getahun (2002:19) indicated, Chinapha classified school factors that affect students' performance into five by combining school level factors with home based factors.

- School characteristics (type, region, teacher quality, teacher's salary, class size).
- School process (teaching learning process, teachers behaviour, pupils classroom activities, pupil-teacher interaction)
- Home characteristics (parental social economics status, home possessions, home literacy, ethnicity personal characteristics).
- Pupils' scholastic performance (Aptitude and achievement).

Regarding the school characteristics (factors), which affect academic achievement of students, Wangner and Dersse (1990:8) have cited Chinapah (1983) as following policy-related school inputs captured the authors attention, even if inconsistent results were found regarding which of these inputs have direct impact upon students performance.

On the same issue Husen (1970) in Deresse and Wangner (1990:9) points 16 teacher-related variables affecting pupils' scholastic achievement. Of the 16 teachers related variables, the writers stressed the following variables as they do have strong positive relationship with students' performance.

- Teachers' credential and certification
- Teachers' ability and achievement
- Teachers' experience
- Teachers' expectation of students

The National Baseline Assessment study of Namibia (1992:63) has also kept the learners achievement mode into three explanatory causes of variation for learner performance. These are: community context, which include language the of community, verbal rural setting, community wealth and labor demand; individual learner characteristics and family background which include-pupils' gender, age, home language, family social-class position and child, motivation and, finally school qualities which include teacher qualities, classroom and instructional materials, facilities and school level organization.

From the above, we can observe that community context, family background and school quality have roles to play in determining learner's achievement. But the study highly concentrated on school quality in influencing students achievement and hence stated the following (Ibid)

In school system where school quality is uniformly high, we see very little variation in average students performance across schools, and much more variability

among different children within schools. This is the case with Botswana's well-financed junior secondary schools, for example.

This shows us that in schools where teachers' quality, material inputs, and other school-related factors, which contribute to school quality, are almost the same, variation in learners performance is not observed as such; otherwise, the opposite would occur in schools where such uniformity is not observed. In connection to this point when the American Academic of students assessed, Ress (2002:2) stated the following: -

.... The single most dominant factor affecting students academic gain is teacher effect. Student who had three consecutive years of poor teaching could lag academically by more than 50 percentile points behind their peer who had received good teaching.

Form this quotation, we can understand that teachers' quality in terms of qualification, and experiences teaching their knowledge and skills have significant effect up on students' performance.

2.5.1 School Material Inputs:

School material inputs such as school size, class size, instructional material (Text-book and reading materials), school buildings audio visual materials are considered as influencing elements in determining students achievement, various research studies, however, show different concepts regarding each element and, hence give value difference to each of them as factor influencing students achievement. Therefore, this paper would see each of them as much as possible in relation to their impact on students' academic achievement.

2.5.2 School Size

The studies involving large number of students and school-confirmed that students learn more and better in small school (Lee and Smith, 1995). Furthermore, Johnson (2000:5) indicated about the influence of small classes size in academic achievement: " Having fewer children in class reduces the distraction in the room and gives the teacher more time to devote to each child. The average time a teacher can spend with each child, then appears to be important in the learning process".

As the above quotation shows the time each child would have with teachers increases and teachers could help each individual student frequently and, therefore, the expected outcome from the learners could likely occur.

2.5.3 Instructional Materials

Instructional materials such as textbooks and reference books are thought to be essential inputs in influencing students achievement or academic performance. The availability of text-books and reference books in schools' book stores and libraries does not guarantee the quality of school, unless they are distributed and given to learners on time. According to the policy research number one of Mauritius on the quality of education (1998:46), 85.3 percent of grade 6 pupils in Mauritius attended school were allowed to borrow books other have library but do not borrow books to learners. Hence, the study recommended that, "the ministry

needs to review this situation because it is a poor use of resources if library books are available but are not being used to the maximum level, and social-economic status are less influential to learning. “

Besides, the above positive effect of instructional materials have on students performance, Bruce (1986:29) has reported the positive effect of instructional materials on students performance as observed in different countries.

- In Uganda's text-book availability strongly influenced achievement in English, diverting the effects of the child's social class
- In Malaysia, Chile and Latin America textbooks availability was related to higher achievement.
- In rural Brazil, students with parents who had received no schooling were almost three times as likely to pass primary school if they had used two or more books compared to students in the same group who had no textbooks in the school.

Generally, according to Bruce in his World Bank report (1986:30) of the 22 analysis's made on the impact of text-book and reading materials have on student's achievement, 14 of them have showed positive correlation with achievement. Therefore, based on many studies and discussion report, instructional materials such as books and reading materials have significant influence on learners' achievement. Though literatures signify the impact of instructional materials (text-books, reference and others) have on students'

academic achievement inconsistent findings have been observed in various research studies.

In Nebeyu (2000:216), considering physical resources as they include school building, equipment, supplies, laboratory, library books and textbooks in the schools, he cited the following findings on different studies.

- In Levin's study, books in the library per student were found to be unrelated to verbal achievement of 597 while students enrolled in 36 schools in a large Eastern City.
- In Hanushek's (1989) recent review of the literature only 12 of 47 studies that were examined on the relationship between facilities and students' achievement should show significant (positive) result.
- Plowden report (1967), which took place nearly at about the same times as the EEO survey in U.S. and is comparable in many aspects to that of Coleman's study reported that home influence is far outweighed more affect on achievement than school effect in developed countries.

As the whole, the above studies findings show that school materials such as textbook, reading materials including buildings and equipment have little effect on students achievement. Moreover, according to Heyenman and Loxely (1983) cited in Nebeyu (2000:262), "According to the available evidence only in developing countries, school facilities were found to be important."

2.5.4 Laboratory

Laboratory rooms are class rooms for subject matters that require to be done practically, such as; chemistries, physics, biology. It is for courses which are difficult to make clear for students using only lecture methods. Thus, MOE, (1995:2) recommended that each secondary school should have three laboratories with separate demonstration, store and preparation rooms and has also stressed the importance of trained lab technicians to each secondary school.

2.5.5 Library Size and Its Activities

According to Brennan (1992:4) the following was written about the role library plays.

Libraries play a unique role in bringing the gaps between disciplines, and more specifically, in helping students apply science and mathematics concepts to other disciplines. Science curricula can be enriched in library media centers by providing hands-on display and learning centers, electronic databases that contain the latest scientific information, guest speakers and demonstrations, and displays of student-produced science project.

As the above quotation reminds us, library has several advantages and uses in developing human knowledge particularly in science and mathematics which in turn applicable to the other parts of disciplines through logical deduction or influences. The same author, Brennan (1992:4) stated that: "Research shows that students perform better on tests of research skills and comprehension skills

when they have access to a good library media center and professional library media specialists”.

It is clear to observe from the above that individual can need and get up-to-date information on research technique if library is facilitated for them. While literatures state the above benefits of the library and its activities, research studies have shown similar cases in various situations. According to Lance & Keith-Curry (1994) on the study conducted to know the impact of school library media on academic achievement the following findings have been forwarded in questions and answers form:

1. Is there any relationship between expenditures on library media centers and test performance particularly when social and economic differences between communities and schools are controlled? Yes, students at schools with better-funded library media centers have achieved higher average reading scores whether their schools and communities are rich or poor, and whether adults in the community are well or poorly educated.
2. Given a relationship between library media enters expenditures and test performance; what intervening characteristics of library media program help to explain this relationship. The size of library media center's total staffs, and the size and variety of its collection are important characteristics of library media program, which intervene between library media center expenditure and test performance. Funding is important, but two of its specific purposes are to ensure adequate level of

staffing in relation to the schools' enrollment and a local collection, which offers students a large number of materials in different formats.

3. Does the performance of an instructional role played by library media specialists help to predict test performance? Yes, students whose library media specialists played such a role tend to achieve higher average test score.

Therefore, as the above findings show, library has significant place in determining students' achievement. Students who are working with adequately facilitated library deserve better achievement than the opposite. Similar to the World Bank discussion report presented by Bruce (1956:20), from the 18 analysis made to know the influence of library size and its activities on students' academic performance, 15 of them have shown positive correlation. Therefore, controlling other factors, library and its activity has a direct relationship with learners' performance.

As it has mentioned above, library in any school is one of the means by which the learning and teaching process can be facilitated. Reference books in the library may play a role of extending the horizon of human knowledges. Because of this, there is a library in most of the schools in Ethiopia, though, they have not built according to the standard set by the MOE. According to MOE, (1995:3) the size of secondary school library should be 108.86 square meter. Out of which

26.86 square meter and 66.8 square meter is for store and reading room respectively.

2.5.6 Instructional Media:

Teaching and learning activities, which take place by instructional media are often effective, so that learners can easily understand what is being taught. Taking instructional materials as media, Scherman has pointed the importance of multimedia instruction which facilitates the effectiveness of learning as follows.

...we have pointed out that almost all teaching is multimedia, and that "teacher instruction" as measured in most experiments and compared with "media instruction" is usually teacher plus text books plus chalk board and often plus more. We have thousand years of educational history to tell us that teachers themselves believe multimedia instruction is more effective than a single media (Scherman, 1977:38).

From the above media we can observe that instruction that utilizes various media are more effective than that uses limited media or few media.

On a survey study of pedagogical centers in primary schools of Addis Ababa, Amare and Tasew (1996:36) indicated that "the availability of educational materials has received increasing attention in the last couple of decades, because of growing evidence that it is an important and is correlated with classroom achievement".

Moreover, all writers who have made studies on instructional media (materials) in affecting students' achievement indicated the positive correlation between the two.

2.6 Teaching Practices as Influencing Elements on Students' Academic Achievement

Teaching practices are the major influencing elements on students' achievement. Teaching practices, according to this paper include length of instructional program, homework giving frequency, active learning by students teachers' expectation of pupil performance, teachers time spent on classroom participation, methods of instruction and motivation provided to learner by teachers.

2.6.1 Teachers' Motivation

Motivation is provided for an effort done by individual or group. Of course, the type of motivation provided varies from one effort to another. Teachers' as changing agents who always work to bring a desired behavior on students should use this instrument, i.e. motivation to encourage their learners and hence reach the desired goal. According to DANTES (1992:7). 'Students are like all other workers in wanting a tangible return for their efforts. If such motivation is to be effective, they must believe that their, stay in school, worthwhile, and that their efforts will be suitably rewarded'.

Many lessons with objectives, which are not obvious today will pay off during later instruction. But students do not appreciate this fact. It is important for teacher to make them aware of these applications, which are not immediately apparent if students' motivation is to be maintained.

Anderman (1998: 2) also stated the importance of motivation in the following way:

Few educators would agree with the premise that students motivation is an important influence on learning. Motivation is particular importance for those who work with young adolescents.

At the same time, emphasizing the importance of motivation, Brown (1999: 3) stated that:

Educators who know students name, recognize their efforts, and provide academic support encourage educational and student development. Those who do not care, fail to listen, and request to recognize individual differences in achievement potential contribute to the alienation of students.

Teachers who do have more contracts with individual student could easily solve the academic problem and other related educational problem.

2.6.2 Teachers' Lesson Preparation

Any training activity, whether it be at kindergarten or college level, must be held being planned. According to DANTES (1992: 25) the following basic points are required at any lesson preparation.

1. Determination of overall objectives
2. Identification of blocks of learning
3. The syllabus
4. The lesson plan

As the above quotation describes the general objectives or goals to be reached from a given training have to be first identified. If the objectives to be reached are not clear any instruction cannot be effective.

At the sametime, the identification of blocks of learning has to be known. If teachers know the blocks of learning they can split into different specific objectives, so that they can gear their instructions to the designed goal.

The syllabus as one of the vital elements in the process of lesson preparation, teachers or instructors must be provided as guide for their works. Being taking the flight instructor as an example, the DANTES (1992: 26) stated that:

Any practical flight-training syllabus must be flexible, and should be used primarily as a guide. The order of training can altered, when necessary, to suit the progress of the student and the exigencies of special circumstances. In departing from the order prescribed by the syllabus, however, it is the responsibility of the flight instructor to consider the relationships of the blocks of learning affected.

Syllabus and guides provided for teachers denote the scope and areas to be covered by the classrom teachers or instructors.

Lesson plan is also another essential point that helps teachers to achieve the lesson at predetermined time effectively. Davics (1981:78) states the following advantages of having lesson plans.

- The aim of the lesson plan can be identified and maintained
- The lesson material can be selected and arranged in a logical manner.

- An instructional method can be selected to the learning task and needs of the trainees.
- Appropriate trainees participation and experiences could be identified and arranged.
- Instructional time can be managed, so that the best use can be made of it.

Connecting to these advantages of preparing lesson plan, Davies (1981: 7) stated the importance of preparing lesson plans in resolving the problems that teachers encounter during teaching as follow:

Many instructors and teachers have feelings of uneasiness about teaching. Sometimes it is because they do not know what to do formatives, it is because they lack confidence in their ability to do it. In both instances, the solution is careful planning.

As the above author said, teacher have been observed while they face problems of what to teach. They teach one topic and leave soon; and start the other. Such problem, of course, has been the result of poor preparation which could be resolved if they have lesson plans. Wilcox (1960: 15) stated the importance of lesson plan in such a way:

A plan for teaching is a guide for action. It is entire teaching process in projection the goals sought. What will probably be done to reach them, what is needed to take the proposed steps, and why it is important to actually take action.

As the above author stated, lesson plan helps one to determine the end and find the means how to reach the end. It guides and searches options to reach the set goals. According to DANTES subject standardized tests (1992: 26-27), every

lesson, however, must include at least the following items if it is to result in properly organized instruction.

- Lesson objectives
- A statement of elements of knowledge and skills, which will be necessary for the fulfillment of the lesson objectives (contents).
- Allocation of time available.
- Equipment and teaching aids to be used
- Instructor's (teacher's) actions.
- Student's actions (activities)
- Evaluation

2.7 Teachers Quality as an Influencing Element on Students Academic Performance

Teachers quality is the major influencing element of students academic performance. Of course, there are several specific teacher qualities that are combined under teacher qualities. As Clark (1993: 184) stated about the good teaching:

We cannot hope for good education from pre-school to graduate school in the absence of good teaching. For better and for worse, the quality of teaching defines the quality of education. And the quality of education in turn, limits or enables the good that the next generation of teachers is able to do so.

In addition to the above quotation, Clark (1993: 185) further stated that: 'A good teacher is one who is efficient director and manager of a three part instructional

processes that involve lecture and demonstration, recitation with feed back, and supervised practice or seat work".

Here the quotation emphasizes as the teacher plays important role and leads students to work rather than making students do alone. The global image of the good teacher supported by research is of a business like person orderly, efficient classroom. The process of rapid and cumulative coverage academic content with clear feedback and remedial instruction when necessary leads to superior performance on tests of facts and skills. The culture of control, efficiency and coverage of learning outcomes defines the world of process- product teacher. In whatever forms, be it process- product teacher, teachers thinking approach and research dealt with teachers knowledge position; students performance (academic achievement) depends on teachers' qualification, experience, verbal proficiency (clarity), punctuality and low absenteeism.

2.7.1 Teachers' Qualification

The qualification of teachers to appropriate teaching level is essential and appropriate to make students show good academic performance. According to Bruce (1986:20) on World Bank discussion report, a total of 30 studies or analyses have been made about teacher years of tertiary education and training on students academic achievement and hence 21 of the studies have shown that positive correlation and hence has strong impact on students performance.

2.7.2 Teachers Length of Services (Experiences)

Teachers experiences in influencing students' academic achievement has shown inconsistent result in many studies. According to Bruce (1986: 34) of the study consisting of 89 secondary schools in west Malaysia found a notable correlation between length of teachers training and students achievement. This factor retained its significance when entered in to a multivariate model, which controlled for the effects of pupils family background and other elements of school quality. This research also discovered an achievement effect for the interaction of teacher training and length of teaching experience. Similarly, the IEA study found a modest bi-variant correlation for science achievement among 3 153 students from 124 schools in India.

Fuller (1986: 36-37) further stated the following research finding made on various countries regarding the influence of teachers' teaching experiences have on students achievement. Accordingly, Heyneman and Loxely (1976) studied the science competence of EL Salvador (primary), Iran, India and Chile students through science teacher and hence the outcome has shown positive effect. On the other hand, on the study conducted in Bycarnoy Puerto Rico (primary) students have shown positive effect on reading. This and Carnoy also studied that Kenya's National Exam, and Malaysia's (primary) comprehensive exam and stated that both have shown positive impact on students achievement.

In contrary studies, conducted by Heyneman (1976) on National Exam of Uganda (primary); Schiefelbein and Farrell (1973) on language and maths of Chile secondary; Hartley and Swanson on literacy and Numeracy of Egypt (primary); Youdi on language and maths of Congo; Klees on language and Maths of Mexico; Rivarola and Corvalan on reading of Paraguay, Echart, et.al, on reading of Argentina (primary and secondary) have shown no effect on students academic achievement.

Therefore, inconsistent findings have been observed at studies conducted in various countries.

2.8 School Management as an Influencing Element of Students' Academic Performance

Beyond organization of the classroom, management of the entire school represents an important component of school quality. The school's organizational structure drives the efficiency with which inputs are managed. As Renchler (1992: 3) stated by citing Klug (1989).

School leaders can influence level of motivation by "shapping the school instructional climate", which in turn shapes "the attitudes of teacher students, parents, and the community at large toward education". By effectively

managing this aspects of school's culture, principals can "increase both students and teacher motivation and indirectly impact learning gains."

Teachers, who are on operation, highly motivated by principals or leaders if principals or leaders work harmony and collaborately with teachers. Motivated teacher in turn can do effective work.

Renchler (1992: 3) further stated that school leaders can create positive environment which motivate students through the following ways:

- Stress goal setting and self- regulation/ management.
- Offer students choices in instructional settings.
- Reward students for attaining "personal best" goals.
- Foster teamwork through group learning and problem-solving experiences.
- Teach time management skills
- Show students that success is important. Recognize the variety of ways that lead students for success. Reward success in all its forms.
- Involve parents in discussing the issue of motivation and give them guidance in fostering in their children.

The above points clearly indicate that school leaders can motivate students by rewarding for their achievement, develop mechanism in which students can be motivated, show them how they effectively manage their time. As the whole, good school leaders consider students gain as part of their regular duties.

CHAPTER THREE

3. PRESENTATION AND ANALYSIS OF DATA

A total number of 970 copies of questionnaires were distributed to students, and teachers. Out of these, 851 questionnaires were returned. From these, the representation of the two groups were 797 students and 54 teachers.

Therefore, 851 respondents were involved in filling out the questionnaires. These were 184 students and 15 teachers from Atse Yohannes Secondary School, 171 students and 12 teacher from Agazi Secondary School, 151 students and 10 teachers from Tilahun Gizaw Secondary School, 143 students and 8 teachers from Axum Secondary School and 148 students and 9 teachers from Shire Secondary School.

The rate of return of the questionnaires was 88 % for students and 77%, for teachers. The data obtained through the questionnaires were tabulated, analyzed and interpreted using percentage, chi-square and weighted mean.

3.1. Characteristics of Respondents

Description of the characteristics of the target population gives some basic information about the respondents involved in the study. Therefore, the data are presented below each table shown in this chapter.

Table III
Characteristics of Student Respondents by Sex , Age, Grade level and Stream

No	Item	Students	
1	Age in year	No	percent
	a. 10 -- 14	152	15.8
	b. 15 -- 20	446	61.2
	c. above 20	199	23.0
	Total	797	100
2	Sex		
	a. Male	502	65.0
	b. Female	295	34.0
	Total	797	100
3	Grade level		
	a. 11	396	49.6
	b. 12	401	50.4
	Total	797	100
4	Stream		
	a. Natural Science	404	50.9
	b. Social Science	393	49.1
	Total	797	100

As indicated in items 1 to 4 of Table III, out of 797 students 61.2% were 15 years and above. Supporting this, the age of students in second cycle secondary is from 17 to 18 (MOE: 1994).

Regarding sex of students, 65.0% were male and 34.0% were females. This shows that the proportion of females to the male is very low, and this might be a result of the people who do not send their daughters to school and can be because of attrition rate and dropout rates.

In addition, items 3 and 4 in the same table depicted that out of 797 copies of questionnaires 49.6% by grade 11 and 50.4% by grade 12 were filled while 50.9% of the students were from natural science and 49.1% from social science stream. Thus, one can conclude that the data were gathered equally from both

grades and streams. The proportion of social science to natural science is almost equal.

Table IV
Description of Teacher respondents by Age, Marital status, Services, Qualification and Teachers Specialization

No	Item	Teachers	
1	Sex		
	a. Male	45	94.9
	b. Female	9	5.1
	Total	54	100
2	Age in years		
		no	percent
	a. 20 -- 29	12	20.5
	b. 30 -- 39	21	43.6
	c. 40 -- 49	16	30.8
	d. 50 -- 60	5	5.1
	Total	54	100
3	Marital Status		
	a. Married	25	51.3
	b. Single	22	43.6
	c. Divorced	7	5.1
	Total	54	100
4	Total years of services		
	a. 1 -- 5	10	12.8
	b. 6 -- 10	27	56.4
	c. above 10 years	17	30.8
	Total	54	100
5	Qualification		
	a. 12 + TTI	5	5.1
	b. 12 + 2	23	48.7
	c. First degree	16	30.8
	d. Second degree	10	15.4
	Total	54	100
5	Teachers by specialization		
	Field of study		
	a. Natural Science	27	53.8
	b. Social Science	21	41.0
	c. Others	6	5.2
	Total	54	100

As could be clearly seen in Table IV, item 1 indicated that out of the 54 teachers there were 5.1% females . It shows that the proportion of females to the male is very low. Thus, it is possible to conclude that the contribution made by females to implement the preparatory program was low.

With regard to item 2 in the same table, the data indicated that the majority of the teachers 79.5% were 30 years and above. From this, one can say that the majority of the respondents were matured in terms of age.

Item 3 of Table IV depicted that 51.3% of the teachers were married while 48.7% of the teachers were single and divorced. Out of 54 teachers, the majority of teachers 56.4% had served from 6 to 10 years as shown in item 4 of the same table.

Item 5 of the above table shows the qualification of teachers. The data indicates that 48.7% of the teachers were college teaching diploma holders while 5.1% were 12 + TTI. As can be seen from the table, the respondents were combination of educational levels ranging from 12 + TTI up to second degree holders. Through this variation one could have a good vision about the quality of education, the majority of preparatory school teachers 53.8% were below the standard as THEMIS (2002:1) indicated in chapter two. The standard will be met if 100% of the teachers were over diploma qualification for preparatory students.

3.2 Analysis of the Data

This part of the thesis treats the analysis and discussion of the data collected from the sample regions to seek appropriate answers for the basic questions raised at the beginning of the research.

Table V
The Teaching Load of Preparatory School Teachers and Class Size

No	Item	Teachers	
1	How many periods do you teach per week?	no	percent
	a. 1 -- 10	4	2.6
	b. 11 -- 20	13	23.1
	c. 21-- 30	26	56.4
	d. 31 -- 35	11	17.9
	Total	54	100
2	If your answer is 'a' which grade levels are you teaching?		
	a. 12	1	25.0
	b. 11	3	75.0
	c. 12 and 11	--	
	d. 9,10,11 and 12	---	
	Total	4	100
3	If your answer is 'c' which grade levels do you teach?		
	a. 12	7	26.9
	b. 11	5	19.2
	c. 11 and 12	10	38.3
	d. 9,10,11and 12	4	15.4
	Total	26	100
4	What course are you assigned to teach?		
	a. Major course	30	55.6
	b. minor course	2	3.7
	c. both major and minor	2	3.7
	d. out side of the two	20	37.0
	Total	54	100
5	If your answer is 'd' have you attended any short term training?		
	a. Yes	9	45.0
	b. No	11	55.0
	Total	20	100
6	Are there more than 40 students in most of the class you teach?		
	a. Yes	48	88.9
	b. No	6	11.1
	Total	54	100

Item one of table V deals with the weekly teaching load of preparatory school teachers and class size. As indicated in the table, the majority of the preparatory school teachers 56.4% were assigned to teach 21 – 30 periods per week. Thus, this implies that most of the teachers in the region were efficiently utilized.

In item 2, those who were teaching only 1 – 10 periods per week were asked which grade levels they were teaching. Accordingly, the majority 75.0% reported that they were teaching in grade 11, while the rest were teaching grade 12. Therefore, most of them were those who were assigned to teach subjects, which have one or two periods such as basic business and technical drawing which have two periods a week.

In item 3, the same question was asked of those who were teaching 21 – 30 periods per week. Unlike the above one, the majority 38.5% were teaching both grade 11 and grade 12, while 26.9% were teaching grade 12.

With regard to the subjects the teachers were teaching, the majority of the respondents 55.6% reported that they were teaching their major areas and therefore, it is possible to say that there is fair distribution of teachers to each preparatory school.

In the next item of the same table, those who were teaching outside of their major or minor areas were asked whether they had a chance to have short-term training. Accordingly, majority of the respondents 55.0% depicted that they did not get the opportunity. Thus, there were teachers who were teaching out side of their field without training. Therefore, this may affect the quality of education.

Lastly, they were asked whether they teach more than 40 students in most of the classes they teach. Accordingly majority of the teachers 88.9% revealed that there were more than 40 students in most of the classes. Therefore, one can conclude that in such a large class size, it would be difficult to help students, check assignments and follow up progress, and keep discipline. As a result of this, achievement will be low and this in turn will have a negative impact on the quality of education.

Table. VI Responses on the Instructional Materials of the Preparatory schools						
No	Item	Students		Teachers		X^2
		No	%	No	%	
1	Your school has sufficient student text books					$X^2_{cal} = 9.3504$ $X^2_{T.V.} = 9.485$
	a. Strongly agree	489	61.4	24	44.4	
	b. Agree	156	19.6	12	22.2	
	c. Undecided	60	7.5	8	14.8	
	d. Disagree	51	6.3	6	11.1	
	e. Strongly disagree	41	5.2	4	7.4	
	Total	797	100%	54	100%	
2	The distribution ratio especially in the main courses are one to one.					$X_{cal} = 5.4161$ $X^2_{T.V.} = 9.485$
	a. Strongly agree	253	22.1	20	43.6	
	b. Agree	258	32.1	16	33.3	
	c. Undecided	274	19.2	9	15.4	
	d. Disagree	145	14.7	5	5.1	
	e. Strongly disagree	127	11.9	4	2.6	
	Total	797	100%	54	100%	
3	The school distributes the student textbooks before the classes of the first semester of that year begins.					$X^2_{cal} = 8.8484$ $X^2_{T.V.} = 9.488$
	A. strongly agree	278	35.2	26	59.0	
	B. Agree	197	22.7	14	28.2	
	C. Undecided	145	14.7	7	7.7	
	D. Disagree	140	13.9	5	4.1	
	E. Strongly disagree	147	13.5	2	0.0	
	Total	797	100%	54	100%	

Table VI deals with the instructional materials. Accordingly, the respondents were asked to agree or disagree to item 1, most of the students 61.4% and 19.6% and teachers 44.4% and 22.2% strongly agreed and agreed respectively.

With regard to item 2 of the same table, the majority 22.1% and 32.1% of students and 43.6% and 33.3% of the teachers strongly agreed and agreed respectively to the statement that says the student text book distribution ratio is

1: 1. The chi-square test also shows that there is no statistically significant difference among the groups of respondents.

Regarding the textbook distribution period, the majority 35.2% and 22.7% students and 59.0 % and 28.2% teachers respectively strongly agreed and agreed that students received textbooks on time before classes of the semester began. The chi-square test also shows that there is no statistically significant difference among the groups of respondents (i.e. $\chi^2_{cal}=9.3504 < \chi^2_{T.V.}=9.488$ at $p<0.05$).

Therefore, based on the data on items 1,2 and 3, it is possible to say that there was no serious problem of shortage of student textbooks since the ratio is 1:1 and no delay in the textbooks distribution of preparatory schools.

Thus, one can conclude that having textbooks important for the school subjects are nothing without qualified teachers. Therefore, it is better to take the textbook to the schools, which have adequate number of teachers.

Table VII
Responses on Adequacy of Number of Teachers

No	Item	Students		Teachers		χ^2
		No	%	No	%	
1	There are sufficient number of teachers in your school.					$\chi^2_{cal}=7.3564$ $\chi^2_{T.V}=9.488$
	a. Strongly agree	92	11.5	7	10.3	
	b. Agree	54	6.8	6	7.7	
	c. Undecided	75	9.4	9	15.4	
	d. Disagree	235	29.5	19	41.0	
	e. Strongly disagree	341	42.8	13	25.6	
	Total	797	100%	54	100%	
2	The number of teachers who leave the school increases from year to year.					$\chi^2_{cal}=4.5289$ $\chi^2_{T.V}=9.488$
	a. Strongly agree	266	33.4	10	17.9	
	b. Agree	242	30.5	18	38.6	
	c. Undecided	106	13.3	13	25.6	
	d. Disagree	86	10.7	10	17.9	
	e. Strongly disagree	97	12.1	3	0	
	Total	797	100%	54	100%	
3	Those who leave the school are more than those who are new or employed each year.					$\chi^2_{cal}=3.46285$ $\chi^2_{T.V}=9.488$
	a. Strongly agree	298	37.4	21	38.9	
	b. agree	264	33.1	18	33.3	
	c. undecided	63	7.9	7	13.0	
	d. disagree	79	9.9	5	9.3	
	e. strongly disagree	93	11.7	3	5.5	
	Total	797	100	54	100	

Item 1, in Table VII, indicated that 29.5% and 42.8% of students and 41.0% and 25.6% of teachers disagreed and strongly disagreed respectively to the statement that says that there are sufficient number of teachers in the preparatory schools.

With regard item 2 in the same table, 33.4% and 30.5% of students and 17.9% and 38.6% of teachers strongly agreed and agreed respectively to the statement in the item that says teachers who leave the school increases every year.

Finally, respondents were asked to agree or disagree on whether the leavers were more than the new who are employed every year. Accordingly, the majority 37.4% and 33.1% of the students and 38.9 % and 33.3% of the teachers strongly agreed and agreed to item 3 of the same table.

Based on the data revealed in the items 1, 2, and 3 of Table VII, one can conclude that there were serious shortage of teachers in the preparatory schools in Tigray region. This implies that the implementation of the preparatory program without adequate number of teachers is would seriously affect its effectiveness.

Table VIII
Responses on the Performance of Teacher

No	Item	Students		Teachers		X^2
		No	%	No	%	
1	The teaching staffs are qualified.					$X^2_{cal}=19.0439$ $X^2_{T.V.}=9.488$
	c. Strongly agree					
	d. Agree	132	12.7	22	48.7	
	e. Undecided	151	17.5	9	15.4	
	f. Disagree	152	16.2	8	12.8	
	g. Strongly disagree	241	29.5	9	15.4	
		201	23.4	6	7.7	
	Total	797	100%	54	100%	
2	Most of the teachers of your school have ability to make what they are teaching clear for their students.					$X^2_{cal}=21.948$ $X^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree	137	13.4	21	46.2	
	c. undecided	163	17.5	13	25.6	
	d. Disagree	155	16.2	6	7.7	
	e. Strongly disagree	241	29.5	9	15.4	
		201	23.4	5	5.1	
	Total	647	100%	54	100%	
3	Teachers use only lecture method to teach any subject matter.					$X^2_{cal}=9.0817$ $X^2_{T.V.}=9.488$
	a. Strongly agree	251	32.5	34	66.7	
	b. Agree	213	25.2	20	33.3	
	c. Undecided	139	13.8	0	0	
	d. Disagree	156	16.4	0	0	
	e. Strongly disagree	128	12.1	0	0	
	Total	797	100%	54	100%	
4	Experienced teachers are more competent than the novice ones.					$X^2_{cal}=7.4259$ $X^2_{T.V.}=9.488$
	a. Strongly agree	300	38.6	29	64.2	
	b. Agree	213	27.5	13	25.6	
	c. Undecided	128	12.1	6	5.1	
	d. Disagree	127	11.9	6	5.1	
	e. Strongly disagree	114	9.9	0	0	
	Total	647	100%	54	100%	

Table VIII shows the performance of teachers. Accordingly, the first item revealed that the majority 29.5% and 23.4% of the students disagreed and strongly disagreed while 48.7% and 15.4% of the teachers strongly agreed and agreed respectively. The data reveals that there is statistically significant difference in the

two groups of respondents as the chi-square ($X^2_{cal}=19.039 > X^2_{T.V.} = 9.49$ at $p<0.05$) indicated.

Though most of the students reported that most of the teachers were not qualified, the teachers did not agree with this. From the interview made with REB and WEO experts, they confirmed that most of the teachers of preparatory schools were diploma holders. Thus, one can conclude that the teachers were not competent since the REB has detailed data about teachers.

In the same table, item 2, respondents were asked whether they agree or disagree about the ability of teachers to make what they are teaching clear to their students. Accordingly, 29.5% and 23.4% of the students disagreed and strongly disagreed respectively while 25.6% and 46.2% of the teachers agreed and strongly agreed to the statement stated in the table. And the chi-square shows that there is high statistically significant difference between the groups of respondents ($X^2_{cal}=21.948 > X^2_{T.V.} = 9.49$ at $P < 0.05$). Thus, based on the data obtained from the students, it is possible to conclude that most of the teachers of the preparatory schools do not have ability to make what they are teaching clear to their students. Because people may not know all the problems they have themselves. Students know the best teacher among the teachers who are teaching in the school more than the teachers themselves.

In the third item of the same table, respondents were asked to agree or disagree about statement that teachers of the school use only lecture method to teach any subject matter. Accordingly, the majority 32.5% and 25.2% of the students strongly agreed and agreed respectively and 66.7% and 33.3% of the teachers strongly agreed and agreed respectively that teachers used lecture method. The chi-square ensured that there is no statistically significant difference between the two groups of respondents ($X^2_{cal} = 9.0817 > X^2_{T.V.} = 9.49$ at $P < 0.05$). Sehemana (1977:38) pointed that teachers themselves believe multimedia instruction facilitates the effectiveness of learning. Therefore, this implies that teaching subject matters using lecture method makes most of the subject matter more difficult to understand.

The fourth item of the same table, displays whether experienced teachers are more competent than novice. The majority of the students 38.6% and 27.6% and 64.2% and 25.6% of the teachers strongly agreed and agreed respectively that experienced teachers are more competent than the novice ones.

From the above data one can conclude that experienced teachers may have the ability of imparting their lessons in a palatable manner i.e. in a way easily understandable to students. Supporting the conclusion, Fuller (1986:63) Vulliamy (1987:219) and World Bank (1991:138) asserted that teaching experience appears to be stronger in its relationship with student's achievement. The chi-square shows that there is no statistically significant difference between the two groups of

respondents ($X^2_{cal} = 7.4259 < X^2_{T.V.} = 9.49$ at $P < 0.05$). However, this does not mean that most of the teachers are rich in experience.

Table IX
Responses on the Library Service of the Preparatory schools

No	Item	Students		Teachers		X^2
		No	%	No	%	
1	Your school provides library services to school community.					$X^2=7.2587$ $X^2_{T.V}=9.488$
	a. Strongly agree	216	25.7	21	46.2	
	b. Agree	292	37.5	13	25.6	
	c. Undecided	134	13.0	6	7.7	
	d. Disagree	120	10.8	9	15.4	
	e. Strongly disagree	135	13.0	5	5.1	
	Total	797	100%	54	100%	
2	Most of the students of the school use the library service.					$X^2=6.9114$ $X^2_{T.V}=9.488$
	a. Strongly agree	137	13.4	4	2.6	
	b. Agree	167	18.1	7	10.3	
	c. Undecided	156	16.4	10	17.9	
	d. Disagree	240	29.4	20	43.6	
	e. Strongly disagree	197	22.7	13	25.6	
	Total	797	100%	54	100%	
3	The school has appropriate reading room.(size)					$X^2=4.6556$ $X^2_{T.V}=9.488$
	a. Strongly agree	122	11.1	8	12.8	
	b. Agree	113	9.7	6	7.7	
	c. Undecided	143	14.4	5	5.1	
	d. Disagree	261	32.6	17	35.9	
	e. Strongly disagree	268	33.7	18	38.5	
	Total	647	100%	54	100%	
4	Availability of enough references for each subject matter provide in the school.					$X^2=2.5152$ $X^2_{T.V}=9.488$
	a. Strongly agree	125	11.6	11	20.6	
	b. Agree	145	14.7	16	33.3	
	c. Undecided	159	16.8	8	12.8	
	d. Disagree	232	28.2	10	17.9	
	e. Strongly disagree	230	28.7	9	15.4	
	Total	797	100%	54	100%	
5	Your school community can borrow reference book From the library.					
	a. Strongly agree	104	16.1	11	20.5	
	b. Agree	102	15.8	11	20.5	
	c. Undecided	88	13.6	6	7.7	
	d. Disagree	120	18.5	8	12.8	
	e. Strongly disagree	233	36.0	18	38.5	
	Total	797	100	54	100	

Table IX discloses, how the school community in preparatory schools use library. Accordingly, item 1 of table IX depicts that the majority, 25.7% and 37.5% of the

students strongly agreed respectively and 46.2% and 25.6% of the teachers strongly agreed and agreed respectively. Thus, majority of the students (63.2%) and the teachers (71.8%) agreed that there is library service in the preparatory schools. Thus, students can do better on tests of research skills and comprehensive skills when they have access to a good library media center. And this is shown by the chi-square test that there is no statistically significant difference between the respondents ($X^2_{cal}=7.2587 < X^2_{T.V.}=9.49$ at $P < 0.05$)

Availability of library is not enough to develop human knowledge unless and otherwise the students use the service provided by the library. So item 2 of the same table also reveals that most of the students 29.4% and 22.7% and the teachers 43.6% and 25.6% disagreed and strongly disagreed to statement that says most of the students use the library service. Thus, the data indicates that the library does not help the students to achieve higher average test score. Besides, the chi-square shows that there is no statistically significant difference between the two groups of respondents ($X^2_{cal}=6.9114 < X^2_{T.V.}=9.49$ at $P < 0.05$)

Furthermore, item 3 of the same table also reveals that 32.6% and 33.7% of the students and 35.4% and 38.5% of the teachers disagreed and strongly disagreed to the statement that says the school has appropriate reading room(size). Thus, what the data indicated is true and this is shown by chi-square that there is no statistically significant difference between the respondents ($X^2_{cal}=4.6556 < X^2_{T.V.}=9.49$ at $P < 0.05$). Supporting this, Bruce (1956:20) confirmed that library size and

its activities has influence on the students' academic performance. Hence, this implies that large library that can accommodate all students who need to refer to reference books at any time they need is important and this needs the attention of all educational officials.

Item 4 presents that 28.7% and 28.2% of the students strongly disagreed and disagreed to the statement that availability of enough reference books for each subject matter offered while 20.6% and 33.5% of the teachers strongly agreed and agreed to the statement mentioned respectively. The respondents responded differently to item 4 of table IX, and the chi-square also shows that there is high statistically significant difference between the respondents. Therefore, it is possible to conclude that the preparatory schools had many reference books. Since the teachers might have more concret data than the students in the preparatory schools.

In item 5 of the table, respondents were asked whether they agree or disagree to statement that says that the school community can borrow reference books. In response to this, the majority of the students 18.5% and 36.0% while 12.5% and 38.5% of the teachers disagreed and strongly disagreed respectively. This implies that the school library does not lend reference books to the school community. Furthermore, the chi-square calculated at $P < 0.05$, $X^2 = 3.0196$ which is less than $X^2_{T.V.} = 9.49$ reveals no statistically significant difference between the respondents based on what have been stated above. One can conclude that the

libraries in the schools were not able to provide all services expected from them because of their sizes.

Table X
Responses on Adequacy of Laboratory and Laboratory Equipment and Chemicals of the Preparatory Schools

No	Item	Students		Teachers		χ^2
		No	%	No	%	
1	There is laboratory room for each subject matter such as biology, chemistry, physics and etc					$\chi^2_{cal}=2.2343$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree					
	c. Undecided	128	12.1	7	10.3	
	d. Disagree	122	11.1	8	12.8	
	e. Strongly disagree	135	13.1	8	12.8	
		155	16.2	13	25.6	
	Total	357	47.5	18	38.5	
2	There is one laboratory room for all subject matter					$\chi^2_{cal}=3.8529$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree					
	c. Undecided	186	21.0	14	28.2	
	d. Disagree	292	37.4	20	43.6	
	e. Strongly disagree	144	14.5	9	15.4	
		141	14.1	5	5.1	
	Total	134	13.0	6	7.7	
3	Laboratory equipment are available in your school.					$\chi^2_{cal}=4.6556$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree					
	c. Undecided	122	11.1	6	7.7	
	d. Disagree	130	12.4	5	5.1	
	e. Strongly disagree	127	11.9	9	15.4	
		198	22.9	14	28.2	
	Total	320	41.7	20	43.6	
4	Laboratory chemicals are available in your school.					$\chi^2_{cal}=4.0756$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree					
	c. Undecided	112	9.5	5	5.1	
	d. Disagree	123	11.3	5	5.1	
	e. Strongly disagree	111	9.4	6	7.7	
		254	31.6	16	33.3	
	Total	297	38.2	22	48.8	
5	There are enough laboratory technicians in your school.					$\chi^2_{cal}=2.5152$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree					
	b. Agree					
	c. Undecided	172	18.9	12	23.1	
	d. Disagree	79	22.8	15	30.8	
	e. Strongly disagree	146	14.8	9	15.4	
		154	16.1	8	12.8	
	Total	156	16.4	10	17.9	
	Total	797	100%	54	100%	

As could be seen in table X item 1, many of the students 47.5% and 16.2% strongly disagreed and disagreed respectively and most of the teachers 38.5% and 25.6% strongly disagreed and disagreed respectively to the availability of laboratory room for each subject matters. This indicates that in most of the preparatory schools there was no laboratory room for each subject matter

Many of the respondents 21.0% and 37.4% of the students and 28.2% and 43.6% of teachers strongly agreed and agreed to item 2 of the same table that there was a laboratory room for all subject matters in the preparatory schools. The chi-square test indicates that there is no statistically significant difference between the two groups of respondents ($X^2_{cal}=3.8529 < X^2_{T.V.}=9.49$ at $P < 0.05$). From this, it could be concluded that there was a laboratory room for all subject matters as stated above, in most of the preparatory schools.

As it could be seen in item 3 of the same table, majority of the students 41.7% and 22.9% and teachers 43.6% and 28.2% strongly disagreed and disagreed respectively that there were no laboratory equipment in most of the laboratory rooms of the preparatory schools. The chi-square test shows that there is no statistically significant difference between the respondents. ($X^2_{cal}=6.8609 < X^2_{T.V.}=9.49$ at $P < 0.05$).

In item 4 of the same table, the respondents were asked the availability of laboratory chemicals. Accordingly, 31.5% and 38.2% of the students and 33.3%

and 48.8% of the teachers disagreed and strongly disagreed to statement that says laboratory chemicals are available in laboratory room.

The fifth item of the same table displays that whether there are enough laboratory technicians or not. The majority of the students 18.9% and 33.8% and teachers 23.1% and 30.8% strongly disagreed and disagreed to statement stated in the fifth item of table X. Therefore, regarding items 3, 4 and 5, it is possible to conclude that the laboratory rooms were not used by the students of preparatory schools

Table XI
Awareness of stakeholders

No	Item	Students		Teachers		χ^2
		No	%	No	%	
1	Sufficient orientation has been given regarding the new educational policy. a. Strongly agree b. Agree c. Undecided d. Disagree e. Strongly disagree	179 152 139 255 172	20.0 15.8 13.6 31.7 18.9	7 8 11 17 8	10.3 12.8 20.5 35.9 20.5	$\chi^2_{cal}=8.9096$ $\chi^2_{T.V.}=9.488$
	Total	797	100%	54	100%	
2	The guidelines and regulations needed to implement the program reach the school at the right time. A. Strongly agree b. Agree c. Undecided d. Disagree e. Strongly disagree	70 95 109 221 302	8.8 11.9 13.7 27.7 37.9	4 4 7 17 23	2.6 2.6 7.7 35.9 51.3	$\chi^2_{cal}=3.3742$ $\chi^2_{T.V.}=9.488$
	Total	797	100%	54	100%	
3	The guidelines and regulations sent are clear for the implementers. a. Strongly agree b. Agree c. Undecided d. Disagree e. Strongly disagree	242 193 150 103 108	30.3 24.2 18.8 12.9 13.6	16 14 12 6 6	33.3 28.2 23.1 7.7 7.7	$\chi^2_{cal}=2.5152$ $\chi^2_{T.V.}=9.488$
	Total	797	100%	54	100%	
4	Your school made adequate preparation before implementation a. Strongly agree b. Agree c. Undecided d. Disagree e. Strongly disagree	412 270 80 85 70	51.7 33.9 10.0 10.6 8.8	14 12 17 5 6	28.2 23.1 35.9 5.1 7.7	$\chi^2_{cal}=5.2152$ $\chi^2_{T.V.}=9.488$
	Total	797	100	54	100	
5	All stakeholders participate in the formulation of the preparatory program. a. Strongly agree b. Agree c. Undecided d. Disagree e. Strongly disagree	62 79 104 258 294	7.8 8.8 13.1 32.4 36.9	5 5 8 19 17	5.1 5.1 12.9 41.0 35.9	$\chi^2_{cal}=3.9463$ $\chi^2_{T.V.}=9.488$
	Total	797	100	54	100	

The effectiveness of any educational program largely depends on how the policy is designed and implemented. An educational program, which aimed to bring behavioral change, should have to contribute for the achievement of the desired outcome. Hence, table XI shows how the stakeholders are made aware about the new educational policy. Accordingly, in item 1, many students 18.95% and 31.7%

and teachers 20.55% and 35.9% strongly disagreed and disagreed that they had not been oriented about the new preparatory program before they started doing what was expected from each of them. So it is possible to conclude that most of the students and teachers had not been oriented about the program before they started learning or teaching respectively.

In item 2 Table XI most of the students 27.7% and 37.9% and teachers 35.9% and 51.3% strongly disagreed and disagreed to the statement in the same item, the chi-square test at $P < 0.05$, $X^2 = 3.3742 < X^2_{T.V.} = 9.49$ indicates that there is no statistically significant difference within all samples. Therefore, this implies that in most of the schools the guidelines and regulations needed to implement the program did not reach at the right time. This was also confirmed by REB and WEO in the interview made with them. They responded to the interview question that guidelines and regulations had been sent to each preparatory school but not at the right time.

In item 3 of the same table respondents were asked whether they receive clear guidelines and regulations about the preparatory program or not. Accordingly., majority of the students 30.3% and 24.2% and teachers 33.3% and 28.2% strongly agreed and agreed to item 3. This indicates that majority of the school community had clear guidelines and regulations about the preparatory program. The WEO expert with whom the writer of the paper made interview also confirmed this. Furthermore, the chi-square test reveals there is no statistically significant difference between the respondents ($X^2_{cal} = 2.5152 < X^2_{T.V.} = 9.49$). Thus, it is

possible to conclude that clear guidelines and regulations about preparatory program were provided to most of school community.

With respect to adequate preparation before implementation, the majority 51.7% and 33.9% of the students and 28.2% and 23.1% of the teachers strongly agreed and agreed respectively to item 4 of the same table. Besides, the REB and WEO experts responded, to the interview made about the item, that adequate preparation was made such as; preparation of textbooks, classrooms, reference books and others before implementation. Thus, there was adequate preparation before the commencement of the program.

With regard to the fifth item of the same table, the majority 32.4% and 36.4% of the students and 41.0% and 35.9% of the teachers disagreed and strongly disagreed respectively to statement that says all the stakeholders participated in the formulation of the preparatory program. This shows that formulation of the preparatory program was not participatory. However, the REB and WEO experts responded that the formulation of the program was participatory. Thus, it is possible to conclude that teachers had not participated in the formulation of the preparatory program. REB and WEO expert had only participated in the formulation.

Table XII
Response on the Competence of the School Principal

No	Item	Students		Teachers		χ^2
		No	%	No	%	
1	Your school principal makes effort to raise students performance.					$\chi^2_{cal}=14.049$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree	259	32.3	30	69.2	
	b. Agree	207	24.3	8	12.8	
	c. Undecided	144	14.5	---	-----	
	d. Disagree	135	13.1	6	7.7	
	e. Strongly agree	152	15.8	7	10.3	
	Total	797	100%	54	100%	
2	Your school principal makes Effort to raise teachers performance.					$\chi^2_{cal}=23.714$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree	249	30.8	22	48.7	
	b. Agree	199	23.0	15	30.8	
	c. Undecided	178	19.7	8	12.8	
	d. Disagree	139	13.8	5	5.1	
	e. Strongly agree	132	12.7	4	2.6	
	Total	797	100%	54	100%	
3	Your school principal is competent enough to manage the school properly.					$\chi^2_{cal}=45.759$ $\chi^2_{T.V.}=9.488$
	a. Strongly agree	254	31.5	33	74.4	
	b. Agree	277	27.4	11	20.5	
	c. Undecided	139	13.8	5	2.6	
	d. Disagree	140	13.9	5	2.6	
	e. Strongly agree	837	13.4	0	0	
	Total	797	100%	54	100%	

The above table deals with the effort made by the school principal to improve quality of education. In item 1 of the same table, respondents were asked to indicate the effort made by the school principal to raise students performance. Accordingly, more than 32.3% and 24.3% of the students and 69.2% and 12.8% of

the teachers strongly agreed and agreed to the statement mentioned. The finding revealed that most of the school principals tried their best to raise the performance of the students. However, the chi-square test ($X^2_{cal}=14.04887 > X^2_{T.V.}=9.49$ at $P<0.05$) shows that there is statistically significant difference between the responses of the two groups because all principals of the preparatory schools did make effort to raise their students' performance. Supporting this, DANTES subject standardized test (1992:7) indicates "Students are like all other workers in wanting a tangible return for their efforts. If such motivation is to be effective, they must believe that their stay in school is worth while, and that their effort will be suitably rewarded".

In item 2 of the above table, the effort made by the school principal to raise the teachers' performance, was strongly agreed and agreed by the majority 30.8% and 23.0% of the students and 48.7% and 30.8% of the teachers. This shows that the effort to raise the teachers' performance was not made by all the principals of preparatory schools. There were a few school principals who did not raise the performance of the teachers. Because of this in this item, there is great variation between the responses of the two groups. The chi-square test ($X^2_{cal}=23.7143 > X^2_{T.V.}=9.49$ at $P < 0.05$) reveals difference between the two groups of respondents. Besides, some of the preparatory students may not know the effort made by the principals to raise the performance of the teachers. Thus, the data indicates that most of the preparatory school principals made effort to raise the students performance and teachers as well.

In item 3 of the same table, respondents were asked to indicate whether their school principal was competent enough in properly managing their schools or not. Most of the students 31.8% and 27.4% and teachers 48.7% and 30.8% strongly agreed and agreed respectively to item 3 of the same table. However, the chi-square test reveals that there is statistically significant difference between the respondents ($X^2_{cal} = 45.7594 > X^2_{T.V.} = 9.49$ at $P < 0.05$). Since teachers know more about the principals than the students, it is possible to conclude that the school principals are competent to manage the preparatory schools.

Table XIII
Responses on the Training of School Principals

NO	Item	Teachers	
		No	%
1	Most of the second cycle secondary school principals are graduates of educational administration.		
	a. Strongly agree	12	23.1
	b. Agree	19	41.0
	c. Undecided	7	10.3
	d. Disagree	10	17.9
	e. Strongly disagree	6	7.7
	Total	54	100
2	The school's principal is competent enough to manage the school properly.		
	a. Yes	38	70.4
	b. No	16	29.6
	Total	54	100

The above table discusses the training of the principals. The respondents were asked if the majority of the secondary school principals were graduates of educational administration or not. The majority of the respondents (23.1%) strongly agreed and (41.0%) agreed to the item in the above table. This shows that trained principals are acquainted with the basic principles and sciences of educational administration and were running most of the preparatory schools. According to Ellis (1996) and others in Pounder and Merrill (2001:36), to properly administer the teaching learning at this level, principals need to acquire the necessary skills, which enable them to provide a better vision and instructional leadership to improve core teaching and learning process and outcomes in the schools. In addition, most of the teachers in the school confirmed that most of the principals of the preparatory schools were competent enough to manage the preparatory schools according to the data depicted in item 2 of the same table. Thus, it is possible to say that most of the principals in the preparatory schools in Tigray are fit to the program.

Table XIV
Ranking order of the Major Problems Encountered by the Preparatory Schools

No	Possible Reasons	Students No. 647	Teachers No 39	Average mean rank
1	Poor quality of teachers	2.0	2.4	2.2
2	Over crowded class rooms	2.4	2.6	2.5
3	Shortage of teachers	2.5	4.0	3.3
4	Lack of students interest toward education	6.0	3.4	4.7
5	Lack of library services	5.3	4.8	5.1
6	Lack of laboratory rooms	4.9	7.0	6.0
7	Lack of teaching materials	5.9	7.5	6.7
8	Lack of supporting from the school administration.	7.4	77	7.6
9	Assigning teachers outside their field of study	7.6	8.0	7.6

N.B (items with the lowest average rankings were given a rank, 1 the next lowest a rank of 2 and the like).

As can be seen from the above table, for the students, the 6 major problems encountered by, the preparatory schools most of the time, were poor quality of teachers, over crowded classrooms, shortage of teachers, lack of laboratory rooms, lack of library services and lack of teaching materials. For the teachers, the 6 major problems were poor quality of teachers, over crowded classrooms, lack of students interest toward education, shortage of teachers, lack of students interest towards education, lack of laboratory rooms, and library service.

The ranking of the nine reasons by the two groups of respondents indicates differences on most of the possible reasons. The two groups ranked two of the reasons similarly while they differed in the others.

However, as can be evidenced from the table, two groups have agreed in selecting the two major problems of the preparatory schools. These were poor quality of teachers, and overcrowded classrooms. On the other hand they reported that assigning teachers outside their field of study was found to be the least problem mentioned.

To recapitulate, the finding revealed that poor quality of teachers, overcrowded classrooms, shortage of teachers, lack of student's interest toward education, lack of library service and laboratory equipment and chemicals were found to be the major problems. The data revealed that one of the major problems of preparatory schools was teachers' quality. Teachers' quality was the prime factor to implement. Strengthening this, Lock-Heed and his Ceagues (1991:62) states that teachers are central to deliver the quality of education; their academic and professional training has a direct and positive bearing on the quality of their performance and consequently on the preparatory schools. Bruce (1986 :20) has indicated that class-size, instruction materials (texts, reading materials and desks) library size, science laboratories, teachers quality, teachers practice and school management could have impact on students' achievement.

Thus, it can be possible to conclude that it may not be possible to implement the preparatory program with all those problems mentioned above. So, the regional educational bureau aura should try its best to minimize the problem.

Moreover, the respondents were asked what the solution will be for the problems encountered by the preparatory schools. Accordingly, most of the respondents responded that teacher's quality; class size, shortage of teachers and library services should be improved; and more laboratory rooms should be built.

CHAPTER FOUR

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary

The purpose of this study, as it was indicated in the introductory part, was aimed at assessing the practices and problems of preparatory educational program in Tigray. In order to understand the contribution made by the study, the following lists were used as basic questions of the study.

1. To what extent are instructional materials available to preparatory schools adequately?
2. Are teachers available adequately enough both in number and qualification? Is there proper assignment of teachers to teach school subjects in the preparatory program?
3. Do the preparatory schools have the appropriate facilities as per the requirement of the program?
4. How are stakeholders (principals, teachers, students and parents) made aware of the program?
5. Are there well qualified and competent principals who manage the activities of the program?
5. What are the major problems encountered in the implementation of the program?

Descriptive survey method was used in undertaking the study. The study was carried out in 5 preparatory schools. The sample schools were drawn from the four zones (east, west, south and north) of Tigray region, one from each zone. Data had been collected using questionnaires from 797 students and 54 teachers. To supplement the data collected using questionnaires, observation and interviews were made with the REB and WEO officials. Moreover, written materials about the preparatory program found at the REB and WEO were used as additional sources of information.

The data obtained were analyzed using various statistical tools such as percentages, chi-Square and weighted mean. Depending on the results of the analysis made, the following major findings were obtained.

1. The personal data of the finding revealed that the majority of the preparatory school teachers were 12 + TTI and diploma holders. Many of the diploma holders are social science teachers and most of them had not taken part in in-service training. In addition, the study reveals that there is shortage of teachers in preparatory schools.
2. The number of experienced teachers was found to be not high. The study also revealed that students became more successful when experienced teachers have a direct relationship to the quality of education. Moreover, the study also revealed that teachers were assigned according to their major field of study.

3. The finding depicted that the availability of textbooks was not a serious problem in the preparatory schools. The study also revealed that the textbook to student ratio was found to be largely 1:1. Furthermore, it was found that there were enough reference books. Shortage of textbooks was not exhibited in any subject offered in the preparatory school.
4. The study indicated most laboratories of the preparatory schools had not given the required services. Besides, in most of the preparatory schools there was one laboratory for all subject matters due to lack of trained laboratory technicians, shortage of laboratory equipment and shortage of laboratory chemicals.
5. The study indicated that the class size of preparatory schools was often more than 40. As a result of the over crowded classrooms, it was found that the lessons given were not clear for the students. Anyhow, the REB and WEO officials suggested that the average class size for preparatory schools should not exceed 50.
6. The study revealed that there are libraries in most of the preparatory schools. However, they were not appropriate to read because of their size. since they were not built to meet the standard of secondary schools library. They are not 102.86 sq.m. in size. Because of this most of libraries in preparatory schools couldn't keep all the reference books the school had.
7. The study showed that the teachers had been efficiently utilized. They taught more than 21 classes in a week and this enabled them to prepare

lesson plans on time and make enough preparation about what they were teaching.

8. The study revealed that majority of secondary school principals were trained in educational administration. As a result, they were found to be competent in managing their schools and the effort they made to raise students' and teachers' performance was also found satisfactory.
9. The study revealed that teacher quality was found to be a major problem the preparatory schools encountered.
10. Most of the stakeholders had not participated during the formulation of preparatory educational program. As a result, some of the users and implements of the program did not have enough information about the purpose of the program. Besides, the guidelines and regulation about preparatory educational program did not reach most of the implementers at the right time.
11. The study revealed that the major problems of the preparatory schools were found to be poor quality of teachers, overcrowded classrooms, shortage of teachers.

4.2 Conclusion

From the aforementioned findings, it is possible to conclude that the problems and practices of the second cycle secondary schools of Tigray in the following ways.

1. Availability of Instructional Materials

According to the finding, there are adequate textbooks for school subjects offered in each preparatory school. The respondents confirmed that the ratio of most of the textbooks to students is 1 : 1. However, textbooks without facilities and adequate number of teachers are useless. Textbooks need qualified teachers that can make what is in the text books clear for the students.

2. Availability of teachers' in number and qualification.

The majority of the second cycle secondary school teachers were not qualified as per of the national standard. The standard is that all teachers of preparatory school should be more than diploma holders. In addition to this, the number of teachers in the second cycle secondary schools is unsatisfactory. It is very difficult to develop the talent of students by equipping them with knowledge, skills, and appropriate behavior and prepare the students for the tertiary level. Therefore having a few and underqualified teachers at this level has a damaging effect on the quality of education in particular and on the overall development of the country in general and may affect the competence of preparatory students to join higher education.

3. Facility of the preparatory schools

According to the new education policy training, starting from 2003/4 academic year there is no a freshman program. Thus, universities will directly accept students from preparatory classes. The freshman program was playing a role in

equalizing students coming from different schools with different facilities (laboratory, library etc.) However, libraries, laboratories classrooms etc were found to be inadequate in most of the preparatory schools. This implies that students may come to universities with different facilities from different schools and students are not in a position to improve their skills and knowledge through independent reading of different reference materials and books and doing laboratory experiment. That is to say that practical works were simply taught by lecture method. So teaching subject matters such as chemistry, physics, biology and others using only lecture method might be difficult to make them clear to the students.

4. Class Size

Shortage of teachers and classrooms made the average class size of the preparatory schools large beyond the national standard, which is 40 students in a class. Thus, pursuing teaching – learning process in such overcrowded classrooms had drawbacks such as teachers inability to keep the discipline of the class room and to make the lesson clear for the students..

5. Awareness of the preparatory program

Although considerable efforts had been made to make the stakeholders aware, many had not received the guidelines and regulations at a right time and did not have enough information such as the objectives, importance, and others about the preparatory program. Most of the stakeholders had not participated in the

formulation of the program. Due to this, most of the stakeholders had not known why the program was needed. Therefore, it is possible to conclude that it is really hard to make the preparatory program practical without having knowledge or orientation about the program to be implemented.

6. Trained principals

Trained principals, who are acquainted with the basic principles and science of educational administration, are administering most of the preparatory schools. This results in good management of the teaching learning process, good visions and follow up to promote students progress and maintain the quality of education. However, most of the preparatory schools had not have trained principals. There are untrained principals, who are not acquainted with the basic principles and science of education administration, in some of the preparatory school; thus, these will have a serious repercussion on the quality of education

7. Problems encountered by the Preparatory schools

Large class size, lack of in-service training, teachers workload, and shortage of teachers, have also their own contribution on the implementation of the new educational policy. In general, the above – mentioned problems were found in all weredas of the Tigray region. Therefore, the problems mentioned above made the stakeholders of the preparatory schools not to put the new educational policy into effect in the way they were expected. On other hand, we need good teacher

quality, small class size, and enough number of teachers, to implement the program.

4.3 Recommendations

Based on the major findings and conclusions with respect to the practices and problems of preparatory education program, the following recommendations are made

1. Among other things, the quality of education at all levels highly depends on qualified teaching force. Because they are the pillars of the teaching- learning process. Their role in implementing the education policy is so vital as it is stated under. However, the majority of the preparatory school teachers are not fit to this level, i.e., their qualification is below the standard set nationally. These underqualified teachers lack the capability to impart the required knowledge, skills as well as attitudes to bring about the desired behavioral change. Therefore, to fill the gaps, investing in the teacher is so crucial. To do this:
 - a. Since teacher training is the most important variable that affects the quality of education, the region should establish more training colleges and strengthen or upgrade the capacity of the available ones as its resources allow.
 - b. The Tigray Education Bureau should try to convince NGOs and private investors to invest in tertiary level of the education sector

especially in producing or training the needed manpower for the preparatory education level

c. Though the on going in-service training program is promising, the government should expand its intake capacities since it is an appropriate cost effective capacity building process. It is highly recommended to make the proper use of it.

2. As it has been mentioned above, the main reason why freshman program was being given in the Ethiopian universities was to ascertain equality among students who come from different schools with different facilities. However, due to many drawbacks of the previous education system, the new education and training policy was developed. Accordingly, freshman program is not being given since 2003/04 academic year. As the study revealed, in most preparatory schools, there were no enough laboratory rooms for all subject matters that require laboratory experiment, and libraries that can accommodate all users and laboratory technicians. Thus, the preparatory schools could not play a role in equalizing all preparatory students because of the problems already mentioned above. Therefore, to remedy these the following points are recommended

- a. Tigray Regional National State Education Bureau should try to coordinate the NGOs, private investors and parents to build laboratory rooms needed to the subject matter offered in the school and a wide library for each preparatory school if its financial capacity does not allow to fulfill what are needed.

- b. The Bureau could also make some type of balance in the distribution of laboratory chemicals and equipment among the different preparatory schools.
 - c. If it is difficult to apply the options stated above the REB of Tigray should inform the background of the students to all universities and ask them to assist the students, who come directly to the universities from preparatory school, in their deficiency.
3. To be successful, the implementation of the new educational policy requires qualified teachers, sufficient facilities, and enough number of teachers, and enough classrooms to run the program. Currently, however, most of the preparatory schools in Tigray region lack what has been mentioned above. So, training for the teachers, and equal facilities for all preparatory schools are essential elements to implement the program. Therefore, the REB must give continuous training to its teachers and provide educational facilities need and available to all preparatory schools without being biased.
4. Implementation of the new education is the concern of all school community in general and the education officials in particular. It needs a coordinated effort to make it a high priority. Therefore, education officials should take the initiative in the attempt to improve all factors important to implement the preparatory program such as quality of education, facilities, etc. they have to avail the required inputs on time. They have also to take immediate action to correct the wrongdoing. Besides, educational officials should also give

priority to those who are first-degree holders in postgraduate training program.

5. The secondary school principalship is one of the challenging and complex assignments in the education system. To smoothly or properly administer the teaching-learning process and to raise the performance of students and teachers at this level, principals need to acquire the necessary knowledge and skills. As the finding revealed, most of the preparatory schools principals are trained in the fields of educational administration. But there are principals who are not trained in the same field in some preparatory schools. Hence, to minimize the bottleneck highly it is advisable that the region educational bureau should try to assign principals who have adequate training in the field in cooperation with the department of EDPM in A.A.U. The department of EDPM on its part should also exert maximum effort to expand its intake capacity.
6. Convenient conditions should also be facilitated to organize meetings, workshops and seminars so that all stakeholders could discuss on problems related to the program.
7. Finally, further research of wider scope needs to be made on the topic under study in the future in order to get an in-depth understanding of the quality of the second cycle secondary education.

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Addis Ababa University
School of Graduate Studies
College of Education

Department of Educational Planning and Management

Questionnaire to be completed by teachers, vice principals and principals of Secondary Schools undertaking preparatory programs.

The purpose of this questionnaire is to collect information about the practices and problems of preparatory educational program taking place in your school. The information to be obtained through questionnaire is going to be used for research purpose. So, your cooperation is of paramount importance. You are not required to write your name.

Please, be honest and frank in responding to each question item.

Thank you in advance for your cooperation.

BIOGRAPHICAL INFORMATION

Direction: Please mark (x) for all your correct responses in the space provided with the exception of questions that require written response.

1. The type of school is:

Preparatory education program school only ☐

Both General and senior Secondary (Preparatory) ☐

2. Geographical location of your school:

Woreda _____

Town _____

3. Sex

a. Male ☐

b. Female ☐

3. Age in year

- a. 20-29 ☐
- b. 30--39 ☐
- c. 40--40 ☐
- d. 50—60 ☐

4. Marital Status

- a. Single ☐
- b. Married ☐
- c. Divorced ☐

5. Total years of services

- a. 1—5 ☐
- b. 6—10 ☐
- c. above 10 years ☐

6. Academic qualification:

- a. 12 + TTI ☐
- b. Diploma (12+2) ☐
- c. First degree ☐
- d. Second degree ☐
- e. Ph.D ☐
- f. Other if any please specify _____

7. Field of Study

- a. Natural Science ☐
- b. Social Science ☐
- c. Others ☐

9.. Total number of years of service in secondary schools

- A. as a teacher only _____
- B. as a prencipal only _____
- C. as a principal only _____

10..Grade level(s) you are currently teaching _____

11. Subject/subjects you are currently teaching _____

12. Total weekly timely load

- A. Less than 10 ☐
- B. 10-20 ☐
- C. 21-30 ☐

D. Above 30

13. If your answer for question 12 is 'a' which grade level are you teaching?

- a. 12
- b. 11
- c. 12 and 11
- d. 9,10,11 and 12

14. If your answer for question 12 is 'c' which grade levels do you teach?

- a. 12
- b. 11
- c. 12 and 11
- d. 9,10,11, and 12

15. If your answer for question 12 is 'd' have you attended any short term training?

- a. Yes
- b. No

PART TWO

Direction: for each of the following statements there are five alternative scales given: strongly agree = 5, agree = 4, undecided = 3, disagree = 2, strongly disagrees = 1. Please indicate your opinion by putting a mark (x) in the space provided against your choice.

Note: please do not limit the scope of your responses by seeing the statement only in relation to the particular subject (s) you are teaching now. The statements embrace concepts touching almost all subjects so that, they require you to make use of your most professional experience in senior secondary or preparatory education program.

No	Statements	5	4	3	2	1
1	Are there sufficient instructional materials for all the students of the program?					
1.1	The school assigns more than 40 students in each classroom.					
1.2	The school has sufficient textbooks for the students.					

1.3	The distribution ratio especially in the main course are one to one.					
1.4	The school distributes the student textbooks before the classes of the first semester of the year begin.					
1.5	Most of the practical works are performed using locally available.					
1.6	Most of the textbooks consist of all lessons that were being given for freshman students in all universities					
1.7	Most of the subject matters being taught are covered on time.					
1.8	You have enough time to prepare what you teach in advance					
2	Availability of teachers in number and qualification.					
2.1	The school has enough number of teachers					
2.2	The schools assign proper teachers to each subject matter according to their major areas.					
2.3	You are competent (qualified) in what you are teaching.					
2.4	Ability of the teachers of the school to make the subject matter clear for the students					
2.5	Teachers use only lecture method to teach any subject matter.					
2.6	Experienced teachers are more competent to teach in class than novice ones.					
2.7	The number of teachers who leave the school increases from year to year.					

2.8	Those who leave the school are more than those who are new or employed each year.					
3	Do the preparatory school have the appropriate facilities as per the requirement of the program.					
3.1	The preparatory school provides library service to you.					
3.2	You can borrow any reference book or textbooks you like from the library of the school.					
3.3	The school has appropriate reading room(size)					
3.4	Most the the students of the school use the library service.					
3.5	Availability of enough references for each subject matter provided in the school.					
3.6	There is one laboratory room for all subject matter.					
3.7	Laboratory equipment are available in the laboratory room.					
3.8	Laboratory chemicals are available in your school.					
3.9	There are enough laboratory technicians in your school.					
4.	How are the stakeholders (principles, teachers, students and parents) made aware					
4.1	Sufficient orientation has been given regarding the new educational policy.					

4.2	The guidelines and regulations needed to implement the program reach the school at the right time.					
4.3	The school provides written material about the objective of the preparatory program to its stakeholders.					
4.4	Your school made adequate preparation before implementation.					
4.5	The guidelines and regulations sent are clear for the implementers.					
4.6	There are stakeholders who participate in the formulation of the preparatory.					
5	Are there well-qualified and competent principals to manage the activities of the program?					
5.1	Your school principal makes effort to raise students' performance.					
5.2	Your school principal makes effort to raise teachers' performance.					
5.3	The school's principal is competent enough to manage the school properly					
5.4	principal of your school is graduates of educational administration.					

PART THREE

Open-ended question to be answered by preparatory education program teachers vice principals, and principals.

Direction: please write as many answers as you feel appropriate for each of the following question on the space provided.

1. What teaching methodology do you use to teach the subject matter you are assigned?why?

2. According to your opinion, what positive or negative impacts does the preparatory education program have on the future life of its students?

3. Which of the following problems are problems of your school? Re write them ranking orderly

- Poor teacher's quality _____
- Overcrowded class rooms _____
- Assigning teachers outside their field of study _____
- Shortage of teachers _____
- Shortage of instruction materials _____
- Lack of library seriveces _____
- Lack of students' interest toward education _____
- Lack of laboratory rooms _____
- Lack of support from the school administration. _____

4. Write what the solution will be for the problems you ranked orderly in question number 3.

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Questionnaire to be completed by students of Secondary Schools undertaking preparatory programs.

The purpose of this questionnaire is to collect information about the practices and problems of preparatory educational program taking place in your school. The information to be obtained through questionnaire is going to be used for research purpose. So, your cooperation is of paramount importance. You are not required to write your name.

Please, be honest and frank in responding to each question item.

Thank you in advance for your cooperation.

BIOGRAPHICAL INFORMATION

Direction: Please mark (x) for all your correct responses in the space provided with the exception of questions that require written response.

1. The type of school is:

Preparatory education program school only ☐

Both General and senior Secondary (Preparatory) ☐

2. Geographical location of your school:

Warda _____

Town _____

3. Sex a. Male ☐

 b. Female ☐

4. Age in year
- a. 10-14 ☐
 - b. 15-20 ☐
 - c. above 20 ☐

5. Grade level
- a. 11 ☐
 - b. 12 ☐

6. Stream
- a. Natural science ☐
 - b. Social science ☐

PART TWO

Direction: for each of the following statements there are five alternative scales given: strongly agree = 5, agree = 4, undecided = 3, disagree = 2, strongly disagrees = 1. Please indicate your opinion by putting a mark (x) in the space provided against your choice.

Note: please do not limit the scope of your responses by seeing the statement only in relation to the particular subject (s) you are teaching now. The statements embrace concepts touching almost all subjects so that, they require you to make use of your most professional experience in senior secondary or preparatory education program.

No	Statements	5	4	3	2	1
1	Are there sufficient instructional materials for all the students of the program?					
1.1	The school assigns more than 40 students in each classroom.					
1.2	The school has sufficient textbooks for the students.					
1.3	The distribution ratio especially in the					

	main course are one to one.					
1.4	The school distributes the student textbooks before the classes of the first semester of the year begin.					
1.5	Most of the practical works are performed using locally available.					
1.6	Most of the textbooks consist of all lessons that were being given for freshman students in all universities					
1.7	Most of the subject matters being taught are covered on time.					
1.8	You have enough time to prepare what you teach in advance					
2	Availability of teachers in number and qualification.					
2.1	The school has enough number of teachers					
2.2	The schools assign proper teachers to each subject matter according to their major areas.					
2.3	You are competent (qualified) in what you are teaching.					
2.4	Ability of the teachers of the school to make the subject matter clear for the students					
2.5	Teachers use only lecture method to teach any subject matter.					
2.6	Experienced teachers are more competent to teach in class than novice ones.					
2.7	The number of teachers who leave the school increases from year to year.					
2.8	Those who leave the school are more					

	than those who are new or employed each year.					
3	Do the preparatory school have the appropriate facilities as per the requirement of the program.					
3.1	The preparatory school provides library service to you.					
3.2	You can borrow any reference book or textbooks you like from the library of the school.					
3.3	The school has appropriate reading room(size)					
3.4	Most the the students of the school use the library service.					
3.5	Availability of enough references for each subject matter provided in the school.					
3.6	There is one laboratory room for all subject matter.					
3.7	Laboratory equipment are available in the laboratory room.					
3.8	Laboratory chemicals are available in your school.					
3.9	There are enough laboratory technicians in your school.					
4.	How are the stakeholders (principles, teachers, students and parents) made aware					
4.1	Sufficient orientation has been given regarding the new educational policy.					
4.2	The guidelines and regulations needed					

	to implement the program reach the school at the right time.					
4.3	The school provides written material about the objective of the preparatory program to its stakeholders.					
4.4	Your school made adequate preparation before implementation.					
4.5	The guidelines and regulations sent are clear for the implementers.					
4.6	There are stakeholders who participate in the formulation of the preparatory.					
5	Are there well-qualified and competent principals to manage the activities of the program?					
5.1	Your school principal makes effort to raise students' performance.					
5.2	Your school principal makes effort to raise teachers' performance.					
5.3	The school's principal is competent enough to manage the school properly					

PART THREE

Open-ended question to be answered by preparatory education program students.

Direction: please write as many answers as you feel appropriate for each of the following question on the space provided.

1. What teaching methodology do you use to teach the subject matter you are assigned? why?

2. According to your opinion, what positive or negative impacts does the preparatory education program have on the future life of its students?

3. Which of the following problems are problems of your school? Re write them ranking orderly

- Poor teacher's quality
- Overcrowded class rooms
- Assigning teachers outside their field of study
- Shortage of teachers
- Shortage of instruction materials
- Lack of library seriveces
- Lack of students' interest toward eduction
- Lack of laboratory rooms
- Lack of support from the school administration.

4. Write what the solution will be for the problems you ranked orderly in question number 3.

5. What do you think should be done to solve the problem mentioned above?

Interview Made with the Experts of REB and WEO in Tigray Region

1. How are instructional materials distributed to students in preparatory school?
2. When do the students receive textbooks relevant for the courses offered? Why? What is the ratio of textbooks to students?
3. Because of the increment of students, the school has every year new teachers are employed and there are also teachers who leave the school forever. Do you think that the new employed teacher can replace those who leave and enough in number to teach course that should be offered?
4. Many students in the preparatory school are saying that there is serious shortage of teachers. Would you please inform us why is it so?
5. What are the means do you think to minimize the shortage of the teachers in preparatory schools?
6. How do you orient the community of the preparatory school about the new education policy particularly the preparatory program? And When?
7. What preparation was made to implement the preparatory program? When did you distribute rules and regulations about the preparatory school to the school community?
8. When a standard was set about the preparatory school, it was deemed that every preparatory school should have at least three preparatory and lab technicians who run the program. Would you please inform us about its application?
9. Can you please tell us the reasons why very few preparatory schools are equipped with sufficient laboratory rooms, and most of the schools are not?
10. What are the criteria to be employed as principal in preparatory school and do you think that all preparatory schools have trained principals? Why?
11. The standard set by Ministry of Education is that all the teachers assigned to teach in the preparatory schools should be at least first-degree holders. How do you see this standard relating to qualification of teachers in preparatory schools?

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TIGRAY EDUCATION BUREAU
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ቁጥር: 72/13-144/58/35-
 ዕለት: 29-1-94

ናብ _____ ዘባ መምርሒ ትምህርት

ዋኒኒ:- ብህሳብ ድልድል ክ/ግዝ 11 ክፍል

በቲ ተዳራሽ ፖሊሲ ትምህርት መሰረት 10^ኛ ክፍል ወዲእም ኣብ 11 ክፍል ኣካዳሚክ ዝኣትው ተመሃሮ ኣብ ተፈጥሮ ሳይንስ ወይ ኣብ ሕ/ሰብ ሳይንስ ተመዲቦም ክመሃሩዮም፡፡

በዚ መሰረት እዚ ቀጺሉ ዘሉ ድልድል ክ/ግዝ ክህልዎምዮ፡፡

ትምህርቲ		ድልድል ክ/ግዝ	
		ሕ/ግዝ ሳይንስ	ሕ/ሰብ ሳይንስ
1	እንግሊዘኛ	6	4 + 1
2	ሒሳብ	6	4 + 1
3	ሲቢክስ	2	2 + 1
4	ኢንፎርሜሽን ቴክኖሎጂ	2	2
5	አካል ጥንካራ	2	2 + 1
6	አምሓርኛ/ትግርኛ	3	3
7	ባዮሎጂ	4	-
8	ኬሚስትሪ	4	-
9	ፊዚክስ	4	-
10	መሰረታዊ ቴክኒካል ድሮዊንግ	2	-
11	ጂኦግራፊ	-	4
12	ታሪክ	-	4
13	ኢኮኖሚክስ	-	4
14	መሰረታዊ ቢዝነስ	-	2
15	ድምር	35	30

በ10+1 ና 10+2 ወይ 10+3 ፕሮግራም ብቴክኒክን ሙያን ዝሰልጥኑ ተመሃሮውን እንግሊዘኛ፣ሒሳብን ኢንፎርሜሽን ቴክኒካል-ጂን በቲ ተሓቢሩ ዘሉ ክ/ግዝ ክምዝመሃሩ እናገለፅና እዙይ ንኹለን ዝምልከትን መንግስታውን ዘይመንግስታውን ኣብያተ ትምህርትን መሰልጠኒ ማእከላትን ቀልጢፉ ንክበዕሉን ነተሓሳስብ፡፡

29/01-94

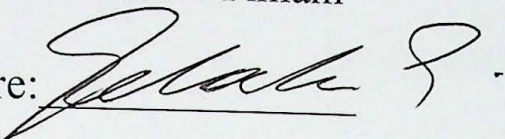
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- ንቢሮ ሰራሕተኛን ማሕበራዊ ጉዳይን
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This thesis has been submitted for examination with my approval
as university advisor.

Name: Ato Melaku Yimam

Signature:  .

Date of Submission: Febrauary 2005

Declaration

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



Ayene Tamrat